

Online Teaching Research and Strategy of Higher Vocational Colleges

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Abstract: There are certain restrictions on design online teaching in practice. Online teaching cannot meet new social practice needs for new requirements for design majors in high vocational colleges. It is recommended to actively reform and innovate through different forms of teaching strategies. Seeking new countermeasures and output more professional design talents for the society.

Keywords: Design course, Online teaching, Teaching strategies, Design talents.

1. Introduction

With the development of online learning, the disadvantages of online models have gradually emerged, and the "online+offline" hybrid teaching mode was born in such a background. It originated in the United States and quickly became a research boom. In 2000, a professor of an American university Glen Prate proposed an online and offline hybrid teaching concept in the course "entry of economics". Talking about how to use the unique features of hybrid teaching mode to activate differentiated teaching to apply the learning style of students at different levels of learning. In 2009, American Salman Chan set up a new teaching model for the research and promotion of "The Khan Institute". The emergence of large-scale online curricula MOOCs should be considered a qualitative leap. Mu classes are "large-scale open online courses" based on the foundation of the Internet. It can accommodate the number of learners without the limit, which is unmatched by traditional classrooms. All its teaching processes are restricted by space and time through the Internet. The curriculum includes pre-class previews, discussions and inquiry in the class, and after-school testing and evaluation.

Domestic online education started slowly at the end of the 20th century. At first, it was mainly carried out in the form of recording and broadcasting. Until 2010, online education, as a segment of the Internet industry, began to be valued by Internet giants (Tencent, Netease, Baidu). Enterprises enter the market for online education, and domestic universities have also begun to build a Chinese Mu class platform. From this time, real "online" education began to develop. Online education seems to have found a more effective development model: using live broadcast methods as a means of knowledge communication and establishing an educational live broadcast platform, through which lecturers and students can interact. The emergence of the education live broadcast platform is a huge leap in the field of online education, which is not only a large reduction in learning costs but also a fruitful learning tool. After the function upgrade of the educational live broadcast platform, whiteboard technology was introduced, and many live broadcast modes were developed. The interoperability between the mobile and PC segments can be applied to 1V1 live broadcast, small classes, large classes, dual teachers teaching, and so on.

In 2020, the new crown pneumonia epidemic disrupted the established arrangements and rhythm of everyone. As the

scope of delayed work and delayed school continued to expand, online school became a must-have for students. The new crown epidemic has entered the stage of high-speed development. During this period, resources, technology, and services were integrated, and there was a situation of continuous innovation.

As part of Chinese education, the teaching model of senior vocational colleges is also influenced by national policies and Internet technology, and online teaching activities have been carried out. Dai Feng & Xia Hongyu (2021) pointed out that higher vocational education will inevitably experience the dual effects and impacts of the opportunities and influence brought by artificial intelligence. On the one hand, artificial intelligence brings internal vocational education reform and innovation motivation, provides platform support for the intelligent transformation of management methods, enhances the standardization of vocational education talent training, and promotes the development of vocational education. On the other hand, with the popularity of artificial intelligence, the external environment of higher vocational education will change, and the inertia education model of senior vocational education will be affected and change to a certain extent. In the past ten years, vocational education in our country has developed rapidly in my country. Its educational concept is to emphasize, with skill-oriented and cultivate high-quality technical talents. The design of professional courses has its particularity, and educated people have more active thinking, but the ability of students to accept professional theoretical knowledge is weak.

Traditional teaching methods and backward education concepts cannot effectively stimulate students' learning ability, which is not conducive to students' personalization and comprehensive development. This is also reflected in the weakness of graduates to accept the old stereotypes in the employment market. David Kuntz is a research director David Kuntz, a research director of American Startups Newton (2012) claims that "each student adopts different ways." Students' curriculum learning depends on their choices and feedback, while the external learning environment is adjusted according to the situation of each student. In the study of students, she is no longer a passive recipient. It is more like a buyer. They can choose professional courses in combination with their development plans and choose to choose from their ability and knowledge structure. If students only stay in traditional classrooms, then they may not be able to meet the

objective requirements of the workplace, and knowledge will not meet the needs of work. For vocational education, in the context of "Internet+", big data is applied to educational management practice, and it is a higher education teaching model that is suitable for "internet+", establishing information education management models, and improving the level of education management. To fully give full play to the guarantee of educational management to improve the professional quality of students of senior vocational colleges. To find a senior vocational education management model that adapts to the "interconnected network +", and eagerly reforms the existing teaching model to solve the development of the times.

Since the 1980s, my country has introduced a modern design education system. Especially since the end of the 1990s, driven by the rapid development of the reform and opening up of the economy and the large demand for design talents in the employment market, higher design education has developed rapidly. China has become the world's largest high-design education country. However, compared with Western developed countries, my country's design education is transformed and developed in the socialist market economy. As part of Chinese education, the development of higher vocational colleges is affected by national policies and Internet technology. The design courses carried out by higher vocational colleges should need to combine the needs of local social practice to set up different focus design professional construction plans to remove basic theoretical courses, and also need to interoperate and combine extracurricular practice activities to cultivate students' hands-on operation capabilities. At present, higher vocational education models generally occupy a large number of manpower, material resources, and financial resources, but the entire learning process is boring and time-consuming, and students' thinking is limited to the difficulty of interaction with reality. Although some colleges have conducted teaching reforms. The new "online" teaching model, "online and offline combination" teaching model, etc., but the teaching model does not get rid of the constraints of traditional education. The classroom tells us that education is still the main education method and lacks innovation. For example, to transmit knowledge and methods of monotonous knowledge, we must not take teaching measures according to their knowledge reserves and learning ability. They cannot learn from students at any time, answer questions at any time, or one-on-one teaching guidance. In addition, there are certain restrictions on designing online teaching in practice. Online teaching cannot meet new social practice needs and put forward new requirements for designing professional teaching training in higher vocational colleges and cultivating technical professional talents. Then, how to reflect the educational goals and educational characteristics of higher vocational colleges, how to integrate theory and practice to make the development of design majors in the direction of diversified directions and other issues to be resolved. Under the background of the epidemic situation, the design of design majors in higher vocational colleges will actively reform and innovate, seek new countermeasures, and output more professional design talents for society is an urgent need to solve. This article makes simple discussions on these contents. The aim is to solve the following problems:

1. What stage of online teaching is currently developing in Chinese universities?

2. What do professional teachers and students think of online teaching, and does it affect the quality of online

teaching?

3. What kind of challenges do online teaching applications encounter?

4. What kind of teaching model can you design to improve the quality of teaching and improve the study of students in high vocational design majors?

2. Online Education Overview

2.1. The status of the Overview

In higher vocational colleges, online teaching is gradually accepted by teachers and students. Domestic higher vocational colleges and major Internet education and learning platforms are actively exploring a new strategy for the development of Internet education, studying the effective models and methods of information Internet education, and have achieved remarkable results.

Li Lijuan (2020) pointed out that the biggest challenge facing online teaching comes from a new form of a teaching organization. From traditional classrooms to online virtual classrooms, lack of face-to-face communication between teachers and students and humanistic care in the education process. Students are easy to lose interest in learning, and teachers can easily burn up teaching. Compared with the traditional classroom teaching model, the knowledge input link of online teaching is prone to problems such as a low degree of participation and low learning enthusiasm. The knowledge output links are prone to problems such as unique focus and inability to obtain teaching feedback in time. Students with poor adaptability may not accept online teaching, cannot concentrate, low learning efficiency, and gradually fall behind. Some teachers have just come into contact with online live broadcast teaching. The mobile live broadcast teaching can only be broadcast live because of limited resources, and the computer live broadcast will also have sound card problems that cause unclear sounds or small and small. It is difficult to reach the unified format of the network operation documents to receive students' homework. The quality of homework is uneven. But it is undeniable that the emergence of the education live broadcast platform is a huge leap in the field of online education. After upgrading the education live broadcast platform, whiteboard technology was introduced and many real-time broadcast modes were developed. The interoperability between mobile and PC segments can be applied to 1V1 real-time broadcast, small classes, large classes, dual teachers' teaching, etc.

2.2. The using situation of modern information technology online course

All colleges and universities can choose the online teaching platform network for teaching according to different needs. The online teaching part includes pre-class preparation and arrangement, classroom knowledge system explanation, post-class operation layout, and comprehensive evaluation of students. Through relevant information, investigating the use of online courses can be investigated from online teaching quality, student learning attitude, student online learning purposes, and network technology to investigate the satisfaction of online teaching.

Online teaching is divided into network live broadcast lectures and online recording lectures. The advantage of its existence is that it is less limited by real and environmental factors, and is not limited by space and time, which has

reduced commute time. At present, the more popular online teaching software include Tencent Conference, Nailing Conference, QQ Live, Super Star Learning, Netease Cloud Class, etc. The Tencent Conference can conduct remote video conferences on multinational support, supporting mobile phones, computers, tablets, and conference room systems in one click without downloading plug-ins or clients. In terms of communication and collaboration, you can share the screen interactive annotations, group discussions, and cloud recording collaboration to improve the efficiency of the meeting. However, due to the network restrictions, the phenomenon of stuttering and sound painting will occur. And you need to build a group in advance without a playback function. You cannot hear the class repeatedly. After class feedback and evaluation, you must be completed it with the help of other platforms. When the screen is shared on the mobile phone, you cannot see the text made by the students directly. You can only answer the students' questions in real-time, and the interaction is poor.

The Ding-ding Conference can launch a video conference at any time, anywhere, and open important documents to the shared window at any time. The live broadcast can generate back playback, screen sharing function, optional screen definition, and beauty. Both the mobile phone and the computer can achieve effective interaction. In real-time, the monitoring of students' text barrage is still relatively strong. During the live broadcast, if the students switch the live broadcast screen to the background, the nails can be detected. The number of students online in real-time, and can accurately show that students enter and exit the class time. But live broadcasts generally have a delay of 2-10s. The registration process is more cumbersome, and you need to build a group chat in the nails. It is not suitable for teachers who only have mobile phones and need to use courseware. In addition, students can see the assignments of other students when submitting homework systems in the assignment system of nailing, giving many people plagiarizing homework. QQ live broadcast operation is simple, easy to learn, and facilitates all kinds of teachers. A class only needs to build a group. The QQ group has a powerful function, which is convenient for teachers and students to communicate in class and class.

Through relevant information, investigating the use of online courses found that the satisfaction of teachers and students from online teaching quality, student learning attitude, teaching effect, etc. During the process, it was affected by whether the network technology was smooth. According to network data, the online teaching mode of 167 students from a higher vocational college was randomly surveyed. 56.29% of the people who were surveyed had 6-10 online courses, and 20.96% of students had more than 15 online courses. From the perspective of teaching quality, 58.68% of students are very satisfied with the effect of online teaching. 29.34% of students are satisfied with the teaching effect. Only 1.8% of the total number of investigations is not satisfied with the teaching effect.^[1] It is also found that to ensure the quality of online teaching on many types of teaching platforms, the current use of more teaching platforms is Tencent's QQ group live broadcast, Tencent classroom, nailing, and learning through learning. A large part of the reason is because of the stable network.^[2]

2.3. The situation of online study by higher vocational college students

The scale of higher vocational education has continued to expand, and its source structure is more complicated, the overall level is not high. The initiative of students' learning is not high, and online teaching students are not interested. They cannot complete the corresponding teaching content within the prescribed time, resulting in a poor overall completion effect. Secondly, students have insufficient self-control and strong dependence on learning, and online learning courses require students to have absolute autonomy. Lack of teachers' supervision and urging, some students have bad behaviors such as teaching video screening, entrusting others to conduct curriculum content, and completing tasks and unit testing in the process of learning. At the same time, the highest goal of students' online learning is mainly to complete the curriculum operations, which may cause many students to master the learning content thoroughly. There is a half-understanding situation, causing students to have poor online learning effects. This is inconsistent with the goal of online learning. It is also worth mentioning that higher vocational students are more interested in practical operation courses and are not interested in theoretical courses. At present, most of the online courses of higher vocational colleges are mostly liberal arts courses. Teachers use screens or live broadcasts to teach lectures, mainly theoretical explanations. But the teaching model of the pure theory is not suitable for the characteristics of students of higher vocational colleges. Students are not interested in learning. Therefore, students have a poor learning effect.

2.4. Online teaching mode of desinging majors in higher vocational colleges

Higher vocational design majors have developed rapidly with the "quality education" slogan in recent years. Each higher vocational college has opened different types of design majors and continuously conducts reform and exploration. With the development of the Internet, the combination of various online teaching methods and advanced technology, based on the characteristics of online teaching, to build design courses online platforms to allow students to conduct autonomous learning by APP through mobile platforms, so that teaching intelligence becomes reality into reality.^[3] In the meantime, by combined with online platforms design online courses rely on different information software, such as WeChat, QQ, etc, to teach online design courses.

However, the particularity of the design courses on the requirements of the practical content determines that the high vocational design majors want to change their status as soon as possible in the competition with many colleges and universities, so that can adapt to the design requirements of the new situation requirements.

3. Suggestion for the Implementation of Online Teaching in Design Majors at Higher Vocational Colleges

Although many teachers have participated in online teaching, they have not specifically improved their teaching methods for online teaching. They still adopt traditional teaching content and teaching methods. This method does not apply to online teaching that is of the lack of face-to-face communication. On the other hand, although online learning

relies on students themselves to study more, the role of teachers can not be ignored.

The design majors in higher vocational colleges must ensure that the interaction between teachers and students must be guaranteed when conducting online teaching according to the actual situation of higher vocational design majors. In addition, strengthen certain supervision to ensure that each student is thinking and enhance the learning atmosphere. It is best to unify the platform for online teaching services to provide comprehensive closed-loop online teaching. The specific suggestions are as follows:

(1) Adopt online and offline hybrid teaching methods

Due to the online learning mode, a serious lack of teachers' supervision and guidance, to makes the teaching effect far from the expected value. Therefore, if the traditional teaching model can complement the advantages of online teaching models, an unpredictable teaching effect will be achieved. "Online + offline hybrid teaching mode" enhance students' independent learning ability and improve the quality of teaching. Hybrid teaching emphasizes the leading role of teachers 'guidance, inspiration, and monitoring, and fully mobilizes students' initiative, enthusiasm, and creativity as the subject of learning. It combines traditional classroom advantages with Internet advantages to form an innovative teaching model. To implement a hybrid mode in the design major, teachers need to complete the production of related courses in advance, such as teaching outlines, pre-course tasks, video explanations of some content of design courses, etc. Through the platform, students can complete the preview of relevant content independently before class. In the meantime, students can complete the relevant theoretical knowledge operations and feedback to the teacher through the online platform. In the offline teaching arrangement, the teacher transforms theoretical knowledge into practical content by guiding solutions. "Based on the Internet+ micro-class flipping the classroom, teachers conduct targeted teaching based on the feedback information of student's independent learning. Focus on human growth, and the two achieve coordinated development.

(2) Formulate targeted online learning teaching solutions based on group characteristics to improve students' online learning effects

The school should be classified according to the characteristics of the students to further collect and survey the specific issues of online learning. For example, whether the difference between males and females on the effect of online learning is caused by different requirements for different aspects; the certain differences between design professional backgrounds, and different learning styles of student satisfaction. According to the specific problems, formulate teaching programs to achieve "teaching according to their aptitude".

(3) Increase education games to improve the fun and activity of online learning classrooms and mobilize students' enthusiasm for learning

Online learning classroom teachers and students cannot communicate face-to-face. Fun is one of the most effective ways to attract students' long-term concentration. In addition, improving the fun of the curriculum and student activity will help students deepen their classroom learning and memory, thereby improving the effectiveness of online learning. Platforms, universities, and class collectives can mobilize classroom fun and student activity by carrying out collective learning activities, activities, and performance -related

methods. Therefore, in online design courses, related educational games can be increased. Based on the content of the course, the teacher sets related games to attract students' attention, and let them feel that the learning content is related to themselves so that students can experience the interest and motivation of learning during the implementation of the entire education game, to achieve teaching goals.

(4) Improve the guidance of learning methods and the frequency of answering after -school to avoid students half-understanding knowledge

Learning method guidance frequency is one of the factors that affect the effect of online learning. However, the survey shows that some teachers focus on the after-class tracking focus on the arrangement of the operation. The low-level guidance frequency of the student can cause learning doubts and the method of incorrect learning. Efficiency and other issues. Teachers in design majors should pay more attention to questioning and guidance after class and discuss design works, encourage students to make ideological collisions, and guide students to be good at grasping innovative thinking and enriching design theory. To highlight the leading position of students, you can arrange an online symposium of 4-6 people every time, allow students to participate in teaching, actively participate in discussions, and avoid students' awareness.

(5) The construction of "Network live broadcast+student self-learning online platform construction" dual-mode teaching system

The use of live broadcast forms is the main line and the form of recording and broadcasting is assisted. Online courses are subject to live broadcast theoretical knowledge. In the process, it can increase the interaction between teachers and students, thereby improving the initiative of students' learning. However, due to insufficient traffic, the network is stuck, which causes a poor learning effect. Teachers can record when teaching, and choose online classrooms that can be played as much as possible. The students can re-study the content of the classroom when the Internet is smooth. At the same time, teachers need to build relevant online learning platforms in advance. In addition to online videos, they also include different learning materials, allowing students to make previews or reviews.

(6) Build a virtual practice online teaching module

In addition to theoretical knowledge, there are many practical parts, which require practical operations. Design courses such as interior design and soft furnishings need to be used to make students better change the relevant theoretical knowledge through the training of practical projects. This requires a lot of training to obtain. Therefore, it can be used to build online virtual practice teaching bases with virtual VR technology. With the realization of the real scene of 1:1^[4], it provides training virtual venues for teaching and meets teaching needs.

4. Conclusion

"Internet+" changed people's lives, and compared with traditional classroom teaching, "Internet+ Education" is neither simply completely separated from the online teaching of physical classrooms, nor simply mix "online teaching" and "offline teaching" together as a teaching model. In the form of live or recording or two forms, combined with appropriate online teaching software is beneficial to promote the development of online teaching. At present, the online teaching mode of higher vocational education is accepted by most people. Online Teaching gives full play to the technical

advantages of online teaching platforms, complements each other online and offline, and jointly promotes the reform and development of education. At the same time, through the research on the design major, it is found that the study of online design majors is diversified online teaching methods should be adopted. Online teaching should not be uploaded by simple data. It should also design various teaching links in combination with the knowledge structure and professional characteristics.

By using different types of online teaching tools, such as Tencent Live, Super Star Recording, and other software, we can fully combine the online broadcast and students' self-learning online platforms to improve students' learning enthusiasm and creativity and exercise students' ability to think about. Make them develop good learning habits. This will not only help design students understand the need for the times online but also understand the requirements of major contemporary industries for design talents, to learn more about it, to obtain the most efficient efficiency. The ideal learning effect is conducive to the cultivation of innovative talents who need the needs of the new era. In the context of "Internet+" for design majors, in the context of "Internet+", online learning can make offline education behaviors more purposeful.

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