

Exploration on the Improvement of Students' Innovative Practical Ability

A Case Study on the Course "Draping Cutting"*

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Abstract—Draping cutting of clothing is a highly operational course that is widely used in the brand design and format design of clothing enterprises. At present, colleges and universities are transforming the training mode of applied talents. Traditional draping cutting courses can't meet the market demand for applied talents in the cultivation of students' innovative practical ability. Starting from the training of innovative and applied talents in fashion design specialty and taking draping cutting course as an example, this paper explores the teaching mode aiming at the training of practical skills, innovative thinking and professional accomplishment, so as to optimize the quality of personnel training, improve students' innovative and entrepreneurial ability and enhance the core competitiveness of employment.

Keywords—*innovative practice; ability improvement; educational reform; draping cutting*

I. INTRODUCTION

Draping cutting is a cutting method different from clothing graphic drawing, and it is one of the important means to complete clothing style modeling. Clothing draping cutting is called "cauge" in France, "dyapiag" in the US and Britain, and three dimensional tailoring in Japan. It is a kind of technical means that covers cloth directly on the dress form or human body, makes pre-conceived clothing shape by means of segmentation, folding, contraction, stretching and so on, then takes cloth samples from the dress form or human body to revise on the platform, and converts them into clothing pattern to make clothing.

Draping cutting is to shape and cut in three-dimensional space. Faced with the human body model, people can directly feel the characteristics and plasticity of the fabric and make shapes arbitrarily, which is impossible for plane cutting. It not only can be operated independently, but also can be combined with plane cutting to achieve perfect results. Therefore, as a compulsory course for students majoring in fashion design and engineering, it is an important teaching part.

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II. CURRENT TEACHING SITUATION OF CLOTHING DRAPING CUTTING

At present, the main disadvantages of the teaching model of "Draping Cutting" course in most colleges and universities are as follows:

- In practice teaching, teachers mainly make demonstrations and then students exercise in imitation. There is no attention to the interaction between teachers and students, and lack of in-depth communication, which is not conducive to stimulating students' interest and cultivating students' comprehensive ability.
- Students complete demonstration cases by copying mechanically without in-depth understanding, and teachers fail to stimulate students' motivation for deep learning. The students' knowledge and skills are scattered, and the forgetting rate of knowledge and skills is high. Students are more likely to lose confidence.
- Teachers do everything they can to transfer knowledge and did not leave enough time and space for students to think and practice independently, so it is difficult for students to solve new problems independently without teachers' demonstration, and neglect the cultivation of students' innovative consciousness and ability.
- The final evaluation of students learning lies in the merits of one or two complete works in the later period, and the value system of learning outcomes relies entirely on teachers' personal evaluation, which can't stimulate students' enthusiasm to realize self-worth and encourage students' initiative and creativity to the greatest extent.

III. EXPLORATION AND PRACTICE OF DRAPING CUTTING TEACHING REFORM

A. Teaching Theory

Clothing draping cutting is a highly operational course, which is widely used in brand design and format design of

clothing enterprises. In order to achieve the goal of talent cultivation, this course has set up new teaching design and concept according to the demand of talent market.

- It is required to combine classroom, training room and enterprise together, and carry out teaching according to job requirements and practical work items. Taking cultivate students' learning innovation ability and professional ability as the fundamental goal, mobilize students' learning initiative and enthusiasm, so as to complete the tasks of all links independently.
- Taking students as the center and main body of the classroom, stimulating students' interest in learning through teaching links such as course practice and course visit and using teaching methods and means such as multimedia, network, demonstration teaching, etc., to enable them to collaborate in learning, focus on cultivating the ability to solve practical problems, and to stimulate their enthusiasm and initiative in learning by the exploring and researching process in learning.
- Strengthening the construction of teaching environment and resources, making full use of the development of studios, libraries, laboratories and other school resources, as well as the cooperation with enterprises and other extra-school resources, so as to make learning a purposeful and energetic process of charging for the actual post.

B. Teaching Method

1) *Interactive teaching*: Student-centered teaching mode is adopted in teaching to realize discussion-based interactive teaching. For example, make comparison between draping cutting and plane cutting in teaching. Choose a fashion dress, using the method of draping cutting first to make the three-dimensional shape of the style, and then adjust the plane model of the three-dimensional shape; or using the plane cutting method first to make the plane style, analyze the three-dimensional model, find out the drawbacks and then adjust the plane model. Through the teaching of comparison and discussion, students can grasp the relationship between draping and plane more intuitively. It is not only conducive to draping cutting teaching, but also promotes students' understanding of plane tailoring teaching.

2) *Teaching integrating with market*: Carrying on-site teaching in the enterprise and market to deepen the classroom into practice. For example, change the traditional teaching mode and extend the classroom to the market. Let students investigate the market regularly, to make them understand all kinds of clothing style, structure, process essentials, analysis of style layout and line characteristics and so on in the market. It deepens students' understanding of fashion design, helps them to grasp popular information, avoids the phenomenon of making design that is oblivious of the world, and also improves students' learning enthusiasm.

3) *Introducing school-enterprise cooperation projects*: School-enterprise cooperation, the introduction of enterprise

cooperation projects can exercise students' adaptability to the clothing market, as well as to test teaching results. Our college cooperates with the branded clothing company, so teachers can introduce some style items to the classroom. According to the company's requirements, students first design the clothing style, then use the knowledge of draping cutting to make the three-dimensional shape of clothing style, and then complete the plane model of the three-dimensional shape. Finally, the proportion of works selected by brand companies is taken as the criterion for evaluating teachers' teaching effect and students' learning achievement. In this way, the teachers' teaching not only combines with the market, but also they can summarize the experience and shortcomings in the market, which shortens the gap between teaching and practical application.

4) *Combination of college students' innovation with entrepreneurship training project and participation in exhibitions*: In combination with the innovative entrepreneurship with training program for college students, teachers may link the training content of innovative entrepreneurship project with curriculum practice, and guide students to participate in international and domestic design competitions, so as to fully tap the design potential of students. Flexible and diversified teaching methods are adopted to combine teaching with post practice.

C. Teaching Process

1) *Carrying out reasonable teaching design, reforming the curriculum structure and improving the curriculum knowledge system*: Starting with the training of students' practical and professional abilities, the curriculum structure should be expanded vertically, the original theoretical modules of the curriculum should be retained, and added with the teaching parts of market practice and technical practice, integrating professional theory courses, professional design courses and professional practice courses to form an effective link of knowledge system. At the same time, by interacting with schools and enterprises, adding project practice part, the practicality of curriculum reform is emphasized. In order to promote the organic transformation between students' theoretical knowledge and practical ability, teachers should construct a diversified teaching model which integrates theoretical teaching, technical practice and project practice from the perspective of curriculum structure.

2) *Using the school network teaching platform to share information and carrying out mixed teaching*: Draping cutting generally adopts the way of teachers' demonstration and students follow-up. Under the innovative mode, teachers regularly record the key and difficult contents of the course by videotaping, and share them through the teaching platform. Students can review and consolidate outside the classroom. With the increasing popularity of digital teaching, sharing and communicating through learning platform is conducive to the more convenient learning for students.

3) *Optimizing and integrating curriculum content, strengthening practical teaching links and school-enterprise interaction:* In the teaching process of "Draping Cutting", teachers should follow the rules of vocational education, attach great importance to practical teaching links such as experiment, training and practice, and vigorously carry out the reform of practical teaching content, teaching methods and assessment methods. According to the specific requirements of enterprises in the process of production and design, teachers should set up comprehensive, practical and exploratory experiments or practices, carry out research-oriented teaching, guide and encourage students to participate in small-scale scientific research activities, and constantly improve students' practical, innovative and entrepreneurial abilities, as well as continue to emphasize the opening of laboratories to provide a real working environment for the practical teaching of courses, meeting the needs of students' productive training or simulation training, and achieve a high rate of equipment intact and experimental training. The school should carry out cooperation with the school-enterprise cooperative practice base in a large scale, and jointly make the construction of off-campus training base that the layout is reasonable and the function is clear, which can meet the needs of students to understand the reality of the enterprise and experience the enterprise culture. Through school-enterprise interaction, students are organized to design and develop new clothing products for enterprises in the next season, and excellent works are recommended for enterprises to produce on a commercial scale, so that students' works can be quickly transformed into commercial results and quickly being tested by the market, and the reform purpose of closely integrating the curriculum with the clothing industry chain is realized.

IV. PROBLEMS AND DIFFICULTIES ENCOUNTERED

A. *Practical Teaching Lacks the Support of Effective Rules and Regulations*

Teaching reform has been a research hotspot in colleges and universities since the transformation of talent cultivation to application-oriented. But up to now, no college has formulated the supporting system and specific rules and regulations for practical teaching. It is very difficult for students to carry out on-the-job practice and practical teaching in enterprises.

Solving methods: by internships and inviting professionals to give academic lectures in the college, students' curiosity will be encouraged to a great extent. By introducing school-enterprise cooperation projects into the classroom and strengthening the transformation of students' teaching achievements, students' practical teaching problems can be well solved. In addition, strengthening students' short-term internship arrangements and vacation internship arrangements and graduation internship can be a good way to apply what they have learned.

B. *The Implementation of Project-based Teaching and Task-driven Practice That Strengthen Practical Teaching Is a Great Challenge in the Course Hours*

To increase project-based teaching and task-driven practical teaching, students and teachers are required not only to do so in class, but also to train and coach after class. Take one of the biggest problems that students have at present: they don't know the characteristics and practical application of fabrics as an example. After the completion of the second chapter of "Draping Cutting", a project-driven topic is set up: designing an evening dress and making the top half. The main points of the task are to master the practical application of the provincial transfer and segmentation in dress in the first and the second is to hope that students can take this task as a driving force to promote the understanding of the fabric market and take the initiative to select and use the characteristics of the fabric to complete their own design.

Solving methods: Using modern communication tools such as Wechat and teaching platform for online and real-time guidance, teachers can answer questions students want to know in the Wechat group, and students can discuss and consult with teachers on the questions related to cloth through video dialogue in the fabric market. While guaranteeing the assignment of teaching tasks and students, students can be improved in an all-round way.

V. ACHIEVEMENT

Through the pertinent teaching design and reform of "Draping Cutting" course, teachers can effectively solve the problem of rigid teaching mode, change students' participation and the superficial expression, solve the problems of weak teaching purpose and system, and improve the teaching effect of fashion design specialty in teaching practice. Let students fully understand the application skills of clothing professional theory knowledge in enterprises, to increase knowledge and improve the ability in practice, so as to achieve the organic unity of theory and practice, highlight the college characteristics of training innovative and applied talents. Over the past two years, four special exhibitions have been held through this course; more than 40 ready-made clothes have been designed and manufactured through project-based teaching; innovation and entrepreneurship activities for college students have been promoted: 6 innovative entrepreneurship projects for college students at provincial level, including 3 at provincial level; 1 first prize, 1 second prize, 3 third prize, excellent prize and shortlisted prize have been won in the design works contest.

VI. CONCLUSION

The training goal of applied talents is to provide technical talents for industrial development. Through the teaching reform of "Draping Cutting" course, on the one hand, students have rich creative thinking and better practical ability, and more adapt to the needs of today's clothing industry for design talents; On the other hand, with the improvement of consumers' pursuit of creative fashion style, the competition pressure faced by garment enterprises is increasing. College students integrate their knowledge to serve the structural plate-

making technology center of garment enterprises with new skills, which is conducive to the timely transformation of creative thinking into social achievements. Therefore, in the process of teaching, teachers should keep pace with the times, constantly explore the advanced, scientific and practical nature of the clothing trimming curriculum system, highlight the characteristics of the curriculum, and cultivate students' innovative thinking, enhance students' ability to understand and solve practical problems, so as to make a positive exploration to meet the market demand for talent quality.

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