

Chapter 2

A Comparative Institutional Analysis on the Integration of E-Learning in Higher Education: The Cases of China, Singapore, and Japan

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ABSTRACT

This chapter discusses and compares the different approaches of integrating e-learning into higher education in three countries: China, Singapore, and Japan. The analytical framework of comparative institutional analysis is utilised to systematically present and compare the different e-learning strategies in the three contexts. Through analysis, the authors found that the resource-sharing mode—encouraging students to use the internet to share and acquire knowledge—has been widely applied in Chinese higher education; the (a)synchronous learning mode—making teaching progress innovative in class and prompting students to use information and communication technology (ICT) after class to continue their learning—has been developed in Singapore; and the education-expanding mode—increasing the number of potential learners to acquire higher education through online courses—is being constructed in Japanese higher education.

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INTRODUCTION

With the popularisation of the internet, the widespread availability of smartphones, and the growing importance of wireless data transmission, nearly all life areas of humanity are now influenced by information and technology, such as occupation (Wood, Lehdonvirta, & Graham, 2018), medicine (Gatouillat, Badr, Massot, & Sejdić, 2018), industry (Wollschlaeger, Sauter, & Jasperneite, 2017), and education (Syakur & Sabat, 2020; Watanabe, 2005). Research in higher education also shows the increasing interest in e-learning in the last three decades (e.g., Njenga & Fourie, 2010; Urh, Vukovic, & Jereb, 2015; Wagner, Hassanein, & Head, 2008). The term e-learning is defined as the use of a variety of information and communication technologies in teaching and learning (see Arkorful & Abaidoo, 2015). Learners can receive, search, organise or share information through the use of electronic devices.

The effectiveness of applying e-learning in education has been identified through means such as creating innovative teaching methods and offering rich online learning resources (e.g., Kong, Chan, Huang, & Cheah, 2014; Wu, Tennyson, & Hsia, 2010). Currently, the ways of integrating e-learning into schooling can be divided into three models, namely, traditional, blended, and distance (Zhao & Jiang, 2010). As explained by Zhao and Jiang (2010), first, the traditional model refers to learning activities implemented through basic digital technologies in a face-to-face class. For example, teachers can improve their teaching instructions through utilising technological products such as television and tape recorders. Second, the blended model means the use of a course management system (CMS) – a collection of software tools to support an online environment for course interactions – to flexibly combine various teaching approaches and different learning contents, like a face-to-face class integrated with (a)synchronous online learning to help students use CMS in and after class. Third, the distance model indicates that the teaching and learning process is performed entirely through distance education/online courses.

Based on the different e-learning models, countries apply digital technologies in higher education in accordance with their beliefs about the ways e-learning could serve the teaching and learning process (Arkorful & Abaidoo, 2015; Azeiteiro, Bacelar-Nicolau, Caetano, & Caeiro, 2015). Thus, this study explored how e-learning is integrated into different countries' higher education and compared their strategies and potential challenges. Three countries – China, Singapore, and Japan – were chosen for the study since their education systems tend to employ teacher-centred classes (Chen & Yu, 2019; Matsuyama et al., 2019; Wong et al., 2006). Moreover, according to relevant literature (e.g., K. Aoki, 2010; Chandran, 2010; Daquila, 2013; Zhao & Jiang, 2010), universities in these three countries are striving to improve the speed of employing new technologies to effectively deliver higher education. For example, Japan seeks to provide various online education programs to support

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