# Specialized Courses Teaching Mode Innovation of the Independent College Based on MOOCS

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#### Abstracts

Independent college is a new kind of school-running pattern, on the basis of independent college computer professional course teaching, based on the background of MOOCS, specialized course teaching mode principle, on the basis of design is given priority to, the class online course of classroom teaching mode. To a certain extent can motivate we will accelerate reform of the teaching mode of independent colleges, improve the teaching quality of education.

Keywords: Moocs, Independent college, Specialized courses, Teaching mode

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# 1. Introduction

As a new school-running mode of higher education, independent colleges is the undergraduate school which is to fill gap in the classification system of colleges and universities or research universities of undergraduate course teaching and vocational technology college. Independent college is necessary for cultivating the students who already have a certain theoretical basis, and has a certain practical ability, practical ability, problem-solving skills and services in the development of the society applied talents. But in the practical teaching system, most of the independent college teaching resources mainly depends on the matrix of teaching resources, and evaluate undergraduate students by use of the ordinary standard of the original matrix of the university, teaching contents and teaching materials of independent college is the same as ordinary undergraduate. Under this background, the independent college exists this phenomenon such as teachers teach hard, students learn more easily. The traditional teaching mode is no longer adapt to the requirement of the current independent college talents training target.

In recent years, with the development of information technology, MOOCS arises at the historic moment, the global education in an online learning revolution. MOOCS have mass, openness, high quality and low cost advantages, but also exist insufficient experience, absence interactive learning, learning effect which is difficult to assess and integrity issues, etc.

We can clearly recognize that Moocs is not universal and cannot completely replace the traditional entity class. As vice President of fudan university Fang lu said, Moocs for the education reform and new teaching mode of thinking, is much more important than to join for class[1]. Nowadays, the research and practice of our country MOOC has entered the stage of localization application innovation. In the MOOC under the background of rapid development, professional class as a professional core courses, should be more reform and innovation. In this paper, according to the characteristics of the independent college students and the characteristics of the teaching mode of independent college course actual situation has a certain theoretical basis and practical significance.

# 2. Problems existing in teaching of computer professional courses of computer science of Independent colleges

At present, most of the independent college only founded more than ten years, professional teachers in higher education is not long. Some teachers lack of enterprise practice experience, and their professional and vocational skills is not strong. Under the guidance of the traditional thinking, they are using the classroom teaching as the main teaching methods, so the cultivation of students comprehensive ability is not strong. Professional talent training system of some independent college and its parent universities are similar, it is difficult to reflect practical feature of talent training.

# 2.1 college courses

When setting up the course, most of the independent colleges refer to public school curriculum order, content, school, etc. But independent college students and the public school students are not the same, and both in study habits and learning methods are different. If some reference to public school teaching methods and teaching schedule, and most of the students think speak too abstract to accept[2]. Teaching contents in some serious lag behind the development of computer technology, and the knowledge content is too old, which needs to be

updated. Due to some course period limit, teachers rarely mentioned more popular application software in classroom, such as program design software, and graphics processing software, 3 d and animation software and multimedia software, etc.<sup>[3]</sup>. Today, in addition, in the popularization of the network, network in the teaching material content is not enough, especially in the face of the world's vast knowledge resources, how to utilize the network retrieval, learn, get you most need knowledge, how to make use of network platform and technical communication all over the world.

#### 2.2 college students

Independent college is the third batch admission to undergraduate, it admitted students cannot be compared with public undergraduate students. If this public undergraduate teaching mode can let students feel the course "appear more abstract and less image", hampered the student to the knowledge to understand and accept, most of the students afraid of this course, what affects students' learning. Here are some deficiencies of the independent college students: (1) the foundation is not solid. This part of the students in the learning process due to lack of effort or the question of learning methods or learning habits and failed to knowledge base. (2) The lack of good self-study habit. University education advocates students' autonomous learning, but the independent college students lack of learning initiative and autonomy, and a large part of the learning method of university students hate not accustomed to, still stuck in high school learning<sup>[4]</sup>. (3) The learning objectives were unclear, and learning initiative is poor. Some students have mixed degree of thought.

#### 2.3 college teachers

Independent colleges generally set up only a few years, not more than 15 years. Most of the teachers are just graduated or only two or three years of teaching experience. In terms of teachers, there are serious faults in the independent college. Due to our young teachers give priority to in order to graduate, in the aspect of technology and knowledge system can adapt to the development of computer speed, so the professor in software applications and development, network application and development of comparative advantage; But some high requirement of computer professional courses of theoretical knowledge and practical experience, such as computer compilation principle, numerical calculation method, to guide students to the theory and the actual contact, deepen the understanding of knowledge, and this kind of courses and specialized courses of computer professional, young teachers need for this type of course teaching contents and methods of education.

# 3. Principle of building of independent college computer professional course teaching mode

#### 3.1 Adhere to the principle of personality combined with common

In constructing the teaching mode, compared with those of other classroom teaching mode of independent college specialized course teaching mode should not only has its remarkable personality, and in such aspects as education teaching goals there are some common pursuit. Independent college classroom teaching mode of common mainly embodied in the following aspects: first, college students are mostly after 90, and they have same personality characteristics, the desire for freedom and mature. We should give full consideration to the student's general characteristics and actual needs, and adhere to the "people-oriented", which takes the student as the main body. Second, colleges should give full play to teachers' leading role, and change teachers instill role. Teachers become the classroom guidance, leading, organizers and managers. Finally, under the background of MOOCs, the mode of classroom teaching at the university of any building, and it is not limited to the traditional classroom teaching mode, and should be combined with the education informatization and the development of technology, and builds a new teaching mode that suit the development of students.

On the basis of emphasis on classroom teaching mode, because of the Angle of the builders to consider and explore different ways, its building mode will reflect different features. First of all, in constructing the teaching mode, should consider the actual situation of the characteristics of different disciplines, students and other internal factors and external factors such as teaching environment, according to different students and targeted; Second, adhere to the principle of goal orientation, the teaching goal is the core of constructing classroom teaching mode, teaching goal, building pattern is different.

#### 3.2 Adhere to the principle of double main body education

This principle adhere to the people-oriented teaching philosophy, which is the principle adhere to the leading of the teachers and students combining the two main body, which give full consideration to the interests of both the subject and needs. Dominated by teachers, is to give play to the role of teacher's guide, the organization and management. The ultimate goal of all teachers is for the development of students. This requires that we give full consideration to the needs of teachers, and add some rewards and incentives, and create a good working environment for teachers. At the same time, give teachers a certain autonomy, the flexibility to choose and use teaching materials, the flexibility to choose teaching organization form and teaching method, the flexibility to evaluate students. Take the student as the main body, is to believe that students, respect students, rely on

students, develop students, to "all for the students, in order to all students, in order to all students", attach importance to students' individual character development, arouse the enthusiasm of students learning, initiative.

#### *3.3 Adhere to the principle of cooperation*

Collaboration, not just confined to the teachers and students, between students and the surrounding environment coordination communication between, also refers to the cooperation between students and students learn. Through the collaborative learning, students will get more development. In creating a classroom teaching model, the founder of students should be fully aware of the cooperation communication huge role, it is only through collaborative communication, they can share collaboration between students, cultivate the students' cooperation consciousness. To cultivate good class atmosphere; Only is advantageous to the emotion between teachers and students, students and students further sublimation. Any classroom teaching mode is inseparable from this link.

#### *3.4 adhere to the principle of integration*

When reforming and constructing independent college professional course teaching pattern, first of all should fully consider the fusion of tradition and innovation. First, it fully reflects the integration of teaching environment, combine field classroom and online classroom, based on actual needs, and focused. Second, absorbing the advantages of the traditional university classroom teaching mode and online classroom teaching mode, a hybrid teaching mode suitable for students' development will be built.

# 4. Independent college specialized course teaching mode construction based on MOOCS

MOOCs and current college classroom teaching mode, the advantages of combining with the online course, complement each other. In view of the different types of courses, the extent of the hybrid will be focused. Specialized courses, the author of this paper has carried on the teaching model design based on MOOCS. Specific as follows:

Professional course teaching mode model design: class is given priority to, online is complementary

Specialized course is the independent college based on the training objectives for different professional core courses, students it emphasizes students mastery of core knowledge and professional skill, is the key to the development of students professional knowledge and ability. Specific, specialized courses require students to master the basic knowledge of the professional, conforms to the social professional specifications and quality requirements. It to the general development of students' knowledge foundation, improving the students' cultural quality. Based on this, classes, create the target teaching pattern mainly has three points: first, is to make students get rich professional knowledge in the system, form a system of professional knowledge in your mind of frame structure; Second, we should encourage students to speak in class, after class and students, teachers, positive communication, knowledge gathering and the course content, combined with their own knowledge experience, will have learned professional knowledge, improve the students' ability of autonomous learning ability and innovative thinking. Specifically, in this paper, the characteristics of the specialized course teaching model design boils down to "class is given priority to, online is complementary".

According to the behaviorist learning theory "stimulus - response - strengthening" point of view, with particular emphasis on classroom teaching and class teacher system in organization and management, emphasize through memory and practice to the students for the strengthening of the professional knowledge and master[5]. But this does not mean that teachers undertake to the student, it absorbed the concept of cognitive learning theory, emphasizing the students' internal psychological structure and cognitive processes, emphasis on "learning" is mainly a meaningful accepting study, focuses on the learning of the new system cognitive structure of the assimilation process of materials and learners' mind, emphasis on student's thinking, which requires online learning. Next, the author will from the teaching structure, operation process and teaching evaluation and discusses three aspects of professional course teaching model.

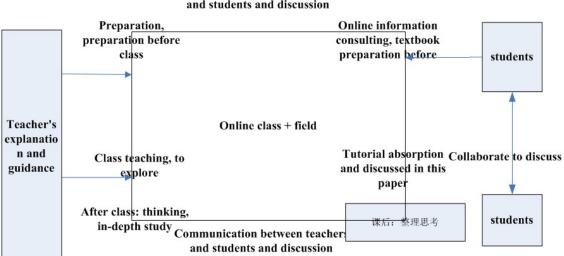
# 4.1 The teaching structure

Specialized course teaching mode is a complicated system, it includes the teaching subject, teaching content, teaching environment, teaching support system, the teaching effect and evaluation, and other factors, each factor plays a different role. About teaching main body, teacher occupies the dominant position in the model, plays the mentor, class management, the role of team coordination, mainly adopts the system of class teaching, group discussion and class teaching organization form is discussed in this paper. Students in the main body status, can be reflected by two points. First of all, before class, students actively for preview, and the content of the teacher to teach the lesson, to carry on the related study and knowledge of access; After class, the contents of the initiative to consolidate what they have learned in class, take the initiative to complete the teacher assigned tasks. About teaching content, mainly including the professional core knowledge, scientific knowledge, and extracurricular knowledge. When carries on the teaching content design, considering various factors such as

students, teaching material contents, teaching goal, for coherent system design. On this basis, the teachers in the professional design of core knowledge at the same time, also should be their own scientific research into the teaching content, and appropriately expand extra-curricular content, can make the students grasp the knowledge clearly already so, can stimulate students' thinking again. About other factors, such as teaching environment mainly is carries on in the classroom, supplemented by online platform. Mainly is the classroom teaching support system, multimedia, network platform, etc. And teaching evaluation, the main use of summative evaluation, give priority to in order to evaluate students to master professional knowledge, but also can assist other evaluation method.

#### 4.2 The operation process

Considering the components of professional course teaching mode, this part is teacher, student, teaching content, teaching environment, teaching support system and so on has carried on the dynamic organization and coordination, form a running operating system. As shown in the figure below:



#### Communication between teachers and students and discussion

# Figure 1 Independent college specialized course teaching model

By figure 1, we can see that specialized course teaching mode mainly includes two characteristics: one is the classroom is given priority to, main specialized course teaching is done in the middle of the classroom; Online learning and online is complementary, the second is the data collected is auxiliary and supplementary class learning. Below this article will discuss the two characteristic to operation process in this paper.

(1) class is given priority to the model embodies the teaching form mainly includes two parts -- on "+" and "academic salon and debate". This two parts basically is in the classroom, which embodies the characteristic of the mode of classroom primarily. Specific view, about "teaching +", which means that teachers take a lesson about 70% of the time for teaching professional knowledge system, occupy about 30% of the time a lesson study professional knowledge. This is inseparable with the nature of the course and students learn professional knowledge to achieve goal is inseparable. Students learn professional knowledge to achieve the goal of which is "fine" and "deep", as a qualified teacher, before the lectures, comes with a soul, it is necessary to comprehensive analysis of learners, course standard, teaching material contents, teaching media, and other elements, to elaborate the teaching design, refined teaching important and difficult, in order to make the design of the teaching content can be rendered in the form of knowledge, can help students to form a knowledge framework and inspire students to think about. + debate about the "academic salon", respectively with at the end of the course in the middle of the part and part, about 10% of the total class all. This designer is rationality, in studying the course of a "block" (multiple knowledge can reflect a theme), you can organize a academic salons, help students to apply what they learned. This design, first of all, can urge the students to listen to the teacher carefully in the usual learning learning; Secondly, students can be realized in the end of the class learning does not mean the end of the course, they have the necessary knowledge to online expand learning and thinking; Finally, promoting the internalization of knowledge absorption and the flexible application, stimulate students' thinking sparks. Before the end of the course, can undertake a debate, what they learned to sublimate, active students thinking, promote students based on their own ideas continue to study at the end of the course and learning. (2) online is complementary

The finish is offline tutoring class learning to ensure. This is mainly from two dimensions before and after class. Specific to see: class, learners need to learn information query and online courses prepare. To "teach +" in the form of teaching, the teacher will class to teach the subject and the related information sent to the public email or upload network platform, and through the monitor or information in the form of a notice sending students, the learner can independently conduct various forms of preparation, such as access to the Chinese hownet, super star digital library, such as digital platform, landing platform to learn, excellent courses or into library reference books and materials, etc. Before the academic salon or debate, the student independently review regarding the learned knowledge in front of the system, access to relevant information, puts forward his own thinking and opinions, to be prepared for the academic salon or debate. It helps to make the students to learn the contents of the form a leading knowledge system. After class, at the end of a lesson, students should make in time for the professional knowledge digestion and absorption; Is questionable point and access to information or way to communicate with classmates and teachers; Serious task assigned by the teacher. And about the class or in the process of academic salon and debate inspired or their own comprehension, can be processed into notes, and refer to the theoretical knowledge, the construction of system, in the form of a paper to show their results. The completion of class and class offline learning, cannot leave the cooperation between students and teachers, which is interactive relationship between students and teachers. As far as students are concerned, they join class discussion, class communication, in the form of knowledge. In terms of teachers and students, in their classroom questioning, problem, discusses the forms of communication. The process of communicating for deepening and development of students' professional knowledge is good for interpersonal relationship and harmonious class atmosphere.

# 4.3 The teaching evaluation

According to the characteristic of specialized courses and teaching mode of architecture design, teaching evaluation mainly through the summative evaluation. Summative assessment, the content of the main required to master the professional knowledge of the course standard, on the one hand, set up part of the closed questions, the teacher in the process of curriculum focuses on knowledge, have a fixed answers), examines student mastery of core knowledge, on the one hand, also want the flexibility to set a small number of open questions, inspire students' thinking which is closely linked with the professional knowledge of subject, there is no fixed answer), and to urge students to think for brain, examines student flexible use of knowledge. Summative evaluation grades account for 70% of the total grade. Another 30% of the score is got through the usual test. Teacher by the students in the classroom at ordinary times the performance of, or in the academic salon and level of knowledge in a debating contest preparation and performance, to give students objective high marks. Teachers can also through the "student satisfaction survey" to evaluate students to himself and adopted teaching pattern recognition, in order to carry on the teaching reflection, further perfect or innovative teaching mode and method.

# 5. Conclusion

The present domestic academic circles based on mu class concept, independent college specialized course teaching model research is less, in this paper, according to the characteristics of the independent college computer professional and student's actual situation, based on the concept of MOOCS, for independent college computer professional teaching model are discussed in this paper, to a certain extent can inspire we will accelerate reform of the teaching mode of independent colleges, improve the teaching quality of education.

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