



Research on Talent Cultivation in Digital Media Technology at Vocational Colleges Under the Modern Apprenticeship System

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Abstract

This study delves into the practice of talent cultivation in higher vocational education for the digital media technology major, analyzing the problems encountered during this process and proposing corresponding reform measures. The research proposes a goal of cultivating high-quality technical and skilled talents, with a focus on joint cultivation by schools and enterprises, and takes curriculum system reform as the key point. To emphasize the progressive cultivation of professional abilities, the "Three Introductions and Three Outputs" talent cultivation model was developed and implemented. The "Three Introductions" include: introducing enterprise professional technical experts; introducing enterprise projects; introducing enterprise culture. The "Three Outputs" include: students, in their early stages of enrollment, are exposed to enterprise culture and post-production editor job projects; in their second year, students alternate between studying in the school's nonlinear editing studio and working as post-production special effects assistants in enterprises; in their third year, students take up internships in enterprises. Furthermore, through in-depth frontline enterprise research, a modern apprenticeship talent cultivation program was formulated. Practical research demonstrates that implementing a modern apprenticeship system in the digital media technology major significantly enhances students' practical abilities and application skills. This approach better aligns with the needs of the digital media technology industry and optimizes talent development within this field. This study offers innovative strategies and methods for cultivating talent in the digital media technology sector.

Keywords

Modern Apprenticeship System; Digital Media Technology; School-Enterprise Cooperation; Industry-Education Integration

With the rapid development of self-media, converged media, and new media in today's society, digital media has become a pillar industry in the information sector. In response, many vocational colleges have established Digital Media Technology programs to meet the growing market demand for skilled professionals. As an applied interdisciplinary field, Digital Media Technology mainly involves applying information communication technology to the arts, cultural education, and commerce. Therefore, the goal is to cultivate innovative technical talents for frontline industries. Consequently, how to effectively train high-quality professionals in Digital Media Technology has quietly become a focal point of attention.

1. Modern Apprenticeship System

The modern apprenticeship system with Chinese characteristics (referred to as the "modern apprenticeship system")

is a key institutional tool for deepening industry-education integration and school-enterprise cooperation. It is an important institutional carrier for promoting the cultivation of technical and skilled talents and is a significant institutional design that highlights the characteristics of vocational education. This innovative talent cultivation model originates from the traditional apprenticeship system in the European craftsmanship industry (Zhao, 2021). It is not only suitable for traditional handicraft industries but also for modern manufacturing, service industries, and high-tech sectors. The modern apprenticeship system emphasizes learning and practice through actual work to cultivate students' professional skills, while also focusing on the development of professional qualities, innovation capabilities, and team cooperation spirit. Students gain knowledge and skills through practice and receive professional guidance and support, effectively enhancing their practical operational abilities and application capabilities, further improving their professional levels. Unlike the traditional apprenticeship system, the modern apprenticeship system aims to cultivate technical and skilled talents by integrating industry and education, as well as combining work and study, to merge theory and practice (Geng, 2020). It places greater emphasis on deep school-enterprise cooperation, achieving a dual main body approach (dual entities of education: schools and enterprises).

2. Current Issues in Talent Cultivation in the Digital Media Technology Major

2.1 Disconnect Between Teaching and Practice

The curriculum content of on-campus teaching should not be developed in isolation; otherwise, graduates will find it difficult to quickly adapt to the practical demands of the job market. The core goal of applied undergraduate education is to cultivate professionals with the skills needed by society, rather than purely academic researchers. Currently, some courses are overly focused on academic theory, failing to fully reflect the practicality and hands-on nature of vocational education. Courses should include academic theoretical content while placing greater emphasis on project-based practice (Huang, 2023). Additionally, professional competitions should be used to enhance students' ability to apply their knowledge.

Taking the Digital Media Technology major as an example, the curriculum is divided into two main categories: foundational courses and specialized courses. Foundational courses cover basic academic subjects such as Computer Science, Mathematics, and Physics, providing students with a solid theoretical foundation. The true emphasis on applied skills education is found in the specialized courses. These specialized courses are further divided into mandatory and elective courses, all centered around Digital Media Technology. They cover areas such as programming, 3D modeling, animation production, and game design. When designing the curriculum, teachers should intentionally align the course content with actual project needs, for instance, by incorporating company projects, internships, industry expert lectures, and other practical elements (Deng & Sun, 2024). This ensures that students can quickly adapt to real-world project work requirements in the future.

2.2 Disconnect Between Teaching Content and Competition Content

The content of professional competitions is generally similar to the tasks performed in actual jobs, with some competition topics even being directly set by companies. These competitions are highly comprehensive, covering a wide range of knowledge and requiring students to have the ability to adapt flexibly and draw inferences from one instance to another. These competitions are not only academic challenges but also comprehensive tests of practical work abilities, designed to simulate real working environments and assess students' overall quality and problem-solving skills.

However, the current teaching content mainly focuses on achieving specific teaching goals and completing a certain amount of practice, without fully stimulating students' initiative or conducting targeted analysis of competition content. The primary purpose of professional competitions is to test the knowledge that students have learned in both teaching and practical sessions, rather than just being formal contests. If teachers do not guide students to learn towards the competition direction in the classroom and instead focus solely on completing academic teaching tasks, students' understanding and enthusiasm for professional competitions will significantly decrease (He, 2023). This not only affects students' performance in competitions but also weakens their ability to apply the knowledge they have learned in actual work.

2.3 Unclear Direction in Professional Teaching

The Digital Media Technology major is an emerging discipline that has achieved significant progress over a period

of time and has become one of the popular majors in many universities. Unlike Digital Media Arts, this major focuses more on technical development and belongs to the engineering category. The curriculum is primarily centered on programming, 3D modeling, game design, and virtual reality. These courses provide students with a solid technical foundation, enabling them to stand out in the rapidly evolving field of digital media.

However, as the major continues to develop, some issues have begun to emerge. For example, the boundary between technology and art is not sufficiently clear. Because the Digital Media Technology major involves multiple interdisciplinary areas, some art-related courses have been incorporated. Although this integration was initially well-intentioned, in practice, it has led to an unclear course framework, making it difficult for students to find a clear direction in their studies. Additionally, the teaching model has not effectively achieved its training objectives (Hu et al., 2023). Many courses overly emphasize theoretical teaching while neglecting the cultivation of practical skills, making it difficult for students to quickly adapt to the demands of actual work after graduation.

3. Reform Measures for Talent Cultivation in Digital Media Technology Under the Modern Apprenticeship System

3.1 Advancing the Modern Apprenticeship Talent Cultivation Model

The core philosophy of the modern apprenticeship system is to be market-oriented and centered on apprentice (student) cultivation, deepening the integration of industry and education and fostering a collaborative education mechanism between schools and enterprises. It aims to build a model that integrates the education chain with the industrial chain and the education chain with the innovation chain, promoting the cultivation of innovative technical skills and lifelong learning.

This model leverages the leadership role of schools and the advantages of school-enterprise cooperation, inviting industry and enterprises to participate throughout the talent cultivation process (He & Zhou, 2024). Schools and enterprises jointly develop talent cultivation plans, discuss industry needs and professional standards, and improve the configuration of specialties and course arrangements to seamlessly align teaching content with job standards.

In the implementation process, the modern apprenticeship system emphasizes a dual-mentor system, where both school mentors and enterprise mentors jointly guide students. School mentors are responsible for imparting theoretical knowledge and training basic skills, while enterprise mentors focus on developing practical skills and professional qualities. Through this approach, the teaching process is closely integrated with engineering practice, and vocational education is effectively aligned with lifelong learning (Huang, 2023).

3.2 Improving the Talent Cultivation Model

Our school has explored a new cultivation model—the Digital Media Technology Talent Cultivation Model under the Modern Apprenticeship System. This model emphasizes the guidance of extracurricular second classrooms and strengthens training in both on-campus and off-campus practice sessions. It not only meets the market's demand for talent but also caters to students' individual needs. Under this model, enterprises are fully involved in the talent cultivation process, providing on-site teaching and technical training through real enterprise projects. This allows apprentices to understand and master various professional skills through practical operations, accumulating valuable experience to better face future challenges.

The core of this cultivation model lies in deepening the integration of industry and education and promoting school-enterprise cooperation. By establishing close cooperative relationships, it aims to seamlessly connect the education chain with the industrial chain. Schools and enterprises jointly develop talent cultivation plans to ensure that course content has a solid theoretical foundation and practical application (Liu, 2024). By incorporating real enterprise projects, students can learn theoretical knowledge in the classroom and apply it in practice, thereby enhancing their problem-solving abilities and innovative thinking.

3.2.1 Add practical and innovative courses to enhance students' practical skills and innovative abilities

The Digital Media Technology major requires students to possess a higher level of skills, not just theoretical knowledge. This means that students need to master the basic theories of the discipline and also develop practical skills and problem-solving abilities. To achieve this goal, vocational colleges should strengthen cooperation with enterprises, introduce more real-life cases and practical projects, and adopt a teaching model that integrates employment and learning. This way, students can experience real work environments and tasks during their studies.

The curriculum should be practice-oriented, combining real projects and case-based teaching, enabling students to acquire professional skills through hands-on practice. Schools can invite industry experts to participate in course design and teaching to ensure that the curriculum content aligns closely with industry developments and enterprise needs (Yang, 2024). For example, students can gain a deep understanding of the current state of the industry and development trends and master the latest technological applications through corporate training programs, industry seminars, and company visits.

3.2.2 Keeping up with technological trends, updating curriculum content, and developing practical projects

In the modern apprenticeship education system, strengthening practical training allows students to deeply understand and apply theoretical knowledge, improving their operational skills. This practice-oriented education model not only helps students master professional skills but also enhances their ability to adapt to real work environments. By developing practical projects, students have the opportunity to apply their knowledge to real-world scenarios, stimulating their interest and engagement, improving problem-solving abilities, and fostering innovative thinking, thereby better preparing them for future work demands (He & Yu, 2024).

Vocational colleges should strengthen their analysis and research of market demands, deeply understanding industry development trends and technological advancements, and update curriculum content and teaching methods accordingly. On the one hand, implementing the modern apprenticeship education system by inviting industry experts to teach or conduct special lectures to share the latest industry knowledge and practical experience is essential. Alternatively, mentors can lead students to engineering sites, exposing them to the latest information security technologies and methods. Through hands-on experience, students can apply theoretical knowledge to real-world scenarios, enhancing their understanding and retention. This teaching approach not only stimulates students' interest and engagement but also improves their ability to solve practical problems and fosters innovative thinking.

On this basis, schools can establish long-term cooperative relationships with enterprises, regularly organizing students to participate in real projects and internships within companies. This allows students to hone their skills in real work environments. For example, students can take part in companies' R&D projects, product design, or technical support work, mastering the key skills and knowledge required by the industry through practical operation (Yang et al., 2023). Additionally, schools can set up laboratories that simulate corporate environments, enabling students to experience real work scenarios within the campus, thus improving their practical abilities and professional qualities.

3.2.3 Develop and implement the “Three Introductions and Three Exits” talent cultivation model

The three introductions include: introducing enterprise professional technical backbones, introducing enterprise projects, and introducing enterprise culture. The three exits involve: exposing students to enterprise culture and post-production projects at the beginning of their studies; having second-year students alternate between on-campus non-linear editing studios and enterprise post-production assistant roles; and sending third-year students for top-level internships at enterprises.

Furthermore, by conducting in-depth research on the front lines of enterprises, we have completed the formulation of a modern apprenticeship professional talent cultivation program. We have established deep collaborations with companies such as Anhui Qinghe Cultural Media Co., Ltd., Wuhu Media Center, and Anhui Shixuan Cultural Technology Co., Ltd. These collaborations cover various aspects including determining talent cultivation goals, developing courses and teaching materials, implementing and managing teaching, and assessment and evaluation (Yi, 2023). Through these collaborations, we are innovating the modern apprenticeship talent cultivation model.

4. Conclusion

The talent cultivation model for the Digital Media Technology major under the modern apprenticeship system is an innovative educational approach. Its unique advantage lies in significantly enhancing the practical abilities and professional qualities of apprentices (students). Compared to traditional training methods, this model places greater emphasis on practice and application, focusing on students' learning and growth in real work environments. Through this model, students not only acquire solid theoretical knowledge but also accumulate rich experience through hands-on practice, improving their professional qualities and making them more adept in their future careers.

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