

Research on the Impact of COVID-19 on Education Inequality in China

Luzi Tan^{1,a,*}

¹*School of Public Administration, China University of Geosciences, Wuhan, Hubei Province, 430000, China*

a. luzi_tan@cug.edu.cn

**corresponding author*

Abstract: Educational inequality in China has been a long-standing problem, but the COVID-19 pandemic has exacerbated its impact. The sudden outbreak of COVID-19 and its extreme spread have severely impacted education systems, creating new challenges for students and educators. The shift in learning styles from classroom to distance learning and campus closures have exacerbated existing inequalities, highlighting the urgency of addressing this issue to ensure equal access to education for all students in China. By analyzing the disparate impacts of campus closures, distance learning, and access to technology on different socioeconomic statuses and regions and highlighting differences in educational opportunities, this paper explores how the COVID-19 pandemic has exacerbated educational inequalities in China's education system. COVID-19 is exacerbating educational inequality by highlighting disparities in digital access, resource availability, and learning environments, making it harder for disadvantaged groups to access equal educational opportunities.

Keywords: Educational inequality, COVID-19, distance learning, educational opportunities, socioeconomic statuses

1. Introduction

Since the beginning of reform and opening up, China has made great achievements in education, mainly manifested in the popularization of nine-year compulsory education, the steady increase in the average years of schooling of residents, and a substantial increase in the number of students and graduates in higher education. However, inequality in education remains a challenge in China, especially between different regions, and between different socioeconomic status groups.

One of the most striking disparities in education in China is that between different regions, which is exacerbated by the uneven distribution of educational resources[1]. Developed coastal areas and large cities generally have better educational resources, including teachers, teaching facilities and educational technology, as well as more educational opportunities than underdeveloped rural areas and remote provinces. In economically developed areas, both parents, schools and the whole society pay more attention to education than in economically underdeveloped areas, and parents, schools and the whole society are committed to providing students with a good learning atmosphere. In contrast, schools in undeveloped rural areas and remote provinces are relatively short on educational resources, and their teachers and teaching facilities are relatively weak. In China, socioeconomic status is also an important factor affecting the education gap. The economic, cultural and social capital of the

family plays a decisive role in children's academic performance and educational opportunities[2]. Families with high socioeconomic status have more abundant funds to help their children successfully obtain quality educational resources or further education opportunities, which ultimately leads to the widening of the education gap. Families of higher socioeconomic status generally invest more money and time in educating their children.

Therefore, this paper focuses on the impact of COVID-19 on education inequality in China. The significance of this study is that it has the potential to inform policymakers, educators and stakeholders about the urgent need to address educational inequalities in the context of the pandemic. Understanding the severe impact of COVID-19 on education will help to develop targeted interventions and policies to promote equity and inclusion in education systems.

2. The impact of COVID-19 on education gap in China

2.1. Schools's Lockdown

School lockdowns and learning disruptions result in students missing out on traditional learning opportunities[3]. Students' learning efficiency will also be affected, especially for primary and secondary school groups, because most of them have poor self-management, restraint and self-drive abilities. Because online teaching does not provide teachers with the same good vision as classroom teaching, the teacher's supervision of each student's learning is less than before. Students can leave the computer or do other things in class, such as playing games, watching TV series and so on. In addition, homework inspection and invigilation are also pain points for online teaching. Because of the absence of teachers, the gap between students with good study habits and those with bad study habits will become wider and wider[4]. Therefore, after the school reopens, the "Matthew effect" will develop among the students. At the beginning of the resumption of school, students with good grades will show better performance than before, while students with poor grades will have lower grades than before, which leads to a widening education gap.

In the absence of communication between classmates and teachers during the pandemic, students may face anxiety, depression and other mental health issues[5]. Children with disabilities and children from migrant families are among the most vulnerable groups during the pandemic. For children with disabilities, the shift to distance learning poses significant challenges, as online platforms may not be adequately accessible or adapted to their specific needs. Migrant children face additional difficulties due to limited access to public services, including education, under the hukou system. The pandemic has exacerbated their educational disadvantage, as they often lack access to and support for distance learning.

2.2. Digital divide

The COVID-19 outbreak has led to a complete shutdown of schools across China, with millions of students suddenly turning to online learning under the Ministry of Education's call to "Stop classes, continue learning", requiring online education platforms and digital teaching methods. This shift to online learning has created significant challenges for students, teachers and parents, making the digital divide issue more visible and also exacerbating the education gap[6].

First, the quality of online teaching is also very different from the quality of offline teaching. On the one hand, online courses rely on an online teaching platform and network system; once the network or platform fails, the course will be interrupted. Many students in remote or impoverished areas face inadequate equipment and unreliable Internet connections. On the other hand, teachers are used to traditional teaching methods. Online teaching is a new format for many teachers, and many teachers are unable to familiarize themselves with online platforms in such a limited amount of time. Even for teachers in areas with a well-developed ICT infrastructure and high household Internet

penetration, a rapid transition to online teaching is a challenge. This transition is even more difficult for teachers in regions with less developed ICT and other distance learning methods. Teachers also need to be trained to effectively deliver distance and online education. This can lead to a decline in the quality of education, as both educators and students need time to adjust to the new way of teaching.

Second, educational technology resources are unevenly distributed among different schools and regions. Some schools or districts may not have adequate technology infrastructure to support high-quality online education. This results in some students not enjoying the same level of education as their peers in other regions, thus increasing resource inequality. The pandemic has led to school lockdowns and the spread of distance learning. Economically developed regions generally have an easier time adapting to the distance education model because they have more digital devices, high-speed Internet connections, and digital educational resources. In contrast, economically underdeveloped regions may lack such infrastructure, making it difficult for students to participate in online learning. This makes it more advantageous for students in economically developed areas to continue their education. At the same time, students in economically developed regions often have easy access to digital devices such as computers, tablets and smartphones, which are essential for online learning[7]. However, students in economically underdeveloped regions may not have these devices or have limited access, which prevents them from participating in digital education. This digital divide exacerbates education inequality between urban and rural areas, as students in economically developed regions are more likely to adapt to distance learning. Differences in learning environments during the pandemic have also had an impact on educational inequalities between regions. Students in economically developed areas often have quieter and more suitable home environments for study, while students in economically underdeveloped areas may face noise, crowding and other distractions that may affect their learning. The unequal learning environment makes it more difficult for students in economically underdeveloped areas to concentrate on their studies.

2.3. Economic inequality

Students of different economic statuses face different challenges during the pandemic. The pandemic has exposed significant differences in distance learning experiences between low-income and high-income families. Higher-income families can afford high-quality digital devices, reliable Internet connections, and additional educational resources to provide their children with better online learning support. In contrast, low-income families often struggle to afford such resources, which discourages their children from taking distance courses. The lack of basic skills and learning materials hinders the progress of low-income students and widens the education gap between different income groups.

2.4. Family support

In addition, family support is also an important factor. Families in economically developed areas are generally more likely to provide additional learning support, tutoring, and resources that may be lacking in economically less developed areas. This means that students in economically developed areas have more advantages in family learning, while students in economically underdeveloped areas may need to overcome more difficulties. This leads to inequality among students, as students with supportive family support systems are more likely to succeed in distance learning[8].

Some students live in unstable circumstances, such as family problems, residential instability, or health problems. These factors will distract students' attention and affect their study. During a pandemic, this instability can increase, making it harder for students to focus on their studies.

3. Conclusion

COVID-19 has exacerbated educational inequalities, highlighting disparities in digital divide, resource availability and learning environments, making it more difficult for disadvantaged groups to access equal educational opportunities.

The impact of COVID-19 on education inequality in China varies significantly across regions and population groups. Differences in access to technology and Internet connectivity between urban and rural areas highlight the digital divide, while differences between low-income and high-income households highlight the impact of socioeconomic statuses on distance learning experiences. Existing inequalities in education are further exacerbated by the unique challenges faced by vulnerable groups such as children with disabilities and migrant children. At the same time, the COVID-19 epidemic has had a profound impact on the mental health and well-being of Chinese students. The disruption caused by the pandemic, coupled with a shift to distance learning and a reduction in social interaction, has had adverse psychological consequences for many students. There are obvious differences in mental health among students from different backgrounds, and disadvantaged groups face greater challenges.

The COVID-19 pandemic has highlighted the urgency of addressing inequalities in education in China. The long-term impact of the pandemic on education highlights the need for targeted policies and interventions to promote equitable access to quality education for all students. By implementing comprehensive and inclusive measures, China can build a more resilient and inclusive education system that will enable all students to thrive in the post-pandemic era and contribute to a more equitable society.

References

- [1] Tang Kuok Ho Daniel.(2022).Impacts of COVID-19 on primary, secondary and tertiary education: a comprehensive review and recommendations for educational practices. *Educational Research for Policy and Practice*(1),23-61.
- [2] Yu Shuheng,Hong Liu & Ma Gaoming.(2022).The Mediation of Exam-oriented Cultural Capital: Economic Capital and Educational Inequality of Chinese High School Students During the COVID-19 Pandemic and School Closures.. *Applied research in quality of life*(3),11-16.
- [3] Cai Xiqian,Fu Jingcheng,Luan Mengna & Tang Xiangming.(2023).Assessing inequality in the school closure response to COVID-19.. *China economic review*,102008-102008.
- [4] Ma Gaoming,Zhang Jiayu & Hong Liu.(2023).Learning From Home: Widening Rural-Urban Educational Inequality and High School Students' Self-Control in China During the COVID-19 Pandemic and School Closure.. *Youth & Society*(7),1348-1366.
- [5] Chung Gary KaKi,Chan YatHang, Lee Thomas SzeKit, Chan SiuMing, Chen JiKang, Wong Hung... & Ho Esther SuiChu.(2023).Socioeconomic inequality in the worsening of psychosocial wellbeing via disrupted social conditions during COVID-19 among adolescents in Hong Kong: self-resilience matters.. *Frontiers in public health*,1136744-1136744.
- [6] Cheshmehzangi Ali,Zou Tong,Su Zhaohui & Tang Tian.(2023).The growing digital divide in education among primary and secondary children during the COVID-19 pandemic: An overview of social exclusion and education equality issues. *Journal of Human Behavior in the Social Environment*(3),434-449.
- [7] Li Jiajia,Yang Shiyu,Chen Changju & Li Houjian.(2022).The Impacts of COVID-19 on Distance Education with the Application of Traditional and Digital Appliances: Evidence from 60 Developing Countries. *International Journal of Environmental Research and Public Health*(11),6384-6384.
- [8] Liao Haoye, Ma Sen & Xue Hao.(2022).Does school shutdown increase inequality in academic performance? Evidence from COVID-19 pandemic in China.. *China economic review*,101847-101847.