Chapter 2
Globalisation, Blended Learning, and Mathematics Education:
Implications for Pedagogy in Tertiary Institutions

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ABSTRACT

The issue about globalisation is now commonplace. However, there has not been enough literature concerning its link with ICT and mathematics education and how the three put together have impacted tertiary education pedagogy. In light of this, this chapter involves a local context of tertiary institutions operating in an environment exposed to the processes of globalisation. The chapter explores the meaning of globalisation, information communication technology, and mathematics education. It discusses how ICT and globalisation in relation to blended learning have influenced mathematics education, considers the relation between globalisation and mathematics education, and finally, draws the implications of globalisation and ICT on pedagogy in tertiary education.

INTRODUCTION

Tertiary education systems, policies and institutions are being transformed by globalisation, which is "the widening, deepening and speeding up of worldwide interconnectedness" (Held et al., 1999, p. 2). Tertiary education is always more internationally open than most sectors because of its immersion in knowledge, which never showed much respect for juridical boundaries. Tertiary education has now become central to the changes sweeping through the emerging nations, in which worldwide networking and exchange are reshaping social, economic and cultural life. In global knowledge economies, tertiary education institutions are more important than ever as mediums for a wide range of cross-border relationships and continuous global flows of people, information, knowledge, technologies, products and financial capital. Not all tertiary institutions especially universities are (particularly) international, but all are subject to the same processes of globalisation – partly as objects, victims even, of these processes, but partly as subjects, or key agents, of globalisation (Scott,

1998, p. 10). Even as they share in the reinvention of the world around them, tertiary education institutions, and the policies that produce and support them, are also being reinvented.

One could think that globalization is only a matter of industry and business, and that education as a moral process is no part of this development. However, if we understand education as part of the information business, education systems can be seen as the core of the globalization process. Governments are trying to compete on the global markets by placing the onus of policy on education to produce the "human capital" most appealing to global competition (Webster 2001, 268). Rinne (2000) emphasizes that educational policy has become an ever more important part of economic, trade, labour and social policy in western countries.

The EU's new initiatives, like creating the European Higher Education Area (Prague, 2001), are supporting lifelong education, integration of work and education, student mobility and joint study programmes. These initiatives can be seen as a part of the global development of education like business and "training society" (Panzar, 2001, 241), where the emphasis is on producing competitive skills and labour for the markets. One concrete global development is the development of mega-universities, university networks and virtual universities that can offer competitive training programmes for students recruited from all over the world – but of course in major languages only (e.g. English Language).

Globalisation processes are transnational and have resulted in the increasing standardization of some areas yet they are only partly constitutive of local realities. Globalisation is not a predetermined force that moulds local contexts into uniform shapes (Singh, 2004). Yet local contexts cannot be completely understood in strictly local terms (Lee, 2000). Stromquist and Monkman (2000) point to the efforts of groups to recapture traditional values and identities as unintended effects of globalisation and the reaction of local contexts

(for example the Indians in Latin America). Green (1999) presents evidence of the mutual influence of global and local in terms of convergence and divergence: There is clear evidence of policy convergence within Europe and East Asia around a range of broad policy themes: including lifelong learning; internationalization in higher education; decentralization in regulation and governance; increasing use of evaluation and quality control measures; and the need to bring education and work closer together. However, this does not appear to have led to any marked convergence in structures and processes…. What is apparent is that each country has responded in practice to common problems in different ways in line with its particular traditions and ET (Education and training) model characteristics (p. 69).

Robertson (1995) uses the term "glocalization" whereby the global and the local interpenetrated each other, creating a hybrid. This hybrid contains sources of global trends adapted and blended with local conditions and options. Lee (2000) provides an example of the Malaysian education hybrid that has on the one hand standard subjects such as mathematics, social studies and the almost identical classroom hours devoted to each which are observable across nation states.

The issue about globalisation is now common place. However, there have not been enough literature concerning its link with ICT and Mathematics education and how all the three put together have impacted tertiary education pedagogy. One out of the three cannot be discussed in isolation of the remaining two. We cannot talk about globalisation without mentioning ICT and we cannot talk about globalisation in mathematics education without ICT because it is ICT that make globalisation of mathematics education possible. In the light of this, this chapter involves a local context of tertiary institutions operating in an environment exposed to the processes of globalisation. The chapter attempts to explore the meaning of globalisation, Information Communication Technology, and

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