Macrothink Institute™

Journal of Social Science Studies
ISSN 2329-9150
2024, Vol. 11, No. 1

A New Model of Talent Cultivation through University-Industry Co-operation: Innovation of Teaching Methods for Digital Media and Film Majors

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Received: Decenber 7, 2024 Accepted: January 20, 2024 Published: March 22, 2024

doi: 10.5296/jsss.v11i1.21515 URL: https://doi.org/10.5296/jsss.v11i1.21515

Abstract

This study endeavors to delve into the reform and innovation of the teaching methodology for digital media and film majors. The pressing demands of the rapidly evolving media industry, coupled with the inherent limitations of traditional teaching approaches, underscore the imperative need for a paradigm shift in media majors' instructional methods.The exposition begins by elucidating the fundamental concepts, characteristics, and the untapped potential of the University-Industry Cooperation talent cultivation model in media education. The discourse subsequently hones in on the innovation and optimization of teaching content and methodologies within the context of the University-Industry Cooperation talent cultivation model, emphasizing the pivotal role played by practical skill development. Through a meticulous analysis and evaluation of innovative strategies, the study posits recommendations for further refinement and enhancement.The findings underscore the vital significance and untapped potential of applying the University-Industry Cooperation Talent Cultivation Mode in media education, showcasing its efficacy in fostering comprehensive skill development and augmenting students' practical capabilities. This study serves as a crucial reference for media educators, fostering the ongoing reform and innovation in teaching methods and offering a glimpse into future research trajectories.

Keywords: University-Industry Cooperation, Undergraduate Professional Teaching, Teaching Innovation, Digital Media and Film Majors

1. Introduction

In 2017, the State Council of China released a set of directives titled "Several Opinions on Deepening the Integration of Industry and Education." This initiative calls for proactive measures by colleges and universities, urging them to align their focus with regional needs, industry demands, and the practical aspects of running educational programs(State Council of China.,2018). The core objective is to deepen the structural reform of talent cultivation, effectively facilitating the seamless coordination of the education chain, talent chain, industrial chain, and innovation chain. The overarching goal is to propel the transformation and advancement of conventional higher education institutions into high-level applied undergraduate colleges and universities. This collaborative effort aims to cultivate specialized, high-caliber, and skilled talents, as well as fostering talent teams that meet the evolving demands of various industries(Ministry of Education of China.,2020).

Adhering to the development principle of "industry-academia cooperation and the integration of industry and education," Communication University of China, Nanjing (CUCN), strategically integrates an innovative talent cultivation approach. The university actively fosters the construction of a robust talent pool in film and media professions by engaging in interdisciplinary research and collaborative initiatives with enterprises and industrial institutions(Ding, W.,2021). This endeavor aims to establish a shared platform for research and practical applications, spanning diverse domains such as art, engineering, design, and beyond.

In recent years, the film and television media industry has experienced remarkable growth, accompanied by an escalating demand for exceptional talents possessing creativity, technical expertise, and practical skills. The urgency to reform and innovate the teaching methods within the media profession is paramount, considering the limitations and inadequacies of traditional teaching approaches in meeting current industry demands and the developmental needs of students(Gratani, F.,2023). Consequently, there is a pressing need to explore innovative teaching methodologies aligned with the evolving requirements of the media industry.

The University-Industry Cooperation Talent Cultivation Mode, as an educational approach seamlessly integrating theoretical knowledge with practical industry experience, has gained widespread application across various domains. Functioning as a conduit between academia and real-world applications, this mode of education is particularly relevant in the field of media studies. Its implementation not only enhances the overall quality of education but also nurtures students' practical skills and fosters innovative thinking, enabling them to better align with the dynamic needs of industry evolution. Consequently, the reform and innovation of teaching methods in media studies, under the umbrella of industry-university cooperation talent cultivation, has emerged as a focal point in contemporary educational discourse.

2. Limitations and Deficiencies of Under Traditional Teaching

Primarily, the inadequacies of the traditional teaching model become apparent when addressing the software operation needs of media students. Given the intricate nature of media production, involving complex software and tool operations, traditional methods predominantly rely on classroom demonstrations and theoretical explanations to introduce

software's basic functions. However, these approaches fall short in providing ample opportunities for practical application. Consequently, students encounter a deficiency in proficiency and hands-on experience with media software, hindering their ability to adeptly apply technology to resolve practical challenges.

Moreover, the traditional teaching paradigm places a disproportionate emphasis on theoretical knowledge, often neglecting the cultivation of practical skills essential in the field of media. Practical competencies in media encompass artistic creation, media effects production, and scene layout. Regrettably, traditional methods often fail to furnish adequate practical opportunities and guidance, leaving students bereft of participation in actual projects and lacking the experiential learning required to develop problem-solving abilities and create outstanding works autonomously.

Additionally, the traditional teaching approach lacks robust support for students' creative development and practical project training. The media industry places a premium on creativity and personalized expression, yet the traditional model overemphasizes technological instruction, marginalizing the significance of fostering students' independent thinking and creative prowess. Students frequently miss out on opportunities to engage in practical projects, showcase their works, and participate in competitions, thereby limiting their capacity to fully exhibit individual creativity and talent.

To address these shortcomings, innovative teaching methods and content are imperative in the education of media majors. By integrating the industry-university cooperation talent cultivation model, practical projects and case studies can be introduced, enabling students to master 3D media software techniques and tools through hands-on experience. This approach not only enhances their problem-solving skills but also provides avenues for practical project involvement, fostering the development of students' practical abilities. Simultaneously, a focus on encouraging creativity and independent creation empowers students to showcase their works and participate in competitions, thereby stimulating their creative development and highlighting their unique strengths.

In summary, the traditional teaching mode has limitations and shortcomings in software operation and practical ability in the teaching of media majors. Through innovative teaching methods and contents, combined with the talent cultivation mode of University-Industry Co-operation, it can provide more practical opportunities, focus on practical operation and creative development, so as to enhance the ability and competitiveness of students in software operation and practical ability.

3. The Characteristics of the Talent Training Mode of University-Industrial Cooperation

The University-Industry Cooperation Talent Cultivation Mode represents an educational paradigm intricately intertwining universities and industries, with the overarching goal of fostering a seamless integration of education and industry. This approach endeavors to endow students with learning and practical experiences that mirror real-world working environments. Within the realm of 3D media education, the application of the University-Industry

Cooperation Talent Cultivation Mode is extensive, offering students an educational journey closely aligned with industry demands and providing opportunities to cultivate practical skills essential for the professional landscape.

A hallmark of the University-Industry Cooperation Talent Cultivation Mode lies in its emphasis on industry participation and support. In recent years, NCTC has forged robust collaborations with pertinent industry partners, such as Nanjing Force Media Studio and various film and television companies. This collaborative effort extends to the development of teaching plans, the execution of practical projects, and the overall student cultivation process. Industry collaborators actively contribute actual working scenarios and projects, enabling students to delve deeper into industry requisites, acquire practical skills, and bolster their professionalism through meaningful exchanges and interactions with seasoned professionals. This industry-centric approach enhances students' understanding of real-world needs, ultimately preparing them to meet the challenges of the professional landscape.

Furthermore,the University-Industry Cooperation Talent Cultivation Mode places a pronounced emphasis on practice-oriented and application-focused teaching methodologies. Diverging from traditional theoretical classroom instruction, this mode underscores the amalgamation of theoretical knowledge with practical application. It endeavors to nurture students' capacity to address real-world challenges and solve practical problems through active involvement in authentic projects and the accumulation of hands-on experience. Collaborating with industrial partners facilitates students' understanding of authentic workflows and proficiency in utilizing professional tools and technologies, enhancing their adaptability to the evolving demands of the media industry.

Additionally, the University-Industry Cooperation Talent Cultivation Mode prioritizes the development of students' comprehensive literacy. Beyond the acquisition of professional knowledge and skills, this mode dedicates attention to fostering students' teamwork, innovative thinking, and problem-solving abilities. Engaging in practical projects alongside industrial partners provides students with the opportunity to cultivate multifaceted proficiency. This is achieved through practical collaboration within a team, addressing real challenges, and managing projects, thereby refining students into well-rounded professionals equipped with a spectrum of essential skills.

In conclusion, the University-Industry Cooperation Talent Cultivation Mode is an educational paradigm tightly interwoven with NCTC and the industry. Its distinctive features encompass active industry participation and support,a focus on practice-oriented and application-focused teaching, and the holistic development of students' literacy. Within the realm of 3D media majors, the adoption of the University-Industry Cooperation Talent Cultivation Mode stands to augment students' practical acumen and their ability to align with industry requisites. It caters to enterprises' demands for highly skilled applied talents, fostering a symbiotic relationship that contributes to the elevation of educators' knowledge and professional competencies. Through this approach, the cooperative educational model effectively advances the synergy between academic institutions and enterprises, thereby realizing the aspiration of becoming skill-oriented undergraduate institutions. This, in turn, positions the

school to better serve society, laying a robust groundwork for the career development of its students.

4. Digital Media and Film and Television Teaching Innovation Strategy

Engage in collaborative initiatives with the media industry through real-world project instances, including character design projects and short media film production projects in partnership with media production companies. Students will actively participate across various project phases, spanning concept development, storyboarding, character modeling, and media production, ultimately culminating in the comprehensive completion of the entire project.

4.1 Introduction of Actual Projects and Support from Design and Industry Mentors

Within the context of these authentic project scenarios, students have the opportunity to apply acquired knowledge to address practical challenges, fostering a novel comprehension and reflection on their individual learning styles. Simultaneously, students derive a sense of accomplishment, elevating their self-worth and effectively realizing course objectives while fortifying their hands-on capabilities. The engagement in hands-on projects exposes students to authentic demands and constraints, allowing them to refine problem-solving, time management, and teamwork skills.

Communication University of China, Nanjing (CUCN) actively involves media professionals, leveraging their extensive industry experience to assume roles as industry mentors. These mentors contribute to the course's instruction, guiding students in overcoming technical and artistic project challenges. Offering personalized assistance and feedback, mentors play a pivotal role in steering students towards successful project outcomes. Through interactions with industry mentors, students gain insights into the industry's latest developments, acquire professional skills, and align with industry standards, thereby enriching their practical knowledge.

4.2 Promote and Build Interdisciplinary Cooperation and Industry Practice

Communication University of China, Nanjing (CUCN), within the ambit of its School of Media, collaborates with the School of Fine Arts, Foundation Department, and other subject departments to offer interdisciplinary courses. This approach enables students to acquire skills in art, computer graphics, and media technology knowledge. By encouraging students to contribute from diverse disciplinary perspectives, the institution aims to foster interdisciplinary thinking and comprehensive abilities.

For instance, in collaboration with the School of Fine Arts, students delve into drawing techniques and art theories, applying this knowledge to character design and scene drawing. Simultaneously, interactions with the School of Computer Science facilitate the learning of computer graphics and media algorithms, subsequently applied to 3D modeling and media rendering.

Communication University of China, Nanjing (CUCN) incorporates case studies and problem-driven learning into its curriculum to kindle students' interest and exploratory spirit.

Through the analysis of production processes and technical techniques from renowned animated films, students glean innovative thinking and practical methodologies. This pedagogical approach, anchored in real-world cases, equips students with skills in knowledge acquisition, problem-solving, and collaborative work. Participation in this case-based methodology nurtures teamwork, communication skills, and creativity, achieving the objective of applied learning. The effectiveness of this teaching strategy is evidenced by the enhancement of students' independent learning capabilities.

As an illustrative example, students engage in the analysis of scripts, character design, and media performance in an exemplary media film. This exercise not only imparts successful creative methods and techniques but also encourages their application to personal media production projects. Throughout this process, CUCN instructors provide specific guidelines and suggestions, focusing on cultivating students' interest in media creation, prioritizing the overall effect of media works, emphasizing hands-on skills, strengthening connections between media works and other disciplines, and elevating the quality of media education.

4.3 Database Construction and Increased Participation in Student Practice Courses

Communication University of China, Nanjing (CUCN) employs a dynamic approach to education by regularly collecting and updating media works, teaching videos, and reference materials. This ensures that students have continuous access to the latest learning materials and real-world cases, providing them with a constant source of inspiration and knowledge. The institution invests in state-of-the-art technical equipment and software tools, including the acquisition of the latest 3D media software, high-performance computers, and digital painting equipment(Su, Z., and Ma, R.,2015). By leveraging these resources, teachers vividly present course-related problems in a visual format, allowing students to engage with new technologies and fostering interactive communication in the classroom. This not only enhances students' technical proficiency and creative abilities but also enriches their campus cultural experiences.

CUCN students actively engage in real media projects, collaborating with film production companies or advertising agencies and participating in the authentic production processes. The practical teaching of media, exemplified by the institute's curriculum and talent cultivation methods, integrates theoretical learning with hands-on operation. This innovative approach stimulates students' interest, nurtures independent innovation consciousness, and enhances their practical skills.

The implementation of practical classroom activities, known as the second class, enriches the teaching content and provides students with the opportunity to assume various roles in projects, such as animators, modelers, and special effects artists. This multifaceted engagement improves work efficiency, strengthens teamwork, and hones problem-solving abilities, ensuring that students emerge as applied talents ready to apply their knowledge in society.

Table 1. Student involvement in practical projects&curriculum content Academic Year Plans

Grade (University)	Practical projects (Courses)	Practical experiment content
First grade	Fundamentals of media Production and Digital Film and Television.	Understand the current situation of the media and digital film and television industry, understand the media and digital film and television production basis to enable students to focus on the future development of the industry.
Second grade	Internships in media, modelling, special effects, etc. Internships in animators, modellers, VFX artists, etc.	Participate in the projects of industry-academia co-operation film and television companies, and take up the roles of animator, modeler, special effects artist, etc., to improve personal work efficiency, strengthen the sense of teamwork and enhance the problem-solving ability.
Grade three	Thematic design	Students work in teams on a real media project, where each member is responsible for specific tasks, such as character media, special effects production, post-production synthesis, and so on.
Senior class	Graduation design	Completion of the graduation media production (design), a comprehensive summary of the four years of study and the results of the centralised display.

As illustrated in Table 1, students actively engage in authentic media production projects, taking on specific responsibilities such as character design, special effects production, and post-synthesis(Wang, X.,and Zhu, X.,2022). Immersed in the real production process, students encounter practical challenges and obstacles, requiring them to employ teamwork to effectively address and resolve these issues. This hands-on experience serves as a continuous learning opportunity, allowing students to refine and enhance their professional skills and practical abilities(Chen, J.,2013).

5. Industry Mentor Network Building and Internships

CUCN regularly organizes immersive visits to media studios, film studios, museums, art exhibitions, and other industry-related activities across China and Jiangsu Province. These initiatives aim to provide students with firsthand experiences in the authentic working environment of the dynamic film and media industry(Chen, J.,2013). Furthermore, through the establishment of the "Film and Media" professional industry-university joint training base, CUCN is committed to cultivating high-quality applied talents that align with societal needs. The university emphasizes the creation of a diversified talent cultivation model tailored to the employment market, the development of a robust teaching quality evaluation system, the reinforcement of the industry tutor team, and the introduction of innovative teaching methods and approaches. Internship opportunities and collaborations with industrial enterprises are

facilitated to enable students to apply their acquired knowledge and skills in real-world scenarios, thereby enhancing their practical capabilities and professionalism.

The innovative teaching strategies for media majors, as outlined above and rooted in the University-Industry Collaboration Talent Cultivation Mode, provide students with learning experiences closely aligned with the realities of the professional working environment. This approach serves to enhance students' practical skills, foster creativity, and instill a strong sense of teamwork. By actively engaging in real projects, collaborating with industry mentors, participating in internships, and attending industry-related visits, students gain a profound understanding and hands-on experience of the requirements and challenges prevalent in the media industry. These experiences establish a robust foundation for students' career development, enabling them to adeptly navigate and respond to the dynamic changes and advancements within the media sector.

6. Conclusion

In the contemporary era, information technology undergoes continuous innovation, expanding its application scope and increasing in popularity. The efficacy and feedback of implementation stand as pivotal criteria for evaluating the teaching innovation strategy for media majors within the framework of the University-Industry Cooperation Talent Cultivation Mode. Through a meticulous analysis of implementation effects and feedback, the teaching team at CUCN can refine teaching strategies and course designs, thereby fostering enhancements in teaching quality and efficiency. This approach proves effective in addressing the deficiencies of traditional teaching modes, rendering them more targeted and practical. It is imperative to intensify discussions and research on the reform of teaching methods for professional courses within the "University-Industry Cooperation" context to achieve optimal teaching outcomes and elevate talent training quality. This adaptation ensures alignment with the evolving demands of societal development, catering to the needs of both students and the industry. The analysis presented here for film and television media, film and television art, and digital media art courses in skilled undergraduate colleges and universities underpins specific strategies and methods. This ongoing effort propels the continued advancement of media professional education, cultivating a cadre of outstanding film and media professionals endowed with practical and innovative capabilities.

While the reform and innovation of the teaching method for media majors under the University-Industry Cooperation Talent Cultivation Mode have yielded certain outcomes, there persist challenges and issues warranting further exploration. In forthcoming research endeavors, attention can be directed toward the following considerations: firstly, a more profound exploration of the application of the University-Industry Cooperation Talent Cultivation Mode, expanding collaborative efforts with industry partners to achieve a more integrated union of academia and industry, thereby aligning with talent demands within the media sector. Secondly, a heightened emphasis on the training and development of the teaching team, elevating the professionalism and practical experience of educators to better guide students in practical projects and innovative pursuits. Thirdly, a continuous refinement of teaching content and methodologies, attentiveness to industry development trends and

technological shifts, timely curriculum adjustments, and a steadfast connection between teaching and industry evolution. Lastly, an intensified establishment of teaching evaluation and quality assurance mechanisms, incorporating a comprehensive evaluation index system, ongoing refinement of teaching strategies and methods through feedback mechanisms, and an overall enhancement of teaching quality and students' learning experiences.

Hence, the reform and innovation in the teaching approach for media majors under the University-Industry Cooperation Talent Cultivation Mode bear immense significance and potential. By engaging in continuous exploration and practical implementation, there exists the prospect of refining students' practical skills, fostering innovation, and enhancing professionalism. This, in turn, can lead to the cultivation of high-caliber media professionals aligning more closely with industry requirements, ultimately contributing to the advancement and growth of the film and media sector. Additionally, it is anticipated that this study may serve as a valuable reference for individuals involved in related fields.

Acknowledgments

Not applicable.

Authors contributions

Not applicable.

Funding

Not applicable.

Competing interests

We have no known competing financial interests or personal relationships .

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Macrothink Institute.

The journal’s policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

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Journal of Social Science Studies
ISSN 2329-9150
2024, Vol. 11, No. 1

Appendix A

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