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# Literature Review of Exploring Experience and Coping Strategies of Primary School Teachers and Students During Online Teaching amidst COVID-19 Pandemic in China

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**Abstract:** The COVID-19 has forced the different level of institutes including universities, high schools, and primary schools around world to carry out online learning and teaching activities, especially in China, nearly all teaching activities having been carried through online platforms. Although there are many benefits of teaching online such as reducing travel costs and saving time and learning space during COVID-19 era, there are still difficulties and challenges faced by both teachers and students, especially for the primary school teachers and students. The purpose of this study is to explore the experiences and factors affecting the online teaching and learning of Chinese primary school teachers and students, thus provide coping strategies for both stakeholders when conducting online teaching and learning activities. The mixed quantitative and qualitative research method will be adopted to study their responses to the online learning and teaching experiences in post-epidemic era. Data will be collected through surveys and semi-structured interviews with 1300 primary school students and 80 teachers in Xi'an Foreign Language Primary school. Data collection will be carried out using survey questionnaire and interview questions and analyzed based on descriptive statistics quantitatively and thematic analysis qualitatively. The researcher wants to find difficulties which may pose challenges to their normal online learning and teaching activities during this special occasion, then put related strategies for both stakeholders as well as policy makers for future reference. The findings can be used as a reference in other research or in a comparable scenario by interested scholars. Educators can use these findings to advocate strategies that will provide a better education.

**Keywords:** Primary; Coping strategies; Online teaching; COVID-19.

## 1. Introduction

As soon as the COVID-19 pandemic broke out in China in late November 2019, the government made a very firm decision and ordered the closure of all schools. After then, it became mandatory for colleges and universities to shift to an online curriculum (Pollack et al., 2020). The network has been effectively promoted and expanded to meet the needs of the modern day. Primarily, the Internet should be integrated into classroom instruction and student development. As a result of the current nationwide push to "accelerate the integration of network technology and curriculum in primary and secondary schools," various online platforms designed specifically to help elementary students with their homework assignments have emerged (Zhao, 2020). The online homework platform has the potential to introduce a new dimension to students' homework and learning. Students are no longer limited by location or time when using mobile terminals like PCs and smartphones. Relevant modes of instruction have evolved and shifted as a result of Internet's introduction and growth. The old education paradigm needs to be broken free of some of its constraints if it is to keep up with the modern trend of online learning, which can assist students attain tailored learning approaches (Zhao, 2020). Most "suspension of classes without suspension" in the aim of fighting the epidemic takes place through distance education. All eyes are on the online learning platform, which includes parents, educators, and students (Wang, 2020). All stakeholders in the education system, from policymakers to principals to classroom instructors to parents and students, are being put through their paces in the lead-up to COVID-19, a pivotal year for online education. During an outbreak, traditional classrooms can't compete with the advantages of online education, such as: teachers transforming into network anchors to provide lessons to students; We no longer spend most of our waking hours in a classroom, but rather in our own homes; The role of parents in their children's education has evolved from that of online learning newbie to that of online learning leader. (Bao, 2020).

## 2. Online Learning: Not an Option but a Necessity

At the beginning of the year 2020, there was an outbreak of COVID-19, which caused the beginning of school to be delayed everywhere. It was advocated by the Ministry of Education that elementary and secondary schools should adopt a policy of "no suspension of classes" so as to avoid interfering with the students' capacity to study. During the pandemic, there were 276 million students in the United States who participated in "non-stop" learning activities via air courses. These activities were made possible by the 16 million teachers who taught online.

Since the beginning of the COVID-19 epidemic in 2020, primary and secondary schools all throughout the country have switched to using online education. It is impossible for teachers to monitor the individual development of each student due to the vast quantity of pupils in their classes; consequently, previous research has placed an emphasis on

the importance of parental engagement. Although students in primary schools and their teachers stand to gain a great deal by participating in online learning, it is essential for them and their teachers to first determine the status+ of the stakeholders before initiating any activities related to online teaching. It is important to explore the challenges they faced while teaching since it is possible that in the near future, another public health emergency may develop, necessitating traditional classroom instruction to be replaced by online education. Because of this, it is important to make use of online education throughout this particular moment.

## 2.1. Previous Reviews on Online Learning and Teaching in Primary Schools

It is commonly believed that the term "online learning" was first used in the field of education sometime around the middle of the 1990s. However, the earliest types of online education date back to 1840, when Isaac Pitman utilized mail and a shorthand approach to educate and collaborate with students (Bezhovski, 2016). It is evident, taking into account the aforementioned factors and concerns, that this mode of education, which takes place online, is an unavoidable offshoot of the initial concept of remote learning. According to a definition that is more all-encompassing and expansive (Sangrà, 2011), online education is any mode of instruction that makes use of the Internet and other digital technologies in order to improve the quality of teaching and learning for its students. This definition describes any and all modes of instruction that use these tools.

The phrase "online learning" can also be used to refer to a network where information is distributed to a large audience via electronic resources, as well as a system that is utilized for formal education. The use of a computer and having access to the internet are both necessary components of such systems (Babu, 2018). A multitude of possibilities for exchanging knowledge and submitting papers in a variety of formats are just two of the many features that are unique to online education that contribute to the facilitation of the teaching-learning process. Due to the fact that the system is web-based, it is not necessary to install any specialized software in order to use it, and any data that is posted to the system can be accessed at any time (Raheem, 2020). In recent years, there has been a proliferation of many various kinds of technological tools, which has led to the development of many different varieties of online educational opportunities. According to Horton (2006), there are a number of distinct categories of educational experiences. These include courses that are taken independently of other students, online courses that are designed to mimic a classroom setting, learning games in which students learn concepts through interactive simulations, blended learning programs that combine online and classroom instruction, mobile learning, and knowledge management (Fischer, 2014). The concept of online education involves a wide variety of components, such as instructional design, software, and hardware, as well as students and their involvement in the learning process. According to Oye et al. (2012), one of the ways in which online learning differs from more traditional approaches is that it places a greater emphasis on individualized and comprehensive information acquisition. This indicates that whereas teachers often assume the lead role in conventional classrooms, students are increasingly taking the initiative in contemporary education as a direct result of the proliferation of online learning opportunities. In terms of the fundamental sources of knowledge, methods of evaluation, and the quality of instruction that is offered, it is possible to acknowledge that there are distinctions between traditional education and online education. The traditional paradigm of education holds that teachers are both the primary means by which students gain knowledge and the exclusive criterion by which students are evaluated. While in online learning, tools and systems may be used for evaluation, students can acquire knowledge from various papers uploaded to the platform, and the level of expertise that teachers have in using technology, in addition to their teaching style, is a significant factor in determining the quality of education that students receive (Cohen, 2007). In addition, Cheung &Cable (2017) identified and described eight principles that form the basis of effective online teaching. These principles include promoting contact between students and faculty, collaborative learning, rapid feedback, active learning, task time — encouraging students to allocate more time for completing tasks, high-expectations — the teacher should communicate their expectations to encourage and motivate students, diversified learning, and technology. These principles form the basis of effective online teaching.

Since the development and application of systems and technologies have enabled the growth and expansion of educational opportunities, researchers have taken an interest in online learning in schools and the students' perceptions of the effectiveness of this kind of instruction (Zare, 2016). It has been discovered that the Technology Acceptance Model, often known as TAM, is beneficial for analyzing and understanding how students plan to use online learning, which makes it a significant tool in studies pertaining to the use of e-learning (Almarabeh, 2014). The man who came up with the paradigm, Fred Davis, was of the opinion that user buy-in to technical change was essential to the ultimate success of information systems. Information and explanations about the relationships between system features, user behavior during use, and user attitude (which is affected by the system's perceived usefulness and simplicity of use) are offered by the model (Venkatesh, 2003). The opinions of the students who took part in a survey regarding their experiences with an online learning module were unanimous in that it was beneficial and easy to use. They stated that they had no problems understanding the material that was presented to them nor locating the resources that they required. A study that was carried out at the University of Jordan using the TAM model indicated that students' views about online learning are highly impacted by their judgments of the usefulness and the accessibility of the platform (Victoria, 2018). In addition, TAM was used to investigate educators' perspectives on online learning, and the results were consistent with the theory that educators' preexisting ideas and impressions of online education affected their behaviors and viewpoints. This research was conducted using TAM. The body of research available overwhelmingly vouchsafes the utility, efficacy, and positive effects that online learning can have in primary schools, producing outcomes that are favorable to the application of the practice.

The majority of educators who participated in a study on the effects of online education on students and educators (Burac, 2019) were in agreement that online education has the potential to improve the educational process. This is because online education facilitates better communication and collaboration between students and teachers, it provides greater scheduling flexibility, and it helps students better retain the course material. According to the findings of

Dookhan (2018), students have a positive attitude toward online education, and this attitude is strengthened by the perception that online learning systems are convenient to use. While Lochner (2016) concluded that online learning was excellent when used in conjunction with traditional classrooms, he discovered that it was most effective when implemented as a supplemental strategy. Students who took part in a research project that compared traditional education with online education reported that they remembered more information from their in-person classes than from their online ones. Despite the fact that they had difficulties using online learning platforms, the students had a favorable impression of their overall experience with online education.

## 2.2. Factors Influence Online Learning and Teaching in Primary Schools

Despite the fact that most studies show a favorable impression of online education, others have drawn the conclusion that students do not see the same value in online courses as they do in traditional classroom settings, and that they would prefer a hybrid approach that combines online and in-person instruction. The results of this study are presented here (Anaraki, 2018).

Zhang (2021) proposed the design mode of the general distance teaching system and its specific operation essentials and made suggestions to solve the problems of teaching design and the development of the system, all by starting with the main difficulties encountered in the development of online teaching systems.

To better understand the challenges instructors face when instructing online, Yu (2021) developed an evaluation model for online instruction that takes into account the unique characteristics and prerequisites of network education. This model elaborates on the evaluation of online instruction from the perspectives of evaluation objects, methods, elements, and processes. Furthermore, Zhang et al. (2021) explored the technological foundations of network distance teaching, the technical resources needed, and the considerations that should be made while implementing network distance-based online instruction. Teaching at a distance can be stressful for several reasons, including those related to technology, human resources, and the nature of the lessons themselves.

Meta-cognitive knowledge, a sense of orientation, self-efficacy, understanding of the system, and prior topic knowledge were the five psychological aspects that, according to Wang and Feng (2000), affected the quality of learning in distant education. This study provided a summary of findings from experimental research on distance education and analyzed the characteristics of network CAI courseware based on the variables of learning quality from five psychological aspects that have been shown to enhance online instruction.

## 2.3. Challenges of Distance-based Online Teaching during COVID-19

A number of studies, some of which were carried out before the recent outbreak of the Coronavirus and others of which were carried out after it, have investigated the challenges that educators confront when giving education via the Internet. The challenges that were explored included mental, organizational, and technical issues.

Bennett (2014) conducted research to see how the introduction of digital instructional tools influenced a variety of negative sensations that were reported by British educators. The resulting humiliation and emotional battle can inhibit and challenge dominant practices, and the analysis identified such negative outcomes as a) personal identity (in terms of fear of inadequacy), b) taking the blame for failures in the system (giving rise to feelings of embarrassment and frustration), and c) working with others. Depending on how critical colleagues are of them and the technology, the resulting humiliation and emotional battle can inhibit and challenge dominant practices.

Windes and Lesht (2014) investigated the attitudes held by professors at a variety of universities regarding the delivery of classes via the internet. Participants came from private universities, public universities, and community colleges across the United States, and their levels of experience with online teaching ranged from novice to expert. The poll had a total of 342 participants from the educational community. The challenges that were confronted by educators in each of the three different types of institutions were comparable but distinct from one another. The most prominent ones were worries about intellectual property rights and the loss of face-to-face time with students, as well as the need to devote time and effort to preparing for and teaching an online course. Other concerns included the loss of face-to-face time with students and the loss of face-to-face time with students.

In the year 2020, during the epidemic of the Coronavirus, Schaffhauser conducted research into the challenges presented by online education. It was requested that around one thousand K-12 teachers and administrators in the United States complete a lengthy survey. The majority of respondents reported experiencing a wide range of unfavorable feelings, including "uncertain" (81%), "stressed" (77%), "anxious" (75%), "overwhelmed" (74%), "sad" (60%) and "lonely" (54%) amongst others. In addition, teachers were particularly concerned about the mental health of their pupils, the lack of social time children had, the loss of face-to-face interaction between teachers and students, and the teachers' inability to readily assess whether or not their students were having difficulties. The findings of this study highlighted the need for shorter training courses for educators on the utilization of online technology, the development of innovative online activities for students to participate in, strategies for fostering more online student interaction, methods for remotely identifying students who are at risk, and methods for strengthening the bond between students and educators.

According to Harmani (2020), online education was ineffectual during the COVID-19 epidemic. This information was provided earlier in the sentence. There have been studies done in the past to determine whether or not online education is successful. First, a study on the benefits and drawbacks of online education that was carried out in the year 2020 by educators working in primary schools in Bantul found that the majority of pupils do not have access to electronic devices. The children utilized the electronic devices that belonged to their parents whenever an adult was present in the house. The course materials and tasks were distributed to students through a Whatsapp group by the teachers, and the students sent back their completed work to the same group (Anugrahana, 2020). A second study conducted by Putria and studying the online learning process in Indonesian elementary schools came to similar conclusions. The majority of children did not have their own electronic gadgets and instead relied on those owned by their parents at home (Putria et al., 2020).

After that, Zhang Mei carried out an investigation into the obstacles to online learning faced by teachers and students in Jambi's fifth, sixth, and seventh grades; he discovered that a

lack of a dependable internet connection was the most commonly mentioned problem, and that students' lack of access to personal electronic devices was another significant obstacle to online learning (Zhang et al., 2021). Another case study, this one done in China with two teachers and five students, came to the conclusion that the most major hurdles to online learning are a lack of teachers, proficiency in operating e-learning, limited internet connection, and limited infrastructures (Li et al., 2021). Despite this, Li conducted a case study on the challenges associated with using online education in primary schools, notably in the subject of science. Her research with kids, teachers, and parents led her to the conclusion that the issue of double roles played by parents is caused by multiple factors, and that these factors contribute to the issue (Rasyidiana, 2021).

# 3. Conclusion

Studies that evaluate the effects of online instruction on both teachers and students, as well as the ways in which each group has dealt with the stressors that have emerged as a result, are analyzed and discussed in this area. The purpose of this study is to shed light on the challenges that are presented by online education from both the perspective of educators and students, as well as the strategies that are utilized to overcome such challenges, and the benefits that are acquired as a result of doing so. The purpose of this study is to provide new knowledge to the existing body of research by conducting an investigation into a subject that has not been studied in the past: the relationship between Chinese primary school instructors and their students. The outcomes of the study would contribute to the increasing body of knowledge regarding learning and teaching in virtual settings once they have been compiled. It would also provide recommendations on how to address the challenges that have arisen in classrooms around the world as a result of the pandemic. Those issues have arisen as a direct effect of the pandemic.

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# Conflicts of Interest

The authors declare no conflict of interest.

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