

DEVELOPING EDUCATION THROUGH E-LEARNING IN SOUTH KOREA AND LESSONS FOR VIETNAM IN THE DIGITAL TRANSFORMATION CONTEXT

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Abstract

E-learning, an abbreviation for Electronic Learning, represents a modern pedagogical approach implemented within a networked system, typically leveraging the Internet. This platform facilitates swift communication, interaction, and the exchange of educational materials and lesson plans between educators and learners, thereby optimizing time utilization. Nevertheless, the adoption of this method presents certain challenges, including a significant reliance on the quality of internet connectivity, limitations in efficient class control and interaction, and the necessity for instructors to utilize a diverse array of tools for class organization, assignment distribution, assessment, and grading. Recognizing the success of certain countries in advancing E-learning, exemplified by South Korea, this article adopts qualitative research methods to scrutinize the developmental trajectory of E-learning in South Korea. It aims to illuminate the advancements and draw insightful lessons from the educational encouragement policies implemented by the South Korean government. This research endeavors to contribute to educational innovation and glean pertinent insights for the progressive development of education in the context of digital transformation in Vietnam.

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1. Introduction

The form of online teaching first began to develop in Vietnam in 2010 when many domestic enterprises initiated the construction of online learning websites, such as Violet.vn, Hocmai.vn, Topica, and Onluyen.vn. This approach enables instructors to guide and provide learners with tools to address current issues, develop their problem-solving skills, and utilize resources efficiently within their capabilities. However, several surveys on the status of online learning indicate certain persistent obstacles. Specifically, a survey of 729 samples conducted by the research group, analyzed using SPSS software, revealed that 48.14% of learners considered the most significant drawback of online learning to be susceptibility to distractions. Additionally, 22.2% highlighted unstable internet connections as a major difficulty, leading to substantial learning challenges. Furthermore, the lack of direct interaction with instructors was emphasized by 18.98% of respondents (Nguyen Thi Lien Huong et al., 2022, p.233).

In reality, creating high-quality E-learning lectures demands significant investments in time and intellectual effort from instructors. However, the support system in Vietnamese universities is not aligned with the effort instructors put into lecture content development. As a result, there is insufficient encouragement for instructors to invest in developing E-learning lectures. Furthermore, the cost of building information technology infrastructure must be robust, synchronized, and efficiently connected between the university's website and the E-learning teaching website. This necessitates thorough planning to maximize functionality; otherwise, it may lead to wastefulness during implementation. This issue needs to be addressed in relation to infrastructure, the number of users, and the capacity for synchronized execution to ensure vision and feasibility (Dao Thi Nguyet, 2022, p.212).

Comparatively, in South Korea, E-learning has been present and evolving since the 1990s, with major corporations and conglomerates implementing it for employee training and skill development. Statistics indicate that in 2017, South Korea allocated USD 1.3 billion for the innovation of online training deployment. Currently, this form of education is widely applied in formal education, vocational training, and children's education in South Korea. Moreover, businesses also use it for training sessions and meetings, ultimately saving time and training costs for companies with multiple branches and headquarters (National University of Hanoi, 2020). Given these challenges, it is essential to analyze education reform policies and identify the actions the South Korean government has taken to promote E-learning development in South Korea. This analysis aims to draw valuable insights for the implementation of E-learning in Vietnam, especially in the context of advancing education in the digital age and international integration.

2. The current situation of implementing E-learning training in South Korea

Since 1985, South Korea has been intensively equipping the necessary infrastructure for schools, aiming to enhance the quality of teaching for elementary and middle school students through E-learning. To ensure the adherence to the established trajectory, South Korea enacted the "E-Learning Industry Development Act" in 2004, recognized as a significant foundation contributing to the innovation of educational methods. This

development is not only focused on students but also serves government officials, employees, and government officials. Overall, this teaching method plays a crucial role in developing human resources in various social sectors in South Korea, contributing to educational innovation and effectively responding to future educational development.

E-learning was adopted by 80% of domestic educational institutions in South Korea by 2009. Statistics indicate that in 2005, 15.1% of educational institutions regularly implemented E-learning, increasing to 17.7% in 2006 and 19.6% in 2007. In South Korea, E-learning saw the most significant development at the elementary education level, with 88.0% of schools using it; the corresponding figures for middle schools and universities were 78.0%. Besides its application in student education, E-learning was also deployed for professional training of government officials and the workforce in South Korea. A survey conducted in 2008, covering 517,700 government officials and 1,550,000 employees and laborers, revealed that South Korean learners found the most attractive features of E-learning to be cost and time savings, system stability, content quality, diversity, and learning effectiveness (Michael Trucano, 2011). The achievements obtained since the implementation of E-learning are recognized as a means to reform education in South Korea. Therefore, it is crucial to pay attention to key issues that South Korea has addressed to make this model approach advanced education systems.

Firstly, South Korea has developed information technology infrastructure over the past decade. Establishing relevant regulations to facilitate the development of E-learning, South Korea defined E-learning as a learning process using electronic devices from an early stage. As of the 2023 announcement with the “Cyber Korea 21” plan, South Korea ranked 4th globally in the number of personal computer usage and 1st in the number of high-speed Internet subscribers. Additionally, it stood at the 5th position among 60 countries in terms of E-learning readiness, comparable to the United States in the E-learning field. Furthermore, South Korea has actively promoted the development of the Educational Broadcasting Service (EBS) program and E-learning services to support high school graduates, part of the nation’s initiative to reduce the significant additional education costs borne by Korean families. This unique education program in the country is implemented in the context of advancing the information technology era with the convergence of the internet and communication technologies.

Secondly, the development of online learning platforms contributes to narrowing the education gap. Specifically, in Seoul, South Korea, the development of the Seoul Learn application provides free online lectures from renowned private tutoring centers, enabling financially challenged families and those lacking study conditions to engage in remote learning. In addition to closely aligned lectures with the standard curriculum, this platform also offers counseling services and direct support related to university admissions and future careers. According to statistics, approximately 8,800 children registered to participate in this learning application, meeting 88% of Seoul’s educational goals. The results from this application demonstrate the appeal of this educational approach, as each participant has, on average, enrolled in at least 5 courses. An important learning experience from this application is its commitment to gathering feedback from learners for

comprehensive improvement. A survey involving over 1,000 users from November 17, 2021, to December 7, 2021, revealed an average satisfaction level of 85/100. Moreover, 27% of respondents stated that the application helped them save educational costs. These surveys serve as a basis for service improvement, providing grounds for educational innovation to reach a broader range of users in society (Pham Khanh, 2020).

Thirdly, regarding policies, it is evident that the development of E-learning in South Korea has a solid foundation stemming from the national information technology and communication development strategy since the 1990s. The government of South Korea intervened in this area through three stages. The first stage aimed to establish a favorable environment for the development of information technology and communication through liberalization and privatization policies in the information technology and communication sector. The second stage involved investing in public internet infrastructure to intervene in the supply chain. The third stage involved meeting demand through information technology training programs for 10 million South Korean citizens, including household workers, officials, and the military (Misko, J., Choi, J., Hong, S. Y., & Lee, I. S. 2004). Specific policies related to higher education were implemented based on the above directions, including:

(i) Building the South Korean education network, connecting over 360 educational institutions, including web services for sharing digital resources, scientific databases, etc.

(ii) Promoting collaboration among universities, establishing E-learning support centers for universities, sharing resources, and building a standardized new management system.

(iii) Establishing cyber universities, which are universities where learners are not limited by space and time, using information and communication technologies to access educational services (Anderson, B., Brown, M., Murray, F., Simpson, M. & Mentis, M. 2006).

The South Korean government considers E-Learning as a potential market, implementing four major policies: Strengthening the E-Learning industry ecosystem, Developing human resources, Enhancing utility, and Building a global network. The estimated budget for E-Learning until 2015 is \$3.5 billion, creating 37,000 jobs. South Korea's policies exhibit a shift in objectives from providing learning opportunities for everyone (Master Plan I) to educational and human resource development (Master Plan II), aiming to enhance learning capacity and innovation, positioning South Korea as a leader in applying ICT in education (Master Plan III). Initial policy focus in South Korea is on primary education, extending to vocational training and university education, impacting various aspects such as instructors, technology infrastructure, content standardization, information services, and education policies. The policies in South Korea utilize both direct tools (investment, private sector intervention) and indirect tools (shaping, guiding, standardization) (Vu Huu Duc, 2020, p.15).

Fourthly, South Korea has established online universities, with Seoul Cyber University being the best and first online university in the country. Comprising nine affiliated colleges offering various disciplines like Social Sciences, Social Welfare,

Business, Engineering, Design, Culture-Arts, etc., this structure allows the university to operate independently compared to other institutions. Consequently, specialized policies regarding salary and training operations are designed for this university. To ensure the quality of E-Learning, South Korea mandates all universities to conduct self-assessment every two years and submit results to the Korean Council for University Education (KCUE). KCUE is the only organization authorized by the state to assess universities. For virtual universities, the Korea Education and Research Information Service (KERIS) monitors quality every two years based on specific guidelines in the Quality Assurance Framework for the evaluation of virtual universities. These guidelines cover aspects such as vision, mission, values, goals, assessment and evaluation, learning materials, leadership, administration, management, information technology infrastructure, finance, teaching and learning, course and program development, student support, faculty and staff, and research. South Korea's quality assurance system places significant emphasis on the importance of educational information technology infrastructure (Zawacki-Richter, O., & Qayyum, A. 2019).

Fifthly, traditional universities in South Korea receive government support for E-Learning through the "eCampus Vision 2007" project since 2002, forming support centers at universities in 10 different regions. Initially used as a learning support tool, E-Learning courses are now recognized for credit within university groups. Some courses are utilized to participate in South Korea's MOOC project. The South Korean government acknowledges E-Learning as the use of information technology to expand education. However, this does not mean discarding traditional learning methods. The South Korean government views E-Learning as a means to eliminate limitations on time and space, ensuring that everyone has the opportunity for individual-level study and recognition. The Ministry of Education, Science, and Technology of South Korea initiates both ICT and E-Learning policies. Technological development policies in education are implemented through the collaboration of two ministries: the Ministry of Education, Science, and Technology and the Ministry of Knowledge Economy (Nguyen Thanh Phuong & Nguyen Thi Cam Hong, 2023).

The implementation of advanced information technology policies in South Korean education consists of three stages: (i) Focusing on establishing world-class advanced information technology infrastructure to initiate educational information services; (ii) A stage devoted to educational quality and access to information related to available educational and training services in the ICT infrastructure: E-Learning and the enhancement of capabilities for teachers and CEOs of all elementary and secondary schools; (iii) The third stage is designed to create a sustainable learning environment, including E-Learning and mobile learning (M-Learning), providing more flexible and secure educational information services to students. This is further developed to allow elementary and secondary school students to use digital textbooks instead of printed textbooks. Expanding global cooperation with developing countries through partnership relations to share best practices in advancing information technology in education (Le Tran Hoai Bao-Ngo Ho Anh Khoi, 2023, p.134).

3. The lessons learned for Vietnam from the policy encouraging E-learning in South Korea

E-learning is a new educational model designed to provide education for everyone, everywhere, and at any time. The characteristic of E-learning is to address the issue of educational opportunity inequality, achieve active and innovative learning capabilities. According to a survey of 1,000 internet users aged 3 and above conducted nationwide by the Ministry of Knowledge Economy and the Institute for the Development of E-commerce in Korea from October to November 2007, 39.1% of respondents stated that they were learning through E-learning (Phuong Nga, 2010). Therefore, the successful integration of E-learning policies is crucial to meet the country's expectations for E-learning and enhance public education. Valuable experiences can be drawn from the successes in South Korea, including:

Firstly, for the effective implementation of E-learning education, South Korea enacted the "E-learning Industry Development Act." This law detailed concepts related to online teaching, the tasks, functions, and coordination of each agency in the E-learning implementation process. Additionally, the government formulated strategic policies to establish an integrated vision of E-learning with the goal of leading the nation in the knowledge society. Importantly, when implementing the institutionalization of education and developing E-learning, South Korea required the government to establish a collaborative system between ministries and relevant organizations. This is an issue that Vietnam needs to consider and institutionalize regulations related to education and E-learning.

Secondly, the government supports public education by integrating E-learning projects into existing programs, promoting programs through the "eCampus Vision" projects. It promotes the development of national learning centers integrating online learning through the EBS E-learning project. Through these efforts, E-learning will play a significant role in reducing costs for learning and providing an alternative way to address social and educational issues. To develop the online learning platform contributing to narrowing the gap in education, South Korea has developed free applications, providing online lectures from renowned private tutoring centers, allowing disadvantaged families lacking learning conditions to participate in remote learning. In addition to lectures aligned with the mainstream curriculum, this platform also provides counseling services, direct support related to university admissions, and future careers. To stay updated with social trends, in South Korea, gathering feedback on the training program after each course for modification and supplementation according to suitability is a prerequisite at each training institution.

Thirdly, E-learning methods can be customized according to the requirements of teachers, and teachers are provided with all conditions to implement E-learning. This program will serve as a remote training center during the teacher's training period and will provide counseling services to enhance teachers' E-learning capabilities. The National Education Center (EDUNET) and the learning centers run by the Ministry of Post and

Telecommunications will provide online learning advisory services to teachers. Additionally, a research and development (R&D) center for E-learning was established in April 2005 to systematically support the creation of policies, knowledge, and theories of E-learning.

Fourthly, South Korea allows the establishment of separate online universities instead of integrating this form within directly teaching universities as in Vietnam. Allowing this form to operate will encourage lecturers to invest in designing in-depth lectures, equipping training courses for lecturers, instead of lecturers having to teach various forms and requiring a wide range of tools to support. In addition, promoting technological development is also a prerequisite for educational institutions to make the best use of this infrastructure to serve both educators and learners (Nguyen Thanh Phuong & Nguyen Thi Cam Hong, 2023).

4. Conclusion

Due to the barriers of time and space, traditional learning methods are required to be executed at a specific time and location. In contrast, learning directly on the Internet is less restricted in terms of space and time. Additionally, E-learning is known to save educational costs and facilitate the timely dissemination of knowledge. As E-learning is increasingly adopted by educational institutions and corporations, the success factors of E-learning become more apparent. Recently, E-learning has gained significant attention, especially at the governmental level, since the Covid pandemic. Despite criticisms pointing out unresolved issues of E-learning, it is considered an irreversible trend. South Korea, with its successful experience in implementing E-learning across society, can provide valuable lessons for Vietnam. This research does not aim to draw overly specific conclusions about Vietnam's situation but aims to provide detailed information about the national-level E-learning implementation process advocated by the South Korean government. This is intended to suggest possible references for implementation in Vietnam.

COMPETING INTERESTS

The authors have no competing interest to declare.

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