Research on the Cultivation of Professional Applied Talents of Digital Media Technology Based on OBE Mode

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Abstract—With the rapid development of the Internet and information, the digital media industry derived from the integration of digital media, network technology and cultural industries has developed rapidly in the world, which has caused the booming global demand of digital media technology talents. This paper analyzes the gap between digital media talents cultivated in today's schools and market demand, and proposes specific solutions. According to the needs of society and enterprises for professional applied talents of digital media technology, the international advanced outcome-based education model is introduced to build a system for those talents. At the same time, in the teaching mode of application-oriented talent training, micro lectures, the goal-oriented teaching mode, competition, and the school-enterprise mode are adopted to improve students' interest in learning and promote their enthusiasm for learning, thereby meeting the requirements of students' graduation.

Keywords—Outcome-based education; Digital media technology; Training model for applied talents; Social needs

I. INTRODUCTION

Since the current social, political and economic development are inseparable from the people, especially the application of talent. The training goal of China's talents should be shifted to the direction of cultivating applied talents. Digital media specialty is a very strong application of professional, and it is also a profession that is urgently needed in the market. It aims to train senior engineering and technical personnel who are researching and managing in the field of new media. Therefore, the cultivation and teaching of digital media students not only require students to master the solid theoretical basis of this major, but also must have a strong practical ability to meet the graduation needs and market needs of students.

II. THE CONNOTATION AND DEVELOPMENT OF THE OBE CONCEPT

OBE that is results-oriented education, which is also known as goal-oriented education, demand-oriented education or competency-based education. It is an educational model driven by learning outcomes. The OBE education concept originated in 1981. Because in teaching, the teacher only pays attention to the scores of the students and ignores the students' practical ability. Hence it was proposed by Spady and his colleagues through long-term research. It is a new educational concept based on "student-centered" and learning outcomes. The OBE education concept was first implemented in the field of basic education reform in the United States, Britain, Canada, Australia and other countries. After years of exploration and research, it has been widely used in many other disciplines. Nowadays, it has become the educational concept of mainstream implementation in developed countries. Since China joined the Washington Accord in June 2016, it has paid special attention to the role of the OBE education concept in higher education. China Engineering Education Professional Certification Association also modifies the "Engineering Education Certification Standard (2016 Edition)", emphasizing that universities should implement results-oriented education, which means that China has also begun to take the road of engineering education.

III. THE CONCEPT OF DIGITAL MEDIA TECHNOLOGY AND THE STATUS QUO OF THE INDUSTRY

Digital media specialty is a technology that combines sound, text, graphics, images, and other information into a computer programming language. It transforms abstract information into concrete ones that manage and interact with it. It belongs to the major of computer science. This major mainly cultivates high-level compound talents. Students should have solid basic knowledge of digital media technology, skilled professional skills, advanced design concepts and strong logical thinking skills. We must also have an international perspective and be familiar with the development trends of relevant industries at home and abroad. The major courses are offered: graphic layout design, graphic color composition, advertising, digital media technology foundation, Photoshop graphic production, film appreciation, photography technology, art design foundation, C language programming foundation, database, web design and production (Dreamweaver), interactive multimedia website development, digital signal processing, data structure, object-oriented programming (Java), multimedia database, animation design and production (Flash), 3D modeling, TV programming and production, audio and video information processing, special effects production and non-linear editing. These courses are set up so that students can gain the ability of digital media technology available after four years of system learning. As shown in Figure 1.
Digital media has been widely used in various industries such as marketing and sales, pharmaceuticals, data management companies, government agencies, education, communications and financial markets. At present, the world’s top 500 companies have applied digital media technology to advertising and corporate work management in different levels, and China’s digital media market is also developing rapidly. For example, transportation (bus, subway, high-speed rail, aviation), outdoor, construction, 5G mobile phones and other emerging media applications.

IV. APPLICATION OF OBE MODE IN DIGITAL MEDIA

A. Status of digital media talent training

On the development of “cultural innovation industry” proposed by China’s “Eleventh Five-Year Plan”, it is emphasized that the nine development culture industries are almost all related to digital media technology. In recent years, the vigorous development of digital media technology has led to a shortage of talent in the digital media industry. This shows that Chinese secondary vocational colleges should vigorously develop professional applied talents of digital media technology and provide high-quality applied talents for the society.

But nowadays, the training objectives of digital media technology professionals in secondary vocational colleges have the following problems:

1) The training mode has a single structure and the content is too monotonous

In today's secondary vocational school classrooms, most teachers use the “May 1st” education model. The "May 1" education model is composed of the following five parts: a book, a blackboard, a mouth, a pen, and a sentence [2]. Under this traditional mode of education, it is difficult for students to develop the enthusiasm for learning and the spirit of independent innovation. For example, in the course of “TV program director and production”, the process of teaching is usually like this: reviewing the previous part; interpreting the new content; practicing the example; scheduling the assignment. In such traditional teaching, in order to complete their own teaching plan, the whole class is "teacher-centered". In such a classroom, students often lack the time and space for independent thinking, resulting in a lack of analytical and practical ability, which restricts the development of students' practical and innovative ability. It is also harmful to cultivate students' interest and active exploration.

2) Emphasis on theoretical knowledge and practical ability of light

Digital media specialty need a combination of high-level talent. Therefore, for digital media students, it is not enough to use only the theoretical knowledge of the workplace. If you don't have good professional skills, you can't do digital media work with only a solid theoretical foundation. Professional knowledge is the foundation. The most important thing is that teachers should develop students' practical ability and media literacy. The education model of “teacher-centered, neglected student subject” is unfavorable to the development of students' autonomy and practical ability, which does not conform to the requirements of graduation.

3) Outdated knowledge and derailment from the market

In the ever-changing information age, the digital media industry must constantly research new technologies in order to create a better global world. However, the knowledge that students learn from textbooks lags behind the market. There are two reasons for this phenomenon: First, the knowledge of school textbooks is outdated and cannot keep up with the development of the market. Second, most teachers go directly to secondary vocational schools as teachers after graduating from school. Their professional knowledge only stays in theory, and they don’t understand the operation of the project in the professional field. This is fatal for application-oriented digital media professionals, which can lead to graduates not meeting the needs of the talent market. There is no doubt that it has brought tremendous pressure on the talent market.

B. Based on the concept of digital media OBE education reform

At present, the teaching mode of secondary vocational school mainly has the following problems: teaching objectives, monotonous teaching content, lack of innovation in teaching methods and single teaching evaluation. This teaching model is not suitable for cultivating applied talents, but do not meet the complex requirements of digital media talent. However, OBE represents the direction of mainstream engineering education. The educational philosophy is “student-centered”. OBE's education model needs to address the following five questions: first, what kind of goals students want to achieve; second, why achieve such goals; third, how to effectively help students achieve these goals; and fourth, how to assess student access These goals; fifth, how to enable students to continuously improve their learning outcomes [3]. This is highly consistent
with the goal of cultivating applied digital media talent. Therefore, according to the OBE education model, the training objectives of digital media professionals are reformed as follows:

1) Using micro lectures to attract students' interest in learning

Micro-courses are the product of the information age. It is not only a new learning tool, but also a novel way of learning. It brings great convenience to our study. It has the characteristics of short playing time and outstanding teaching quality. You can study anytime, anywhere, regardless of time and place. It has a positive effect on improving students' interest in learning and cultivating students' initiative. Today, secondary school students are generally not active and impetuous, but they are particularly interested in the mobile network of new things. To cope with this phenomenon, micro-courses are used for teaching, and new media platforms such as mobile phones and networks are used to attract students' attention. Their teaching content is close to the life of the students. Short animated video allows students to digest in a short time, but also help improve the efficiency of student learning.

In traditional classrooms, video runs through the entire class. The content of video teaching is very systematic and complete. But it seems that the amount of information is too cumbersome and too long, it is difficult to focus students' attention on the video course for a long time. Moreover, the micro-course video is short in time and concise in content, which can attract students' interest and pay great attention to the students' attention [4].

2) Using a variety of evaluation methods to promote student motivation

Assessment is a way of providing feedback when a student answers or completes an assignment. Student evaluation can improve students' enthusiasm. It also allows students to understand their strengths and weaknesses; and they can also learn from others' strengths to make up for their shortcomings. Because of the difficulty of digital media content and teaching methods, Student acceptance is very different. Therefore, when evaluating students, you should consider the differences between students. Teachers should use a variety of evaluation methods to evaluate students in their teaching, so that students can understand themselves more fully. In the assessment, it is necessary to use the appropriate language for evaluation, which will make the students more acceptable.

For example, when assessing a student's photographic work, the teacher should first evaluate and encourage students from different perspectives, such as subject selection, concept interpretation, design thinking and style. This will help to increase their enthusiasm for continued learning and continued creation. When the student's work is completed, let the students speak the strengths and weaknesses of the work. Let students dare to say; dare to evaluate themselves; and exercise themselves in the assessment. Second, in peer assessment, students should organize a group to discuss the pros and cons of each other's work. And they can learn from each other and promote each other. Finally, when summarizing the student's work, the teacher should be good at discovering the highlights of the student. This can motivate students and promote student progress. A variety of assessment methods can comprehensively evaluate each student and promote the overall development of the student.

3) Using OBE teaching mode to improve students' practical ability

Most of the secondary vocational schools only focus on the mastery of students' theoretical knowledge and neglect the students' practical ability. This is not suitable for the cultivation of applied talents of digital media. Therefore, the author used OBE's teaching model to transform the learning content from "content-based" to "based on learning outcomes". The modular knowledge points are modularized. [5] Step 1: teachers should develop some modular themes; Step 2: Students can choose a theme group according to their learning ability, hobbies, etc., and choose a group leader; Step 3: Students should determine their roles and learning tasks in the group according to the theme given by the teacher, and then complete the work through the unity and cooperation of the group.

The teaching process that emphasizes the combination of theory and practice. The digital media profession not only enables students to acquire solid theoretical knowledge, but also has practical ability. In practical courses, students should focus on the abilities of students and teachers are only a guide to teaching activities. OBE's teaching model has greatly improved students' practical ability and achieved maximum value in the training goal of talents of digital media. It is an indispensable means of teaching digital media.

4) Broadening the professional vision of students through competitions

After stimulating student interest and improving practical skills, teachers can also organize students to participate in the competition. Each year, a series of excellent games related to digital media technology, such as the National Computer Contest and the Internet Contest, are held for university students. Through the competition, students can compare their own designs with students of the same major so that students can clearly understand their shortcomings. It can enable students to understand the advanced theoretical knowledge and skills of the profession. And it can broaden the horizons of students [6]. At the same time, competition is also an evaluation of students' learning outcomes. This is also a means of promoting student achievement through the OBE education model.

5) Strengthening students' practical ability through school-enterprise cooperation

In the changing working environment of the new media industry, the theoretical knowledge of school books can not keep up with the requirements of the times. And in the practical class, students' practical ability is also insufficient. However, school-enterprise cooperation can effectively solve these problems. Through school-enterprise cooperation, the company will send professionals to provide some theoretical professional guidance to students, and cultivate students' professional quality with the times. At the same time, teachers should participate in enterprise technical training in order to grasp the industry dynamics and the latest technology. Schools must organize teachers to participate in industry activities in order to
allow teachers and technicians to conduct academic exchanges. Through these measures, teachers can improve their professional knowledge and management experience. Great progress has also been made in terms of innovation awareness, practical ability and teamwork. Teachers can apply the acquired knowledge to teaching. This will better solve the problem of derailment of textbook knowledge and market demand. Or students enter the corporate internship to learn more about the latest developments in the digital media industry and to strengthen students' practical skills.

After implementing the school-enterprise cooperation, students can not only exercise themselves in practice, but also learn practical experience. You can also learn to be a person and lay a solid foundation for your future employment. They also accumulated valuable experience for their professional studies. The demand for social market not only improves the quality of social professional talents, but also the most important thing that it stores some excellent professionals for the enterprise. It also meets the philosophy of continuous improvement and demand orientation in the OBE education model.

V. CONCLUSION

Applied talents are compatible with the development of the Chinese social market. It is also an inevitable trend in the future development. Therefore, China's educational goals have shifted to the cultivation of applied talents. This approach is quite correct. The cultivation of professional applied talents of digital media technology is a systematic project. Its cultivation mechanism is affected by many factors. This paper uses OBE education concept to reform the teaching mode of digital media major in secondary vocational schools. In the teaching process, teachers use the "student-centered, results-oriented" teaching principles to cultivate applied talents in digital media, in order to meet the graduation needs of students and the requirements of society for professionals.

REFERENCES