On The Problems and Countermeasures of Online Teaching under the Covid-19 Pandemic Situation

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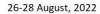
Abstract

Affected by the ever-changing COVID-19 pandemic, colleges and universities in various countries have adopted the form of online teaching to implement the "virtual space" "course teaching. This has bucked the trend and ushered in an unprecedented surge in online education. Compared with traditional brick-and-mortar teaching, virtual online teaching as an emergency measure to prevent and control the COVID-19 pandemic has both advantages and disadvantages. For the new form of online teaching, teachers are facing more pressure and challenges, and students and parents are also very negative and helpless. In any case, the online virtual teaching and learning mode under the new normal will make everyone uncomfortable and face all kinds of new tests. Previous traditional online teaching belongs to the short-term education curriculum, more attention on the teaching plan, teacher role, and ability research, curriculum design, and so on, these is difficult to adapt to COVID-19 pandemic post-era of new network education, COVID-19 pandemic post-era of new network teaching belongs to the long-term education curriculum, in solving teachers quantify innovation, supervision students and network platform follow-up problems are insufficient. This paper studies how to solve the problems arising in the post-COVID-19 pandemic online education through teacher innovation, supervising students, and solving problems related to network platforms.

Keywords: online teaching, quantify innovation, supervise students, network platform

1 Problems existing in online teaching

1.1 Teachers are difficult to adapt to online teaching

In recent years, many scholars have conducted research on online teaching-related issues during the COVID-19 pandemic, but most studies have addressed the problems facing

students; ignoring the problems facing teachers (Joshi, Vinay, & Bhaskar, 2020). There is a big difference between online teaching and brick-and-mortar teaching. The conversion from traditional brick-and-mortar teaching to online teaching will lead to great changes in classroom interaction and teaching quality, and teachers have to be forced to make relatively large adjustments in the teaching work (Chua & Lam, 2007). Baran, Correi, and Thompson (2011) believes that online education also makes teachers become adult learners, who constantly change their integration of the structures associated with online teaching through constant critical reflection and processes of action. At the same time, with the emergence of various new problems, teachers also need to constantly change the previous teaching mode, and need to work hard in repeated exploration and innovation to ensure that students can have sufficient participation and motivation their interest in learning. In addition, the learning and use of new things such as online teaching requires an adaptation process. Fuad et al. (2020) research has found that teachers' ability to integrate technologies in learning new things is also an important factor affecting the success of online learning. During the adaptation process, teachers need to spend a long time to adjust the previous traditional brick-and-mortar teaching, correct students' homework and prepare for the next class. Lesson preparation is also very different from before, making the time and energy teachers spend on online teaching far more time-consuming, laborious and demanding than traditional brick-and-mortar teaching. Similarly, the lack of training, lack of awareness, lack of interest, lack of personal contact, and lack of interaction are also the major challenges facing teachers in the online teaching process (Arora & Srinivasan, 2020). It makes the majority of teachers very tired and miserable when they adapt to the new thing of online teaching (Corry, Ianacone, & Stella, 2014). However, once teachers have accumulated enough experience and are familiar with online teaching and its platform, the difficulty of online education will be greatly reduced.

1.2 Online teaching makes students lack of effective supervision

In the process of brick-and-mortar class teaching, students' learning atmosphere becomes enthusiastic and focused due to the face-to-face teaching mode, and classroom discipline also becomes very good (Pastor, 2020). However, online teaching will change the teaching environment, from three-dimensional space teaching to two-dimensional space teaching. Its appearance lacks effective real-time supervision, which makes students inattentive and deserting in the learning process become a common phenomenon.

First of all, in the process of online teaching, students are easily distracted by electronic pictures, animations, film and television works. Teachers have difficulty noticing, even when

the computer or laptop camera is turned on (Thomson, Bridgstock, & Willems, 2014). Students' inattention will directly affect the quality of learning. In addition, these electronic pictures, animations, film and television works contain violence, eroticism and exaggerated false propaganda, which will undoubtedly have a negative impact on the values of young people, and it is also very detrimental to their physical and mental health, growth and development （García-Morales, Garrido-Moreno, & Martín-Rojas, 2021). The poor learning effect of students' online courses has not only made teachers very headaches, but also parents have become more and more anxious.

Secondly, in the process of online teaching, some students will deliberately turn off the camera and turn on the online silent mode. When teachers cannot monitor, they do things like sleep, watch TV in the living room, and play football outdoors, etc (Cleland et al., 2020). Making them miss out on very good learning opportunities will directly affect their overall quality assessment and final grades.

Finally, as we all know, exams play a pivotal role in the process of students' growth as a means of testing students' staged learning outcomes. But the problem is that online oral and written exams will greatly increase the possibility of students cheating. Due to the abundance and convenience of network resources, online exams are ineffective and very simple (Singh et al., 2021). No matter what kind of exam, just search for relevant entries on the Internet, and the answer will appear immediately (Diab-Bahman, 2021). Online exams enable students to search for the best answers in real time while taking exams. Ultimately, the exam loses its original meaning, and teachers cannot know the students' true learning level.

1.3 **Problems related to the network platform cannot be followed up**

On the one hand, compared with traditional brick-and-mortar teaching, there is no conventional supervision mechanism for the professionalism of teachers' online teaching, the rigor requirements of the course content, the interaction between teachers and students in the classroom, and the learning situation of students' classroom（Coghlan, Miller, & Paterson, 2021; Leacock & Warrican, 2020).

On the other hand, the use of low-configuration microphone and camera in teaching will make students greatly wrong when listening to the teacher's pronunciation and watching the teacher's mouth control, which will have a great impact on learning knowledge. If the network signal is not good, the phenomenon of live delay, it will be even worse (Baker, 2014; Dhawan, 2020). In addition, in order to make profits, online platforms rarely conduct strict review and effective supervision of regular online games, shopping, news and advertisements in accordance with relevant laws and regulations, which makes immature students easily

distracted and addicted, and the impact of external dangers become clearer (Bozkurt & Sharma, 2020).

2 The online teaching's countermeasures

2.1 Teachers need to quantify their innovations

In the process of online teaching, teachers use the available learning platforms and social media for technical support to ensure the continuity of students' learning (Mohamad Nasr et al., 2020). At the same time, teaching methods are the key to effective online education (Diaz-Noguera et al., 2022), and teachers should grasp the degree and demand of students' satisfaction with teaching in real time by asking more questions before and in class, and sending out electronic questionnaires after class. Teachers should ask more questions before and in class, and send electronic questionnaires after class, to grasp the degree and needs of students' teaching satisfaction in real time. Pather et al. (2020) believes that teacher-student interaction is an ideal attribute of distance learning during the COVID-19 pandemic. Therefore, after collecting the feedback information, the teacher can temporarily change the teaching content or adjust the lecture speed according to the students' feedback, and timely reply to students' questions and improve the results of relevant suggestions. Since the online teaching process will be affected by irresistible factors such as crashing and offline, teachers can record each lesson through computer recording software or traditional cameras, and then upload it to the college or university website according to the editing date of each lesson, so that it can be provided to those affected by after-school follow-up for students affected by force majeure.

In addition, the teaching time of each online class should not be too long, because students will experience fatigue in front of the computer screen for a long time, which will affect the quality of learning. Therefore, each class can rest for 30 minutes after class, and teachers and students can interactively sing the popular songs, do word puzzles, do idiom solitaire games, etc. to relieve fatigue. After the 30-minute rest, teachers can also publish the score of each student's classroom participation through the class WeChat group and Whats App group, so that students can understand that their classroom behavior is very concerned by the teacher. Ulvik, Helleve and Smith (2018) believes that all the knowledge and skills that teachers need to learn Initial Teacher Education programmes in the initial educational teaching course. Therefore, in each class, teachers should ask students to raise their hands to answer more questions on the blackboard or chat box, which will greatly arouse and mobilize students' enthusiasm for learning. In addition, teachers should use more colors, beautiful pictures and interesting videos to attract students' attention, so as to make up for the monotony and dull

feeling in the online teaching process, so as to attract students to focus and mobilize their enthusiasm for learning. This is very helpful in building positive relationships with students who may have an impact in the classroom (Claessens et al., 2020).

2.2 Strengthen the supervision of students

High-quality teaching is inseparable from classroom interaction. However, due to the limitation of time and space in online courses, the active teaching and interactive atmosphere has become a major bottleneck that is difficult to overcome in online teaching. Therefore, teachers can develop from a single class interaction between teachers and students, and then develop into student-student interaction, student-parent interaction, teacher-parent interaction, and form multi-dimensional interaction through classroom discussions, group responses, and collective feedback after class（Taghizadeh & Amirkhani, 2022). It enables teachers to more clearly grasp the students' character, potential, learning volume, learning demands, and curiosity points, and teach students in accordance with their aptitude, thereby improving the quality of teaching. In addition, in the process of online teaching, teachers can also mobilize their interaction and participation through the use of cameras for teachers and students throughout the course, one-to-one question-and-answer sessions with the whole class in each class, and each student explaining the content of teaching knowledge in sections to mobilize their interaction and participation, and prevent them from being distracted and skipping classes (Subedi et al., 2020). Face-to-face teaching is the main technique used by teachers in their classroom teaching, but the current research extends the literature on teacher-student interaction to include online teaching during the COVID19 pandemic.

2.3 Targeted solutions to network platform related problems

First of all, the relevant leaders of the school should regularly supervise and spot-check teachers' attendance, teaching quality, teaching content, student attendance, and the quality of students' homework completion.

Secondly, relevant interest groups such as school leaders, teachers, parents and student representatives should also form supervisory groups, carry out special supervision on a regular basis, and establish a review mechanism for online learning platforms, App learning software, course-related content, etc., and continuous supervision. Beaunoyer, Dupéré, and Guitton (2020) argued that the digital divide previously existed, but the pandemic exacerbated it. For unscientific and non-compliant teaching content should be notified in time to correct or take coercive measures to be taken off the shelves, and affect the students' learning of advertising, online games, animation and so on should complain in time.

Finally, relevant network supervision departments should also strengthen administrative

supervision, further formulate fast and traceable legal norms, and jointly formulate online education service standards with consumer associations and other relevant social organizations, so as to regulate the healthy and orderly development of the online education market. Colleges and universities should also develop safer learning environments, tools, and support systems (Trischler, Johnson, & Kristensson, 2020). In addition, relevant departments should also continuously improve the supervision, access and exit mechanisms of network technology applied in the field of education, so as to provide a safe and high-quality guarantee for online teaching (Zimmerle, 2021).

3 Conclusion

The COVID-19 pandemic has had a huge impact on the work, study, and life of teachers and students in colleges and universities in various countries. The online teaching mode is an effective measure to reduce the cluster infection of students, and its emergence will also become a new normal in education. Only by solving the problems of quantify innovation, supervise students and network platform related problems from the root, can online teaching be continuously improved and developed. Only when universities, colleges, teachers, students and parents turn the COVID-19 pandemic crisis into a turning point for learning, timely discovering and solving problems in the process of online teaching. Only then can they constantly transform and grow in every breakthrough and turning point, and finally achieve excellent results.
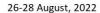
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