

Chapter 9

Japanese Students' Digitally Enabled Futures Images: A Synergistic Approach to Developing Academic Competencies

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ABSTRACT

This chapter illustrates how a Futures Studies approach encourages Japanese students to strategically analyze their futures by anticipating problems and stimulating collaborative solutions. Supported by creative digital media integration, students become active participants of a learning process that results in measurable outcomes of academic competencies. Two foresighting contexts are provided: local community and personal employment futures. Data from both are analyzed for the effectiveness of digitally enabled Futures Studies in promoting academic competencies of students in Japanese Higher Education. The article concludes with personal critiques from digitally enabled learning and Futures Studies perspectives.

SETTING THE STAGE

Introduction

Conventional Japanese education is designed for fact-based, exam-oriented learning using government approved textbooks to facilitate the one-way hierarchical flow of information from knower to non-knower (Mima, 2003). “Confucian hierarchy runs deep...to the notion of teacher as knower of the

right answer and the student a humble imitator of the master” (Drydan, 1998, p.101). This traditional pedagogy is making reform a slow process in an education system which “*puts a lot of emphasis on acquiring knowledge through memorization and repetition*” (Fujitani, Bhattacharya, & Akahori, 2003, p.34) subsequently accentuating an increasing gap between the subjects taught at school and the activities of real life (Mima, 2003). To be blunt, the public education system in Japan is failing in its basic education (Whittaker, 2001; Craft, 2004).

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Although Japan's image may be a nation of high-technology and robotics, the actual implementation of Information Communication Technology (ICT) for basic technology training or more informed creative media utilization in education at schools and universities, "remains comparatively low, and ICT does not appear as a priority in national education policy" (UNESCO, 2007). Immersing ICT into mainstream education has been a major education policy of governments throughout the world and yet Japan lacks a clear vision for technology integration from schooling to higher education (Bachnik, 2003; Morris-Suzuki & Rimmer, 2003; Vallance, 2008a). Bachnik (2003), in her critique of Japan's attempts, states that, "the technology revolution appears to be caught in a series of organizational 'short circuits' that sap the forward momentum of those trying to implement IT so that real forward movement is blocked" (p.309).

One major consequence of this lack of educational leadership is that universities in Japan are not considered to be having much of an impact on developing the nation's human capital. Citing research as a key indicator of university impact on a nation's science and technology knowledge base, Whittaker (2001) reported that patent applications in Japan from its universities were a "minuscule 0.3%" in 1997. Vallance (2008) compares the clearly constructed educational policies for the 21st century of Singapore to the vague directives from the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in Japan. It was argued that if Japanese educators were released from the stranglehold of national policies bereft of specific guidance, opportunities for stakeholders (teachers, students, parents, education managers) to embrace change in understandable, meaningful and relevant ways in classrooms throughout Japan will occur. He provides a framework with strategic actions built upon the firm constructs of thinking, learning, creativity and communication.

Fegan and Field (2009) argue for reform in Japanese Higher Education that places a greater emphasis on transnational education: "The knowledge-based society demands an educated population, and as the need and possibility for that knowledge expands, so will the need to provide opportunities for an education across-borders" (p. 17). The importance and relevance of transnational education in Higher Education is the recognition of diversity of ideas, knowledge, methods and thinking for "constructively building knowledge and opportunities for both the domestic constituents and for the stakeholders in the international community" (Fegan & Field, 2009, p.17).

It is therefore posited that the sooner the process of educating Japanese students for this Digital Age begins, the more flexible the nation will be to the economic, industrial, and social adjustments occurring throughout the world. This means that students need to be provided with meaningful and relevant opportunities to engage with problems that require the retrieval of prior knowledge, offer multiple perspectives of problems and solutions, and facilitate a challenging process which results in achievable, diverse outcomes. Learning should not occur in isolation but involve communication, cooperation and collaboration with fellow learners and experts. In this Vygotskian social constructivist learning, personal interpretation, decision making and community cooperation will foster long term understanding and transference of learned concepts (Vygotsky, 1986). In short, the construction of knowledge requires learners (of science or other subjects) to be actively involved in and contribute to the learning process (Kolb, 1984). Unfortunately, at present, this would be unconventional for many Japanese students and academics.

The argument though is that at all levels of educational leadership, change for a 21st century Knowledge-based Economy requires a modernization of human capital. This need for change has been acknowledged by governments (the

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