

Research on Practical Teaching Reform of Digital Media Technology Major Based on the Integration of Competition and Education

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Abstract: The rapid development of digital media technology has led to a strong demand for application-oriented talents in the industry. However, traditional practical teaching models struggle to meet the needs of cultivating students' innovation and practical abilities. This paper proposes a practical teaching reform plan for the digital media technology major based on the integration of competition and education. By incorporating discipline competitions into the practical teaching system, a teaching model of "promoting learning through competitions, enhancing teaching through competitions, and integrating competition with education" is constructed. Through an analysis of the current status and challenges of practical teaching in the digital media technology major, the advantages of the competition-education integration model are elaborated. Specific reform measures are proposed in aspects such as curriculum structure, teaching content, teaching methods, and evaluation mechanisms. This approach aims to enhance the employment competitiveness of students in the digital media technology major, provide strong support for talent cultivation, and promote the sustainable development of the discipline.

Keywords: Integration of Competition and Education; Digital Media Technology; Practical Teaching; Teaching Reform; Innovation

1. Introduction

As a product of the deep integration of information technology and the cultural and creative industries, digital media technology has developed rapidly in recent years. It has been widely applied in fields such as film and

animation, gaming and entertainment, and virtual reality, becoming an important engine driving the development of the digital economy [1-2]. The digital media technology major, as a crucial platform for cultivating talent in these areas, bears the responsibility of supplying high-quality, application-oriented professionals to society. However, traditional practical teaching models often focus on classroom-based knowledge transfer and skills training, failing to meet the industry's urgent demand for talent with innovation capabilities, practical skills, and comprehensive qualities. Reforming practical teaching models to enhance the quality of talent cultivation has become a significant issue facing education in the digital media technology field today. In recent years, academic competitions have gained recognition in higher education as an effective practical teaching tool [3]. These competitions not only stimulate students' interest in learning and their potential for innovation but also provide opportunities for students to apply theoretical knowledge to real-world projects, thereby enhancing their professional skills and comprehensive qualities [4]. Deeply integrating academic competitions with practical teaching in the major and building a teaching model of "promoting learning through competitions, enhancing teaching through competitions, and integrating competition with education" is of great significance for advancing practical teaching reform in the digital media technology field and cultivating high-quality, application oriented talents that meet industry needs [5].

2. Related Concepts and Significance of Research

2.1 Digital Media Technology Major

The Digital Media Technology major is an

interdisciplinary field that encompasses computer science, art design, media technology, and more [6]. It aims to cultivate professionals who possess both theoretical knowledge and practical skills in digital media technology to meet the evolving demands of the digital media industry. In this major, students learn the techniques for creating, processing, managing, and communicating digital media content, which includes core knowledge and skills in areas such as image processing, animation production, sound design, video editing, and interactive media development. By acquiring skills in graphic design, user interface design, web design, and game development, students become proficient in using various tools and software to create high-quality digital media works. Additionally, the Digital Media Technology major emphasizes the development of students' understanding of the media industry. Students study industry trends, market demands, and the characteristics of different media platforms and channels, gaining insights into effective media planning and marketing strategies. They also learn project management and team communication and collaboration skills to enable them to work effectively with others and drive project success in the digital media industry [7]. With the rapid advancement of new technologies such as social media, mobile applications, virtual reality, and augmented reality, graduates of the Digital Media Technology major have promising career prospects. They can pursue careers in animation design, game design, multimedia development, interaction design, digital marketing, and more. By leveraging digital media technology, they will bring innovation and transformation to related fields, contributing to the digital transformation and development of various industries.

2.2 The Concept of "Integration of Competition and Education"

"The integration of competition and education" represents a novel teaching approach being explored by universities for the Digital Media Technology major in the new era. It is a talent cultivation model that actively integrates teaching and competition, requiring professional educators to effectively combine preparation for competitions, the competitions themselves, and teaching throughout the talent

cultivation process [8]. Vocational skills competitions related to the Digital Media Technology major serve as a stage for students to showcase their professional skills. Through the competition platform, participating students team up with professional instructors to fully learn and master solid professional skills, thereby enhancing their technical proficiency. Competitions allow them to apply their digital media technology knowledge to real-world projects. Through the learning process in competitions, students can identify problems, continuously refine and improve their skills and competition techniques, and receive specialized training to address weaknesses, thereby increasing their core competitiveness and achieving the goal of "promoting learning through competition." For instructors guiding professional competitions, teachers in the Digital Media Technology field need to continuously enhance their professional capabilities, particularly in grasping cutting-edge design information and aesthetics. They should focus on innovative teaching methods, using competition preparation to cultivate students' resilience. By showcasing competition results, instructors can further reflect on their teaching philosophies and strategies, actively adjusting teaching methods and content to make teaching plans more aligned with current practical needs in talent cultivation [9].

3. Problems in Practical Teaching of the Digital Media Technology Major

3.1 Teaching Methods are Monotonous, and There is a Lack of Innovation

Traditional teaching primarily relies on a one-way transmission approach, where teachers typically use a fixed "lecture-demonstration-practice" model. In this setup, students passively receive knowledge, lacking opportunities for independent thinking and exploration. This teaching method struggles to engage students, resulting in a dull classroom atmosphere and insufficient motivation to learn. Additionally, the slow update of teaching content fails to keep pace with the rapid technological advancements in the digital media industry, causing the knowledge and skills students acquire to lag behind, making it difficult for them to pursue new technologies and trends. Moreover, the

lack of interactivity and engagement in the teaching process makes it challenging for students to discover and solve problems through practice, limiting the development of their innovative abilities. The evaluation system is also relatively simplistic, often focusing on exam scores or project completion as the main criteria, neglecting students' comprehensive abilities in creativity, teamwork, and project management, further suppressing their potential for innovation.

3.2 The Practical Component is Weak and Disconnected from the Industry

In digital media programs, practical teaching often suffers from weak practical components, specifically manifesting as insufficient practical hours, outdated content, and a lack of practical platforms. Many universities' practical teaching remains at the level of basic software operations and skill training, lacking the introduction of real project cases and cutting-edge industry technologies, making it difficult to simulate real industry environments and workflows. Students have limited opportunities for practice, making it challenging to apply theoretical knowledge to actual projects, resulting in inadequate practical skills and a significant gap between industry demands for talent. Furthermore, the mechanisms for school-enterprise cooperation are not well-developed, leaving students with few opportunities to participate in actual corporate projects, making it difficult for them to understand the latest industry developments and technological trends, further exacerbating the disconnect between practical skills and industry needs. The equipment and technical support in practical teaching are also relatively outdated, failing to meet students' needs for advanced technological tools and platforms, thereby limiting their ability to apply technology and enhance their innovation capabilities.

3.3 Fragmented Curriculum System, Difficulty in Integrating Knowledge and Skills

Digital media technology is an interdisciplinary field that encompasses computer science, art design, communication studies, and more. However, the curriculum design for digital media programs at some universities is currently inadequate, lacking

effective integration and coordination between these disciplines. This results in a fragmented knowledge structure for students, making it difficult for them to develop a comprehensive system of professional knowledge and skills. For example, computer science courses tend to focus on algorithms and programming, while art design courses emphasize aesthetics and creativity. The lack of effective integration between these areas makes it challenging for students to organically combine technical methods with artistic expression to create outstanding digital media works. The fragmentation of the curriculum severely limits the improvement of students' overall competencies, making it difficult to cultivate versatile talents that meet industry demands. Additionally, the curriculum lacks flexibility and is not easily adjusted based on industry trends and student interests, making it challenging for students to find their professional direction and development path during their studies.

3.4 Insufficient Faculty Resources, Need for Enhanced Practical Experience

The rapid development of digital media technology has set higher standards for teachers' professional competence and practical experience. However, some universities face a shortage of faculty in digital media programs, lacking teachers with industry backgrounds and practical experience. While some teachers possess solid theoretical knowledge, they often lack real project experience, making it difficult to effectively integrate theory with practice and guide students in practical and innovative endeavors. Additionally, the teacher training mechanisms at some universities are inadequate, making it challenging for educators to update their knowledge structures and stay abreast of the latest industry technologies and trends. This results in outdated teaching content that fails to meet students' learning needs. The shortage of qualified faculty severely restricts the improvement of practical teaching quality in digital media programs and impacts the cultivation of high-quality, application-oriented talent. Furthermore, teaching methods and philosophies are relatively outdated, struggling to meet the industry's high demands for innovation and practical skills, which hinders students from

receiving effective guidance and inspiration during their studies.

4. Strategies for "Competition-Teaching Integration" in the Teaching Reform of Digital Media Technology Programs

4.1 Platform Development: Integration of Online and Offline, Resource Consolidation and Sharing

Reforming the traditional teacher-centered offline teaching resource model, an online teaching resource platform centered on academic competitions should be established. This approach overcomes the time and space limitations of traditional practical teaching by actively building an online teaching resource platform focused on academic competitions. The platform integrates various digital media competition resources, including competition information, outstanding works, expert lectures, and technical tutorials, providing students with a wealth of learning materials and practical case studies. The platform should feature functionalities such as online learning, project showcasing, and interactive communication, enabling students to engage in self-directed learning, share experiences, and participate in discussions. At the same time, a blended practice teaching model combining online and offline approaches should be developed. The online platform can be utilized for theoretical knowledge learning, case analysis, and project appreciation, while offline activities focus on hands-on practice, project development, and team collaboration. Through this integration of online and offline methods, students can learn and practice anytime and anywhere, while teachers can better monitor students' progress and achievements, providing timely guidance and feedback. This model not only enhances teaching efficiency but also stimulates students' interest and initiative in learning, laying a solid foundation for cultivating high-quality, application-oriented talent.

4.2 Course Restructuring: Deep Integration of Competitions and Teaching, Comprehensive Enhancement of Skills

To address the issues of a fragmented traditional curriculum system and weak practical components, universities should restructure their practice curriculum system based on academic competitions by integrating

these competitions into professional course teaching. For example, they can establish practice courses related to competitions such as "Digital Media Production," "Interactive Design Practice," and "Virtual Reality Technology Applications." The course content should closely align with competition requirements, focusing on cultivating students' innovative thinking, practical abilities, and team collaboration skills. Additionally, universities should develop scientific and reasonable competition evaluation standards, incorporating factors such as competition results, work quality, innovation capability, and teamwork into the evaluation criteria. This approach encourages students to actively participate in competitions and uses competition outcomes as a significant basis for course assessment and graduation projects. Through deep integration of competitions and teaching, students can enhance their professional skills and develop the ability to solve complex problems in real-world project practice, thus better meeting industry demands.

4.3 Faculty Development: Leveraging Practical Experience, Collaborative Education Between Schools and Enterprises

Faculty strength is a crucial guarantee of quality in practical teaching. Universities should focus on building a professional faculty team skilled in academic competition practice, encouraging teachers to actively participate in competition coaching to enhance their practical abilities and guidance skills. Additionally, experts and scholars with industry backgrounds and practical experience should be brought in as adjunct faculty to participate in practical teaching and competition coaching, integrating the latest industry technologies and trends into classroom instruction. Furthermore, universities should strengthen collaboration with enterprises by establishing joint practical teaching bases with digital media companies, providing students with opportunities to engage in real-world projects. Through this collaborative education between schools and enterprises, students can gain a deep understanding of industry dynamics, master cutting-edge technologies, and enhance their professional competencies, laying a solid foundation for future employment and career development.

4.4 Evaluation Innovation: Diverse Incentive Mechanisms to Stimulate Innovation Potential

Traditional evaluation mechanisms often focus too much on results, neglecting students' individualized development and the enhancement of their overall qualities. Therefore, universities should establish a diversified evaluation system that includes competition outcomes, project practice, and internships as part of the student assessment process, emphasizing formative and comprehensive evaluations. For instance, course assessments could increase the weighting of criteria such as teamwork, innovative thinking, and practical skills, encouraging students to actively participate in various innovation and entrepreneurship activities, with their innovative achievements being a significant basis for evaluation. Additionally, the competition reward system should be improved by establishing special scholarships to reward students and teams that achieve outstanding results in academic competitions. Competition performance should be linked to honors, awards, and recommendations for graduate studies, thereby motivating students to engage in competitions with enthusiasm and initiative. Through diversified evaluation and incentive mechanisms, students' innovation potential can be fully unleashed, and their overall qualities comprehensively enhanced.

4.5 Cultural Development: Fostering a Competitive Atmosphere and Leading Innovation and Entrepreneurship

A strong competitive atmosphere and a culture of innovation and entrepreneurship are key drivers for advancing practical teaching reform. Universities should actively organize various digital media competitions, such as university-level and department-level digital media contests and innovation and entrepreneurship competitions, to encourage student participation and foster a vibrant competitive environment. Simultaneously, inviting industry experts and distinguished alumni to host lectures and sharing sessions can provide insights into their success stories and industry perspectives, inspiring students' passion for innovation and entrepreneurship. Moreover, showcasing outstanding works

through competition platforms helps set examples and encourages students to be bold in trying new ideas and embracing innovation. By promoting a culture that tolerates failure and encourages exploration, universities can cultivate an environment of innovation and entrepreneurship. Through the creation of a competitive atmosphere and the nurturing of an innovative culture, students' practical skills and innovative thinking will be significantly enhanced, contributing to the digital media industry by supplying more high-quality, application-oriented talent.

5. Conclusion

As a crucial pillar of the information age, digital media technology significantly influences industry development and innovation through the quality of its professional talent training. In light of the many issues present in traditional practical teaching models, practice teaching reform based on the integration of competitions and education offers new ideas and directions for the development of digital media technology programs. By building integrated online and offline resource platforms, reconstructing a curriculum that deeply integrates competitions and teaching, developing a faculty team rich in practical experience, perfecting diversified evaluation mechanisms, and fostering a strong competitive atmosphere, universities can effectively enhance students' practical abilities, innovative thinking, and comprehensive qualities. This approach aims to cultivate high-quality, application-oriented professionals who meet industry needs. In the future, as digital media technology continues to evolve and industry demands change, universities should further deepen practical teaching reforms and explore more flexible and efficient teaching models. This will enable them to supply the digital media industry with more outstanding talents who possess both innovative spirit and practical skills, thereby supporting robust industry growth.

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