

Virtual teaching or virtually teaching? Does Internet-based teaching require multiple metaphors of mind?

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At the time of writing the abstract of this paper, I (a teacher-researcher) am becoming increasingly mindful of the need to examine the epistemological standpoint governing my teaching role in an innovative Internet-based virtual learning environment. I have a growing concern about the epistemology governing the interactive learning activities of a postgraduate coursework unit for professional teachers learning at a distance. The 'constructivist' metaphor of mind ('knowing as thinking'), which shapes my pedagogy, might be marginalising unduly my teaching role. This is evidenced by my predominantly 'episodic' teaching actions in the Discussion Room (DR) of the Internet site; actions which involve writing fortnightly summative perspectives on learners' discursive activities. By modelling the absence of a dominating voice (or being silent) have I abandoned unwittingly the important teaching role of modelling the discursive practices that I value? Perhaps it might be fruitful to adopt an alternative metaphor ('knowing as co-participation') arising from a 'constructionist' epistemology in which mind is regarded as being distributed socially?

Introduction

Writing the abstract for this paper signalled a major turning point in my web-based distance teaching of a postgraduate unit ('SMEC612 Curricula') designed for teachers of science/mathematics located around Australia. At that stage, a few short months ago, I had begun to reflect critically on the epistemology of my own web-based teaching practice (shared with David Geelan, my co-teacher and web-site designer), at least in relation to my role as a facilitator of student dialogue in the electronic Discussion Room (DR) of the unit's specially designed web-site [see [Stapleton, this volume](#)].

What had precipitated my self-critical reflective thinking? On return from a one-week break, I had noticed that the (text-based, asynchronous) dialogue in the electronic DR was falling short of the overall unit goal we had set for the students: "to reflect critically on your own images of science and mathematics curriculum" ['Introduction', <http://www.curtin.edu.au/learn/unit/smec612/index.htm>]. We had set this goal in accordance with our major pedagogical referent of 'critical constructivism', a perspective that values empowering learners to develop critical self-awareness of the taken-for-granted assumptions/ideals/myths which shape their social roles and which are propagated unknowingly in the unreflective enactment of these roles (Taylor, 1996). In the emerging era of national curriculum reform in school science/mathematics, which requires teachers to transform their teaching practices in accordance with the metaphor of 'curriculum as learning outcomes', it seems an appropriate time for a form of professional development that prepares teachers for critically insightful approaches to self-transformation. But we were very mindful of our recent research which has shown that this transformative goal cannot stand alone; it should be accompanied (preceded!) by an ethic of care and concern (Dawson & Taylor, 1998; Taylor, 1998; Taylor & Dawson, 1998).

Thus, we had designed a set of web-based discussion activities to complement the three non-web-based (individually completed) written assignments. Our intent was to provide a means of engaging teacher-learners in (electronic) dialogue with each other, a dialogue that we hoped would be both supportive and challenging. These DR activities were intended to promote initially 'open discourse', that is, an empathic sharing of professional viewpoints,

understandings and valued beliefs (Taylor & Campbell-Williams, 1994). We hoped that exposure to a range of diverse professional viewpoints would assist students to articulate, possibly for the first time, the assumptions that underpin their conceptions of curriculum and which frame their own epistemologies of teaching practice. There is something profoundly authentic and compelling in a dialogue amongst professional teachers, as on-campus classes demonstrate. In my on-campus class, the relative familiarity of open dialogue involves self-disclosure of students' extant worldviews and an open-minded understanding of others' (diverse) perspectives. Could we reproduce this type of learning via the web?

The DR activities were designed also to engage students in 'critical discourse', that is, discourse aimed at generating critical self-reflective thinking about the viability of the (often invisible) valued beliefs which shape one's own epistemology of practice (Taylor & Campbell-Williams, 1994). We hoped that the DR activities would facilitate a dialogue which enabled each student to (invite and) make use of other students' critical views in order to reflect self-critically on his/her own preferred conception of curriculum. In my on-campus class, I attempt to engage students in critical discourse by evoking a dialectical rationality which asks students to 'suspend their disbelief in new ideas while (at the same time) maintaining a healthy scepticism'. From this (not-so-easy) standpoint we explore the dialectical relationships between the pragmatism of students' current practices and the idealism of re-visioned future practices. Would our DR activities create a climate in which critical and open discourse could be intertwined? What might prevent us from achieving this teaching goal?

These questions are addressed in this paper from the perspective of my teaching interaction with Margarita (a pseudonym), one of the students who had 'excelled' at participation in the DR. In an attempt to engage Margarita in open and critical discourse about the nature of her own problematic participation, I precipitated a critical event that was not to be easily resolved. From the standpoint of a feminist perspective, I attempt here (very briefly) to outline an ongoing inquiry into the nature of the problem, an inquiry which is focusing on both the shortcomings of my own pedagogy and the student's predilection for a 'separate' way of knowing.

Open discourse only?

Just prior to the penultimate DR activity, I noticed that plenty of open discourse was taking place. Increasingly (but unevenly), students were sharing empathically their viewpoints, understandings, experiences, and valued beliefs about matters pertaining to their various professional practices. And a promising degree of critical discourse also was beginning to occur, but critique that was directed mostly outwards, at others, especially the authors of papers being read or (absent) colleagues/administrators/ politicians whose practices/policies apparently prevented these teachers from enacting their valued beliefs about teaching and learning. But there was almost no evidence of students inviting critical appraisal of their own valued perspectives, although there was mounting evidence of students being critical (in a mostly empathic way, but with some exceptions) of other students' views.

Thus, I asked myself how I, in my role as tutor, might intervene in the DR to move students towards the elusive goal of critical self-reflective thinking? My co-tutor (David Geelan) and I had been careful so far to avoid imposing the (institutionalised) authority of our own 'voices' in the DR for fear of 'hijacking' the student discussion and hindering the unfolding development of open discourse. As designers of the unit, including the DR activities (see Geelan, this volume), we regarded our voices as being already very pronounced. But it looked to me (impatiently, perhaps?) as though none of the students was going to 'get there' by themselves, not without some form of direct tutorial intervention in the DR.

Knowing as co-participation

At that time, my attention was being drawn to the literature on the closely related theory of 'constructionism' and its alternative metaphor of mind (Gergen, 1994; Steier, 1994). From a constructionist perspective, mind is distributed in 'dialogical space', giving rise to a pedagogical metaphor of 'learning as co-participation' in discursive activities modelled by 'experts'. Constructionist theorists argue that the constructivist metaphor of 'mind as embodied' places too much emphasis on the individual thinker as the autonomous owner of the locus of control of knowledge construction. Although my pedagogy was based on a social form of constructivism, one that acknowledges the importance of

student-student negotiation, perhaps it was time to change metaphors? Perhaps the expertise of the students was insufficient to enable them to engage in a sophisticated form of open and critical discourse that would prompt critical self-reflective thinking? Perhaps their expertise needed to be extended by the co-participation of the tutors who could model appropriate questioning and critical commentary?

Co-participation: Dancing or fencing?

For several very good reasons I chose to engage first and foremost with Margarita. First, she had recently posted her Activity 6 DR message and had been waiting for over a week for a response from her study group partners. Second, she seemed to be the most robust DR participant, in terms of both her 'omnipresence' and her predilection for critical discourse. Margarita had almost twice as many DR postings as any other student, mainly because she frequently visited other study groups and contributed (helpfully?) to their dialogue.

Third, her Activity 6 posting had 'missed the mark' by quite some distance. Although the activity required a critical appraisal of an article, it was intended to engage the student with the author in "a thoughtful and open reading of their ideas...an act of empathy and imagination...to 'midwife' the birth of the author's own ideas!" [see 'Activity 6', <http://www.curtin.edu.au/learn/unit/smec612/act6.htm>]. Furthermore, we intended that students' DR postings would contribute to the ongoing development of an open and critical dialogue within each study group: "Discussion that we value is open, empathic and interested...rather than...attempting to argue with and deconstruct the arguments of others...to understand the ideas and perspectives of others, and to critically reflect...on our own beliefs and knowledge in the light of those perspectives." [see 'Discussion Activities-What, Why and How?' <http://www.curtin.edu.au/learn/unit/smec612/standard.htm>]

However, Margarita had engaged the author of an article (written by a past student of this unit that we had used as an optional reading) in a highly deconstructive critique with no apparent attempt to understand how the author's imaginatively constructed standpoint (expressed in terms of the metaphor of 'curriculum as chaos') might have enabled him to reflect self-critically on his own epistemology of practice. Neither did she attempt to suggest how a rewrite might better enable him to do so. It was as though she had chosen to fence with the text rather than dance with the author. Margarita's posting in the DR was phrased in such a way that it did not invite her study group partners to engage in a discussion. Put simply, it was monological (e.g., this is my position!) rather than dialogical (e.g., it seems to me... what do you think?).

And when I attempted to engage Margarita, in private email (later posted consensually in the DR), in an open and critical dialogue about her own standpoint, I found it impossible to dance with her, to engage dialogically with someone who seemed to be predisposed only to 'thrust and parry'. Margarita, it seemed to me, had construed the concept of critical thinking in a way that directed criticism ever outwards. And it was not only that article which bore the brunt of her escalating critique. In response to my criticism of her failure to meet the Activity 6 requirements (which always was accompanied by caring commentary on her positive achievements), Margarita tended to reject out-of-hand any suggestion that she was at fault, and 'counter-punched' with copious criticism of the pedagogy of the unit. This was a salutary experience that caused me to reflect critically on the adequacy of the unit, especially the clarity of instructions, the articulation of the overall goals of the unit with those of the various assignments and activities, and the adequate provision of exemplars. This process is continuing and refinements are being planned for 1999.

But I also believe that we can learn something valuable by studying Margarita more closely, by understanding her non-empathic monological style of delivering her ideas and her aggressively analytical response to criticism.

Dancing as connecting?

Our ongoing inquiry into Margarita's actions as a learner, especially her text-based electronic discourse, is being informed by a feminist perspective on students' predilections towards particular ways of knowing (see [Dawson, this volume](#)). We administered to the students in the web-based unit the *Knowing Styles Inventory* (KSI), a questionnaire designed to yield a measure of the extent to which, in the context of formal learning, students prefer a 'connected' or 'separate' way of knowing. Connected knowing involves suspension of disbelief and an empathic orientation to understanding the other. Separate knowing involves an impersonal and analytical approach to contesting ideas 'out

there' that seem to be detached from others. The results indicate that, as a formal learner, Margarita might be strongly predisposed to a separate way of knowing and weakly predisposed to a connected way of knowing. It will be interesting next to analyse the KSI results of other students in the context of the quality of their DR activities. At this early stage, there is an impression that students who danced successfully with other students (i.e., engaged reasonably well in open and critical discourse) are predisposed towards BOTH separate and connected ways of knowing.

Conclusion

It is too early to answer with any degree of certainty the question posed by the title of the paper. But what we seem to have learned from our inquiry so far is that unless the Internet is used with great pedagogical skill, teaching 'virtually' is not necessarily likely to impact deeply on students' extant epistemologies.

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