Investigation on the Difficulties and Challenges of Teachers Online Teaching in Primary and Middle Schools of Guangxi Middle School

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ABSTRACT-Affected by the situation of COVID-19, the new semester has been delayed in many places of the country. In response to the request of the Ministry of Education on "suspended class, ongoing learning" during the epidemic period, schools at all levels throughout the country have carried out online teaching. Through the questionnaire survey, this paper would like to find out the difficulties and challenges facing teachers' online teaching during the epidemic situation, and puts forward some suggestions for online teaching, which may hope to help the promotion of the online teaching.

Keywords-COVID-19, online teaching, difficulties and challenges, suggestions

I. INTRODUCTION

In early 2020, the outbreak of COVID-19 disrupted everyone's pace of life. In response to the Ministry of Education's request of "suspended class, ongoing learning" during the epidemic period, most primary and secondary schools in Guangxi quickly organized the largest online teaching activity in history in a very short period of time [1]. On February 17, according to the schedule, almost all courses were taught online. This was an emergency move, but it was also a concentrated demonstration of the "information education" teaching reform advocated for several years. In order to fully grasp the overall situation since the implementation of online teaching, understand the current situation and difficulties of online teaching and strategies, and listen to teachers' opinions and suggestions on online education and teaching [2], this paper aims to investigate the current situation of online teaching in primary and secondary schools in the middle of part of Guangxi, so the online "Teaching situation questionnaire" was issued on March 20. By the end of the questionnaire survey, the teacher surveyed had completed five weeks of online teaching.

This survey was conducted through online questionnaires. A total of 354 teachers were surveyed from 23 primary and secondary schools in central Guangxi by 10 April. 331 is valid, with an valid rate reach 93.5%.

II. BASIC INFORMATION

A. Sex Investigation

In the survey on the basic situation of teachers, there were 72 male teachers, accounting for 24.77%. The rest are female teachers, which take up 75.23%. The proportion of male teachers was lower than that of female teachers.

B. Age and Teaching Age

Teachers aged 20-30 accounted for 30.6%, teachers aged 30-40 for 50.7%, 40-50 for 11.4% and 50-60 for 3.3%. The teaching age is 10.2% for 1-5 years, 31.4% for 5-10 years, 34.6% for 10-15 years and 23.4% for 15 years or more. The primary and secondary school teachers surveyed were mainly young teachers, followed by middle-aged teachers. Teachers are young and energetic, who are easy to accept online teaching is the main force of online teaching.

C. Distribution of Teachers

Among the teachers surveyed, primary school teachers accounted for 72.54%, junior middle school teachers 27.46%, rural teachers 37%, and teachers above county towns 63%.

D. The Percentage of Teachers Who Conducted Online Teaching before the n-Cov

According to the survey, up to 92.75% of teachers have not used online teaching methods before the epidemic. Only a few teachers have tried to use online teaching methods.

E. The Teaching Platform Used by Teachers

A few commonly used platforms are listed in the questionnaire, such as: Tencent class, Dingding, WeChat or QQ group, Xiao blackboard, Yu class, and other platforms. Acording to the survey: the use of Tencent Class, WeChat or QQ group, Xiao blackboard and Dingding take up large proportion. There is no unified platform for every school, teachers choose the one themselves.

III. THE DIFFICULTIES AND CHALLENGES TEACHERS FACING ON ONLINE TEACHING
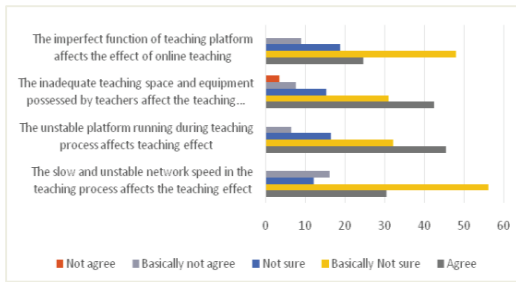

Figure 1. Network and platform stability on teacher teaching.

On the survey of network and platform speed and their operation stability on online teaching, we set up several questions, and the answer options are divided into five grades: "agree", "basically agree", "not sure", "basically disagree", "disagree". 86.4% and 77.3% of teachers choose "agree" and "basically agree" respectively on the questions of "The slow and unstable network speed in the teaching process affects the teaching effect" and "The unstable platform running during teaching process affects teaching effect". It can be seen that the majority of teachers think that the slow running speed of the network and platforms, as well as the unstable operation, in the teaching process will greatly reduce the teaching effect. Teachers believe that the imperfect of teaching electronic equipment will also affect the effect of teaching in answering question of "The inadequate teaching space and equipment possessed by teachers affect the teaching effect", 73.1% of teachers choose "agree" and "basically agree". The interview revealed that some teachers had only desktop computers, and the computer equipment was too old, resulting in poor computer operation. Meanwhile, there are no cameras or microphones in desktop computers, so that in the course of class, it can make live broadcast and the voice is relatively small, resulting in poor learning experience.

Finally, 72.4% of teachers chose "agree" and "basically agree" on the issue of choosing "The imperfect function of teaching platform affects the effect of online teaching". According to teacher's feedback, each platform has its own advantages and disadvantages, at present, it can not meet all the tasks of teachers' online courses through a single platform.
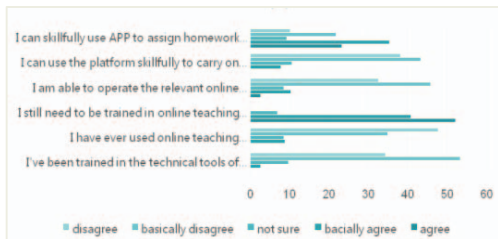

Figure 2. Teachers' proficiency in the operation of online teaching platform

There are six questions about teachers' familiarity with the operation of online teaching platform, including the training experience of teachers' online teaching before the epidemic situation and the online teaching experience. 86.7% and 82.6%of teachers chose "disagree" about "training before

epidemic or having online teaching experience", indicating that most teachers did not attend relevant online teaching training before the outbreak of COVID-19, nor did they have any experience of online teaching. For this reason, more than 93% of the teachers chose "agree" and "basically agree" to answer the question of "I still need to be trained in online teaching techniques", and on the question of "I can use the platform skillfully to carry on the online teaching resources development", "I can use the platform skillfully to carry on the online teaching resources development" or "I can skillfully use APP to assign homework to students, correct feedback", most teachers think that they are not proficient in the operation of online teaching, lack of on-line design teaching methods, teaching resources development and other technical aspects, so that they can not do it well. In a word, they believe that they need to continue learning and training. Because of the sudden outbreak of the epidemic situation, the online teaching and training system is far from perfect, and the cultivation of teachers' online teaching ability lacks a complete and comprehensive system, so the cultivation of teachers' online teaching ability appears to be relatively weak. Therefore, the relevant departments also need to strengthen the training of teachers' online teaching ability and improve teachers' online teaching ability.
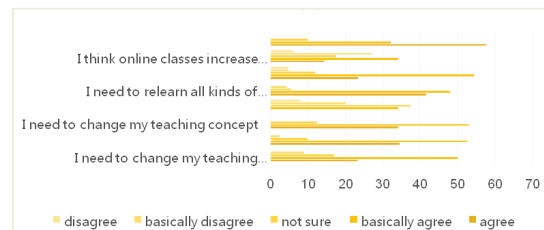

Figure 3. The biggest challenges of online teaching to teachers

The questionnaire lists the great challenges teachers may face in online teaching. The options are also divided into five levels which shows in the table listed above. According to the survey results, 73.6% of teachers choose "agree" and "basically agree" in that "I need to change my teaching strategies and methods to online teaching". 84.2% and 87.4% of teachers choose "agree" and "basically agree" in the question of "I think online classes increase psychological stress" and "I think the online classes increase the workload for teachers". More than 90% of teachers choose "agree" and "basically agree" on "I need to relearn all kinds of educational techniques". 78% choose "agree" and "basically agree" in thinking that teaching concepts and past teaching habits need to adapt to new teaching methods. It can be seen that online teaching has actually played a great role in this epidemic situation, and the online teaching promoted during the epidemic period has brought great challenges to primary and secondary school teachers. Most teachers have just come into contact with online teaching. Teachers need to learn constantly and change their teaching ideas to adapt to the new teaching methods, which is the trend of development, but it also brings a certain burden to teachers' work and increases some psychological pressure. But in the end, more than 90% of the teachers choose "agree" and "basically agree" in the question of "I am willing to constantly update my teaching concept and improve my online teaching ability ". It can be seen that although teachers feel great pressure and

challenge to online teaching, they are willing to accept challenges, change their previous teaching ideas and habits, and adapt to new teaching methods.
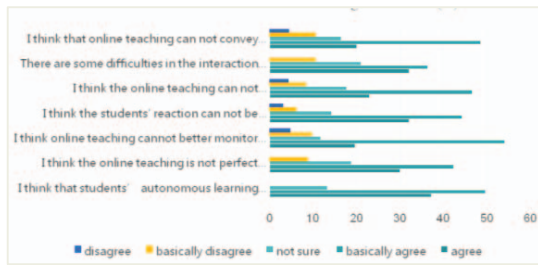

Figure 4. The difficulties and obstacles of teachers' online teaching

As a new teaching method, teachers are bound to encounter difficulties and obstacles in the teaching process. For the difficulties and obstacles that teachers may encounter in the teaching process, this survey lists the above 6 questions, and the survey options are also divides into five grades. From the results filled out by the teachers, 86.9% of the teachers think that the students have not formed a better ability to learn independently online. Teachers find out that they have not done a good preview before class, and their response in class is not so satisfied. It is of great importance that students improve their own self-learning ability and cultivate good learning habit. On the question of "I think the online teaching is not perfect enough to master and maintain the order of classroom teaching",72.3% of teachers chose "agree" and "basically agree". On the questions of "I think online teaching cannot better monitor and ensure students' participation" ,"I think the students' reaction can not be observed any time" and "I think the online teaching can not comprehensively analyze and track students' learning effects", there are 73.7%, 76.4% and 69.5% of teachers choose choose "agree" and "basically agree". It shows that Teachers generally believe online teaching has some difficulties in managing students and maintaining classroom order. About online teaching, teachers believe that it can not be communicated with students face to face, so it can not specifically understand the efficiency of students listening to classes. The students of primary school and secondary school is not mature enough. They even may not always concentrate on traditional class, let alone the online learning. It shows that students are online on the class time, but it is not sure that if they are learning or studying. This will make great difficult for teachers to gain teaching feedback and adjust teaching content in time.

68.4% of teachers choose "basically agree" in terms of "There are some difficulties in the interaction between teachers and students on online teaching", 73.5% choose "agree" and "basically agree" on the issue of "I think that online teaching can not convey totally teachers' teaching methods and ideas." The rest choose "not sure" but no one chooses "disagree". Online teaching can not communicate face-to-face with students, most of the communication is through the screen. There are no feeling at the scene, so it is easier to distract and produce ideas which lead to non-concentration on the teaching process. Although some students have problems, it is not conveyed to teachers on time.
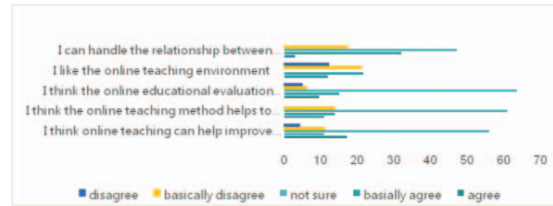

Figure 5. The comparison of the effect on online teaching and traditional offline teaching

In the survey, teachers' views on the problem that "I think online teaching helps to improve the quality of teaching and optimize the teaching process", "I think the online teaching method helps to organize the excellent teaching mode", and "I think the online educational evaluation system helps to evaluate students' learning effect", 56% , 61% and 63.6% of teachers chose "not sure", 11%, 14% and 15.2% of teachers chose "basically agree", and the rest chose "basically disagree" or "disagree". It can be seen that it still needs time to further prove the effect of the online teaching. For other problems, according to the interview, some of the teaching contents are not suitable for online teaching at present, so it needs to further strengthen teaching strategies and methods, and strengthen the use of guidance for students learning tools.

IV. SUGGESTIONS FOR ONLINE TEACHING

Although the current trend of the epidemic has improved, it has not been lifted and it still takes time. The development of online teaching is an emergency measure between the epidemic situation, it is also the direction of teaching reform in the future [3]. Therefore the online education is still the main work of primary and secondary school teaching. To this end, this paper puts forward some suggestions on the survey results:

A. Strengthening Platform Stability and Resource Development

According to the investigation, the stability of network speed and online teaching platform is one of the main factors that affect the teaching effect. Therefore, the construction of perfect online teaching platform is a problem that education departments need to pay attention to. Meanwhile, on the basis of maintaining the smooth progress of online education, the education department should make great efforts to develop and improve the carrying capacity of the large platform, ensure the normal speed of the network, and perfect the teaching function of the main teaching platform. At the same time, it should also take the school as the unit to integrate and develop the resources of each course, improve the pertinence and accuracy of learning at all levels, and meet the teaching functions of teachers at all levels [4].

B. Enhancing teacher's role change

Online teaching comes suddenly, bringing the change of teaching environment and teaching methods. The role of teachers has a complete change from offline to online. Many teachers at first do not adapt to the new teaching way, indicating that it increases the burden of lessons preparing and psychological pressure. It needs to continue to strengthen the care for teachers. On the one hand, it should help teachers to sum up their work experience seriously, to improve their

educational efficiency, and to reduce the burden of preparing lessons and psychological pressure. On the other hand, it should encourage and commend teachers who work hard online, improve the enthusiasm of teachers to participate in the online teaching, and make teachers more proactive in completing the transformation of offline to online teaching.

C. Enhancing Students' Ability to Learn Independently Online

Local education departments and schools should be closely combined to publicize the importance of establishing a correct learning attitude to parents and students through various channels, and to help students establish a correct online learning mentality. Students' autonomous learning ability isn't good enough. They are certainly dependent on traditional teaching. And they are lack of the understanding to the importance of online teaching, so we should focus on cooperating with parents to cultivate students' good habits of autonomous learning. For example, we should cultivate their good willpower, good independent thinking ability, good time management ability, good information search and problem solving ability, etc.

D. Strengthen Online Teaching Research and Paying Attention to Online Teaching Feedback and Evaluation

Online education is a new thing for both teachers and students. Both teachers' teaching and students' learning are inexperienced. Departments at all levels should strengthen online teaching research, put forward a new model of online teaching through the combination of experience and empirical evidence, sum up experience according to the teaching characteristics of primary and secondary schools, and put forward teaching suggestions that accord with the region and the learning situation of the school section. Furthermore, it should strengthen the research on online teaching's feedback and evaluation, and strive to improve the quality of online teaching [5].

V. CONCLUSION

Online teaching is a new thing for most students and teachers. It is a teaching emergency measure to minimize the impact of the epidemic on normal education, though the online teaching under this epidemic situation is an emergency action, which brings great difficulties and challenges to teachers, teachers are still relatively well prepared for the online teaching work, so the results are satisfactory. The online teaching also indicates the future direction of teaching reform and innovation. It has strong practical guiding significance. This paper combs the problems existing in online teaching in middle part of Guangxi during the epidemic period by questionnaire, and puts forward some targeted suggestions, hoping to provide a useful reference for the effective development of online teaching in middle part of Guangxi [6].

ACKNOWLEDGMENTS

REFERENCES

[1] An Analysis of Online Teaching Questionnaire during Epidemic Prevention and Control in Henan University Business School http://sba.henu.edu.cn/info/1211/5765.htm 2020.3.21.

[2] Teacher Development Center of Xiamen University, Investigation Report on Online Teaching of Teachers during the Epidemic http://www.360doc.com/content/20/0405/08/15488460_903941629.shtml 2020.4.5.

[3] Huang Yong, Yang Qingde, Thinking and Implementation of Online Teaching during —— Epidemic Period Department of Education.

[4] A Survey on the Application of Geography Teaching Resources in Senior High School under the Background of "Internet" by Tian Famin [D], Liaocheng University ,2019.5.

[5] The teaching and research department of Zhejiang Education Department, the investigation and research on the online teaching situation of middle schools during the epidemic period in Zhejiang Province [J], Teaching and Research Viewpoint ,2020.(3):66-69.

[6] Study on Teaching Problems and Countermeasures of Ideological and Political Courses in Higher Vocational Colleges under the Sudden Outbreak of Lei Yuan Zuo Ting, Journal of Wuhan Institute of Communications ,2020(3):61-65.