

Key Aspects of a Good “Introduction to Water Resources Engineering” Course

Hongquan Liu *, Renqiang Chen

Department of College of Urban and Rural Construction, Hebei Agricultural University, Baoding, China

* Corresponding author: Hongquan Liu (Email: 50081999@qq.com)

Abstract: This paper takes the elective course "Introduction to Hydraulic Engineering" set up by Agricultural University of Hebei as an example, and expounds the key links of a good elective course from several aspects, such as optimizing the teaching content, enriching the teaching means, preparing the lesson carefully and lecturing carefully.

Keywords: Specialized Elective Courses; Prepare Lessons; Prelection; Key Link.

1. Introduction

"Introduction to Water Conservancy Engineering" is a professional elective course for undergraduates majoring in water conservancy and hydropower in the first semester of the second academic year, which belongs to the popularization of professional introductory knowledge courses. How can we do well in this course? Choosing good content, preparing lessons carefully and giving lectures attentively are important guarantees for this course.

2. Construct the Teaching Module of the Professional Elective Course "Introduction to Water Conservancy Engineering" and Adopt Flexible and Diversified Teaching Methods

Optimize the integration of teaching materials, the teaching content according to the theme of the module form. Professional elective courses opened to broaden students' professional knowledge, specific to the "Introduction to Water Conservancy Engineering" course, the purpose of the course is to hope that students through the study of the course to master the basic knowledge of water conservancy, arousing students to cherish water conservancy, water conservation awareness, the course content arrangements strive to be broad and simple, the content is divided into hydrological and water resources, the water environment and ecology, culture and history of water and water conservancy engineering four modules, within the module to organize the teaching materials.

Each teaching module integrates relevant water conservancy knowledge. Such as hydrology and Water Resources module contains basic knowledge of the meaning and characteristics of hydrology and water resources, but also the overview of regional water resources in Hebei Province and other scientific knowledge, but also contains such as the current society faces the main water problems and other comprehensive topics; water conservancy engineering module contains both the basic knowledge of water conservancy engineering, such as bridges, gates, dams and culverts, but also contains the introduction of the typical water conservancy projects, such as the century-old project of the three gorges reservoirs and the South-to-North Water

Diversion Scheme; water environment and ecology modules Contains both the effect of water conservancy in the environmental ecology, but also contains the water conservancy may bring environmental problems.

At the same time, we actively develop the second classroom of "Introduction to Water Conservancy Engineering" and the classroom under the classroom, actively introduce the ways and means of learning and understanding water conservancy, and recommend some water conservancy videos that are both educational and entertaining. For example, we recommend to students "water and civilization" which introduces water conservancy and culture, "Water Vein" and "River of Heaven" that introduce the South-to-North Water Diversion, the documentary named "Three Gorges" about the Three Gorges, "Water Question" about water resources and so on; at the same time, we recommend that students through the public number of WeChat to learn to understand the water conservancy, such as the "South-to-North Water Diversion and water conservancy science and technology" public number, "Grassroots Water Conservancy" public number, "Yanzhao Water Conservancy" public number, etc. In addition, as teachers themselves also actively promote water conservancy knowledge to students through WeChat and other media.

Actively adopt flexible and diversified teaching methods and assessment methods. In terms of teaching methods, in addition to traditional lectures and explanations, relevant video materials are also added at the right time, and students are allowed to prepare materials under the classroom and explain the contents in class timely as part of the final grade. These practices are generally welcomed by students and have achieved good results.

3. Explore and Summarize the Key Aspects of a Good Professional Elective Course "Introduction to Water Resources Engineering"

Combined with the author's own "Introduction to Water Conservancy Engineering" teaching practice, teachers want to do a good job on the "Introduction to Water Conservancy Engineering" this elective course, inseparable from the "preparation" "lecture" "emotion" the Three key links on the effort.

(1) "Preparation" is the basic condition for a good

"Introduction to Water Resources Engineering" class.

A good "Introduction to Water Resources Engineering" class, before the class to have a clear and precise teaching objectives, to have carefully prepared teaching content, flexible teaching methods and organized teaching process, all of which require teachers to do a well-designed and fully prepared for classroom teaching before the class - well-prepared class. Lesson preparation is not simply a familiar understanding of the material in advance, but a process of integration, digestion, and re-creation of content knowledge. The so-called sharpening of the knife is not a mistake. Putting more thought and time into preparing lessons will get twice the result with half the effort. How to prepare the lesson? We young teachers need to be prepared for the classroom in the following two aspects:

The content of class preparation includes the syllabus and teaching materials [1]. By studying the syllabus and textbooks, the purpose of teaching in the classroom is clarified, and the priorities and key points of the teaching task are clarified, only in this way can the teaching be targeted and focused. After clarifying the purpose and content of teaching, teachers will know what to teach and why to teach. teaching materials is not the same as the textbook, in addition to the textbook also includes all the materials used for teaching. College teachers in the classroom can not simply do the textbook knowledge of the porter, reading the textbook, which will seriously affect students' mood and classroom teaching effect. Some of the knowledge in the textbook is obviously outdated, which requires teachers to pay attention to the professional cutting-edge dynamics, and update the anachronistic knowledge timely. At the same time, teachers should add professional dynamics and cases related to the classroom content into the classroom teaching content, so that the teaching content can not be out of the syllabus, but not confined to the textbook. The ultimate goal of students' professional learning is to serve the community, teachers should also intersperse the application of classroom teaching methods in social practice and cases into teaching in a timely manner, so that classroom knowledge can be use, and rigid theory can be transformed into applied knowledge. Students through the classroom not only mastered the basic theory, understand the cutting-edge progress, but also understand the us of the knowledge, so that the content of the lecture is more comprehensive.

Teaching includes the teacher's "teaching" and the student's "learning" two aspects, the students as the object of the teacher's teaching, the teacher must have a grasp of the situation of the students in the class. Only understand the students, the content of the preparation can be consistent with the cognitive basis of the students, teaching can be tailored to the students, education can follow the law of student cognition, to achieve the target. As a new era of teachers cannot ignore the things outside the window, concentrate on teaching, because teaching is not a one-way output behavior, is a two-way interactive behavior, the teacher should be based on the class students on the content of the emotional feedback of the professor, make timely adjustments to the teaching method. In response to the phenomenon of students looking at cell phones, talking and wandering in class, if the lecturer ignores and focuses on his lecture as always, such teaching is just formal teaching and it is impossible to achieve the desired teaching goals. In the face of classroom laxity, teachers should go to understand the students, to communicate with students as equals, and find the reasons for this situation, find

the crux of the problem, and then take targeted measures.

(2) "Lecture" is the main means of teaching "Introduction to Water Resources Engineering".

A good course of "Introduction to water conservancy engineering" is realized through classroom lectures, teaching objectives are achieved through lectures, the teaching process itself can be said to be the process of lecturing, it can be seen that lectures on a good "Introduction to Water Conservancy Engineering" class is how important. How to "lecture in order to achieve good results? The author can talk about it from the two aspects of lecture logic and lecture language:

Lecture content should be logical and clear, properly detailed and concise, and focused, to avoid logical confusion, shallow content and attending to big and small matters all at once. The logic of lecture is what to say and how to say; is to clarify what to say first and later; and is to determine the lecture how to start, how to end. Through rigorous lecture logic, the "content pearls" is strung into a beautiful necklace, and the seemingly disordered knowledge points are connected to form a professional theory. Grasp the main link of things, you can drive other links. With the logic of the lecture there is the main line of the lecture, on the one hand, the content of teachers' teaching is concrete and full, on the other hand, the students learn in an orderly manner, which is conducive to "teaching" and "learning" [2, 3].

Teachers are called "engineers of the soul", who impart knowledge, but also to teach students the teacher's views and perceptions. knowledge, views and perceptions need to be conveyed through the language, so instead of saying that lecturing is an art, it is more like lecturing is an art of language. Educator Sukhomsy believes that "the teacher's language cultivation to a great extent determines the efficiency of students' learning in the classroom", the importance of teaching language for a good "Introduction to Water Conservancy Engineering" class is indisputable. First of all, teachers should be confident in the teaching language. If the teacher himself is not familiar with the content taught, resulting in words are not firm, speech powerless and hesitant, how can the student trust the teacher? How can they accept the teacher's point of view? Therefore, the teacher's teaching language should be full of confidence. Furthermore, the teacher's language should be emotional, if the teacher's tone is unchanged, the voice is flat without additional emotion like a lullaby without variations, students are bound to be easily fatigued which lead to wandering, and also difficult to grasp the focus of teaching. Teachers give heuristic lectures with full emotion and cadence, and add humorous language in a timely and appropriate manner, which will effectively mobilize students' mood in class, stimulate students' enthusiasm to participate in class, and improve the efficiency of classroom teaching.

(3) "Emotion" is the fundamental guarantee of a good "Introduction to Water Resources Engineering" class.

As the saying goes, they who know the truth are not equal to those who love it, and they who love it are not equal to those who delight in it. Love of a profession is the guarantee of doing a good job, and so is the teaching profession. Love teaching, love the profession, love students, love the classroom, the identity and feelings of the profession is the fundamental guarantee of a good "Introduction to Hydraulic Engineering" course. The author believes that the teaching itself needs not only teachers' real talent, but also teachers' true feelings. The real feeling here is the teacher's emotion to the profession, that is, the teacher's emotion to the major and

the students. Leaving the teachers' professional emotion, the teaching goal is difficult to be truly realized.

"Interest is the best teacher", attracting students' interest in class, interest in the profession, and stimulating students' enthusiasm and creativity in exploring knowledge are important responsibility of teachers. Only if the teacher himself is full of affection for his profession, and has strong feelings and sense of responsibility for teaching professional knowledge, then through the teacher's lectures full of professional feelings, can students' professional interest be cultivated and stimulated through the teaching of teachers full of professional feelings. It is hard to imagine that a teacher who does not like his own profession or specialty can do a good job in the professional class, so as a teacher should also consciously cultivate and enhance their own professional awareness and professional feelings, and through the classroom, with their own professional feelings to drive the infection of students' interest in professional learning.

In a sense, teachers should be full of love of education, love of students, love is the soul and power of education. Teachers and students are not "teaching" "learning" contractual relationship, but should also establish a harmonious teacher-student relationship. The so-called teacher so preaching, teaching and solving puzzles, teachers should teach students knowledge, but also to teach students professionalism, teach students to behave. If the teacher's own teaching orientation is limited to the completion of the teaching task, to earn a salary to support their families for the purpose of the podium,

teachers and students will not be able to establish a relationship between the students are also difficult to believe in the way, believe the teacher's way. Broaden the channels of contact with students, to let the students feel both teachers respectable, but also feel that teachers can be close. In this way, smooth communication between teachers and students, close contact will really help to realize the teaching and learning and a good "Introduction to Water Conservancy Engineering" course.

4. Conclusion

preferred teaching content, rich teaching methods, careful preparation, heart lectures, with the emotion of the water conservancy profession and students stand good podium, you will be able to do a good job on the "Introduction to Water Conservancy Engineering" this professional elective course.

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