Chapter 16

“Internet Plus” Integration in Rural Education in China

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ABSTRACT

This chapter examines the role of information and communication technology (ICT) in improving rural schools in China. China has experienced rapid development in rural education during recent decades. However, a large gap between rural education and urban education remains. Because ICT plays an essential role in rural education, China has prioritized the construction of ICT facilities. A lack of communication among colleagues constitutes an obstacle for teachers who attempt to integrate ICT into teaching practice. Therefore, China’s national government initiated an “Internet Plus” strategy to build connections between rural schools and the broader education system through ICT. This chapter concludes that Internet Plus Rural Education paves a potential way for rural teachers to participate in teacher communities and to develop their teaching practices.

INTRODUCTION

Rural education constitutes a crucial part of China’s education system. According to the 2015 National Educational Development Statistics Bulletin, rural China has a student population of 34.7 million. These rural students comprise two subgroups: 13.7 million who have migrated to urban areas with their parents to study in urban schools and more than 20 million who have remained in rural schools. Because education is being assigned a key role in strategies for economic growth, the Chinese government has issued a series of targeted educational policies to prioritize the development of rural education, such as the National Development Plan for Information and Communications Technology (ICT) in Education (2011–2020), Digital Educational Resources Cover All Teaching Sites Project, Rural Teacher Supportive Plan, and Low-Performing School Transformation Project. These educational policies provide a top-down framework for rural education. ICT is regarded as a significant factor contributing to rural education development in most of the related policies. Policymakers and administrators indicate that ICT could contribute to universal access to education, educational equity, high teaching quality, professional

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development for teachers, and more efficient educational administration (Tamim, Bernard, Borokhovski, Abrami, & Schmid, 2011; Zhang, Meng, & Jing, 2016). Policymakers worldwide employ ICT tools to narrow the gap between rural and urban education. In response to the understanding that ICT will be a fundamental requirement for rural education, the Chinese government has allocated a substantial amount of money to update ICT facilities in rural schools, update local networks, and enhance Internet connectivity. For instance, more than ¥61 billion was invested in ICT construction in education in 2015 to improve ICT access. According to the Key Points of ICT Construction in 2016, approximately 95% of schools in China would have access to the Internet by the end of 2016, among which 60% will have access to a 10-Mbps broadband connection. Concurrently, the Chinese government has built many online platforms to provide flexible online training that is customized to the varying needs of rural teachers.

Although policymakers and researchers are optimistic about information and communications technology (ICT) use in rural schools, the reality is less satisfactory. Studies have revealed that teachers and students in rural and remote areas enjoy fewer opportunities to access computers than those in urban areas do (Zeng, Huang, Zhao, & Zhang, 2012). ICT remains inaccessible in some rural and remote regions. In some rural areas, Internet-based forms of teaching and learning and the essential infrastructure to support them remain limited (Ting & Yi, 2013). Even though rural schools have improved access to ICT, they still lack the educational resources and skills to operate these facilities. New technologies remain underused in rural classrooms. Many studies found that a large proportion of teachers were not sufficiently trained to use these high-tech facilities in teaching (Bingimlas, 2009; Osborne & Hennessy, 2003).

The “Internet Plus” strategy provides a new method for integrating ICT with rural education. Internet Plus, introduced by Premier Li Keqiang in 2015, integrates mobile Internet, cloud computing, big data, and the Internet of Things with modern manufacturing to promote the development of social sectors and to establish new industrial models. It has the potential to shorten temporal and spatial distances and to build collective networks among schools and individual teachers. It could transform low-performing rural education and drive interschool collaboration and knowledge sharing. Rural schools are encouraged to build and to use digital educational resource platforms more effectively, explore new networked learning, and expand high-quality resources. Internet Plus is expected to change the isolated situation of rural schools, integrate them more closely with the national educational system, and connect them to the outside world. However, few studies have been conducted to explore the nature and mechanism of Internet Plus integration in rural education. Consequently, we have only a limited understanding of how Internet Plus is practiced in the specific context of rural education in China.

In this study, we aim to explore how the Chinese government promoted rural education through ICT. It focuses on the development of rural education and the role of ICT in improving rural education in China. It presents the general development of the rural education system and uses the lens of Internet Plus to interpret the development of rural education and rural teachers. It examines educational equity, educational policies, ICT development in rural education, the effects, and the remaining challenges. It will help researchers to develop a fine-grained understanding of the current development of rural education in China.

The chapter is organized in six parts: (1) the first part provides a general overview of rural education development in China; (2) the second part outlines current ICT practices in rural schools and presents an analysis of how ICT could improve rural education; (3) the third part discusses integrating ICT in rural education teaching through networked learning communities; (4) the fourth part explores the future development of ICT integration in rural education in the context of Internet Plus through the 13th Five