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Postprint: An Exploration of the Pioneering "Micro-Studio System" Teaching Model for Digital Media Art and Design Majors in Higher Vocational Colleges

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Abstract

The "Micro Studio System" teaching model is a novel teaching model that deeply integrates the advantages of the "Studio System" teaching model with new media, first proposed and applied to the digital media art and design major; it utilizes new media platforms such as WeChat Official Accounts, Weibo, or Douyin short videos as the medium for teaching practice, employs student-published project works on these platforms as teaching assessment outcomes, and constructs a micro-scale virtual studio environment. By integrating tripartite feedback from teacher evaluation, student self-assessment, and new media platforms, it effectively implements process-based assessment. Results demonstrate: under this teaching model, students' comprehensive abilities including professional skills are enhanced; process assessment results are authentic, effective, objective, and timely. The "Micro Studio System" teaching model possesses characteristics of originality and timeliness, can provide reference and inspiration for similar programs at peer institutions, and offers conceptual reference and guidance for art programs and other disciplines.

Full Text

1. Application Research on the "Micro Studio System" Teaching Model for Digital Media Art Majors

The "studio system" teaching model has been widely applied in art and design majors, earning recognition from numerous researchers [1-6]. This approach uses actual or simulated projects as learning objects to integrate fragmented professional knowledge, enhance students' ability to apply specialized knowledge, foster innovative learning mindsets, and align with the talent cultivation objectives of higher vocational colleges. However, the traditional studio system

requires substantial enterprise integration and support, including physical facilities, real-world projects, industry engineers, and corporate management models [7-9]. For vocational institutions lacking school-enterprise partnerships, these requirements are often prohibitively difficult to meet.

The recent rise of new media has introduced new demands and challenges to the digital media industry. Society's need for digital media professionals has evolved beyond single technical competencies to encompass new media operation skills. Consequently, institutions employing the studio system must also innovate and reform. There is an urgent need for a teaching model that upholds the studio system' s educational philosophy while accommodating new media technologies —one that can be readily implemented across all institutions while cultivating talent that meets industry demands. To address this, we propose and have implemented the "Micro Studio System" teaching model.

Developed by the digital media art teaching and research team at Jilin City Vocational and Technical College (hereinafter "our college"), the Micro Studio System employs actual or simulated projects as pedagogical objects, utilizes new media platforms such as WeChat Official Accounts, Weibo, and Douyin short videos as teaching media, and uses student project works published on these platforms as learning outcomes, thereby creating a micro-scale virtual studio environment. This approach enhances students' integration of professional knowledge and skills while simultaneously developing their new media platform operation capabilities, cultivating professionals who meet modern societal demands. The present study specifically utilizes the WeChat Official Account platform (hereinafter "the platform") as its teaching medium. The research framework and curriculum architecture are illustrated in Figure 1 [Figure 1: see original paper] and Table 1 .

1.1 Curriculum Architecture under the Micro Studio System

Higher vocational education aims to cultivate employment-oriented talent guided by specific job positions or job clusters. Through social surveys, enterprise interviews, and graduate employment feedback, our digital media teaching and research team has identified a societal shift in demand for digital media professionals from traditional to new media, with particular scarcity in new media operations talent. In response, our college has promptly adjusted the digital media art major' s curriculum structure and implemented the Micro Studio System teaching model.

1.2 Establishment of a Course Assessment System under the Micro Studio System

Course assessment methods serve as critical instruments for achieving talent cultivation objectives and as important levers guiding teaching quality. Research demonstrates that process-based assessment effectively evaluates students' practical skills and application abilities [10-12], making it essential for successful

teaching model implementation. Effective process assessment should emphasize: (1) the integrity and internal coherence of phased knowledge systems; (2) assessment standards that highlight major-specific characteristics—in digital media art, this means foregrounding innovative thinking and aesthetic judgment; (3) authentic and objective results; and (4) timely feedback.

Accordingly, the Micro Studio System' s process-based assessment comprises three components: teacher evaluation, student self- and peer-evaluation, and platform feedback evaluation.

Teacher Evaluation encompasses both classroom performance and project work assessment. Professional instructors score project works against detailed rubrics and provide holistic evaluations based on project requirements and completion quality, primarily examining students' classroom engagement and technical proficiency. This process utilizes the Mu Classroom mini-program for efficient administration and automatic statistical analysis.

Student Self- and Peer-Evaluation involves dividing students into groups of 3-5 members who collaboratively complete projects with clearly defined roles. Students anonymously evaluate each group member, assessing cooperative coordination, responsibility, and technical contributions. This component also employs a voting mini-program for implementation.

Platform Feedback Evaluation serves as the direct manifestation of the virtual studio. Student project works are publicly published on the platform, where backend analytics automatically collect performance data visible to all participants, ensuring authentic, objective, and timely feedback. Platform statistics provide comprehensive metrics including: initial shares within the Official Account (excluding non-follower clicks), Official Account message reads (from group messages and subscription lists), total shares (including non-follower clicks), reads generated through sharing, and conversion rates for both initial publication and shared content. Figure 2 [Figure 2: see original paper] illustrates these metrics for Work I over a seven-day period.

Higher conversion rates, particularly for reads generated through sharing, indicate stronger platform evaluation of the work. Platform feedback offers both objectivity and timeliness. As shown in Figure 3 [Figure 3: see original paper], which tracks reading counts over seven days for three project groups, reads peak on the publication day and decline thereafter. From day four onward, daily reads fall below ten with minimal variation. Consequently, total reads and conversion rates from the first three days serve as effective assessment parameters. Calculations reveal Work I (674 reads) > Work II (499 reads) > Work III (433 reads). Since publication-day reads generally predict total performance, preliminary effectiveness judgments can be made immediately, demonstrating the objectivity and timeliness of platform feedback.

By synthesizing these three evaluation components, both individual student scores and final project grades are determined. This process-based assessment under the Micro Studio System achieves its intended purpose: delivering objec-

tive, timely results that enable students to analyze feedback, identify deficiencies, and make improvements. This approach not only consolidates knowledge and skills but also cultivates platform operation and promotion capabilities—precisely the new competencies demanded by enterprises in the new media era.

1.3 Mechanism Guarantees for Micro Studio Model Application

Sound mechanisms are prerequisites for Micro Studio model implementation and crucial for ensuring its effectiveness.

1.3.1 Institutional Mechanisms Professional teachers must arrange phased process examinations according to the curriculum system. Upon completion and platform publication of phased project works, comprehensive scoring should be conducted promptly through teacher evaluation, student self- and peer-evaluation, and platform feedback. Projects may be actual assignments, self-designed simulations, or competition entries, all closely aligned with current teaching content and knowledge points. Project teams typically comprise 3-5 members with clear division of labor, rotating roles across different projects to ensure comprehensive skill development. Regular comprehensive student competitions should be held on the platform with published rankings.

1.3.2 Incentive Mechanisms Following phased assessments and competition rankings, outstanding works should receive awards, including individual achievement awards, progress awards, and single-skill recognition.

1.4 Student Competency Development under This Model

The Micro Studio System integrates professional knowledge through phased projects and competition entries published on the virtual studio' s new media platform, thereby strengthening professional skills, enhancing comprehensive abilities, and developing new media operation competencies.

1.4.1 Strengthening Professional Skills The Micro Studio System enables students to systematically connect and integrate knowledge through actual and virtual projects, improving professional practical abilities. Incorporating national-level competitions (e.g., the Grand Advertising Competition) or provincial contests into comprehensive training projects broadens and deepens professional knowledge while enhancing student competitiveness in both competitions and employment.

1.4.2 Enhancing Comprehensive Abilities Project completion develops not only technical skills but also communication and collaboration abilities. New media platform publication and data feedback allow students to comprehensively understand work quality, stimulating analytical capabilities and enhancing innovative consciousness and aesthetic judgment. Students are encouraged to independently source projects and engage in innovation and entrepreneurship—

for example, conducting promotional campaigns for campus cafeterias. Independently securing sponsorships and completing planning, publicity, editing, and platform promotion activities improves project planning and new media operation abilities. These comprehensive improvements better align with societal demands for digital media art professionals.

1.4.3 Mastering New Media Operation Skills New media operation refers to product promotion and marketing activities conducted through modern mobile internet methods and emerging platforms such as WeChat, Weibo, and Douyin. Platform data includes not only read counts and conversion rates but also communication channels: Official Account messages, friend forwarding, Moments, friends' "likes," historical messages, and others, with corresponding data for each channel. Table 2 shows Work I' s communication channels and corresponding data on its publication day.

Analysis of Table 2 reveals that Work I achieved the highest read counts, reads, shares, and sharers through Moments forwarding, followed by Official Account messages. By comparing these metrics, students can identify primary and secondary communication channels, intensify efforts on primary channels, and make breakthroughs on secondary channels to increase exposure rates for their works or products.

The platform also provides demographic information about interested audiences. Tables 3 , 4 , and 5 show gender ratio, age distribution, and regional distribution for Work I' s readers.

Table 3 indicates a balanced gender ratio among readers. Table 4 shows the primary audience is aged 18-25, with minimal distribution in other age groups. Table 5 reveals that most readers are from Jilin Province (due to our college' s location), with smaller portions from Jiangsu, Zhejiang, and southern Central China regions. This demographic data helps students understand audience profiles and learn which work types attract which audiences. Extending this to professional practice, product promotion planning can similarly use platform data for audience analysis to enable more targeted and selective marketing. Through continuous analysis, summarization, improvement, and promotion, students gradually meet new media platform operation requirements.

2. Conclusions and Prospects

In the new media era, societal demand for digital media art professionals has undergone fundamental transformation. Based on the characteristics of higher vocational education and industry talent requirements, our college has reformed its curriculum structure and teaching model by proposing the Micro Studio System. This model enhances students' professional application skills and learning motivation, improves comprehensive abilities including coordination and cooperation, develops new media operation competencies, and stimulates creativity. It upholds the philosophy of vocational education while deeply integrating with

new media technologies, enabling all institutions to easily implement production-education integration and cultivate talent that meets digital media industry needs in the converged media era. The model is both pioneering and timely.

Currently, the Micro Studio System has only been applied and researched on the WeChat Official Account platform. To emphasize video production content, comprehensive application across multiple new media platforms such as Douyin (short video) is needed. This represents the focus of our next research phase.

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Note: Figure translations are in progress. See original paper for figures.

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