

## Research on MOOC Teaching Methods in Innovation and Setting up a Business Curriculum

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### Abstract

**With the comprehensive deployment of information-based education and the national "Internet +" strategic plan, "mass entrepreneurship, innovation" has a more solid technical support. The MOOC teaching method of innovative and entrepreneurial courses is in line with the current virtual teaching method that is more popular in the whole society. It can achieve breakthroughs in four aspects: breaking through the limitations of space and time; breaking through the shackles of the unity of knowledge systems; the bottleneck of lack of teaching resources; the one-sidedness of the effectiveness evaluation method. It truly realizes the freedom of choice of learning space and time; multi-level and diversified support of course content; re-integration and re-engineering of teaching resources; and more comprehensive evaluation of effectiveness.**

### Keywords

**"Internet +"; Innovative Entrepreneurship Courses; MOOC Teaching Methods; Modular; DIY Restructuring**

### 1. Introduction

At the beginning of 2010, the state used education informatization as an endogenous variable of educational systemic change. An important feature of education informatization is to use the Internet as a carrier to spread teaching resources fairly. In the same year, the integration of higher education and innovation and entrepreneurship education was also put on the agenda. The Ministry of Education pointed out in the "Opinions on Promoting Innovation and Entrepreneurship Education in Colleges and Universities and Self-employment of College Students": "Innovation and entrepreneurship education in higher education institutions... Promote employment with entrepreneurship. 1. At the 2014 Summer Davos Forum, Premier Li Keqiang put forward the "mass entrepreneurship and innovation". In this regard, the innovative and entrepreneurial curriculum is not only an independent discipline, but also embedded in the curriculum system of higher education in various forms, and it has become an incubator of various innovative projects. However, the integration of these two educational strategies, "informatization of education" and "innovation and entrepreneurship education" faces many challenges.

First, the level of knowledge dissemination and testing systems in traditional innovation and entrepreneurship courses is thin. The teachers mainly focus on lectures and slide presentations. The teaching resources are mainly texts, videos and pictures. They cannot realize the deep understanding and exploration of knowledge. Students can only test the knowledge points through theoretical exercises. The interaction between students is relatively small, the knowledge system is almost no extension, and the function of supporting the knowledge system at multiple levels cannot be realized.

Second, the geographical scope of the space is limited. Most colleges and universities are limited by the number of students and the number of classrooms. Only the departments or the academic affairs departments can arrange classes. Students can go to the corresponding classrooms on time and according to the location. Achieving students' self-selected courses (except for public electives) does not improve students' practical ability (except for experimental classes). Even in the case of innovative and entrepreneurial courses, students are passively accepted in the classroom when they have extremely high requirements for practical hands-on skills. In the classroom, they pass a series of purely theoretical and purely written teaching methods: textbooks, slides, The way of writing books

to spread knowledge is extremely incompatible with the goals and capabilities of innovative entrepreneurship courses.

Third, the theory of teaching mode is biased. The traditional curriculum system focuses on the teaching of theoretical knowledge. The teaching materials are used to disseminate knowledge of resources, while the teaching materials are almost never updated. Even if the teaching materials are updated, from "collecting materials - updating teaching materials - disseminating resources" The lag is caused by the fact that under the ever-changing business projects, students can't grasp the operation mode of the latest projects; and all the teaching materials used as teaching materials are invariably caught in the theoretical teaching misunderstanding. Students can get these theories and definitions from the web.

Fourth, there is a lack of teaching resources. From the perspective of teachers, most college teachers are scholars who accept purely theoretical education. They have neither entrepreneurial experience nor experience in corporate work. Even if they have work experience, they have nothing to do with innovation and entrepreneurship. Relationships are not suitable as teaching teachers for innovative entrepreneurship courses; however, it is now common that counselors act as instructors for innovative entrepreneurship courses, and of course they do not have the experience and background of innovation and entrepreneurship. From the perspective of teaching materials, it relies mainly on teaching materials, videos and homework assignments to disseminate knowledge.

From what has been discussed above, for the innovative entrepreneurship curriculum, constructing a curriculum model with diversified knowledge systems, novel teaching methods and strong practicality has become a difficult problem that major universities need to solve under the background of high embedding of innovative and entrepreneurial courses.

## 2. Literature review

### 2.1 Education Informatization and the Background of "Internet +" Development Strategy

The Ministry of Education has issued a number of regulations in support of the national "Internet +", big data, new generation artificial intelligence and other major strategic tasks to support modern education, including the Education Informationization 2.0 Action Plan (hereinafter referred to as the "2.0 Plan" ), "National Medium- and Long-Term Education Reform and Development Plan (2010-2020)" and so on. The "2.0 Plan" pointed out that education informatization has the unique advantage of breaking through time and space restrictions, rapid replication and dissemination, and abundant means of presentation, and will surely become an effective means to promote education equity and improve the quality of education.

The key link in the process of education informatization is to build a large platform of "Internet + education", from the education-specific resources to the education resources, from the fusion application to the innovation development (Zhong Shaochun, Tang Yuwei, 2018). The "Internet +" reference was first proposed by Premier Li Keqiang at the Third Session of the 12th National People's Congress on March 5, 2015 (Zhao Zhuqing, 2015). 4. On July 4, 2015, Premier Li Keqiang signed the approval "Guidelines for the "Internet +" Action" (hereinafter referred to as "Guidance Opinion"), the opinion puts: "Internet +" is a key action plan, and thus "Internet +" becomes the strategic orientation for the transformation of all walks of life in China in the future. The so-called "Internet +" means "Internet +" refers to the use of the Internet platform, information and communication technology to combine the Internet and various industries, including traditional industries, to create a new ecology in the new field (Su He, 2015 ) 6. "Internet +" is a new type of communication knowledge, promote knowledge society innovation, change people's work patterns and education methods, and form a new Internet-based education new normal; the retail industry, education and training industry through these In the year, the business model based on the Internet has realized the geometric multiple growth of the number of audiences.

## 2.2 Development status of innovation and entrepreneurship education

In 2010, the “Opinions of the Ministry of Education on Promoting Innovation and Entrepreneurship Education in Colleges and Universities and Self-employment of College Students” was the first to emphasize the introduction of innovation and entrepreneurship education into the classroom of higher education. With the continuous development of technology and the continuous transformation of consumption patterns, production models and lifestyles, the connotation of “innovation and entrepreneurship” is changing with each passing day. Today’s certain entrepreneurial technology may be outdated tomorrow, so innovation and entrepreneurship education is focused on innovation. Cultivation of innovative ideas and innovative thinking (Dong Yunfei, Zheng Libo, 2014).

Zhang He (2014) proposed that the enterprise management method can be used: “three standards”, that is, quality (QMS), environment (EMS), occupational health and safety (OHSAS) are introduced into the curriculum system of innovation and entrepreneurship education to ensure the operation mechanism. Stable, standardized management; at the same time adopt the "three in one" model to create a community of government, enterprises and schools. However, innovative entrepreneurship internships require huge social resources and corporate positions to digest. "Students entering the enterprise - difficult" has become the consensus of school-enterprise cooperation. However, the sudden change in technology has made "enterprise into school - easy" a reality. With the continuous development of cloud computing technology and big data technology, innovation and entrepreneurship education can integrate these two technologies into the virtual practice teaching platform (VPTP), and integrate the real process of the enterprise into the innovation and entrepreneurship education, in order to improve the students' practical ability, even to achieve Promote learning and extend the professional life cycle of students (Yan Yuping, 2014)<sup>10</sup>.

## 2.3 Research on MOOC teaching methods

In recent years, MOOC (Massive Open Online Courses), which has been popular all over the world, has greatly broken through the limitations of space and geography, and has truly realized the fairness of educational resources. MOOC is proposed by Salmon G, Siemens G and Ally M (2004) when constructing the theory of connectivity. Unicom believes that learning begins when learners' information feedback and information transfer form a learning community (Kob & Hill, 2008)<sup>12</sup>. MOOC's teaching methods have the following characteristics: First, break the inherent knowledge system and split it into a series of knowledge points (Zhao Lei, 2017)<sup>13</sup>; Second, use a short video method to interpret each knowledge point (Tang Weizhi , 2017) <sup>14</sup>; Third, use multi-level test questions to test students' learning effects, and rationalize the context of the entire knowledge point; Fourth, use interactive forums, discussion questions to deepen students' understanding of knowledge points, and extend The terminal of the knowledge system; fifth, the open curriculum system, as long as there is a network, there is no limit for anyone to study in any space and at any time (Inge DE Waard, Apostolos Koutropoulos, etc.2012).

In the past three years, many universities have also made innovative attempts to integrate innovative entrepreneurship courses with MOOCs, including mixed teaching, micro-courses and Spoc, which combine traditional courses with online teaching, a large amount of teaching resources and effective tracking evaluation. Both are concentrated in cyberspace (Xuyang, 2018)<sup>16</sup>. The most important combination of this is to build a scientific technical framework, design the interface and content that varies from person to person; the advanced innovation and entrepreneurship curriculum system, that is, according to the innovation and entrepreneurial awareness, innovation and entrepreneurship training, innovation and entrepreneurship practice design Module; establish an intelligent evaluation mechanism and early warning mechanism (Lin Xuezhi, 2016)<sup>17</sup>.

In summary, many studies have neglected that the core of the innovation and entrepreneurship curriculum is the selection and operation of entrepreneurial projects, while focusing on the choice of teaching carriers and communication methods. Guided by the evaluation system of the Innovation and Entrepreneurship Competition, the feasibility of the entrepreneurial project and the strengths and weaknesses of the capital operation are the core evaluation indicators. This is also the first choice for

the fierce entrepreneurial process. Therefore, according to this idea, the game is promoted and the design is reasonable and innovative. Courses should be supplemented by entrepreneurial projects, teaching methods and carriers.

### 3. Proposed solutions

#### 3.1 DIY-style reorganization of teaching content, modularization of curriculum system

With the MOOCs teaching method, the biggest advantage is the reorganization and fragmentation of the curriculum system. Each knowledge point can be a self-contained independent module, which supports the knowledge points with rich teaching resources. The entrepreneurial process involves all aspects of skills, including: entrepreneurial project selection, entrepreneurial project skills learning, business plan writing, business establishment and registration, financing solutions, internet finance, marketing strategy, market sales forecast, budget statement preparation And these contents can be adapted to local conditions, DIY-style reorganization according to the teaching resources of each school, and modular teaching of key links in the entrepreneurial process.

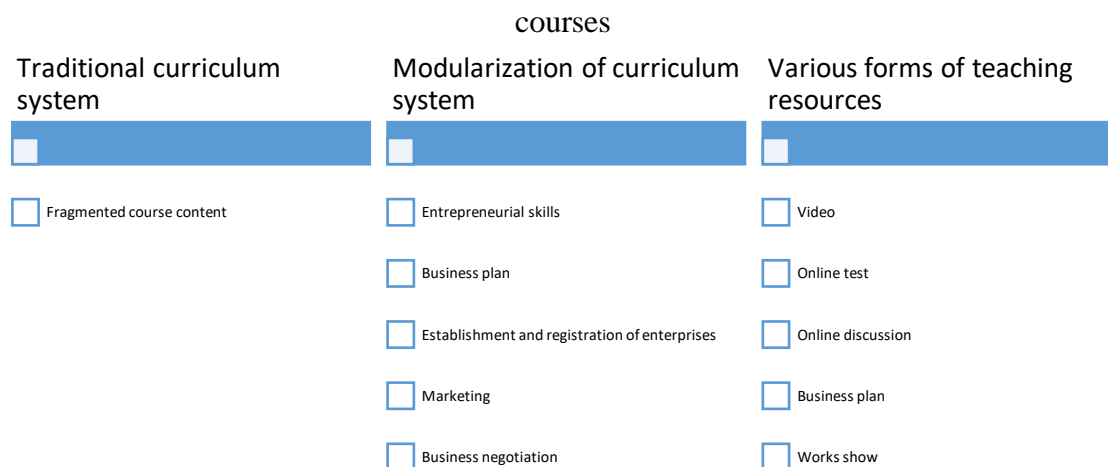


Figure 1: Schematic diagram of the teaching methods of MOOCs for innovative entrepreneurship

#### 3.2 Re-integration of teaching resources

The re-integration of teaching resources can break down academic barriers and integrate high-quality teaching resources. Since the whole entrepreneurial process involves product knowledge, marketing knowledge, financial knowledge, financial knowledge, statistical knowledge, etc., the teacher strength of a certain teacher or a teaching unit is not enough to support the teaching of innovative entrepreneurship courses. The so-called specialization of the surgery industry, the modular system has the advantage that this course can be used to create this course across majors, exaggerated departments and inter-colleges, select higher quality teachers, and screen the best quality teaching materials and evaluation methods. The re-integration of resources allows the teachers responsible for each module to refine the teaching resources of the module.

#### 3.3 Diversified teaching methods

The MOOC teaching method is characterized by diversified teaching resources and diversified teaching methods. The support of the knowledge system is interspersed from point to point. Each knowledge point uses a variety of methods such as video, case, test questions, hands-on practice, and multi-level interaction to interweave the network of knowledge. Each video is a knowledge point, 5-

10 minutes, which can be taken by the teacher himself or intercepted in the network. Each video is equipped with cases, test questions, and practical experiments to support this knowledge point. Due to the refinement of the MOOC course, students spend much less time online than traditional classrooms, so offline teaching can accommodate more time to organize students to learn independently, and can use group discussion, flip classroom, SPOC teaching methods. . This approach is more in line with the teaching objectives of the innovative entrepreneurship curriculum, focusing on the cultivation of students' entrepreneurial practical ability, allowing students to mobilize various perceptions to familiarize themselves with the key aspects of the process of innovation and entrepreneurship.

### **3.4 Improvement of the method of effectiveness evaluation**

The teaching process of the innovative entrepreneurship curriculum is split into two parts: online and offline. The online assessment method is mainly composed of five aspects: video viewing, after-school homework, small test, discussion, and work upload. According to the degree of importance, the teachers of each module can evaluate their own scores. The square system is more accurate and objective. Since the online learning process precedes offline learning, this requires a high level of student self-learning, requiring students to extensively collect information to complete post-class evaluation and discussion. In-line teaching, group interactive Q&A, discussion, small test, and business plan writing can be alternated, and each link needs to be weighted according to importance and student performance. Through a diversified and multi-level effect-based approach, students' learning can be more comprehensively and fairly reflected.

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