

Chapter 7

Student–Driven Learning within a Technology–Enhanced Learning Environment

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ABSTRACT

This chapter will discuss student-driven learning within a Technology-Enhanced Learning (TEL) environment. It will first put forward some technological learning tools that have encouraged student-centered learning (SCL) and later explore online collaborative learning which is seen as a pathway towards enhancing SCL in the 21st century classrooms. This is important as effective SCL instruction not only provides learners with skills and knowledge but also enable them to function capably and contribute effectively in a highly networked society in the future. This chapter highlights that today's technology enhanced learning environment has brought about various innovations in teaching and learning. Technology is moving at such a fast rate that information is at everyone's fingertips and learning goes far beyond the four walls of the classrooms. In such an age, students move into new flexible learning spaces and environments that can allow them to take ownership of their own learning.

INTRODUCTION

The twin forces of globalization and internationalization witnessed the democratization and massification of education at all levels including higher education. Despite the significant increase in enrolments in institutions of higher learning (IHLs, hereafter), there exists several challenges and issues of concern. One issue of concern that has plagued the Malaysian government is the unemployment of graduates

DOI: 10.4018/978-1-5225-1689-7.ch007

from IHLs. Zunaira Saieed (2015) a reporter with a Malaysian daily, The Star, reported that there were approximately 62,700 unemployed graduates in Malaysia and this number reflected a 3.1% increase from the month of January to February 2015. Furthermore, employers reported that a majority of Malaysian graduates lack effective communication and critical thinking skills. More importantly, The National Graduate Employability Blueprint 2012-2017 cited by Lee, Sidhu and Chan (2013) highlighted that among the many problems plaguing employers in dealing with fresh graduates are their limited English language proficiency (55.8%), lack of required skills for the job market (30.2%), limited knowledge in their respective fields (23.8%) and poor problem solving skills (25.9%). This was further attested by Chew (2013) who highlighted that these graduates possessed inadequate core knowledge and competency, poor communication skills and English language ability as well as insufficient general knowledge.

Henceforth, IHL need to take a critical look into delivery mechanisms in higher education. There is a need for IHL to equip their graduates with 21st century skills such as life and career skills, critical thinking, problem solving, ICT skills, information and media literacy, communication and global learning skills that are needed in today's keen competitive global markets. These 21st century skills are often articulated in the graduate attributes of most IHL. For example, in the Malaysian Education Blueprint for Higher Education (2015-2025) the graduate attributes listed include the following: ethics and spirituality, leadership skills, national identity, language proficiency, thinking skills, and knowledge. Alongside this, students also need to master the 4C's, i.e. creativity, critical thinking, communication, and collaboration. All these attributes need to be reflected in today's 21st century classrooms. Such classrooms need to provide a productive environment where learning is active, student-centered, personalised and technology driven with an invitational environment that encourages the use of interactive and the BYOD (Bring-Your-Own-Device) approaches that have immediate and JIT (just in time) access to information, resources and experts. The 21st century classroom should also promote peer and collaborative learning whilst encouraging students to take responsibility for their own learning to develop learner autonomy which leads to lifelong learning. This is in line with the idea of 'learners as drivers', which is the prime characteristic of the 21st century learner.

These 21st century skills in today's classroom must be evident within the educational design, delivery and experience of all learners in IHL. More importantly, it requires a paradigm shift from traditional teacher-centered didactic instructional approaches to student-centered learning (SCL, hereafter) approaches that encourage student voice with learners in the 'driver's seat.' According to Cannon and Newble's (2000), student-centered learning is a term that is used to:

... describe ways of thinking about teaching and learning that emphasize student responsibility and activity in learning rather than content or what the teachers are doing. Essentially, student-centered learning has student responsibility and activity at its heart, in contrast to a strong emphasis on teacher control and coverage of academic content found in much conventional, didactic teaching. (p.16-17)

Brandes and Ginnis (1986) note that the term 'student-centered learning' has its roots in humanism. This was first articulated by Carl Rogers, the humanist psychologist in his book *Freedom to Learn* where SCL is synonymous with terms such as 'active learning' and 'participatory learning.' Rogers (1951) stressed that in a SCL "we cannot teach another person directly; we can only facilitate his learning" (p.389). Biggs (1999) further notes that the latest transformations in higher education have stimulated interest in SCL where learners are seen as actively involved and engaged in searching and constructing meaning and building on current knowledge and skills. In such a learning environment, learners are

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