

Reform of the Collaborative Studio Teaching Mode of Master of Arts Based on the Constructive Theory

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Abstract. Given the current challenges faced in Master of Arts (MA) education, such as the lack of robust senses of effective teaching design and the inadequate allocation of teaching resources, this paper explores the collaborative studio teaching mode for MA grounded in the constructivist learning theory. First, this paper elaborates on the viewpoints of the theory and its theoretical basis in MA teaching; second, it outlines the specific blueprint for the collaborative studio teaching mode; third, it assesses the implementation effect of this teaching mode through empirical research; finally, it analyzes the theoretical advancements and practical insights of the mode. The findings demonstrate that the collaborative studio teaching model, including the establishment of a studio platform for project implementation, the adoption of task-driven teaching methods, and the construction of a cross-grade learning community, can effectively kindle the learning enthusiasm among Master of Fine Arts (MFA) students. This approach not only invigorates their passion for learning but also bolsters their capacity to construct knowledge and excel in professional practice. This paper provides a useful reference for driving the reform in MA professional education.

Keywords: constructivist theory; postgraduate student; Master of Fine Arts (MFA); collaborative; workshop system; educational model

1 Introduction

In recent years, China's higher education grappled with the challenge of slippage in educational quality, coinciding with the evolution of socialism with Chinese characteristics into a new era, g marked by fresh attributes, novel missions, and new demands for the development of China's higher education. The Ministry of Education has advocated that colleges and universities should follow the path of connotative development. As articulated in the Outline of the National Medium- and Long-Term Educational Reform and Development Plan (2010-2020), improving quality stands as the core task of higher education progress and the fundamental prerequisite for building a strong educational foundation in China. In 2019, the Ministry of Education issued Opinions of the Ministry of Education on the Implementation of the Plan for Deepening the Promotion

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of Innovation in Graduate Education. The year 2021 saw the Ministry of Education unveil the Action Plan on Comprehensively Promoting High-level Graduate Education (2021-2025), which makes "the structure of higher education more reasonable, its characteristics more distinctive, and the overall level of talent cultivation, scientific research, and social service comprehensively improved." Notably, on July 29, 2020, the National Conference on Postgraduate Education convened in Beijing, during which General Secretary Xi Jinping underscored that "postgraduate education plays an important role in cultivating innovative talents, improving innovation capacity, serving economic and social development, and promoting the modernization of the national governance system and governance capacity" [1].

Master of Fine Arts (MFA) degree holders are expected to demonstrate an advanced mastery of artistic creation skills, systematic professional knowledge, a refined artistic aesthetic ability, profound artistic insight, and potent expressive prowess ^[2]. The MFA establishment is oriented towards adjusting and optimizing the discipline landscape, the talent structure, and the training mode, actively adapting to the social and economic development, to nurture numerous applied high-level art professionals for the construction of socialist modernization. Therefore, for Master of Arts (MA) graduate students, cultivating strategic composite design ability necessitates a departure from the traditional model of a singular design goal dominating comprehensive skill sets. This shift involves making full use of the art practice and enhancing the innovation ability, which simultaneously raises the bar for the development of students' learning aptitude.

In summary, the teaching reform of this specialty needs to enhance the connotation construction of MA training, comprehensively improve talent cultivation quality, and better align with the evolving demands of industry transformation and development.

In the MA training landscape, several challenges have surfaced, including a lack of strong instructional design awareness, suboptimal allocation and integration of teaching resources, and the failure to form an effective educational synergy, which are mainly manifested in the following aspects:

First: the constructive consciousness of the course teaching design is deficient, impinging upon the efficacy of teaching output. This is characterized by an inadequate focus on teaching content design. Traditional MA teaching design often falters in terms of instructors not grasping the holistic scope of the knowledge framework. Consequently, the practical course content design fails to fulfill students' demands for a cohesive knowledge structure, which is specifically reflected in the specific design of teaching subjects, displaying a lack of hierarchical connectivity. Furthermore, teaching method design tends to pivot around the instructor, often sidelining the active involvement of students. This approach leans heavily towards one-sided impartation by the teacher and relies on the teacher's experience for knowledge transmission, which leads to students' strong dependence on the teacher and low autonomy throughout the learning journey.

Second: the composition of teaching teams is unstable, affecting collaborative teaching. Under the conventional one-way teaching mode, teachers are primarily responsible for their designated teaching roles, resulting in an inadequate depth of collaborative teaching among educators. The constitution of teaching teams exhibits a

transient nature, often being hastily assembled for specific teaching reform initiatives with insufficient sustained investment in team development.

Third: the lack of guidance on the establishment of learning organizations hampers the cultivation of students' collaborative learning abilities. Under the traditional teaching mode, teachers lack a strong sense of guidance in shaping students' learning organizations. Typically, students are merely prompted to spontaneously and temporarily assemble into teams according to the course practice in the classroom instruction, with these teams disbanding once the course concludes. The construction of learning organizations is only a formality, and students can only get help and support from teachers, resulting in limited collaboration and mutual support among students and insufficient classroom connotation.

Fourth: the support mechanism for the construction of a studio teaching platform requires promotion, affecting the improvement of teaching quality. The MA studio system in teaching breaks the conventional classroom mode, effectively develops the second classroom practice, and integrates the first and second classrooms. However, it also gives rise to issues such as standardized classroom teaching processes and a lack of control over teaching quality.

2 Constructivist Theory

By placing "student learning as the center" and employing the studio as the teaching organization and nurturing platform, the studio is set up based on professional courses, with supporting systems and hardware facilities, integrating teaching, scientific research, and service provision, improving the quality of professional teaching, and deepening the connotation of professional construction.

3 Constructivist learning theory

Constructivism, a learning theory that emerged in the 1990s, posits that learning is the process of students' active construction of knowledge. Different from the traditional emphasis on external conditions in knowledge acquisition, constructivist learning theory underscores learners' internalization, adjustment, and reconstruction of existing knowledge, and it is the learners who ardently embark on constructing their own knowledge frameworks [3]. The representative figures of the constructivist learning theory, such as Piaget and Bruner, offer distinct interpretations of "construction" in each school. For example, cognitive constructivism delves into individual construction, social constructivism emphasizes collaborative learning in social and cultural contexts, and process constructivism focuses on the process of knowledge construction by learners. However, a common point is their unifying emphasis on the subjectivity of learning and approval for an active and meaning-imbuing learning process undertaken by students [4].

The constructivist learning theory bears profound implications for educational practice. Firstly, concerning knowledge, it emphasizes that knowledge is not objective but actively constructed by learners. Secondly, from a learning standpoint, students

transcend passive recipients, evolving into active constructors of meaning. Finally, in the view of teaching, emphasis pivots toward the learning process, which underscores the co-construction between teachers and students and the instillation of knowledge. The theory provides a theoretical basis for the evolution of the student-centered teaching mode. In the practice of education and teaching, it is widely used in nurturing students' learning autonomy, steering them to cultivate novel experiences out of their existing ones. In addressing specific problems, the theory rests on three principles, namely, the knowledge concept of "reprocessing knowledge not in a fixed context but in multiple contexts for specific problems", the learning concept of "actively processing and constructing rather than passively accepting information", and the teaching concept of "not filling in but co-constructing by teachers and students".

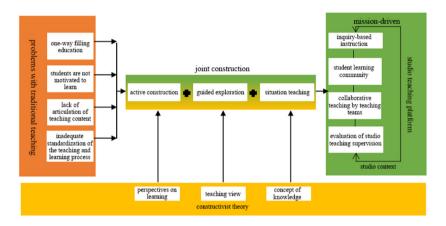


Fig. 1. Studio system teaching model

The connotative development of the MA professional teaching focuses on the condensation of the teaching characteristics of art studies and the development of fine personalized teaching. The focal point rests on postgraduates, to explore a new MA teaching mode based on the studio teaching platform with the characteristics of active knowledge construction, collaborative cooperation, and controllable processes.

4 Constructivist collaborative studio teaching model for MFA

Guided by the constructivist learning theory and rooted in a "student-oriented" approach, the task-driven collaborative studio teaching mode emerges as a catalyst for nurturing internal growth within the teaching community and fostering the connotative development of professional education. Originated from the early days of the Bauhaus School of Art and Design in Germany, the studio teaching mode employs a "dual-track teaching" method, wherein each course is led by a "modeling teacher" and a "technical teacher", thereby immersing students in both artistic and technological influences. In the contemporary university system, the combination of "theory teaching" and "studio teaching" stands as a profoundly consequential practice ^[5]. The studio system

emphasizes workshop-style teaching, and promotes students' independent thinking and design ability training through practice, which has a significant impact on subsequent design education. Studio teaching emphasizes that students internalize knowledge through practical inquiry, which is highly consistent with the concept of constructivism. With the in-depth study of constructivist learning theory, colleges and universities at home and abroad try to combine it with the studio teaching mode to carry out teaching reform and exploration.

As far back as the 1990s, American scholars proposed the integration of the constructivist theory into professional teaching to guide studio-style teaching, to promote students' active learning. Similarly, scholars in Taiwan, China have also tried to combine constructivist theory with studio teaching, yielding commendable outcomes in design professional training. Japanese scholars have advocated for a shift in educational paradigms, urging the transition from traditional scientific positivism to constructivism in curriculum construction. Meanwhile, universities in mainland China have embarked on explorations into studio teaching reform guided by the constructivism theory. For example, Nanjing Arts Institute built a constructivism-based studio teaching mode in the training of visual communication design majors.

4.1 Creation of workshop platforms with project implementation contexts

We have successfully established the integral components of the specialized studios, encompassing staff, hardware, and operational systems. A strategic realignment of teaching resources has been undertaken, aligning MA instructors with the requisites of the "design creativity + engineering support" knowledge framework. This reorganization has culminated in a coherent configuration, with the research characteristics of the teaching team (intelligent interaction, electronic equipment, tourism, cultural and creative, and health products) and the implementation of postgraduate students' studio responsibility for the construction. We have also invested financial and material resources in the transformation of the traditional teaching environment, building an "innovative contextualized" studio hardware teaching environment with project implementation situations, and creating a three-dimensional teaching arena that combines "teaching space, seminar space, and practice space" (Figure 1). This carefully curated environment can escort and protect constructive learning and provide an ideal setting for immersive education. It serves as an essential companion for the curriculum implementation, reinforcing the studio system construction and thereby ensuring the success of teaching reform.

4.2 The teaching team implements multitask-driven teaching methods and teaching synergistic knowledge construction.

In the MFA teaching process, the introduction of the constructivist learning theory has changed the traditional teacher-centric method of knowledge "filling in". Instead, it has championed a shift toward problem-oriented and task-driven methods, to establish the students' view of "knowledge construction" learning ^[6]. To optimize the effectiveness of knowledge construction and cooperative group learning, the program implements

the teaching reform of the studio system with micro-small classes. After students enter the studio learning stage, the class unit count has been purposefully reduced from 30 to a range of 18 to 20, allowing for refined and professional teaching. In the realm of education, most of the courses adopt multitask-driven teaching methods and introduce the scientific research projects of instructors in the college, the enterprise projects of joint training bases for postgraduates, and the innovative competition for postgraduates. The instructional landscape is further enriched by the inclusion of training base enterprise projects, postgraduate innovation competition projects, and studio independent projects, cultivating a multifaceted spectrum of task types and complexity levels. Moreover, the expansion of pedagogical horizons is facilitated through the meticulous curation of interconnected clusters: foundational, professional, and comprehensive practical courses. A specific team of teachers conducts the organization and implementation of these course clusters, deftly transitioning from solitary lectures to a harmonious ensemble of collaborative instruction in both the theoretical and practical segments. It can sustainably guide the original fragmented knowledge and decentralized teaching to composite teaching [7].

4.3 Building a cross-grade MFA learning community to enhance group learning dynamics.

Through the science and education collaborative results transformation, competition, experience exchange, and other practical aspects, a mechanism fostering cross-grade postgraduates' cooperative learning is established within the studio (Figure 2). This framework nurtures the cultivation of a vibrant learning community, wherein graduate students seamlessly engage in collaborative cross-grade experiences that intricately underpin knowledge-focused teaching and learning. The essence of this process lies in collaborative learning, knowledge exchanges, view argumentations, mutual supplementation and modification, collective thought sharing, and the nuanced construction of comprehended knowledge. In the specific teaching and practice implementation process, with the teaching focus on students' independent construction of knowledge, cooperative learning is mainly oriented to both teacher-student and peer interactions, and task-driven mobile learning teams are the organizing form to achieve the teaching objectives (Figure 2), amplify the students' enthusiasm for learning, and further enhance the connotation of the professional teaching link construction.

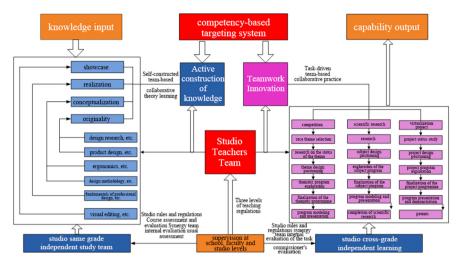


Fig. 2. Collaborative studio learning model

4.4 Establishment of a process-oriented teaching management and course evaluation mechanism to create a benign teaching ecology

In ensuring the standardization of teaching implementation, a series of studio teaching management documents (Figure 3) have been formulated to outline regulatory requisites for teaching links, such as studio establishment, studio classroom management, studio communication, and exhibition of learning achievements. Oriented to knowledge-driven meaning construction within the classroom, a process evaluation mechanism is established to provide assessment and feedback according to each link of the task process and promote teacher-student interactions. This iterative evaluation cycle underpins a continuous trajectory of advancement, achieving connotation construction. The professional course "Product System Design" and the practical link course "Course Design" both adopt the process evaluation based on the design process.

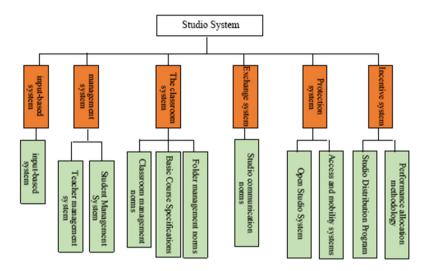


Fig. 3. Studio teaching management system

4.5 Enhanced practical teaching scenarios

The principle of "practicability" encapsulates the characteristics of infusing art theories and skills into actual artistic creation and expression in MA education. "Practicality" not only constitutes the intrinsic goal and requirement of art itself but also serves as the conduit for art to be expressed, because practice displays all forms of art and tests the professional skills of art workers [8]. Therefore, the establishment of the MFA professional degree heralds the return of Chinese art education to "practicability", indicating a deliberate redirection of all thinking, theories, and explorations about art education back to practice itself. Embracing "practicability" entails an unwavering commitment to "art practicability", so that the original professional skills of graduate students can be further improved through complete, systematic, and standardized practice. Therefore, graduate students can be cultivated with more comprehensive and systematic professional knowledge, profound humanistic, artistic and moral qualities, higher artistic acumen, creativity, and expressiveness [9].

(1) Constructing a "contextualized" practical teaching environment: Creating an "innovative contextualized" studio teaching environment fosters the reform and innovation of curriculum teaching. Through the continuous investment of resources, the establishment of a conducive teaching environment, primed for robust knowledge construction and learning, is meticulously cultivated. This strategic endeavor entails the harmonious alignment of the teaching concept and "software" and "hardware" of teaching environments, thereby facilitating in-depth teacher-student and peer interactions (Figure 4), amplifying the teaching environment's functional efficacy, and constructing a "full-space" teaching pattern to stimulate innovation and vitality.



Fig. 4. Scene of teacher-student interactions inside the studio

(2) Exploring the practical teaching method of "micro-small class": Drawing on the constructivist learning theory and accentuating the role of dual teaching subjects (teachers and students), we seamlessly merge these principles with the MFA distinctive attributes, in which both theory and practice converge in equal importance. This convergence propels us to implement micro-small class inquiry teaching and use the task-driven collaborative mechanism to build the teaching team and the learning organization for students' innovative thinking. With this mechanism, we metamorphose the very essence of teaching methods, shifting the locus from a knowledge-bestowing approach to one that is defined by inspiration, discourse, interaction, and exploration, to inspire students' innovative thinking (Figure 5). Classroom teaching transforms from teachercentering to teamwork, through the team-teach effect to form an effective educational synergy to improve the teaching quality [10].



Fig. 5. Second classroom practice in microclasses

(3) Constructing a mechanism for sustainable practical teaching: An innovative mechanism has been established to guarantee the sustainability of studio-based teaching. This mechanism encompasses a dual-pronged approach: a meticulous system for the standardization of course teaching and a resource allocation mechanism for collaborative teaching. The strict monitoring system for the whole teaching process enhances classroom excellence; the studio performance incentive is utilized to fully mobilize the initiative of teachers; and the studio exchange management system is employed to shape the characteristic studio culture of equality and synergy.

5 Conclusions

Given the prevailing pedagogical challenges inherent in MA education, we seamlessly meld the principles of the theory of constructivism. From the perspective of contextual construction that is conducive to the meaning grasp of knowledge by postgraduates, we optimize the professional teaching environment and amplify the cognizance of the pivotal role of the "context" in meaning construction. Driven by an unwavering commitment to nurturing a fertile context for knowledge acquisition, we enhance the teacher-student interaction and the teaching environment, restructure the teaching and learning organization, integrate the corresponding teaching resources for reform implementation, and underpin the role of collaborative learning on knowledge construction. The reform culminates in the cultivation of postgraduate students' core learning ability to actively construct knowledge, breakthroughs in the traditional unsustainable teaching mode relying on the teacher's single subject-driven learning, the transformation from indoctrination classroom to dialogue subjects, and the transition from knowledge classroom to competence classroom in the process of postgraduate training.

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