Research on the Training Pathways of Animation Professionals in the Context of Media Convergence

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Abstract: With the state's emphasis on and robust development of the cultural and creative industries and the digital economy, animation professionals have become indispensable applied talents in these industries. This paper analyzes the many problems faced by the current training of animation talents in universities. It proposes that the animation specialty should combine the unique characteristics of schools, adjust operational mechanisms in a targeted manner, promote curriculum construction, reform management systems, and improve school-enterprise cooperation models. The focus on practical teaching in order to cultivate applied animation talents needed by various media.

1. Introduction

The 20th National Congress of the Party emphasized the strategic position of education, clearly stating that education, science and technology, and talent are the foundation for the comprehensive construction of a modern socialist country. Science and technology are the primary productive forces, talent is the primary resource, and innovation is the primary driving force. With the national emphasis on and robust development of the cultural and creative industries and the digital economy, animation professionals have become indispensable applied talents in these industries. With the development of digital technology, the animation profession, compared to others, is more practical and closely linked to society. Adapting to the needs of the digital age and adjusting the direction of professional development is more urgent than ever.

2. Problems in Training Animation Talents in Universities

2.1 A significant gap exists between the abilities required for talent training and actual creation

Society's actual need for the animation profession is for practical talents. However, the broad and comprehensive talent training model leads to a disconnect between the actual abilities of university graduates and societal needs. With the advancement of internet technology, new requirements have been set for the training objectives of the animation profession, emphasizing practical creative work in production output. Teaching modes and methods also need to be updated to keep pace with the times, innovatively refreshing the content of teaching, especially reflecting professional characteristics in practical teaching to build a distinctive professional teaching system.

2.2 Practical teaching fails to meet students' practical needs

The cultivation and improvement of students' practical abilities need to be realized in a complete practical teaching environment, in conjunction with advanced teaching equipment. Due to the rapid updates of professional software and hardware along with insufficient funding for their construction, slow equipment upgrades, and challenges in incorporating advanced concepts and cutting-edge technology in teaching, the existing teaching content has become somewhat outdated. Moreover, the completion of students' professional course tasks generally occurs in classroom learning or simulated projects. Traditional teaching and learning methods no longer satisfy professional teaching, and students cannot fully understand the real needs of animation enterprises, nor can they effectively exercise their practical abilities. After graduation, they are unable to immediately start working in unfamiliar work environments, severely affecting their future.

2.3 The imperfection of the management mechanism for experimental teaching

By establishing and perfecting relevant rules and regulations, guidance can be provided for the experimental teaching management of schools, enabling teachers to better guide and cultivate students' experimental operation skills, enhance their practical abilities and innovative spirit, and ensure orderly conduct of experimental activities. Currently, many issues exist in the experimental teaching management of schools, one of which is the lack of effective experimental teaching systems. These systems are too rigid and lack human-centered design, failing to meet students' needs. ^[1]Therefore, we need to strengthen the management of experimental teaching to promote the development of students' autonomy and practical abilities.

2.4 The lack of a comprehensive evaluation mechanism in practical teaching

The evaluation of professional animation courses usually adopts a single method: assessing the quality of the final coursework. Students only need to complete assignments on time and submit their works to achieve grades, leading to a majority of student works lacking creativity and less of an emphasis on practical coursework, creating significant negative impacts. Their learning attitude is passive, lacking in self-management and supervision. Furthermore, some students have an insufficient sense of social responsibility. This also affects lower-grade students, leading to a general decline in an atmosphere of academic rigor.

2.5 Teachers' lack of professional practical experience

As guides for student growth, teachers should possess noble moral qualities and adopt effective, scientific teaching strategies, as well as practical teaching and management activities, to achieve the goal of fostering the comprehensive development of students. Due to some teachers' lack of practical experience, they are unable to formulate appropriate teaching plans and practical schemes based on market demand, leading to students' design works lacking originality and their production skills failing to meet the basic standards of market norms.

3. Exploring Pathways for Cultivating Professional Practical Skills

Given the diversity in disciplinary backgrounds, teaching staff, educational environments, student qualities, geographical locations, and regional economies, each university has its unique characteristics in training animation talents under the context of media convergence. To cultivate applied animation talents needed by various media, we must address our specific issues, combine

school specialties, adjust operational mechanisms, promote course construction, reform management systems, and improve school-enterprise cooperation models while focusing on practical teaching.

3.1 Joint School-Enterprise Talent Training Program Development

Universities should establish a dynamic adjustment mechanism to evaluate and improve professional teaching. Following the principles of "solid foundation, high quality, strong capability, broad scope," we should track changes in the technical requirements of animation talents in the media industry, adapt to industry updates, and improve teaching quality. This requires redesigning the curriculum to respond to changes in industry structure and ensure teaching quality. Professional surveys, employment tracking, teaching supervision, and third-party assessments should be used to diagnose required areas of specialty and analyze relevant data for comparison.

To better adapt to different positions in the animation industry, we should start with simple projects and gradually increase the complexity of course content, redesigning the course structure. This approach will provide students with more professional knowledge, including basic skills, innovative thinking, and management techniques, helping them achieve greater success in their future work. Introducing professional qualification standards and industry technical standards, we aim to create a "general education module + professional module" capability progression curriculum system. Redesigning course standards, teaching content, methods, means, and evaluation systems presents opportunities to consider each course's role in talent training goals, achieve specific objectives, and the relationship between successive courses, closely integrating courses with actual work projects, allowing students to directly see the application of their knowledge.

3.2 Strengthening Course Construction and Promoting Teaching Reform

Forming a course cluster aimed at ability cultivation. Ability cultivation is a complex process that involves not only learning knowledge but also learning how to apply it comprehensively. Before determining the talent training plan, we should first identify the ability requirements of talent training, form a course cluster based on these needs, and then categorize the relevant courses in the cluster into basic, professional, and practical courses to meet the different ability training needs of students. For example, for a scene styling designer position, the ability cultivation should rely on courses like "History of Chinese and Foreign Art," "Introduction to Animation," "Basics of Scene Styling," "Basics of Digital Painting," "Basics of 3D Animation," etc., to integrate basic knowledge in the "Scene Styling Design" course and focus on creative thinking design to achieve the completion of scene design works.

Perfect course design and strengthen the connection between courses. As students of animation, they must possess abilities such as modeling, design expression, color application, advanced design concepts, and solid theoretical knowledge. These abilities require systematic learning in each course, identifying which problems each course solves, which goals are achieved, and making rational plans for course content and projects. In the course design process, focusing on the characteristics of professional application with ability cultivation as the core, six dimensions should be considered: teaching content, teaching phases, teaching models, teaching methods, teaching platforms, and teaching evaluation. The selection of teaching content must closely follow the forefront of the times and be updated in a timely manner. The teaching phase should align student practice with corporate work processes, with project-oriented and task-driven teaching models, mastering relevant theories and skills, assisted by online learning resources, and achieving basic market standards in project creation.

Application-oriented theoretical teaching should be emphasized. The new teaching model requires teachers to use projects and practice as theoretical platforms, raising rather than lowering the requirements for teachers' mastery of theoretical knowledge. Teachers can not only teach theory but also use relevant theoretical knowledge to solve problems encountered in the design process, bringing the experience and reflections on theoretical issues accumulated in this process into the classroom, guiding students in design practice.

Interaction is fundamental in practical teaching. If practical teaching lacks interaction, discussion of problems, and evaluation, the practical process becomes meaningless. In the past, many teachers only assigned homework during the practical phase, students started working on it without intervention throughout the process, and finally, students submitted their works, teachers evaluated them, and the practical process ended. The result of this type of practical teaching is that students just complete the assignments, but they lack understanding of the content, effects, and quality of the work, failing to achieve the goal of training students.

Educational institutions should build a diversified assessment and evaluation mechanism for effective supervision. By introducing technical assessment standards and professional qualification certification systems from industry enterprises, and jointly formulating assessment standards covering all practical training projects with enterprises, the professional course examination content should focus on project exams, not be limited to textbook content, organize assessments in actual projects, strictly follow the project operation process, and focus on testing students' comprehensive grasp of course content and practical abilities. The shift from knowledge literacy assessment to innovation literacy and work capability assessment mainly includes self-evaluation within project groups, mutual evaluation between project groups, teacher evaluation analysis, public evaluation by the teacher group, student work defense, and joint school-enterprise evaluation, etc.

3.3 Enhancing the Capabilities of Professional Teachers and Strengthening Teacher Team Building

Project demonstration is extremely important in practical teaching. In practical teaching, students have a low level of understanding of course objectives and project tasks, so teachers must play a guiding role in practical teaching, guiding students into course project training, and gradually completing related tasks, ultimately achieving the whole process of project design. The best method for this teaching process is teacher demonstration and explanation. Students should recognize the professional skills of teachers before starting project design so that they can proactively ask questions to teachers. Conversely, if teachers lack practical hands-on ability, their professional capabilities will not be recognized by students, resulting in a counterproductive attitude and poor teaching results. Therefore, where conditions permit, teachers should be sent to animation companies in regions with well-developed animation industries for on-site research, inspection, and on-the-job training, bringing advanced concepts and technologies into teaching. Additionally, visiting universities with well-developed animation programs for on-site research and professional inspections is beneficial. Engaging in discussions with teachers from these schools can help identify one's shortcomings.

Establish a teacher-led project creation studio. For universities, the level of professionalism depends mainly on the professional level of the teaching staff; without a high-level teaching team willing to improve professional levels, teachers need to participate in creative practice and theoretical research outside of teaching. Therefore, a platform and mechanism for teacher-designed practice and research are needed. This team can comprise solely of teachers, a mix of teachers and students, or a combination between the school and enterprise. With various resources intermingling, it would create a unified external synergy, enhancing the external design service capabilities of

individuals, allowing teachers to serve the market during the design practice process. It not only improves professional levels but also addresses the shortfall in team collaboration skills training in our teaching.

3.4 Building a Practical Teaching Environment and Creating a Good Learning Atmosphere

In the professional talent training plan, professional course teaching is implemented in phases, ensuring the relationship between preceding and following courses while also providing a guarantee for the integration of the classroom and the laboratory, forming a practice teaching studio. During the phased courses, students complete the integration of theory and practice under the guidance of professional teachers in the laboratory, forming design works, and improving the utilization rate of the laboratory. Due to the practical nature of the animation major, with the goal of creating visual images and related products, there must be a "doing" platform. During the phased courses, a practice space is provided for students, with independent workstations for teachers and students, and the studio equipped with complete hardware and software facilities. Teachers teach theoretical knowledge in the professional courses in the studio while conducting design project practice. The most effective and economical way to establish this platform is to build while "doing," determining which equipment and machines should be purchased during the "doing" process to avoid detours.

Form a course development team consisting of professional leaders, key teachers, and industry experts, create online courses on the learning platform according to professional position capabilities, professional qualification standards, industry technical standards, and project course development principles, and record videos to solve basic theoretical and practical operation problems. At the same time, introduce related teaching videos, art theory, design thinking, and other related courses in course resources, allowing students to expand their knowledge and learn skills outside of class. Currently, the construction of a resource-sharing website has been completed, allowing the sharing of the design and production process of market projects. At the same time, display students' phased works on the Internet platform to achieve the purpose of mutual learning. Based on project teaching, widely collect actual projects, systematically gather operable real projects, materials, technology, management documents, etc., from enterprises, supplement the teaching resource library, solve the source problem of student practical training projects, and share them through the teaching resource platform.

4. Achievements and Experiences in Professional Development

With the reform of the talent training and teaching system since 2017, the level of animation professionals and students in academic competitions has been outstanding. Students have won over 80 national and provincial awards. The teaching team has been granted 9 educational reform projects by the Ministry of Education focused on industry-academia collaboration and co-education, 5 university-level educational reform projects, and has received one second-place and two third-place awards for university-level teaching achievements, leading student teams in completing over 20 community service projects.

4.1 Innovation in Talent Training and Teaching Models

By analyzing typical work tasks and processes, professional core skills are organically integrated with the latest technology to enhance students' knowledge, skills, and attitudes. Effective teaching organization forms are designed through typical projects and cases, integrating professional ethics and spirit into teaching, thus promoting the coordinated development of students' knowledge, skills, and professional qualities. In-depth project teaching, on-site teaching, case teaching, and simulation

teaching are conducted with "doing" as the core, effectively realizing the integration of teaching, learning, and doing.

4.2 Significant Improvement in Students' Professional Application Abilities

A practical teaching system ranging from individual to comprehensive, from basic to core, from experience to practice, is formed. This system is implemented in three stages: first, basic skill training; second, courses corresponding to projects, projects corresponding to labs, where students conduct project training in labs to achieve design attempts and skill enhancement; third, based on teacher-led creative studios aligned with the market, forming stable studio modules and result-based transformation mechanisms, fully integrating with job requirements, professional standards, and production processes.

4.3 School-Enterprise Cooperation in Co-education

Education activities at schools are organically combined with the production processes of enterprises, focusing on cultivating high-quality talents that meet the professional demands of the animation industry and possess strong competitive employment skills. Led by outstanding teachers, experts, and leaders, a teaching and research team is formed. Based on school-enterprise cooperation, a teacher-led project practice studio integrating professional education, scientific research, and social service is established. To further improve the education levels of schools and industries, a series of internships and practical training bases, more targeted internship projects, and more advanced talent training evaluation standards have been established, forming a diversified evaluation system that enables schools, industries, enterprises, research institutions, and other social forces to play their roles.

4.4 Significant Enhancement of Teachers' Professional Abilities

To promote the development of "dual-qualified" teacher teams, a comprehensive incentive mechanism is established to ensure the full performance of outstanding leaders, key teachers, qualified part-time teachers, and excellent new teachers. Additionally, a comprehensive training and development system for full-time professional teachers and a capability improvement mechanism for part-time teachers are established. Professional teacher development plans are formulated for professional construction, supporting teachers and students to attend various academic conferences from a management and financial perspective, strengthening ties with the industry. Encouraging young and middle-aged teachers to further their education and professional levels helps broaden their horizons. The goal is to form a high-level teaching team with a solid professional foundation and extensive teaching experience.^[2]

4.5. Strengthening Students' Independent Learning Awareness

"Learning through competition" enhances students' practical abilities.^[3] Integrating student innovation education into course teaching, efforts are made to improve students' professional creative abilities and design levels. Since 2016, animation students have been organized to participate in major national and provincial competitions. School-enterprise joint course development teams are formed, relying on the school's educational teaching experiment center and online teaching platforms. According to the project course development needs of animation, such as professional theory, skill performance, creative thinking, and industry technical standards, an online network course resource sharing and real-time update of offline project resources are implemented,

safeguarding students' independent learning.

With the advent of the Internet era, animation art is no longer limited to television and movies but can be disseminated and popularized through various media, such as the internet, mobile phones, and games. With the continuous update of digital technology, animation creation offers limitless possibilities, becoming more convenient, spreading faster, and having a wider impact. Against the backdrop of media convergence, the development of the animation profession should closely follow economic and industrial structural changes, actively exploring the market demand for professional talents, and adjusting training programs according to actual situations. Regular market research and in-depth enterprise engagement are necessary to better predict the demand for professional talents, analyze the types and capabilities of job positions, determine the goals of talent training, and implement these insights into the reform of talent training models.

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