

## Chapter V

# Online Discourse: Encouraging Active Student Participation in Large Classes

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### **ABSTRACT**

*This chapter explores how information and communications technology (ICT) can be designed to maximize human computer interactions (HCI) in order to create a student-centered learning environment within large classes by enabling small-group discourse. Through an empirical case study of student participation through computer-mediated-communication the chapter demonstrates how the flexibility created in the online environment enables students in large classes, particularly students from non-English speaking backgrounds, to participate at a pace that enables them to contribute considered opinions to a small-group discourse. The case study reiterates the argument that HCI is best achieved when ICTs and face-to-face classes are combined. It is argued that in so doing HCI assists the higher education environment to both meet the demands for mass-market, consumer-driven, globally accessible higher educational, as well as addressing industry demand for graduates with advanced problem-solving and analytical and reflective skills who are able to work collaboratively in teams.*

## **TEACHING IN LARGE CLASSES**

A recent Australian survey of 69 highly accomplished teachers and 21 academic developers employed in 23 Australian universities defined large classes as varying from between 70 to 500 students (AUTC, 2001). It found that the most common educational design for large classes was a weekly lecture for all students supplemented by weekly or fortnightly small group tutorials. The most common forms of assessment were written assignments, group oral presentations, and written examinations. Less common were formative assessments, group projects, marks for participation, and portfolio work.

The survey also found that in these large classes the most common issues and challenges identified were:

- relationship distance (psychological and physical) between the students and teacher
- assessment (including ensuring adequate and timely feedback, moderating assessment, checking for plagiarism)
- course design (including how to devise manageable yet flexible learning that is student-centered, and applicable across a heterogeneous group)
- resource availability (including space/equipment requirements, training for tutors, and administrative assistance)

Since this survey, a further challenge for large class environments has been the increasingly cultural heterogeneity of students. This places further pressures on teachers and students in seeking to accommodate the diversity of language, cultural backgrounds, and experiences of education. For example, in Australia many international students come from Asian countries in which English is neither the spoken nor the educational instructional language and in which the educational process is steeped in a rich Confucian educational heritage

of a teacher-centered learning approach. This has been described by Biggs (1999, pp. 131-132) as a “*conserving approach to knowledge*” and by Ballard and Clanchy (1997, p. 14) as placing emphasis on the “*extensive and accurate knowledge of the wisdom contained in authoritative texts or the sayings of earlier scholars and sages.*” This has resulted, claims Tyson (1997, p. 77), in perpetuating a “*culture of dependent learners in a didactic, knowledge-focused classroom... [rather than] ...collaborative learners organizing and managing their own learning processes.*” That is, many Asian students come from educational cultures in which they are used to deferring to authority, to not offering their views or questioning teachers during class (although they will approach the teacher individually at the end of class for clarification), and to participating only accordingly to clearly set guidelines (Yap, 1997).

It is within this educational environment that the next section discusses how ICT can be designed to assist large classes by maximizing HCI.

## **HCI LEARNING ENVIRONMENTS**

The first wave of use of ICT for teaching purposes utilized an instructional design approach that tended to embed a teacher-centered learning environment focused upon content acquisition. Oliver (2004) states that much of the courseware management has been designed to support a content-oriented approach that focuses on what the teacher is doing rather than what learners are doing. Herrington, Oliver, Herrington, and Sparrow (2004) demonstrate how traditional content instruction is translated into online instruction, with the resulting interface described as:

*generally text-based, and divided according to the scope and sequence of the content to be covered. The content is hierarchically organized and may follow the same sequence as the set textbook...the teacher controls the learning situation...weekly*

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