

# Countermeasure and Suggestion to Improve Online Teaching Quality in Applied Universities

Jie Liu<sup>1, a,\*</sup>

<sup>1</sup>Xi'an Peihua University, Xi'an, Shaanxi, China

<sup>a</sup>669755299@qq.com,

\*corresponding author

**Keywords:** Applied University; Online Teaching; Teaching Quality; Countermeasure to Improve

**Abstract:** In order to completely eradicate the “Novel coronavirus pneumonia” epidemic, online courses have been launched nationwide. In the context of large-scale online teaching activities, how to ensure that online learning and offline classroom teaching quality have the same effect. And how to maximize the quality of online teaching has become a key issue. Based on the suddenness of online teaching and the particularity of applied universities, we took applied universities as the research object and analyzed the practical difficulties of applied universities in organizing and implementing all aspects of online teaching. Then, we put forward methods and countermeasures to improve the quality of online teaching from various angles such as teaching platform, teaching preparation, curriculum setting, teaching design, and curriculum evaluation.

## I. Introduction

In early 2020, a sudden “Novel coronavirus pneumonia” epidemic swept across the country. In order to control the spread and spread of the epidemic and completely eliminate the new coronavirus, the Ministry of Education and the provincial education departments issued a notice to delay the start of college [1]. At present, universities across the country have begun to try online teaching. There are two main ways. First, teachers utilize relevant live broadcast platforms, such as Tencent Classroom, Zhu Mu, Ding, etc. To conduct online live broadcast teaching. Second, teachers make full use of online high-quality course teaching resources, such as MOOC, etc., to carry out mixed teaching of live broadcast and recording [2].

In the face of this brand new attempt, how to make teachers change their thinking and adapt to online teaching? How to improve the stickiness of the course and ensure that students who lack supervision at home can learn through the screen? How to set up online courses more scientifically and reasonably? How to solve the teaching of practical courses? How to do good course evaluation to ensure the quality of teaching [3]?

With such problems, we analyzed the practical difficulties of online teaching in applied universities. We put forward countermeasures and suggestions to improve the online teaching quality of applied universities.

## II. Analysis of the difficulty of online teaching

Although during the epidemic prevention and control period, it is very necessary for universities to carry out the corresponding call to "stop classes without stopping" for online teaching. However, after investigation, there are still some practical difficulties in the actual online teaching process.

### 1. Teachers lack experience in teaching online. They are inexperienced with the teaching platform

Under normal circumstances, university courses are often taught face-to-face in classrooms or laboratories. Most teachers are also used to this on-site teaching method. They lacked experience in online teaching and live teaching. Due to the hasty choice of teaching platform, some teachers lack

understanding and familiarity with the operation of the platform. Therefore, some faults and problems are easy to appear in the online teaching process. Teachers are in a hurry to make the teaching effect greatly reduced. At the same time, due to the particularity of online teaching, it is difficult for teachers to directly get feedback from students in time. This puts forward higher requirements for the teacher's course organization form, classroom interaction method, and course design.

## **2. Practice courses are difficult to follow up. It is difficult to achieve the expected teaching effect with practical courses.**

Compared with other types of universities, application-oriented universities mainly cultivate application-oriented talents who serve the front lines of production and construction. In addition to learning relevant professional theoretical knowledge, applied universities particularly emphasize the mastery and flexible application of knowledge and skills in ability training. Applied universities put more emphasis on combining with front-line production practice, and attach more importance to practical teaching. In general, practical training courses are carried out in specialized laboratories and virtual simulation practice platforms. Centralized internships are carried out by production units that cooperate with schools and enterprises. But online teaching at home lacks the support of practical equipment and experimental environment. At present, all courses that include practical links can only focus on theoretical teaching. Students can not further consolidate theoretical knowledge through practice according to the schedule, which may lead to a disconnection between theory and practice.

## **3. Online courses are fully developed. Students are struggling to cope**

According to the survey results, most universities arrange courses in accordance with the teaching calendar in the course of implementing online teaching. Different teachers choose different teaching platforms. As a result, students may need to download a lot of software in class. The average daily class time of students is 5-7 class hours, resulting in students needing to shuttle between online classes on different platforms every day. Students are tired of coping. They may enter the wrong classroom, be late, leave early, etc. In addition to the class time, teachers and students also have to complete online assignments, correct assignments, interactive question answering and other teaching activities. Teachers and students have to face the electronic screen for a long time every day. It may have a certain negative impact on the health of teachers and students.

## **4. It is difficult for students to supervise the learning process. And it is difficult to carry out curriculum evaluation effectively.**

Because students study at home. Teachers cannot monitor students' class status and performance during the whole process like face-to-face teaching. In many cases, students take classes in a state of slack due to the lack of self-restraint. There are even students who turn on the live broadcast platform but do not attend classes [5]. This will lead to poor classroom interaction. Teachers need to keep teaching progress. The learning effect of students is difficult to guarantee. However, some teachers want to pass certain assessment tests and other methods to achieve the examination of students' learning effect. It will also be affected by the lack of process supervision for online teaching. It makes it difficult to evaluate students' courses effectively.

## **III. Countermeasures and suggestions for improving the quality of online teaching**

Aiming at the practical difficulties of online teaching during the epidemic prevention and control period, Applied universities should reasonably choose teaching platforms and integrate high-quality resources. They should improve teachers' overall online teaching level and scientifically and rationally set online teaching courses. Teachers should change course evaluation methods and process supervision mode. And improve the effect of online teaching, on the basis of full investigation combining the students' academic conditions and the actual situation of the school.

## **1. Choose a suitable online teaching platform and make full preparations**

Combined with the previous online teaching situation, the results of the questionnaire survey show that the main live broadcast platforms currently used by teachers of our school include Tencent Classroom, Tencent Meeting, DingDing and QQ Group Classroom, and ZhuMu. The platform with better feedback is Tencent Classroom. Tencent classroom can directly enter the classroom through QQ or WeChat. With the advantages of QQ and WeChat as social software, realize online instant interactive teaching. At the same time, Tencent Classroom has strong audio and video capabilities, which can provide smooth and high-quality live broadcast of the course. Tencent Classroom also supports diverse teaching modes such as PPT presentations and screen sharing. Some teachers also use DingDing, Tencent meetings. Previously, this software mainly focused on communication and communication with business. They can also realize real-time teaching and interaction. During the epidemic, these software also developed some practical functions for teaching. Considering that the platform's server is relatively strong. And there are few software stalls. So it is also a good choice.

No matter which platform is used for teaching, there may be emergencies such as network freezes and software crashes. Teachers must make emergency plans. Teachers can use combined alternatives or recording and broadcasting programs to ensure that knowledge can be passed on to students. For example, you can use Tencent Classroom Live as the preferred solution. You can use QQ group classroom as an alternative. You can also use WeChat or cloud class light live broadcast as the third solution [6]. Online courses can only proceed smoothly if they are fully prepared. It is recommended that teachers of the same professional grade should try to unify the teaching platform. It can reduce the inconvenience of students constantly changing the platform. This is not only conducive to the orderly development of the curriculum; it can also promote the communication and exchange of software use between teachers. And it can improve the efficiency and quality of platform use.

Online teaching will be affected by network instability and platform freeze. Therefore, teachers must be fully prepared before class. In addition to making a good plan, teachers must actively adjust their teaching mentality. Teachers should make certain modifications and improvements in the preparation of courseware and the vividness of the teaching language to attract students' online classroom attention. In addition to making adequate lesson plans and classroom preparations, it is also very important for teachers to carry out necessary network debugging and equipment debugging before formal teaching.

## **2. Setting courses scientifically and reasonably**

Combining the analysis of the academic situation of current students, we must to change the traditional teaching mode and continuously reform and innovate teaching methods. It is necessary to break the conventional curriculum teaching plan and choose a course suitable for online teaching. The public basic courses and other professional theoretical courses without practical arrangements are relatively advanced and adjusted to the network teaching stage. It can ensure that students learn at home without the support of practical conditions. This can not only ensure the completion of teaching tasks this semester, but also improve the effect of network teaching. In view of the fact that the average daily online class time of students exceeds 4 class hours, universities can take appropriate measures to shorten the online teaching time or adjust the schedule. It is advisable for students to take online lessons less than 4 hours everyday. This will ensure that students have enough energy and time to invest in the existing courses every day.

## **3. To enhance the attractiveness of the course. It is better to let students take the initiative to learn instead of laborious supervision**

Under the environment of online teaching, teachers can't implement the normal teaching management in the same way as face-to-face courses. In order to reduce the sense of slackness and laziness caused by the classroom environment, teachers can ask students to "dress up and clean up" before class. And then students should upload a self-portrait with good mental appearance to sign

in. On the one hand, it brings a more formal sense of classroom and ritual. On the other hand, it can also mobilize the enthusiasm of students [7]. It can also draw the distance between teachers and students and increase the familiarity between teachers and students. At the same time, during the online class, teachers also need to always pay attention to grasp the progress of the course. Teachers should also pay attention to real-time interaction with students and mobilize students from time to time.

In the context of the current online teaching, it is necessary to give full play to the status of students in the online classroom. It is necessary to make students like answering questions, actively expressing their opinions, and asking their own questions. In this way, students closely follow the teacher's ideas, and ultimately improve students' classroom participation. Teachers can make full use of teaching assistant software for classroom interaction. For example, teachers can post a brainstorming to let everyone talk freely about the problem. After the students answer the questions, teachers can explain in detail according to the general situation. In this way, students can participate in the discussion. And it is also convenient for teachers to understand the students' mastery of relevant knowledge.

Teachers can also carry out flip teaching in time according to the specific situation of the course [8]. Teachers arrange related learning tasks before class. Students self-learn knowledge points through teaching resources shared by teachers. In the online classroom, teachers and students exchange roles. Students explain the assigned tasks. Students consult information, study by themselves, and finally express it, which is actually a further sublimation of knowledge. Students not only master knowledge, but also combine knowledge points with production and life to enhance the ability to apply knowledge. At the same time, it can also enhance students' sense of participation and mobilize their enthusiasm.

#### **4. To enhance the attractiveness of the course. It is better to let students take the initiative to learn instead of laborious supervision**

An important defect of online teaching for teaching efficiency and teaching quality is difficult to guarantee is that it cannot enable teachers and students to communicate face to faced. It is difficult for teachers to understand the students' mastery of classroom learning and the teaching evaluation of the lesson. Therefore, teachers should make full use of classroom evaluation function in network teaching. A few simple test questions can be set before and after each class. Through pre-test and post-test, teachers and students have a two-way understanding and communication of learning. Multiple assessment methods should also be established to evaluate the students' ability to master knowledge and apply knowledge. It also makes the assessment link more objective, reliable and comprehensive [9]. Teachers should pay attention to the examination of each teaching link before and after class. And pay attention to the assessment of the learning process to make assessment and evaluation more reasonable and fair. Students who are more active in classroom interaction and have better participation in classroom activities will be given extra points.

#### **Conclusion**

In response to the impact of the epidemic on normal classroom teaching, all applied universities should actively respond. All application-oriented universities should turn this epidemic into an opportunity and take advantage of online teaching. Combined with the particularity of the application-oriented talent education, every universities and teachers must make full preparations, to set up online courses rationally, to do a good job in teaching design, to enhance the attractiveness of the course, and to change the evaluation method of the course. It is necessary to formulate a teaching implementation plan adapted to the current situation to ensure the quality of online teaching. At the same time, every universities should also consider the effective connection between online and offline teaching after the epidemic [10]. Through this epidemic, teachers are encouraged to change traditional teaching concepts, to promote teaching reform and innovation, and to improve teachers' ability to apply information technology.

## References

- [1] Ministry of Education. Using the Internet Platform to "Suspend Non-stop" [N]. China Education News, 2020-02-01
- [2] Jiao Jianli, Zhou Xiaoqing, Chen Zexuan. Case Analysis of the Online Instruction in the Context of "Classes Suspended but Learning Continues" for Plague Prevention [J]. China Educational Technology, 2020 (3): 106-113
- [3] Wu deyin. Dilemmas and Countermeasures of online teaching in vocational colleges during the period of epidemic prevention and control. [J]. Journal of Ningbo Institute of Technology, 2020 (32): 128-133.
- [4] Fu Weidong, Zhou Hongyu. Challenges brought by 2019-nCoV epidemic to online education in China and copy strategies [J]. Journal of Hebei University, 2020 (22): 14-18
- [5] Fu Guodong, Zhao Yan, Han Xiao. Research on the cultivation mode of college students' self-discipline ability under the new situation [J]. Journal of Liaoning Academy of Governance, 2014, 16 (9): 95-97.
- [6] Wang Yanru. Application of Blue Moyun Class in Higher Education Teaching [J]. Education Modernization, 2017, 4 (49): 341-342, 355
- [7] Teng Yanyang. Summary of Research on Social Presence [J]. Modern Education Technology, 2013, 23 (3): 64-70
- [8] Ma Xiaofei, Ma Yalu, Tian Yun, etc., Practice and Thinking of "Full Online" Remote Hybrid Teaching under Novel Coronavirus Pneumonia Epidemic [J]. University Chemistry, 2020 (35): 1-4
- [9] Liu Jie. Thinking and Exploration of the Teaching Reform of Engineering Survey [J]. Shanxi Youth, 2016 (11): 35.
- [10] Tian lin, Kou yue, Fei yinghong. Study on online teaching operation mode of civil engineering specialty during epidemic [J]. Shanxi Architecture, 2020(3): 172-173.