Mobile technologies and dialogic pedagogies in Hong Kong and UK higher education (0373)

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Abstract

This paper focuses on a cross cultural perspective on the interaction of mobile technologies and dialogic pedagogy and explores how far the behaviors and expectations of undergraduate students in lectures are culturally contingent and amenable to dialogical teaching. University lectures are monological constructs which deliver information in an asymmetrical relationship between the lecturer and the student. By contrast dialogical teaching and learning emphasises an authentic two-way conversation stimulating deeper cognitive activity. This paper compares the responses of university students in the UK with those in China (Hong Kong) around the used of a cloud based presentation and response system which aims to stimulate more dialogical learning in the lecture space. Previous studies have shown how students are more engaged and motivated in lectures when electronic response systems (EVS) are used but little is known about the value of technology to foster genuinely dialogical conversations and learning.

Outline

Dialogical teaching and learning has been the focus of considerable educational research and interest recently since it has been identified as a powerful cognitive tool across a variety of different settings (Alexander, 2006; Lyle, 2008 Watkins, 2005). Its roots lay in the work of Vygotsky (1978) and Bakhtin (1981) who both identified language as the driver of cognitive development. Subsequent linguists and psychologists have used this theoretical work to examine the interactional nature of children's learning (Bruner, 1986) and how humans use language to make meaning in particular social and cultural contexts (Halliday, 1977). In *The Dialogic Imagination* Bakhtin draws a clear distinction between dialogical and monological talk. Monological conversations are dominated by the teacher who uses language as an instrumental device to transmit knowledge to the learner rather than to enter into a genuine two-way discourse. By contrast, dialogical conversation is an authentic attempt to construct shared understandings and meanings. It extends beyond the instrumental exchange of information and emphasizes the intersubjective nature of language which is active, dynamic and collaborative. Monological conversations are asymmetrical since they focus power on the teacher, whereas dialogical conversations are open-ended spaces where multiple voices can participate (Lyle, 2008)

University lectures are generally monological and asymmetrical, serving as a conduit for the exchange of information from the lecturer to the student, rather than a genuine discourse or

conversation. They have been widely criticized for their lack of interactivity or opportunities for meaningful cognitive processing on the part of students, who are largely passive, acquiescent consumers (Charman and Fullerton, 1995; Steinert and Snell, 1999). As an antidote to this sterile model of learning Laurillard developed the 'conversational framework' (2013) which instantiates all of the elements of dialogism referred to above (see Figure 1).
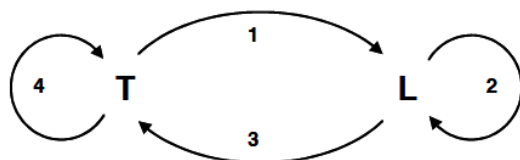

Figure 1: A simplified version of Laurillard's conversational framework

Dialogical teaching and learning has proved very difficult in the traditional lecture space where there is rarely time for learners to process the information presented to them by the teacher at a cognitively meaningful level (stage 2) and almost no opportunity for them to respond back to the teacher in order to demonstrate their understanding of the topic (stage 3). Hence the teacher has little or no feedback to gauge the extent to which learners have grasped the topic or to modify the lecture in order to address student misconceptions which are evident from learner feedback (stage 4). Additionally learners are often reluctant to enter into a genuine dialogical conversation or to offer answers in front of their peers even when teachers include more interactive opportunities such as show of hands, and this is likely to be extenuated amongst certain cultural groups where public demonstrations of understanding (and misunderstanding) are not the norm.

This problem forms the basis of a cross cultural study reported in this paper between first year education students in the University of Hull and Hong Kong University. It explores how a combined cloud based presentation and response system can mediate a more dialogical exchange of information and understanding between the lecturer and students and between students themselves, drawing comparison between the two culturally distinct settings for the study. Electronic voting systems (EVS) have been used in university lectures for many years and there is a growing body of research which demonstrates how they can be used to motivate and engage students, although evidence of direct attainment gains remain more elusive (Cutts and Kennedy, 2005; Draper and Brown, 2004). Many studies show that students like the immediate feedback they get when lecturers include polls and questions in their lecturers since this enables them to think more cognitively about their own learning when they can also see the responses of their peers (Boyle and Nichol, 2003; Draper and Brown, 2004). Anonymity is universally recognized in these studies as an essential prerequisite (Freeman, Blayney & Ginns, 2006) particularly for shy students and those from different

cultures where asking questions in public, or challenging the authority of the lecturer is deemed to be high risk or even taboo (Banks, 2006).

However, despite the increased level of interactivity facilitated by EVS there is little evidence to suggest these technological devices actually stimulate a more dialogical form of teaching and learning. The current study reported in this paper seeks to address this issue using *Zeetings* (www.zeetings.com), a recently launched cloud based response system which enables students to share the lecture presentation on their personal device where they can also provide answers to polls set by the lecture. In addition to these feedback features which have long existed in other formats, *Zeetings* provides a space for students to pose questions and offer feedback to both the lecturer and to other students during the presentation, serving in effective as a chat window or 'back channel'. Students can view this dialogue stream anonymously alongside each presentation slide and can also make their own notes which are stored privately for them to access later. The lecturer has access to all of this information in real-time during the lecture and afterward when the data is aggregated and available online for further analysis and consideration.

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