E-learning and HK School Education

Ka Man PANG
Hong Kong Institute of Education, Hong Kong.

Wing Kee AU
University of South Australia, Australia.

Abstract

E-learning has become increasingly important. The situation in Hong Kong is no exception. Since the implementation of the five-year strategic for information technology in education, there have been substantial changes in the infrastructure in Hong Kong schools in terms of hardware, software and peopleware. These advances are providing a good platform for Hong Kong schools to further develop a better and necessary learning environment for their students. This paper reports some of the recent development of e-learning in Hong Kong and reflects critically of its future.

Introduction

In recent years, educators have witnessed rapid changes in the use of information technology (IT) in education. In incorporating e-learning in the classrooms and other learning scenarios, new possibilities for both learners and educators have emerged. A market survey in USA by i-OP reports that e-learning on current served market for educating technology professionals is estimated to reach 60-65 billion dollars, 96% of the 376 respondents for high-tech engineer community were willing to taking online course [1]. IBM Mindspan Solution also predicts that the e-learning market in business and industry will grow at the compound average growth rate of 83% from 1997 to 2003 [2]. While e-learning may or may not totally replace traditional education and training, it has been widely adapted in the business professional development and training. This paper does not examine e-learning in this area, rather, it focuses on how it relates to current HK primary and secondary education.

E-learning in HK education

Hardware and network infrastructure: Student-to-computer-ratio is commonly used for measuring IT provision in schools. There has been a substantial improvement of this ratio from 36:1 to 7.5:1 at secondary level and from 53:1 to 13.4:1 at primary level. The percentage of schools using powerful computers (suitable for multimedia and intensive Internet applications) is above 70%. The improvement of this ratio could also be partly attributed to the additional funding provided by the QEF [4]. It is expected that this ratio will continue to improve although the QEF has now virtually stopped funding the purchase of hardware in schools. In respect to network access, computers in HK primary and secondary schools are networked and serviced by different type of servers (Web server, Ftp server, e-mail server). Moreover, 54% of secondary school and 85% of primary school are using 1 Megabits or over broadband Internet.
access service while 68% of secondary schools have their own homepages on the WWW. The figure will even be up to 80% if schools using the homepage service set up by HK Government are included.

Teachers’ and students’ ability and the willingness of using IT: From the mid-term review [4], it was found that senior classes in secondary schools used IT in subject teaching less frequently than the junior classes. It signifies teachers in senior secondary school have less interest in using IT for teaching. It is unlikely that this is related to teachers’ IT competence since this scenario is also found in the subject of Computer Studies. Presumably, the limit of teachers’ resources and the heavy workload in normal teaching processes may be one of the reasons. Moreover, it could also be surmised that the public examination system in Hong Kong places a lot of pressure on both teachers and students in the senior classes, not to mention a very packed syllabus. However, such scenario becomes better if using website resources reference and supplementary materials. The survey shows that 60% HK teachers’ IT competence is sufficient for them to develop simple web-based materials, and over 95% of Hong Kong students have access to the Internet at home. In the teachers’ side, 60%–70% in secondary and primary level use website resources for teaching. This phenomenon indicates that teachers are more willing to use website resources rather than in use courseware for teaching. However, the attitude of willingness to use IT including both website resources and IT integrating approach in the teaching is greatly improved. This also can be supported by the figures that 94.5% and 97.1% for HK primary and secondary students have a positive motivation and ability to learn actively and 98.2% and 96.2% are encouraged to be engaged in more collaborative project-based learning.

The development of web-based teaching software:
One of the findings of the mid-term review highlights that teachers are more willing to use website resources rather than web-based teaching packages is somewhat related to the difficulty of developing high quality of web-based teaching software and e-learning portals. In fact, there are very few web-based education software and portals that are satisfactorily used [7]. Besides, the improvement of the hardware infrastructure in HK primary and secondary schools is far better than the developing of the teaching software [5]. Besides, it is almost impossible to expect teachers to develop a sophisticated web-based e-learning portal, which meet the satisfaction factors [7], for secondary level on top of their normal teaching loads.

Some problems and issues
While the Hong Kong government has made tremendous efforts to improve its education system since the return of Hong Kong to China in 1997, especially in the use of IT in education, there are a number of problems and issues faced by the HK schools. A few of these problems are discussed here as examples. First, Hong Kong is facing some serious economic problems and it is unlikely that its economy will improve in the next few years. As a result, Hong Kong schools will face the problem of upgrading its hardware and infrastructure. Second, there have been too many educational reforms in Hong Kong in the last few years. Teachers and school leaders are under immense pressure to cope with the excessive demands. Third, Hong Kong has a relatively small market for the development of traditional Chinese character based web software, which implies that it might not be cost-effective for HK to develop its web-based software.

Conclusion
This paper examines some of the development and capabilities of the web-based environment in HK education mid-way through the five-year IT strategic plan. It would appear that the fundamental conditions exist in HK schools, e.g., IT facilities, and teacher and students attitude, to make good use of a web-based e-learning environment for HK school education. However, the support in high quality web-based e-learning software and portals still requires substantial improvement. Moreover, there are quite a few problems and issues that Hong Kong schools have to deal with in order to realise the potential of e-learning.

Reference