

A Study on the Problems and Countermeasures in Bilingual Teaching of Engineering Economics

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Abstract

With the implementation of Belt and Road Initiative policy and the increase of foreign-related projects, the demand for the application of Chinese-English bilingual teaching basic theory and international development trend in the teaching of engineering economics is also increasing greatly. Through bilingual teaching, the English level of students can be improved, which meets the basic requirements of engineering management personnel training and is beneficial to the improvement of students comprehensive quality. Bilingual teaching is the basic need for the country to speed up its opening to the outside world and participate in international competition. Under the condition that the national policy strongly supports bilingual teaching, the development of bilingual teaching has made some achievements, but at the same time, a series of questions have been exposed. By analyzing the problems existing in bilingual teaching of engineering economics, this paper probes into the countermeasures to solve the teaching problems effectively, and trains students to have the basic English economic analysis ability by means of interactive teaching mode.

Keywords

Engineering economics, bilingual teaching, teaching methods, existing problems, effective countermeasures.

1. Introduction

With the increasingly strong trend of internationalization of engineering project management, there is an urgent demand for bilingual teaching construction of professional courses. Engineering Economics is a professional course that enables students to have the initial technical and economic decision-making ability to invest in projects, and it is also a preliminary skill required in the national qualification registration examination. The bilingual teaching model of Engineering Economics will promote the integration of engineering management education with the international standards. It can not only stimulate students to actively consult English materials, track the development of scientific research, and express their research ideas in English. It also meets the needs of Chinese talents with both professional quality and English ability under the guidance of Belt and Road Initiative strategic thought.

2. Problems in the Bilingual Teaching of Engineering Economics

Because of the unity of technology and economy and the combination of theory and practice, engineering economics has obvious advantages of bilingual teaching, but in the process of carrying out bilingual teaching, there are also the following problems.

(1) It is difficult to allocate teaching time. Many concepts in the course of engineering economics are not easy to distinguish in Chinese, such as "engineering" and "project", which cover processing processes, methods and techniques, such as civil engineering, mechanical engineering, chemical engineering and so on. Projects, on the other hand, are defined as one-time management activities with constraints. Therefore, in terms of learning effect, the hard distinction of this term is far less clear than the English expressions "engineering" and "project", which are introduced into engineering

and projects. However, the knowledge structure of engineering economics is complex and involves many definitions. It is difficult to complete the systematic explanation of knowledge structure system in a limited teaching time, and it is a severe challenge in the case of English communication. Therefore, how to distribute the ratio of English to Chinese in the teaching process of engineering economics is the most important problem.

(2) The teachers of bilingual teaching are scarce. For the teachers majoring in engineering economics, the systematic English training is still lack of pertinence and concreteness. At the same time, the introduction of foreign scholars and talents with long-term education abroad is able to combine with the national conditions, and the proportion of teachers who are proficient in using English to express the content of Chinese major courses is not high. Therefore, there is still a lot of room for teachers who can be familiar with the literature teaching process of engineering economics and can express themselves fluently in English.

(3) Lack of suitable bilingual teaching materials. At present, there is no unified and applicable teaching material for bilingual teaching of engineering economics course, and the quality and form of teaching material vary widely among colleges and universities or majors. For example, some colleges and universities choose foreign teaching materials, while some colleges and universities organize teaching staff to compile English versions according to Chinese teaching materials. For the selection of foreign teaching materials, the existing problems are: the English version of engineering economics teaching materials are expensive, there is a certain economic pressure on schools and students, and the original English textbooks are also out of touch with the national conditions of our country. For some colleges and universities to persist in the use of domestic teaching materials, there are also problems: At present, the content of engineering economics textbooks in China lags behind the actual development of this discipline, and students' learning is still at the basic stage, but they are not exposed to the latest methods and theories in the economic field.

(4) Students English ability needs to be improved. In the process of bilingual teaching of engineering economics, the biggest obstacle to learning effect is that some students English ability is not up to standard. In general, for students with strong professional background, they will also subconsciously learn the professional knowledge through Chinese teaching materials and avoid obtaining professional knowledge through English teaching and English materials. For students with relatively weak English foundation, in the face of many definitions of engineering economics, there will be a situation in the classroom that students will not be able to keep up with the progress of lectures. Therefore, bilingual teaching needs to take into account the overall level of foreign languages, step by step guidance.

(5) Failure to connect with professional English courses. Professional English teaching is an important course for schools to improve their English reading and writing skills for different majors, but at present, the docking between professional courses and professional English is not very effective. For example, a large number of terms or definition descriptions in engineering economics basically do not appear in the curriculum of professional English, and the more advanced economic analysis content also does not have relevant professional English text to do systematic introduction. It is impossible for students to apply English well to the study of engineering economics.

3. Countermeasures for solving the basic problems of bilingual teaching in engineering economics course

In view of the problems existing in bilingual teaching of engineering economics course, we should start with the construction of teachers and the selection of teaching materials, and lay a good teaching foundation first.

(1) Strengthen the construction of bilingual teachers. Strengthening the construction of bilingual teaching staff is the premise of developing bilingual teaching. First, for bilingual teaching of engineering economics, seminars on modern engineering economics theory and analysis methods should be held regularly, English training for key teachers should be organized, and young teachers

should be encouraged to participate in international conferences on economics for academic exchanges, so as to improve the professional and English level of teachers. At the same time, it is also effective to attract teachers who have studied abroad or abroad to set up bilingual teaching team, organize teachers to participate in the discussion and exchange of teaching experience, share excellent teaching experience and discuss teaching problems.

(2) Perfecting the input of teaching resources. While strengthening the construction of laboratory platform, more and better English economics works and network literature resources are introduced to provide teachers and students with more extensive professional learning and communication, as well as a platform for teaching and discussion. In the process of learning, more students should be arranged to use relevant economic software in order to enhance students practical ability, team concept and communication ability, guide students to actively find domestic and foreign literature. do a good job in the analysis of practical cases and plan making, combine the intuitive form of cases to enhance students understanding of engineering economic analysis theory and stimulate students creative thinking ability.

(3) Strengthening the construction of bilingual teaching materials. According to the current situation of bilingual teaching, the course of engineering economics is more suitable to use self-made teaching materials during bilingual teaching. Therefore, the self-made teaching materials should be in line with the training plan, the contents of which should be closely related to the corresponding Chinese teaching materials, and the latest development trends of disciplines at home and abroad should be supplemented appropriately. At the same time, reference should be made to foreign textbooks, so as to promote students to express English terms in the field of economics and cultivate students' ability to solve economic problems with English thinking.

4. Discussion on bilingual teaching method of engineering economics course

On the premise of doing a good job in bilingual teaching of engineering economics course, teachers should reform teaching activities according to the characteristics of subject students, draw on all the talents in teaching methods, and comprehensively adopt situational teaching method, interactive teaching method, case teaching method and other methods to guide students to think independently, so as to improve the teaching effect.

(1) Bilingual teaching process design ideas. First of all, it is necessary to ensure the completion of the teaching tasks stipulated in the syllabus. On this premise, teachers should make good teaching design according to the characteristics of the subject and the teaching content, make full use of various perceptual laws and intuitive forms of educational psychology, and flexibly use a variety of teaching methods. For example, in multimedia courseware, the proportion of flow chart, formula analysis, calculation steps and other contents should be increased to make the abstract theory more vivid and vivid. In addition, teacher should also actively promote domestic economics websites, forums and databases to guide students to actively browse English websites and broaden their horizons. Finally, we should pay attention to the communication between teachers and students, in order to promote the timely adjustment and improvement of teaching methods and methods, and design a more perfect bilingual teaching model of engineering economics.

(2) The comprehensive application of various teaching methods. In the teaching process of engineering economics, many teaching methods, such as case teaching method, situational teaching method and interactive teaching method, can be comprehensively applied to improve the teaching effect. The application of case teaching method is helpful to improve students ability to analyze problems and the depth of thinking. Situational teaching method in the context of specific images is of great help to help students understand many obscure nouns in engineering economics. The core of interactive teaching method is to teach students to ask English questions about the content of the course and to cultivate students scientific thinking and innovative ability in English.

(3) Suggestions on the application of teaching methods. In the teaching process of engineering economics, it is not only necessary to weigh the difficulty of expressing the case in English, but also

to ensure that the students can go deep into it, so as to promote the development of students higher-order thinking. According to the teaching content, this paper explores the Chinese and English teaching distribution suitable for improving the teaching effect, and on the basis of emphasizing the basic theoretical knowledge of the course of engineering economics, increases the explanation and analysis of the leading research results related to the content of the course. In the application process of situational teaching method, the introduction of specific situation should not only fit the theoretical content of teaching material, but also be scientific and reasonable, and easy to understand. We can use the scene closely related to engineering practice to deepen students understanding of economic analysis theory, and we can also consider introducing the teaching mode of reversal classroom to arouse the enthusiasm of students to express their views in English. In the process of introducing the new course of engineering economics, the application of interactive teaching method is very helpful for teachers to cut into the key points of teaching smoothly. In the course of teaching, it is beneficial for students to consolidate and expand their knowledge by constantly putting forward economic problems worthy of discussion.

5. Concluding

Bilingual teaching of engineering economics can lay a good foundation for cultivating students international project management and decision-making ability. in the teaching process, we should give full play to our strengths and avoid our weaknesses, and we should pay attention to the basic construction of the curriculum and strengthen the reform of teaching methods at the same time. Based on the development of science and technology in the related fields of engineering economics, students can be fully exposed to international advanced economic theory and advanced scientific thought, and to train general talents with high foreign language level and international vision on the basis of specialty.

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References

- [1] Chen Jianguo, Li Xiuming, Liu Deyin, etc. The syllabus of the core course of engineering management specialty and its optimization [J]. Research on higher Engineering Education, 2013, (5): 135 / 139.
- [2]Guo Ming, Lou Dan, Wu Ronghui, et al. Research on bilingual teaching of instrumental analysis under mixed teaching mode [J]. Chemistry Education (Chinese and English), 2019, 18: 23-28.
- [3] Ji Liang. A preliminary study on the Application of mixed Teaching Model in Bilingual Teaching [J]. China Journal of Education, 2018, S1:61-62+89.
- [4] Xu Yongna. Taking Journalism as an example, this paper probes into the connection between bilingual teaching and professional English teaching-- A comment on Journalism and Communication English [J]. News enthusiasts, 2018,3: 99-99.
- [5] Ju Li. Organic cohesion between College English Teaching and Bilingual Teaching: a Review of College English Teaching [J]. Educational Theory and practice, 2018, 5 : 2-2.
- [6] Xu is pure. The Dilemma and Exploration of the cultivation of bilingual and dual-cultural talents in colleges and universities in ethnic minority areas along the line of Belt and Road Initiative-- also on the Enlightenment of the cultivation of talents of small languages [J]. Guangxi ethnic Studies, 2018, 1: 158-164.