

Construction and Practice for Online & Offline Course of "Fundamentals of Clothing Structure and Technology"

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Abstract: This paper mainly studies the reform of the course "Fundamentals of garment structure and technology" of Dalian University of technology. Through the construction of online and offline mixed courses, the application of multimedia courseware, the comprehensive use of various teaching methods and the entry of Ideological and political content of the course, it can stimulate students' learning desire and improve students' learning efficiency. I hope this paper can provide reference for the majority of peers.

1. Introduction

Our school (Dalian Polytechnic University) is an institution of higher education with featuring the cultivation of professionals in food, light industry, textiles, and art. The Fashion Design & Engineering, as a combination of art and engineering major, embodies the characteristics of our school's talent training. The Fashion Design & Engineering enrolls 30 to 60 students every year, and the enrolled students are science students. The goal of the major is to cultivate high-quality applied talents with combining art and engineering required by the clothing industry for the country. The Clothing & Apparel Design major enrolls about 250 students every year, and the goal is to cultivate high-quality application-oriented talents with comprehensive humanistic literacy.

The course " Fundamentals of Clothing Structure and Technology "is a compulsory course for the major of Clothing Design & Engineering and the major of Clothing & Apparel Design, as an introductory course for clothing structure and process design. This course requires students to be proficient in anthropometric methods; master the prototype drawing methods of various clothing categories; learn the basic methods of clothing craft design through sewing women's dress. Through the learning and mastering of the above knowledge, students are required to have the ability to independently use various clothing prototypes to make relatively simple clothing structure design according to clothing style drawings ; at the same time, they can design the corresponding clothing producing process. And which enable students to reach the primary level of basic garment structure design and process design.

2. The Main Body of this Paper

2.1. The development of construction for this course

The course "Fundamentals of Clothing Structure and Technology "is a basic compulsory course for the major of Clothing Design & Engineering and the major of Clothing & Apparel Design. It was built when the major of Clothing Design and Engineering was established. Through learning the course requires students to master the basic abilities of clothing structure design, clothing process design and clothing production. The content of the course mainly includes two aspects: one is the basic theory, and the other is the experimental content. The basic of the course" Fundamentals

of Clothing Structure and Technology" and the hardware conditions have determined that the previous teaching method is based on teacher-centered indoctrination teaching, and the first classroom is mainly used, but the teaching effect is not bad. However, with the development of multimedia, on the one hand, if we want to achieve better teaching results, we need to keep pace with the times; on the other hand, students also have a greater demand for innovative multimedia learning methods, which requires us to take the student as the center and combine the actual reality of this course to implement online and offline mixed curriculum reforms.

2.2. Key issues to be solved in curriculum and teaching reform

The key problems to be solved in teaching reform of the course "Clothing Structure and Technology Fundamentals" are mainly in two aspects: on the one hand, it is to solve the problem of improving students' ability to practice innovation and independent learning due to the compression of class time; on the other hand, to solve the problem of teachers from heavy teaching Liberation, conduct better teaching experiments and reforms, and improve teaching standards.

The course "Fundamentals of Garment Structure and Technology" is a course that combines theory with practical application very closely^[1]. It requires students not only to learn the basic theories, but also to practice them immediately after they learn the basic theories, in order to apply what they have learned in practice, can put two together and get three, and realize the purpose of initial innovation in the design of clothing structure. However, because there are many basic theories and knowledge points in this course, the teaching location is mainly in the classroom and the course is completed at one time, there is no guarantee that all students can achieve the above abilities. The construction of online courses makes it easy for students to study and review at any time, which improves learning efficiency. Through the construction of online courses, students are given more time for independent thinking, and the ability of independent learning and practical innovation is also improved.

This course is held every year and is highly repetitive. For teachers, the construction of online courses can free teachers from mechanically repeating basic content, which allows teachers to have more time to calmly target different students to provide individual guidance that can improve the teaching level. At the same time, it achieves a virtuous circle of "promoting research through education and protecting education through research".

2.3. Curriculum objectives of blended teaching

In the process of blended-teaching, students are the main body of learning, teachers are the leaders, who lead students to learn in the curriculum^[2]. In the design of blended-teaching, we first clarify the teaching objectives of the course so that students can clearly understand the teaching plan.

We mainly have four aspects of course objectives:

1) From the ideological and political perspective of the curriculum, the learning of the curriculum allows students to realize the high-level development of the localization of clothing structure design, and realize that the development of things is historical, dynamic, and spiraling.

2) From the perspective of knowledge research, the course lays a theoretical foundation for students to study clothing structure design, inspires students to explore knowledge in multiple dimensions and perspectives, and can flexibly use the knowledge learned in practice to enhance students' independent thinking ability^[3].

3) From the perspective of professional ability training, through course learning, it is necessary to have the ability to analyze the influence of the human body on the garment structure design, realize garment structure design and basic garment making by oneself, and lay the foundation for deeper professional research in the future. At the same time, in the process of learning, students should have the ability to communicate without barriers, have the ability to collaborate in teams, and maintain the ability to think and practice independently.

4) From the perspective of attitude development, online and offline mixed teaching can easily make students slack in learning. Therefore, we must ensure students' independent learning ability through teaching design during the teaching process.

2.4. Course content, resource construction and application situation

For this course, we use online courses for 40% and offline courses for 60%. The basic theoretical content is all converted to online learning, and the after-class Q&A and practical content will be interacted in the offline classroom. The use of course materials is mainly based on Wenbin Zhang's "Clothing Structure Design" textbook, combined with the curriculum of this major, we also selected "Women's Pattern Design Principles and Applications" edited by Liu Ruipu and "Ready-to-wear Technology" edited by Wenbin Zhang (Third Edition), Xigen Jiang 's "Clothing Maternity Cutting Method", [Japanese] Michiman Tomoko's theory chapter of "Clothing Modeling" and other online resources are supplemented.

2.5. Teaching method reform

In the past, this course was mainly based on the teaching method and the questioning method, with more indoctrination teaching content. After changing to online and offline courses, we adopted a flipped teaching model, in which a variety of teaching methods such as lecture, heuristic, and inquiry methods were used in the course. Through these teaching methods, students can learn online by chapter under the guidance of the teacher. If the accumulated problems cannot be solved online, the offline answering can be targeted. In this way, students can avoid the path-dependence and lacking of independent thinking ability was caused by indoctrination teaching, and which can strengthen the students' ability to study and think.

2.6. Course teaching content and organization implementation

The course of "Fundamentals of Clothing Structure and Technology" is divided into nine chapters, 40% online class hours and 60% offline class hours.

Chapter Teaching Content ,Class Hours Distribution Online and Offline Class Hours

Chapter 1: Overview; 4 online class hours

Chapter 2: Principles of Prototype Composition of Women's Clothing; 4 online class hours, 4 offline class hours

Chapter 3: Application of Clothing Prototype; 4 online hours

Chapter 4: The Formation Principle and Application of Skirt Prototype; 2 online class hours, 2 offline class hours

Chapter 5: Principles and Application of Pants Prototype; 2 online class hours, 2 offline class hours

Chapter 6: Menswear Prototype; 8 online hours

Chapter 7: Principles and Application of Female Dresses; 4 online class hours, 4 offline class hours

Chapter 8: Model Preparation;4 offline class hours

Chapter 9: Process Flow of Collarless Sleeveless Women's Dress; 28 offline class hours

The allocation of online and offline class hours is more reasonable, so that students will not be divorced from real learning, but also have more space for independent thinking.

2.7. Course performance evaluation method

The assessment method of the course: 100 points.

Formative examination 50% (attendance 10% + usual homework 30% + classroom performance 10%) + major Assignment 50%

Usual homework:

(1) Homework 1—Design of Prototype structure (1:1)

(2) Homework 2—Design for the Dart (1:5)

(3) Homework 3-Shirt plate design (1:1)

(4) Homework 4—Design for Pants version structure (1:5)

(5) Homework 5-Design for Skirt version structure (1:5)

(6) Homework 6-The structural drawing of the dress (1:1)

Major Assignment :

Design a dress by yourself, then make the model of the dress and Finish it to be ready-to-wear.

(1) The model is accurate, the size specification is reasonable, and the loose design is reasonable.

(2) The craftsmanship is exquisite, the shape is reasonable, the size is appropriate, the seam is smooth, and the dress-body is symmetrical.

2.8. Course evaluation and reform effectiveness

Through the evaluation of the combination of process evaluation and major assignment, students have a good grasp of the theory of clothing structure design and the basic innovation ability in practice.

In order to enable students to lay a good professional foundation, practicing the people-oriented and student-centered educational ideology, we have gradually built a online and offline hybrid courses for college students in the new era which is teacher-led, guided students to be independent, and cultivate innovative^[4].

2.9. The characteristics and innovation of curriculum reform

Our main feature of the mixed teaching reform is that we inserted a main line in the course of "Fundamentals of Clothing Structure and Technology", that is, the artistic, trendy, social and technical aspects of clothing throughout the course. It enriches the denotation and connotation of the course and reflects the interdisciplinary nature of clothing structure design.

The innovations of teaching reform are mainly in the following aspects:

1) Through the use of multimedia methods, the animation courseware is interspersed in the curriculum to enhance the learning effect of students. For example, when talking about darts transfer, many students still couldn't turn the corner after seeing the teacher's demonstration, but some students would understand after reading it twice. Different learning comprehension abilities created different learning effects. Then, if the animation courseware is used, students can watch it repeatedly, which will make it easier for some students to understand than the teacher drawing a static picture on the blackboard, so as to achieve a better learning effect.

2) By combining with the trend of the times, introducing a variety of classic cases to enhance students' interest in learning. For example, when talking about dresses, we can introduce the classic case of "Hepburn" little black dress.

3) Through open teaching, stimulate students' enthusiasm to participate in the classroom. Open teaching is mainly reflected in the discussion of the course, the sharing of students' learning methods and perceptions, and the sharing of interesting or classic materials found, so that students can enter the state of immersive learning independently.

2.10. Further more need to be solved

Some results have been achieved through online and offline blended teaching reforms, but there are still many areas to be improved. The issues that need to be further resolved, as well as reform directions and improvement measures are as follows:

2.10.1. Increase the vividness of online courses.

At present, online courses are mainly based on basic theories, and the explanations of the courses are presented in the form of pictures and texts. The presentation status is relatively flat, not three-dimensional and vivid. Long-term explanations of text and pictures can easily cause visual fatigue and mental retardation. Therefore, the presentation of some chapters in the form of animation will not only help activate the students' brains, improve students' attention to learning, but also deepen their understanding of basic theories.

2.10.2. Reflect the temporal spirit of the curriculum.

The modern society is an information society, and the times are developing relatively fast. We need to keep up with the pace of the times, expand students' horizons, look for classic cases of the times, enrich the cases of courseware, and enhance students' enthusiasm for learning.

2.10.3. Improve the openness of courses.

Encourage students to share their own learning experience, their own learning methods, and classic materials in the process of learning in the process of independent learning and thinking^[5]. Improve the overall learning atmosphere.

2.10.4. Strengthen the ideological and political degree of the course.

At present, the ideological and political level of the curriculum is not full enough. It is necessary to strengthen the students' ideological and political ability, improve the comprehensive quality of the students, and take The Marxist philosophy as the guide to practice the curriculum ideological and political in practice.

2.10.5. Expand the practice breadth of offline courses.

The main content of the offline classroom of this course is course practice, which requires students to put the theory into practice through online learning. Therefore, in order to deepen students' understanding and application of basic theories, we need to increase the breadth of offline practice content, but consider that is so the basic course practice does not increase the difficulty of the course.

3. Conclusion

Through online and offline hybrid teaching reforms, we realized that although teaching reforms have achieved certain results, teaching practice needs further exploration. Qu Yuan's poem "The road is long and long, I will search up and down", hoping to find more new methods and new ideas in the follow-up teaching.

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