Chapter 2

Developing Human Capital for National Development: Lessons from the Malaysian Smart School Initiative

Gerald Goh Guan Gan
Multimedia University, Malaysia

Khor Yoke Lim
Universiti Sains Malaysia, Malaysia

ABSTRACT

Leapfrogging from a developing nation status to one that is fully developed by 2020 is the ‘futural role imagery’ of most Malaysians ever since the Malaysian government laid out its bold Vision 2020 national development blueprint in the 1990s. Central to the attainment of this vision is the provision of world-class information and communication technology (ICT) infrastructure and the creation of an excellent human capital base that is skilled, knowledgeable, flexible and mobile. To this end, the Malaysian government embarked on the Smart School Initiative, a flagship application of the MSC Malaysia project that aims to transform the way students are being schooled. The smart school pilot project was implemented in 88 schools across the country which saw these schools being fitted and equipped with ICT infrastructure, educational courseware and radical changes in its teaching-learning practices. This chapter provides an overview of the smart school project and highlights some of the issues encountered in the pilot phase. The lessons learned from the smart school pilot project is an invaluable resource to education policy makers, administrators and the school community in other countries intending to introduce an ICT-infused curriculum in schools. It is discovered that a balanced development of all smart school components - ICT infrastructure deployment and maintenance, connectivity, school management system, educational courseware development, teacher development and continuous training is needed to create a smarter learning environment for effective human capital development.

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INTRODUCTION

In pursuit of Malaysia’s national development goals, it is exigent that the country invests and develops its human capital to ensure that a trained, skilled and well-educated workforce is created (Azizah Ya’akob, Nor Fariza Mohd Nor, & Hazita Azman, 2005). From a resource-based perspective, human capital can be effectively leveraged as a source of competitive advantage to boost the country’s productivity, economic performance and sustain its competitiveness as it makes the shift from a manufacturing-driven economy into one that is ICT-driven and knowledge-based (Azizah Ya’akob, Nor Fariza Mohd Nor, & Hazita Azman, 2005; MDeC, 2007b). This is evident from the emphasis on ICT and human capital development through education and training in Malaysia’s national development plans. As part of its national development aspirations, the Malaysian government established the Multimedia Super Corridor and came up with the National Information Technology Agenda to act as catalysts in the country’s move and participation in the emerging digital economy (Azizah Ya’akob, Nor Fariza Mohd Nor, & Hazita Azman, 2005).

The key task in moving towards a developed nation status lies in Malaysia’s ability to develop its human and intellectual capital to produce adequate supply of knowledge workers who are flexible, agile and mobile with relevant knowledge and skills required by the industry (Azizah Ya’akob, Nor Fariza Mohd Nor, & Hazita Azman, 2005; Bank Negara Malaysia, 2008). Statistics on Malaysia’s expenditure on human capital development-related activities indicate that national budget spending on this sector has been on the rise in the past few decades (Bank Negara Malaysia, 2008). This has resulted in positive outcomes for Malaysia as the indicators for the country’s human capital have improved over the years based on government expenditure on education and training, years of schooling, student enrolment (Azizah Ya’akob, Nor Fariza Mohd Nor, & Hazita Azman, 2005).

Therefore, the main objective of this chapter is to demonstrate the importance and role of education in developing human capital for national development. In line with this, we examine how and why Malaysia reformed its national education system to be student-centred and ICT-based in line with the human capital requirements of the economy and the benefits sought from such a bold move. In addition, it presents the Malaysian experience in transforming its education system through the bold Smart School Initiative.

This chapter is divided into five key parts. The first part of the chapter provides a brief overview of the importance of education for national development. The second part then presents Malaysia’s national development aspirations that resulted in the creation of the Multimedia Super Corridor (MSC Malaysia) that is meant to leapfrog the nation into developed nation status by 2020. Due to the importance and emphasis on human capital development, the Smart School Initiative was developed as one of the MSC Malaysia’s flagship applications with radical changes in terms of ICT infrastructure and the teaching-learning approaches adopted in these smart schools. Part four of this chapter provides a brief account of the teaching-learning components as well as ICT infrastructure models deployed. The fifth and final part of this chapter provides a critique of the smart school pilot project in terms of the learned lessons in the key components of the project. With an appreciation of the strengths and weaknesses of the pilot project, this chapter also outlines the lessons learned from this initiative and acts as a reference for other developing countries that are keen to develop their human capital based on the Malaysian smart school model.

EDUCATION FOR NATIONAL DEVELOPMENT

National development has been the key focus across the globe with countries formulating