Studio System Curriculum Group Construction Based on Digital Media Profession Application

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Abstract. With the vigorous development of digital media industry nowadays, more and more colleges and universities have been attaching great importance on talent cultivation of digital media profession and cultivating mode; on the other hand, studio system, as a new talents training mode, has been extensively recognized and applied. Since the digital media industry is still at the initial development stage in China, the studio system requires further improvement. How to realize healthy growth of digital media profession studio under different development environment, and to promote successful industry-university-research cooperation reform still require constant test and deepening. Starting from the essence of studio-system, the paper put forward the five "differences" on studio system curriculum group construction requiring attention and the four "principles" to be mastered thus to contribute to the professional personnel cultivation of digital media profession of China.

Introduction

After Beijing Olympics, Shanghai EXPO and London Olympics, digital media industry has been universally recognized by the digital media industry as the core industry of the era of knowledge-driven economy in the 21st century. It plays decisive role in GDP of various countries. According to the latest statistics, 4% of U.S. GDP is contributed by digital media industry with total output value exceeds $400 billion; the output value of digital media industry of the United Kingdom exceeds $90 billion approximately accounting for 7.9% of GDP; the digital media industry of Japan becomes the second pillar industry (only rank only second to automobile industry). The output value has exceeded about $270 billion; the digital media industry of South Korea has become the top industry exceeding automobile industry accounting for 28% of GDP. The output value is about $649 billion. In 2010, the digital media industry output value of China reached about $240 billion, and became the top pillar industry of China. Crystal CG has become the unique supplier of London Olympics; the country listed digital media content platform to 2006-2020 national science and technology development outline; China digital media Industry-University-Research Institute Alliance was established in 2010. It has absorbed well-known enterprises at home and abroad such as Lenovo, Hanvon, NVIDIA
and Autodesk to join in [5]. This series of current situation and measures indicates that the creative talented person's demands of domestic digital media industry presents blowout rising.

**Talents Training Situation of Digital Media Profession**

Digital media profession is to cultivate senior engineers and modern art design innovation talents combining with technology and artistic quality. At present, there are more than 100 institutions setting digital media profession and direction. On account of different hardware input, teacher proficiency, training mode and supporting industry etc. Of colleges, talent quality is totally different. The digital media profession of communication university of china, Tsinghai University, Zhejiang University and Shanghai University is quite unique, and is at leading position [6]. On the other hand, with the promotion of education and teaching reform throughout the country, new teaching modes continuously spring up. Among them, the studio system training mode originating from Bauhaus has been extensively promoted and recognized. Studio-system has been considered as more suitable for professional differentiation focusing on the status quo of characteristic education [1]. As for the characteristics of digital media profession, it focuses on the combination of technology and art, compositionality and practical ability and intersectionality of knowledge structure. It can satisfy the traditional teaching methods, adopting more reasonable teaching mode for the studio at present.

**Definition and Characteristics of Studio-System**

Studio has different forms, including studio for teaching activities, scientific research studio for teachers engaging in scientific research projects, project studio for enterprise cooperation, master studio created by famous master and students studio founded spontaneously. A studio can exist integrating a variety of forms. From the perspective of teaching reformation, studio is defined as "combination of enterprise project and teaching curriculum, mainly for senior class students and supported by cooperative enterprises. It is a talent cultivating mechanism with matching venues and equipment". The key points include enterprise project integrating, enterprise expert participating and school-enterprise joint evaluation. The instructor will undertake dual task of teaching and scientific research, curriculum and subject [4]. It supposes stricter requirements for the schools, teachers, students and companies.

Due to the stricter requirements, many colleges and universities emerge while lack of sufficient preparation. The efficient is insufficient since the studio-system is improper and the effects will be discounted greatly or even improper teaching phenomenon. Students' professional quality will show increasing expansion since they only focus on project but ignoring the course. The course becomes a cheap labor market of the enterprise [4]. Some viewpoints believe that the studio-system is equal to enterprise department. For example, introducing R&D Dept. integration to the studio. Daily design of R&D Dept. carries out in the campus studio independently. The marketing, finance, logistics and other businesses are remained to the original enterprise [7]. The viewpoint is one-sided which is adverse to performing of normal teaching sequence and is adverse to confidentiality of confidential information. In addition, some viewpoints believe that the studio is regarded as educational equality of enterprise departments. In the United Kingdom, there is a "studio-system school" directly facing local company. Students about 19 years old will take 1-2 days to work at the
cooperative enterprise. The mode is opposed to teaching union since it is believed that "inferior students" have obtained better education opportunities with the intention for shunt [3].

Due to different enterprise targets, the studio of college has many different points despite of many similarities with enterprise departments. The similarities include: There are projects with expenditure support and specific location. Team work and assessment mechanism are required. Different points include: 1. The projects undertaken by corporate departments must be completed within stipulated time. The projects cooperated to the studio can only be completed at classroom time (The remaining part is to be completed by teachers out of class continuously); 2. Individual employee of the corporate department is responsible for a specific task. However, students of a studio should master the knowledge and skill points stipulated in the teaching outline after completing the course. Although labor division can be adopted in the course, teachers still need to keep the fairness of learning contents; 3. All employees of a corporate are qualified for working competence. However, the proficiency of students in a studio are quite different which requires that the teach shall take a variety of teaching approaches to minimize the gap on students' professional quality; 4. The employees of a corporate are subject to long-time and concentrated working. However, the class time for students in a studio is quite limited. In addition, they have to study other courses. Overload course will make the students feel pressure and boring; 5. The employees of a corporate are comparatively stable, while the students in a studio will differ at each round. Based on the above objective differences existing above, studio-system teaching mode doesn't violate the essence of education nor deviate from the teaching rule. It is aimed to provide better services for students, improve the teaching quality, stimulate students interest in learning, create economic value and social value for the enterprise, and provide sustainable power for enterprise development thus to eventually promote the coordinated development of industry-university-research cooperation and win-win.

**Studio System Curriculum Group Construction Integrating to Enterprise Project**

Based on the principle of following the teaching rules and high integrating to enterprise project, it is necessary to follow some principles, generally the following four, while adopting studio system curriculum group construction:

**Relying on the Enterprise Demands Framework and Manifest The Respective Features**

Different enterprises require different digital media design services and demands. For example, digital media profession "product promotion studio" of Shanghai Electronic Information Vocational Technology College mainly cooperate with Taobao, Tmall, ali's e-commerce enterprises at present. In order to meet the constantly updating requirements of shop products, the studio sets large span classes forming curriculum group of Product Photography, FX Photo Studio and WEB Animation which covers the whole process from products shooting to internet. The original three courses are linked together seamlessly based on enterprise demands. With the changing and expanding of enterprise demands on related enterprise cooperation, the studio can be incorporated in more courses thus to further break the barrier between various classes and form complete curriculum group; on the other hand, since digital media profession is a newly emerging profession, many colleges and universities gradually form the major or evolutionary or integrating from other majors. The features of original majors shall be manifested in the curriculum group but shall not follow the system of other colleges or systems at abroad. For example, the digital media profession of Zhejiang
University is set at the School of Computing with the curriculum group showing particular stress on digital media and software development; relying on the solid art and design foundation, School of Fine Art, Tsinghua University locates the digital media profession to the crossing field of art and information science. Develop the students' original ability, consolidation competence and planning competence [9].

**Naming after the Project Dominated by the Enterprise and Focusing on Perspective Development**

On the premise of relying on the enterprise demands, curriculum group topics shall be lead by enterprise subject which can make the teaching cases more real and abundant, and can improve the students' enthusiasm on learning and the enterprise experts can participate to the teaching counseling more quickly; however, on account of the essence of enterprise on purchasing for profit, especially those small enterprises, they have no time and energy on long-term development. Generally, they only focus on the immediate interests. The topics are too "utilitarianism" which have significantly restrained the teachers' competence and cannot satisfy the "innovative digital media professional talent training goal [9]". Under such circumstance, both the school and enterprise shall perform discussion and adjustment based on the principle of fair cooperation since priority on either side in industry-university-research cooperation will reduce the collaboration effects. For example, "new media students studio" can set 3D Graphics, FX Photo Studio and 2D animation design and development provide services for recent topics of the enterprise thus to satisfy immediate needs of the enterprise; set Vision art design and Virtual display development for medium and long term services as the strategic reserves for enterprise development so that the enterprise can follow the sustainable and healthy development of the enterprise eventually.

**Promote the Course through Project Operation and Pay Attention to Flexible Adaptation**

The teaching mode and environment of studio-system are conducive to project operation mode of the course. However, five different points existing on studio and enterprise departments are mentioned above totally following the operation mode of project in business enterprise sector which can be smoothly carried out in the classroom. Under such circumstance, teachers have to play subjective initiative and flexible project operation. It is anticipated that various situations and details will occur. Make sufficient early-stage preparations for the course and perform adjustment and improvement at any time. For example, labor division of students can lead that the students will be busy at certain time frames. When some students are free, project phases will be further breakdown so that each student can be at each stage; for example, "charging and training" shall be periodically inserted to each phase. Invite experts, graduates, excellent professional students or between classes to broaden or make up the knowledge scope.

**Focus on Class Teaching and Quality and Lengthen Post-Class Studies**

Since the studio-system can satisfy teaching contents implementation and the class time is limited, for projects with great time span, teachers should clarify teaching time and goal. The remaining part shall be as the project responsible personnel for scientific research tasks to continuously complete after the class. Such achievements will be considered as early data or materials for the next class so that the project can be carried out consistently.
Based on the aforementioned four points, studio curriculum group can make sure that the teachers can teach diligently. The students can fully study and be treated fairly. And the project can be completed as required.

![Diagram showing the principle of establishing the curriculum group in the studio system.](image)

**Figure 1.** The principle of establishing the curriculum group in the studio system.

**Studio achievements appraisal**

Achievements appraisal is to promote continuous improvement of the curriculum group can be continuously improved. Teacher competence can be consistently enhanced and student motivation can be improved. For studio-system, the best assessment method is for achievements display and exhibition. In addition, market mechanism is introduced for voting, mutual evaluation and scoring of enterprise experts [4] and other justice means assessment. Excellent studio achievements can be stored by the school. Long-term exhibition is used for recognition and rewards; the achievements can be selected by the enterprise to form economic benefits; the students for studio learning can get the opportunity to learn for excellent works. In addition, it can attract the students to actively input to the studio. Achievements appraisal is aimed to promote. However, the effects are not limited.

The writer will be committed to improving the teaching quality in the incoming decade through teaching practice, promoting learning interests of the students and performing exploration, research, learning and trying of industry-university-research cooperation integration. In addition, the writer is responsible for operation of 2 studios, generating some opinions with the purpose to continuous implementation and improving in the teaching and scientific research activities in the future thus to contribute for the application of studio-system originated from the west world on digital media profession talents cultivation.
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