Exploration on Professional Training Mode of Animation Major in Higher Vocational Education

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Abstract. This research is carried out under the background of integration of industry & education and "Internet plus" of higher vocational education. It is specifically focused on some problems of domestic animation manufacture technology training mode, such as vague positioning, outdated training mode; inadequate curriculum system which cannot firmly support training goals, monotonous teaching methodology and weak quality education for students. The work has come up with a “Three Integrations and One Penetration professionals training mode”, which is close-knit integration of professional construction and school-run enterprises, teaching content and commercial project, the second classroom, and student community activities and through quality education of the whole process of professionals training. It has great practical significance to promote the reform of industry-education integration, school-enterprise cooperation professionals training mode, and comprehensively enhance students' employment competitiveness and development potential.

1. Introduction

Animation is known as one of the sunrise industries of the 21st century. The rapid development of animation industry has also promoted the “heat” of animation education. As a result, there are now nearly one thousand colleges and universities have set up animation major in China, and more than 50 higher vocational colleges have animation major in Shandong province. However, due to the late start of animation education, relevant theoretical research has not been given due attention. At present, there is no relatively complete and standardized education and teaching mode for film and television animation that not only suits China's national conditions but also adapts to the development of the international industry. Although there are a large number of animation production technology graduates continually step into the job market, Animation companies still cannot find qualified candidates who can exactly meet their needs. Action plan for innovation and development of higher vocational education(2015-2018), Issued by the ministry of education, identified that government would “promote the development of higher vocational education in step with economic and social development, strengthen the accumulation of technical skills, and improve the quality of personnel training” [1].

How to cultivate qualified animation talents to solve the problem of shortage of practitioners and a serious lack of professionalism is the top priority for China's animation education.

1.1. Research situation of animation professionals training in China

There have been some theoretical studies on the reform of animation talent training in higher vocational colleges in China, such as the implementation of the studio system, professional three-level progressive, project driven teaching, industrial integration, etc. Many higher vocational colleges in Shandong province have started various forms of exploration in professional talent cultivation, such as establishing “a mixed secondary colleges”[2] in cooperation with the enterprise, execute “orders named cultivation”[3], establish specific studio for teachers and students, etc. However, most exploration is now at practical level. A mature mode of popularization, application and demonstration of leading effect has not yet been formed. Domestic animation educational problems in higher vocational colleges in Shandong province are also very common.

1.2. Current situation of animation professionals training abroad

In many developed countries, especially the USA, Japan, South Korea, Europe, and other
countries and regions, the animation industry has become an important pillar industry. The Korean government attaches great importance to the animation industry and has specially established an "Institute of Cultural Revitalizing"[4]. The USA is the largest exporter of animation manufacturing and animation products in the world, whilst Japan is the second-largest producer, just after the USA. Overseas common animation manufacture technology professionals training mode are “enterprise prior, college posterior” [5] dual system (Germany), “Co-operative Education”[5] work and learning alternation system (USA), “Sandwich Education”[5] (Britain), enterprise and school partnership school-running promote production of education and the total control students training objectives and the process of enterprise independent schools.

Foreign countries have accumulated valuable experience in the study of higher vocational animation education which can be promoted and learned from. Analyzing the successful experience of animation education in developed countries and reflecting on the problems existing in animation education in China is of great practical significance to improve the quality of animation talent training in China and meet the needs of the animation industry.

2. Exploration on the Reform of Cultivating Mode

Taking animation manufacture technology of Zibo Vocational Institute as an example, this research has chosen professionals training mode innovation as the key point. Research and exploration on the aspects such as reconstruction of course system, reform of course content, design of second classroom and community activities, cultivation of teachers, training conditions improvement inside and outside campus, the establishment of internal quality assurance system were also carried out.

2.1. Positioning the cultivating mode

First of all, three levels of surveys (industry enterprises, colleges and graduates) were carried out respectively. Facing the film and television animation enterprises inside and outside Shandong province, through the job setting situation of different enterprises and the knowledge, ability and quality requirements of the posted positions, the representative animation professional employment positions are extracted, and the positioning of animation professional talent training is determined.

This research analyzed and compared the advantages and disadvantages of the modes of animation production in vocational colleges that offer animation production technology specialty inside and outside Shandong province. Tracking research was conducted among graduates, majored in animation manufacture technology (graduated in 2017) from Zibo vocational Institute on the aspects such as main job positions, relevance between specialty and current position, employment status, job satisfaction, occupational expectation inosculation, school teaching satisfaction, the second classroom activities, community participation and etc. Through data analysis, the key factors which affect the quality of student employment were found out, which developed and optimized professionals training scheme, provided scientific on the basis of fully thinking the formation of talent training mode reform

2.2. Research on the innovation of Three Integrations and One Penetration for professionals training mode

In order to help graduates meet the job requirement of knowledge, quality and professional ability, based on cognitive regularity and growth pattern of college students, this research created a “Three Integrations and One Penetration” professional training mode, namely, close-knit integration of professional construction and school-run enterprises, teaching content and commercial project, the second classroom and student community activities and through quality education of the whole process of professionals training, to fully promote students' employment competitiveness and development potential. As the top-level design of talent training, this mode is implemented into the formulation and implementation process of the professional talent training program, so as to realize the seamless connection between talent training and industry and vocational positions.

2.3. Building a progressive modular curriculum system

Aiming at the primary, middle and senior positions of small and medium-sized animation enterprises, namely, three-dimensional modeling positions, material lighting positions and
animation manufacturing positions, quality-oriented education is run through the main line to cultivate the professional ability of each post, and a modular course system of progressive ability is built. The setting of course modules fully embodies the characteristics of respecting the law of students' growth and talent, and the progressive relationship between modules is relatively obvious. According to individual career planning and individual differences, students can focus on the study of course modules in a targeted way, laying a good foundation for smooth employment, and at the same time, it also provides the possibility for the implementation of layered teaching and teaching students in accordance with their aptitude.

2.4. Focused on resource construction, reconstructing the core curriculum content

Based on the comprehensive analysis of graduate employment, professional and job relevance, job requirements for graduates' knowledge, ability and quality, 6 courses (Animation Design, 3D Modelling Material of Lighting Technology, 3D Modeling, 2D Animation, 3D Animation Technology, Film and Television post-production) are chosen as core courses, and the fragmentation resources construction is determined as the key point. At the same time the enterprise business projects and vocational skills contests are modified, redesigned and added into curriculum content, which greatly enriches the course content, improves the core curriculum for students’ employment and further study. The reconstruction of the curriculum content fully considers the requirements of strengthening the cultivation of students' quality and innovative and entrepreneurial ability, and also reflects the requirements of carrying out the ideological and political implementation of the curriculum.

2.5. Implement the integration of classroom teaching and business project production

Teaching methodology of "taking project as the mainline, teachers as the guidance and students as the main body" is actively implemented. The teaching process is integrated with teaching, studying and practical operating, so as to cultivate students' professional spirit of active participation, independent collaboration and exploration and innovation. Meanwhile, according to the unique characteristics of each course, multiple teaching mode such as the flipped classroom, task-driven, case teaching and other forms are actively implemented, which firmly strengthens the close integration of classroom teaching content and enterprise commercial projects. After the transformation and redesign of enterprise commercial projects, the corresponding relationship shall be incorporated into relevant courses in the form of teaching projects, and relevant professional standards shall be matched to complete the transformation and upgrading of project-based courses. For instance, basic work that belongs to a company's undertaking project, such as coloring, modeling can be taken into classroom teaching as part of daily teaching. By this means, teachers can guide students to complete the foundation work, stimulate students' learning enthusiasm, exercise the students' practical ability, and save the production cost for the company, realizes win-win.

2.6. Build a platform for students' second classroom and community activities

Closely around professional characteristics of animation manufacture technology, in order to diffuse anime club, riding JiYun association of animation, film and television late time student associations, such as community planning to develop the second classroom activities, to participate in the school-run enterprise business project and all kinds of professional skills competition for "as the main form, regular activities, such as cartoon carnival, COSPLAY show, excellent league member in summer a program under which officials and education, etc., help students see the world through participating in activities, enhance professional comprehensive qualities. The terminal links of commercial projects undertaken by school-enterprise cooperative companies will be included in the community activity plan, and the teachers of the community will guide students to complete model optimization, animation adjustment and other work, so as to provide work-study and practical training platform for students to improve their comprehensive vocational ability and innovation and entrepreneurship ability.

2.7. Strengthen the construction of dual-qualified teaching staff

Develop core curriculum teaching standards and establish methods for selecting and recruiting core curriculum teachers. Teachers participate in the project development of school-run enterprises,
take part-time training in cooperative enterprises, receive training on the application of new technologies, communicate with enterprise technicians and teachers from other colleges and universities, and participate in various vocational skills competitions and other measures to improve the teaching ability and teaching and research level of the team.

2.8. Improve the training conditions inside and outside the school

In-school training rooms have been improved, teaching equipment has been continuously updated, and workplace atmosphere and culture in the training rooms have been strengthened. The new paperless animation training room and the updated 3D animation training room now fit the needs of the implementation of the new talent training mode. The workplace atmosphere and cultural construction of the training room have been strengthened, which continuously plays a significant role in cultural education. The relevant system has been revised, number and time of training room opening has been increased to meet the needs of students' second class and club activities. The scale of off-campus training base has been continuously expanded to establish cooperative relations with well-known enterprises in the industry, and a number of high-level students post internship and employment base has been established.

2.9. Research on the construction and operation of the internal quality assurance system

Around the core objective of cultivating students' employment competitiveness and development potential, five levels of development goals (department, specialty, courses, teachers, students) have been established, the target chain is formed. Meanwhile, the quality standards for each level is formed to compose the standard chain, which makes the organic link, match up and down the chain of target and standard chains, as shown in figure 1.

![Figure 1. Target chain and standard chain of organic connection and up-down matching](image)

A self-diagnosis (inspection) mechanism to form a quality improvement spiral has been established. Based on the five levels of department development (specialty construction, curriculum construction, faculty construction and students' overall development), according to their own target chain and standard chain, implementation plans have been elaborated, real-time self-diagnosis and assessment diagnosis which brings continuous improvement, has been carried out; At the same time, relying on the intelligent campus management platform, with data analysis as the means, the implementation plan is adjusted and optimized, and the degree of goal achievement has been constantly improved.

3. The Key Problems to be Solved in the Reform of Professionals Cultivating Mode

3.1. Establish an operation mechanism that promotes an organic integration of school-run enterprises and professional construction.

This is an important guarantee for the implementation of Three Integration and One Penetration
professionals cultivating mode. The healthy development of the enterprise can undertake more commercial projects and provide a practical platform for teachers and students. Only by establishing a flexible reward and punish mechanism can the enterprise mobilize the enthusiasm of teachers and students to participate in the project.

3.2. Introduce the transformation and redesign of business projects into relative courses
This is the difficulty of implementing the talent cultivation mode of Three Integration and One Penetration. Business projects cannot be simply copied and transplanted into the course content. According to educational rules, relevant experts, technical personnel of cooperative enterprises and full-time teachers should be assembled to transform and redesign the business projects to form the final teaching projects.

3.3. Establish a normalized operation mechanism for the second class and student association activities
This is the characteristic point of implementing the talent cultivation mode of Three Integration and One Penetration. The second class and activities of student association must embody the characteristic of specialty, and form a close integration, which can give full play to the student comprehensive quality training function.

4. Summary
The research established the “Three Integration and One Penetration training mode”, positively promoted the professional talent cultivating the quality of specialty of animation manufacture technology. It also built an effective connection between the talent cultivation of animation manufacture technology and enterprise talent demands, supported talents training goal of curriculum system, course content, teaching staff, training condition, quality assurance, and measures in construction to be feasible. This talent training reform plan has been applied among students of Zibo Vocational Institute, (registered in 2017 and 2018, who majored in animation production technology), and it is estimated that the number of beneficiaries can reach more than 200 per year. After further summary and improvement, it will be promoted in digital media application technology, radio, film and television program production and cultural and creative majors of the college. It is estimated that more than 1,000 people will benefit from it every year. If the result in the popularization and application in higher vocational colleges of its kind in the province, will greatly improve the relevant institutions anime kind of professional personnel training level, benefit more students directly or indirectly, for the domestic animation manufacture technology in higher vocational colleges professional examples of crack can be drawn lessons from for the personnel training problems, it is of high popularization value.

References