Discussion of Professional Bilingual Courses of Urban Water Management

Feng-Li LI\textsuperscript{1,a}, Wei-Ping WANG\textsuperscript{1,b,*} and Shi-Song QU\textsuperscript{1,c}

\textsuperscript{1}School of Resources and Environment, University of Jinan, No. 336 Nanxinzhuang West Road, Jinan, Shandong, China

\textsuperscript{a}18366104374@163.com, \textsuperscript{b}stu_wangwp@ujn.edu.cn, \textsuperscript{c}stu_quss@ujn.edu.cn

*Corresponding author

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Abstract. Bilingual courses of urban water management for major of hydrology and water resources, as the bridge and the bond of learning and absorbing foreign advanced knowledge in the education of universities, are very helpful for students to broaden visual field and open mind, and also very helpful for cultivating inter-disciplinary and practical talent. This paper, through bilingual teaching and learning practice experience of urban water management, discusses a series of issues, such as the purpose of bilingual courses, selection of teaching materials, lectures method, curriculum requirements and the characteristics of bilingual courses and so on. In addition, this paper puts forward basic conditions for effectively carrying out bilingual courses of urban water management to provide reference for the future development of bilingual courses.

Introduction

With the increasing development of the bilingual courses in the higher education, the teaching methods are being made progress for different courses. However, there is still some problems in the process of progress, such as lacking of suitable bilingual teaching materials, the few of bilingual courses, bilingual teachers being seriously insufficient and the overall level of students' foreign language not very high.[1] It has been five years since the university of Jinan set the bilingual class of urban water management for the undergraduate students in school of resources and environment. During this reforming period, through the experts’ opinions after listening to the classes and the students’ exchanged advises, combined with targets of the major, we have comprehensively summarized and analyzed the problems existing in the bilingual courses of urban water management, further enhancing the understanding of bilingual teaching, clarifying the purpose of teaching, promoting the improvement of teaching methods, and realizing the task of bilingual classes.

The Purpose of the Bilingual Courses of Urban Water Management

Develop and Improve the Students’ Capabilities to Handle English

Urban water management, a professional optional course for students majoring in hydrology and water resources, is mainly taught in bilingual teaching. Its most fundamental purpose is to enable students to acquire the relevant professional knowledge while we train students' ability to understand and apply the professional English materials. Bilingual courses require teachers to have a certain level of English ability and better professional knowledge to thoroughly understand the field of knowledge and results involved in teaching materials.[2] Through the use of English for disciplinary teaching, teachers lecture in English and use multimedia courseware in Chinese and English to help students to further understand the knowledge, to enhance the learning and practical application of the second language (English) combined with professional knowledge, to assist students mastering some technical terms and words that are not commonly touched in general English teaching for broadening the interface of students' professional learning and communication and adding opportunities for students to use English[3]. And then, students can communicate in English and meet social urgent needs for professional bilingual talent.
Cultivate the Inter-Disciplinary Talent

Bilingual courses are different from the class of professional knowledge. The bilingual courses can improve students’ professional knowledge level in water management, strengthen the ability training of the listening, speaking, reading and writing of the professional foreign language, more importantly, understand the latest ideas, technology and methods of foreign urban water management. In the classroom, the instructor is proficient in the use of classroom language to teach, in English to impart the latest ideas of foreign professional knowledge to students and in making an analysis through English words students have learned. For the point that is difficult to understand, teacher use easy and simple words to analyze it, if necessary, will use the Chinese to explain until the students understand it. Students ask and answer questions to teacher in English (supplemented by Chinese), and in the process of bilingual learning, they are practiced to think in English and Chinese, developing the learning style in English and providing the opportunity and environment (classroom requirements) with English to think to build a disciplinary knowledge system[4]. Students can switch between these two languages according to the needs of the communication objects and the working environment, become an international talent who understands both professional knowledge and English, obtain the ability of college graduates to communicate in English in the field of specialization and lay a foundation for further study abroad in their professional areas.

Introduce the Most Advanced International Knowledge

Because of the particularity, bilingual courses must to be the window, making the students perceive the world's latest technology and culture and as soon as possible understand and track the world's most advanced developments and progress in the field. Western developed countries hold the vast majority of advanced science and technology, leading us at least 20 years or even 50 years, and its literature is mainly in English. In contrast, the publishing cycle of our professional English textbook is longer, and a lot of content is outmoded. Therefore, in order to enable students to obtain the latest professional knowledge, the better way is to choose the latest international research results as teaching materials and impart the world's latest science and technology dynamic to students in the way of bilingual courses. And after the students graduate from college, this knowledge is not out of date in this field for 10 years or so. So, we choose the study results of German which is the most advanced in international in urban water management as the teaching materials. When learning is completed, the students can correctly understand and initially grasp the basic theory of water management, initially with a certain degree of urban water management knowledge, and have the basic ability to analyze and resolve the problems of water management, laying the foundations for engaging in professional work and carrying out scientific research.

Selecting Compatible Teaching Material

The teacher of bilingual courses not only choose (or write) a good foreign language teaching materials (or handouts), but also allow students to fully use materials (or handouts). The forward-looking professional bilingual classes make students understand and master the latest professional knowledge and the research results of international disciplines in the forefront. Thus, the choice of teaching materials is the key for bilingual courses.

Through the experience of learning and assistant teaching for several years, the author's experience is that the content, ideas and writing forms of foreign textbooks are completely different from domestic books. The outstanding advantages of foreign teaching materials are strong practicality and new knowledge, reflecting the frontier of the subject. Besides, it has structured contend, detailed concept and high-quality exercises. But that the preparation of foreign teaching materials have jumping thinking, which is different from the clarity of domestic teaching materials, isn’t in line with the Chinese people’s reading habits, and some contents of the description is too detailed, which makes people feel cumbersome. It is extremely difficult for both teachers and students with large content and relatively short class time to directly use the teaching materials. Therefore, the materials of bilingual teaching is best written by the instructor. First of all, instructors need to have the world's
latest data in this field. Next, teachers should have a certain understanding and research in this area. Finally, teachers need to spend a lot of time to systematize knowledge, achieving the unity of scientificalness, frontier and normalization of the writing materials. It is necessary to ensure the progressiveness of teaching materials, and also to take into account the actual situation of domestic teachers and students for achieving the desired effect of bilingual courses.

*Urban Water Management* is a self-made textbook, referencing and editing the latest urban water management of German which is world-class and the original material of conference communication.

**Features of Bilingual Courses**

**Different From English Language Courses**

In bilingual courses, English is only as a teaching language, rather than language teaching, as the interactive communication tool between teachers and students [5]. The keynotes of bilingual courses are that students can master professional knowledge, so we can’t overlook the imparting of professional knowledge. In addition, because the words and grammar couldn’t be explained one by one, the key part will be explained again in Chinese to make students better understand.

Teachers should take full account of the acceptance of teaching objects, individualized teaching, to achieve the purpose of the study of professional English and the mastery of professional knowledge. In the teaching process, teachers use English to teach and to impart the advanced knowledge points in international. In the difficult and doubtful parts, instructors first use English and then use the Chinese to explain, which can help students with poor English to understand and master the professional knowledge. In the process of learning, students can touch a large number of professional English vocabulary, while learning more advanced professional theoretical knowledge; through questioning and interaction, students are trained to think in English, and exercised the ability of understanding and solving problems in English.

**Different From Public English Courses in Teaching Objectives and Methods**

The purpose of bilingual courses is to improve the quality of teaching and the quality of personnel training. Therefore, teachers should not copy the foreign experience mode in teaching, but insist on the localization of bilingual teaching [6]. Teachers should strengthen the study of bilingual course and comprehensively understand the specific situation of the students, to explore practical teaching model in practice.

**The Demands for Bilingual Teaching Courseware**

Bilingual course of Urban Water Management is not to focus on words, sentences and grammar, but on the understanding and mastery of professional knowledge. Under the condition of classroom teaching time is limited, in order to teach students more contend, the author through three years of exploration think that:

1. Teachers should use multimedia and modern teaching methods to enhance the teaching effect;
2. Courseware is made in English and Chinese. The advantages of doing so are to fully reflect the characteristics of bilingual course, saving the time to teach a lot of professional vocabulary. Students who are skilled in English not only learn the latest professional knowledge, but also learn the English of the professional aspects; students who are poor in English at least can reach the level of the former;
3. The use of a variety of graphics and the form of table as a new trend should be used, which can figuratively express the content of professional class. It can attract the attention of students and make the boring professional knowledge interested. More importantly, it makes the complex principle easy to understand and master for students in simple graphical expression. To do this, teachers have to work hard to understand the professional knowledge, but also have a certain thinking ability of image.

**How to Teach Bilingual Courses Perfectly**

Through several years experience of discussion and research, the authors think that bilingual classes need to have the following conditions:
1. In a certain financial resources, schools should actively introduce professional foreign teachers. This not only can improve the students’ level of foreign, but also make them get some harvest in the professional aspects, killing two birds with one stone.

2. Style of all English teaching is not appropriate at the moment. The reason is that it is very difficult for students in the vast majority of college to understand the professional content all taught in English. In the actual teaching process, we should pay attention to dealing with the relationship between professional learning and English media. We must realize that the essence of bilingual class is specialized course, not language class. So, language is only tool and means, and the most important thing is students can perfectly master the professional knowledge. Besides, teaching in pure Chinese should not be regarded as bilingual course.

3. Bilingual course cannot be carried out according to the methods of public English teaching. Although they are taught in two languages, but the two have fundamental difference. The main task of bilingual course is to impart the basic and frontier professional knowledge systematically. At the same time, the students can learn the relevant English vocabulary and expression methods in using English, and improve the ability of listening, speaking, reading and writing.

4. Lesson preparation must be sufficient. The application of English teaching materials and English brings considerable difficulty for teachers, which also puts forward a higher demand for preparing lesson. In order to achieve the desired teaching effect, that teachers are willing to spend time and energy to do lesson preparation work is essential.

5. Small class teaching in teaching organization should be arranged and the two-way choice work of teachers and students be paid attention to. In the process of teaching, the interaction between teachers and students determines the effect of teaching.

6. Teachers should think highly of the scientificness, frontier and normalization of selected English teaching materials, and as far as possible choose high quality foreign textbooks that are written by the foreign well-known authors, recently published by famous publisher, and used by the well-known major of well-known universities and have a wide use in famous foreign universities.

References


