# Research on online teaching quality improvement methods

Ruixue Tian, Liang Li

Jilin Agricultural Science and Technology University, Jilin, 132001

**Abstract:** with the rapid development of modern information technology, online teaching has become increasingly popular and its advantages have gradually become prominent. However, with the passage of time and the deepening of teaching, online teaching has also begun to expose problems and challenges that cannot be ignored. This paper analyzes the current situation of online teaching through investigation, and puts forward corresponding countermeasures, and puts forward new requirements for schools, teachers, students and parents, in order to provide some reference for the gradual improvement of online teaching quality.

Key words: online teaching; Quality improvement; Coping strategies

At present, the new generation of information technology marked by mobile Internet, cloud computing, big data, etc. is developing rapidly. Information network technology has been infiltrated and diffused in the field of education. "Internet + education" has gradually become a new form of education. A disruptive change in information technology is quietly taking place in the field of education.

At the beginning of 2020, with the proposal of the Ministry of education's call for "non-stop teaching and non-stop learning", colleges and universities across the country have successively carried out online teaching. Until today, online teaching has become a new normal of education. The characteristics of the Internet are efficient, fast and easy to spread, which provides a favorable guarantee for the smooth development of online teaching. However, due to the complexity of the Internet and the natural physical space barrier, it also brings great challenges to online teaching.

# 1 Current situation of online teaching

## 1.1 online teaching operation mode

At present, colleges and universities generally use the information-based online education platform to carry out online teaching. According to their actual situation, they actively explore and try, and have generally formed the "1+x" online teaching operation mode. Teachers in Colleges and universities generally use one of superstar learning link, smart tree or university of China MOOC as the main online teaching platform to carry out activities such as course building, organization and scoring. At the same time, one or more of Tencent conference, enterprise wechat, QQ, nailing and other software are selected as auxiliary platforms to carry out live teaching, interactive discussion, etc, The operation mode of online teaching shows the characteristics of one main and multiple auxiliary.

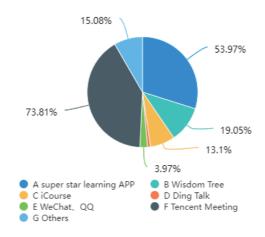


Figure 1 usage of online teaching platform

# 1.2 online teaching methods

Due to the nature and characteristics of each course, the age, habits and learning situation of teachers are different, so different teachers will choose different teaching methods for different grades and different courses. We distributed the online classroom teaching quality feedback questionnaire in the form of online questionnaire (questionnaire star), and conducted an online teaching survey for teachers. After statistical analysis, it was found that 45.24% of teachers used the teaching platform MOOCS combined with voice or video live broadcast to teach. Teachers used the online teaching platform to select people, answer questions, discuss topicsChapter task points, homework tests, and the



functions of the live broadcast platform, such as screen projection, microphone connection, voice, video, etc., to achieve real-time interaction with students; 31.35% of the teachers taught directly in the form of voice or video broadcast, mainly in the form of teaching method, with interactive, discussion and Q & A activities interspersed in the teaching process; 10.32% of the teachers organized students' autonomous learning and then answered questions online; 3.97% of the teachers studied, discussed, practiced and tested the course through the teaching platform MOOC; In addition, 9.13% of the teachers chose to teach through other methods such as "key explanation + students' self-study + question answering in class". It can be seen that the current online teaching methods show a diversified trend, with the characteristics of "one lesson with multiple strategies". However, no matter which teaching method is adopted, it puts forward higher requirements for teachers' teaching design ability, language expression ability, classroom appeal and so on.

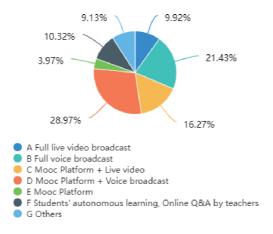


Figure 2 online teaching methods

# 1.3 online teaching effect

With the continuous and in-depth development of online teaching, teachers' online teaching ability has been continuously improved, the resources of online teaching platform have been more perfect and sufficient, the online teaching operation order is generally good, and students have gradually recognized online teaching, believing that online teaching has the advantages of free time, rich network resources, and replayable courses. However, with the large-scale and long-term development of online teaching, the problems are also highlighted. First, students' online learning time is too full, and they are prone to mental fatigue when facing electronic devices such as computers or mobile phones for a long time, resulting in insufficient learning energy; Secondly, although the rich network teaching resources provide convenience for students' learning, it also leads to students' inability to grasp the teaching focus and affects the learning efficiency; Thirdly, during online teaching, due to the natural physical space barrier between teachers and students, it is difficult for teachers to grasp and supervise students' learning status in real time, which makes students prone to the phenomenon of inattention and desertion; In addition, the jam and delay of the network, the change of the learning environment, the lack of self-monitoring ability and so on have also brought great challenges to the improvement of the quality of online teaching.

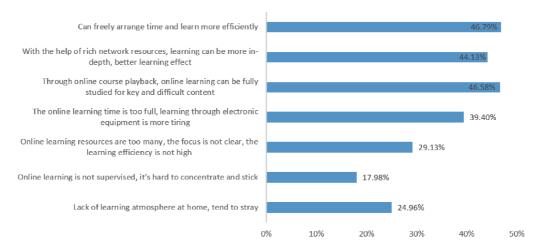


Figure 3 advantages and disadvantages of online teaching

# 2 Strategies for improving the quality of online teaching

# 2.1 strengthen teaching management and supervision, and continue to pay attention to classroom teaching quality

Further strengthen the supervision and inspection, continue to do a good job in the three-level teaching management and teaching supervision of "schools, colleges and departments", and establish an online teaching supervision group. The members of the supervision group can enter the online classroom at any time to listen to the class. With the teaching effect as the core, they can comprehensively understand the development of front-line teaching from the perspectives of teaching norms, curriculum resources, teaching design, teacher-student interaction, guidance and Q & A, Focus on problem diagnosis and guidance feedback; After attending the class, the supervisor should timely feed back the problems found to the teacher, put forward targeted opinions and suggestions, closely track and guide the teacher to further improve the course teaching scheme, carefully design the teaching courseware, make the teaching content vivid and detailed, help the teacher to continuously improve and improve the teaching effect, and comprehensively strengthen the online classroom process supervision. In the process of teaching supervision, we should "discover problems in advance, solve problems in time, and continuously track problems" to provide a strong guarantee for the continuous improvement of online teaching quality.

# 2.2 pay attention to the integration of teaching content and improve teaching strategies and methods

Due to long-time online learning, students are prone to be inattentive. Therefore, teachers should carefully study the talent training plan and syllabus, further strengthen the integration of teaching content, carefully select the content suitable for online teaching, clarify the training objectives of the course, further highlight the key teaching content, and strengthen it through review, induction, questions, tests and other methods, Through teaching whiteboard and other teaching tools to increase image understanding, stimulate students' online learning enthusiasm to the greatest extent, and provide direction and resources for students' preview, review and autonomous learning; Secondly, we should strengthen the discussion on the reform of results oriented teaching methods. Teachers should improve the effect of interaction or pre class questioning. They should not ask questions for the sake of questioning or interact for the sake of interaction. They should reasonably carry out such links as asking questions, answering questions, voting, answering questions, discussing and brainstorming in the teaching process to improve the effect of teacher-student interaction and students' learning, And more challenging learning tasks are designed to further improve the high-level nature of the course, guide students to complete teaching priorities and break through teaching difficulties innovatively; In addition, teachers should make an agreement with students on classroom rules. There are reminders and interactions before and during class to facilitate students' preparation for learning. Students are required to connect video from time to time to improve students' concentration in class, and provide timely and effective feedback on students' learning to improve learning efficiency.

#### 2.3 strengthen experience exchange and regularly share typical cases

Organize and mine teachers who have devoted themselves to online teaching and achieved good teaching results at the first time, form typical experiences and cases, and share them through official push. Through continuous display of excellent cases, show teachers' online teaching style, so as to encourage teachers to devote themselves to online teaching, vigorously promote the reform of online teaching methods, and promote the standardization of online teachingHigh quality track, and promote the successful teaching mode to improve the quality of online teaching and student satisfaction.

### 2.4 strengthen student management and standardize students' learning behavior

The biggest challenge students face in the process of online learning at home is their poor awareness and ability of autonomous learning. In this regard, the school can issue relevant documents such as the regulations on student management during online teaching, and put forward requirements for students' learning from three aspects: before class, during class and after class, so as to standardize students' behavior during online learning, promote students' gradual adaptation to online learning mode, and enhance their ability of autonomous learning and communication and interaction.

#### 2.5 home school interaction to jointly create a learning atmosphere

Actively communicate with students' parents, pay attention to students' mental health, improve family relations, and work with parents to create a good learning atmosphere for students, arrange suitable space for students to attend classes, and ensure the quiet surrounding environment during class; At the same time, counselors can regularly sort out and summarize students' learning situation, and timely feed back to parents, and jointly urge students' daily morning and evening self-study, online learning and other activities, so as to solve the problems of online learning, and achieve the goal of "home school education and learning style".



#### 3 Conclusion

The popularity of mobile devices and the maturity of Internet technology have promoted the rapid development of online teaching. Online teaching breaks the time and space constraints, and the richness and vividness of online teaching resources are more likely to attract students and strengthen students' interest in learning. However, with the in-depth development of online teaching and the passage of time, many problems have also been exposed, which requires schools, teachers, students and parents to work together to improve the quality of online teaching from the aspects of teaching management, teaching design, self-monitoring and so on, so as to achieve the same quality of online and offline teaching.

#### **References:**

- [1] Honglei Liu On the new teaching mode of educational informatization in the era of "Internet + education" [j]New curriculum, 2020 (6): 128-129
- [2] Hui Xie,Xinghan Liu ,Dan Wang Ensure operation, seek quality, turn danger into opportunity, and promote the formation of a new mode of high-level education and teaching [j]China higher education, 2020 (7): 16-18
- [3] Chunli Lu Analysis on the problems and improvement factors of online teaching quality evaluation in Colleges and universities [j]Journal of Shijiazhuang Railway University, 2021,15 (1): 98-104
- [4] Wei Zuo Trends and changes: Reflections on online teaching in Colleges and universities [j]China higher education, 2020 (07): 10-12
- [5] Chao Liang Challenges and Countermeasures of online teaching in higher education [j]Guangming.com, September 8, 2021
- [6] Jinrun Cheng Research and teaching practice of online teaching quality improvement methods [j] Automotive education, 2022:148-152
- [7] Jieliang Zhang, Lixin Zheng, Min Wang Development and Countermeasures of online education during the epidemic [j]Pr world 2020 (15): 57-59
- [9] Ruhua Geng Analysis of obstacles and optimization ways of online teaching in Colleges and Universities[J] Pr world, 2021 (10): 117-118
- [10] Zhiji Dang New ideas for the development of online education in the "Internet +" era [j]Grade · classic, 2022 (1): 80-82
- [11] Jiancheng Feng Investigation and Analysis on the current situation of autonomous learning ability of local college students [j]Journal of science and education, 2013 (12): 255-257
- [12] Yalan Duan, Kuanming Zheng Analysis and Countermeasures of online education quality problems under the background of "Internet +" [j]Computer knowledge and technology, 2022,18 (1): 134-136
- [13] Huiling Zhang,Xiaoyun Wu, Sai naoerzaiResearch on the development status of online teaching [j]Science lovers (education and teaching), 2020 (5): 23-24
- [14] Jin Wang Research on blended foreign language teaching based on the cloud classroom practice of "class suspension without school suspension" [j] Shanghai Education, 2020 (z2): 111
- [15] Yan Li Research on online and offline hybrid teaching mode of "ancient Chinese" course in Colleges and universities [j]Journal of Heilongjiang Teacher Development Institute, 2021 (10): 42-44

#### About the author:

Tian Ruixue (1990-), female, Manchu, Huludao City, Liaoning Province, master, deputy section chief and teaching assistant of the teaching construction section of the Academic Affairs Office of Jilin Agricultural Science and Technology University; Research direction: education management.

Li Liang (1990-), male, Han nationality, Jilin City, Jilin Province, undergraduate, Jilin No. 12 middle school, intermediate teacher; Research direction: biology teaching and teaching management.

#### **Fund Project:**

2020 Jilin Agricultural Science and Technology University teaching reform project "Research on improving the quality of online teaching under the epidemic situation" (Project No.: 2020xjzd05, host: Tian Ruixue)