



University teachers' conceptions of learning through online discussion: Preliminary findings

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This paper reports work-in-progress phenomenographic research investigating university teachers' conceptions of learning through online discussion. The study is being carried out at a large research-intensive University in Australia with fifteen teachers. Semi-structured interviews are complete and several transcripts have been analysed to reveal emerging categories of conception. Preliminary findings suggest that teachers consider learning through online discussion in four qualitatively different ways: (A) Learning through online discussion as a way to provide think-time; (B) Learning through online discussion as a way to enable accessibility; (C) Learning through online discussion as a way to foster a learning community; and (D) Learning through online discussion as a way to foster collaborative knowledge building. The outcomes of this study may have implications for university teachers, educational designers, academic developers and all those involved with the enhancement of student engagement, learning experiences and outcomes.

Keywords: online discussion, computer-mediated discussion, learning through discussion, educational design, phenomenography, higher education

Introduction

At the outset it is important to note that the term *teacher* is used here to describe one of the many roles performed by *academic* staff in higher education. The research is approached from a phenomenographic epistemological stance in the tradition of previous studies (E.g. Prosser & Trigwell, 1999), with the origin of such an approach being research into students' approaches to and conceptions of learning (See Marton & Säljö, 1976). The research aims to further explore the findings of recent research into university teachers' conceptions of and approaches to e-learning (Ellis, Hughes, Weyers, & Riding, 2009; González, 2009, 2010) and blended learning (Ellis, Steed, & Applebee, 2006), and to complement research of students' conceptions of and approaches to online discussion (Ellis & Goodyear, 2010; Ellis, Goodyear, O'Hara, & Prosser, 2007; Ellis, Goodyear, Prosser, & O'Hara, 2006). The aim of the study is to reveal the qualitatively different ways university teachers think about learning through online discussion in their pedagogy. The preliminary findings are presented as a hierarchical set of categories in which higher level categories encapsulate and extend lower level categories (Bowden & Walsh, 2000).

Background literature

The phenomenon of learning through online discussion is one of many applications of modern-day learning technology. It is a relatively new phenomenon that has rapidly become a central component of

many distance, online, blended and campus-based courses in higher education. Laurillard (2002), in *Rethinking University Teaching*, suggests that an understanding of how students learn is fundamental to understanding how best to apply learning technologies in teaching. She considers learning technologies as the context of delivery in which learning takes place, and notes that the most stunning educational materials will fail to teach if the context of delivery fails. In addition, online teaching has been described as a combination of various roles including content facilitator, designer, technologist, manager/administrator, process facilitator, advisor/counsellor, assessor and researcher (Goodyear, Salmon, Spector, Steeples, & Tickner, 2001). Such ideas highlight the complexity of the teaching and learning through online discussion.

Brookfield and Preskill (2005) note that often online discussion is experienced as sterile, unfriendly and alienating. It is true that many of the contextual cues we have some to rely on in traditional face-to-face discussion such as the speaker's tone, tenor, intonation, and facial expression are removed in this new medium. Like many faculty teaching staff, Brookfield and Preskill were sceptical of a trend to commodify and strip courses of the presence of a face-to-face teacher, however as will be revealed in this research, university teachers think about learning through online discussion in various positive ways that support and enhance learning.

Prosser and Trigwell (1999) synthesise several phenomenographic studies of teachers' conceptions of teaching. They recommend several independent variables that teachers bring to the context of teaching that frame studies of conception such as this one. These variables include the teacher's prior experience, approach to teaching and perception of the situation (p. 137). This study extends these to include the teacher's approach to learning through discussion, e-learning and learning technologies. In a study comparing teachers' approaches to teaching and students' approaches to learning, Trigwell, Prosser and Waterhouse (1999) found that teachers with a focus on teacher-centred teaching and transmitting information led to students adopting surface approaches to learning, and those teachers with a focus on student-centred learning and on changing conceptions led to students adopting deep approaches to learning. More recently, researchers have investigated university teachers' conceptions of e-learning and blended learning (Ellis, et al., 2009; Ellis, Steed, et al., 2006; González, 2009, 2010; Roberts, 2003). These studies revealed sets of categories of conception that form a foundation for the exploration of teachers' conceptions of learning through online discussion in this study.

González (2010) reports teachers' conceptions of e-learning in four qualitatively different categories: (1) to provide information to students; (2) for occasional communication among unit participants; (3) to engage students in online discussions; and (4) to support knowledge building tasks. He found that teachers who focused on transmitting knowledge were more likely to design content-centred instruction. Conversely, teachers who focused on facilitating understanding were more likely to design student-centred instruction. Roberts (2003) found that some teachers have a transmission view of teaching with the Web while others who design around the student tend to use the Web as a way of facilitating students' understanding and intellectual development. These findings are comparable to the findings of González (2009). In an earlier study he identified that teachers think about online learning as either informative with a focus on individual learning or as communicative with a focus on networked learning.

An investigation into conceptions of face-to-face and online discussion from the students' perspective found that there were four qualitatively different ways that students think about learning through face-to-face and online discussion (Ellis, Goodyear, et al., 2006): (A) Discussions as a way of challenging ideas and beliefs in order to arrive at a more complete understanding; (B) Discussions as a way of challenging and improving your ideas; (C) Discussions as a way of collecting ideas; and (D) Discussions as a way of checking your ideas are right (p. 249).

Methodology

The question this research attempts to answer is 'How do university teachers think about and approach learning through online discussion?' Following Prosser and Trigwell (1999), this research acknowledges independent variables including the teacher's prior experience, approach to teaching and perception of their situation. It is hypothesized that these independent variables will affect the dependent variable – the teachers' conception. The phenomenographic approach aims to describe the phenomenon from a second order perspective (Marton & Booth, 1997) – from the perspective of people involved with the phenomenon (i.e. university teachers). Semi-structured interviews with fifteen teachers were used to collect the primary research data. The sample has been taken from the population

of Australian higher education teachers who use online discussion in their teaching. Specifically, it comprises teachers from the schools of Language, Business, Sociology, Higher Education and Primary Education with differing class sizes, student degree types and student enrolment modes (external and internal). *Table 1* summarises the profiles of the first five interviewees for whom interview transcripts are complete.

Table 1: Interviewees' profiles (completed transcripts)

Teacher	Discipline	Level	Mode	Experience
1	Primary and Secondary Education (Philosophy)	Postgraduate	Blended	> 10 years
2	Higher Education (E-learning)	Postgraduate	Blended	> 10 years
3	Primary and Secondary Education	Undergraduate	Blended	< 5 years
4	Higher Education (Academic Development)	Postgraduate	Blended	5-10 years
5	Primary and Secondary Education (ICT)	Undergraduate	Blended	> 10 years

The in-depth semi-structured interview was structured around three focus questions:

1. What does learning through online discussion mean to you?
2. How do you approach the design of online discussion learning experiences?
3. How do you approach mediation in online discussion activities?

The interviews included extensive probing of the teacher's responses in relation to the three focus questions above and lasted between twenty and forty minutes.

Preliminary findings

Analysis was conducted in two stages. The first stage was completed during transcription and involved the identification of ideas and themes. These were often one or two sentences that described a way of thinking about the phenomenon. The second stage involved a thorough reading of the transcripts to identify additional or missed ideas. In the second stage the identified ideas and themes were grouped into similar categories and representative quotations were selected for each category. Findings from previous research that identified university teachers' conceptions of e-learning and learning technologies were used to help guide the formation of a hierarchy. These preliminary categories are the foundation for a complete outcome space that would be revealed with a thorough analysis of the complete data set. The preliminary outcome space is described as four qualitatively different categories of conceptions.

Category A: Learning through online discussion as a way to provide think-time

A number of interviewees indicated that online discussion affords their students time to think, reflect, and formulate a meaningful contribution to asynchronous discussion. Students could take time to read further into the area of discussion before posting a response in the discussion. They addressed issues such as support for non-English speaking background students and students who might otherwise remain silent in a traditional face-to-face tutorial discussion.

[...] but for asynchronous, you've got this, the extra wait time to think things through. Um, now, you don't get that in a tutorial room. (Teacher 3)

Category B: Learning through online discussion as a way to enable accessibility

In the interviews, teachers spoke about the pragmatic features of technology-supported learning such as accessibility. Academics spoke about anywhere-anytime access to information and resources.

[...] accessibility, so the fact that it's not only if you're off campus you can have access, but also for instance if you are the sort of student who has hearing problems, sometimes you can use text chat and so there is access to that [...] (Teacher 4)

Category C: Learning through online discussion as a way to foster a learning community

One of the more prominent findings to emerge is that university teachers spoke of fostering a learning community through the use of online discussion. They described a tendency to remove themselves from the community to help the students feel a sense of ownership. They talked

about a student-owned space where the traditional teacher-student power relationship was broken, where students felt free to share ideas.

I emphasize to any of the teaching staff that are involved in my units, that the way to get the community to take responsibility is for you not to be that source of information and not to be an evaluator of their responses at the outset. You want to give them the freedom to contribute themselves. (Teacher 1)

Category D: Learning through online discussion as a way to foster collaborative knowledge building

The teachers talked about collaboration and teamwork to develop new ideas and knowledge. Goodyear and Ellis (2007) note that asynchronous text-based discussion necessarily creates a shared and persisting record of ideas which has implications for collaborative knowledge building. They note that collaborative knowledge building is a significant exercise for the development of students' epistemologies that helps their preparation for knowledge work upon graduation (pp. 62-63).

I want them to own the knowledge they come up with, um, and, that I have the best way to engage them with your course content is to give them that room. To let them take ownership of their discussion, the content that they're producing, even their assessment tasks, you know, it's all one and the same thing. (Teacher 1)

Discussion and conclusion

The preliminary findings reveal similar conceptions to those found in other studies of teachers' conceptions of e-learning (Ellis, et al., 2009; González, 2009, 2010). For example, *Category B: Learning through online discussion as a way to enable accessibility* is similar to categories found by Ellis, et al. (2009) – *A: learning technologies as tools for access* and *B: learning technologies as tools for information delivery*. The findings are comparable to a conception found by González (2010) – *A: to provide information to students*. These categories of conceptions of online discussion including *Category A: Learning through online discussion as a way to provide think-time*, reflect some of the pragmatic advantages of e-learning, learning technologies and online discussion. Additionally, *Category D: Learning through online discussion as a way to foster collaborative knowledge building* resonates with the findings from González (2010) who found that teachers think about e-learning as a way to engage students in online discussions and support knowledge building tasks.

The findings of this research also offer an avenue for relational analysis with students' conceptions of online discussion (Ellis, Goodyear, et al., 2006). For example, *Category D: Learning through online discussion as a way to foster collaborative knowledge building* in light of the students' conceptions discovered by Ellis, et al. (2006) – *Discussions as a way of challenging ideas and beliefs in order to arrive at a more complete understanding* and *Discussions as a way of challenging and improving your ideas* reveals students think about this phenomenon in similar ways but use less formal terminology. While the preliminary findings of this study offer some insight into university teachers' conceptions of learning through online discussion, further phenomenographic analysis of the remaining transcripts is expected to reveal a more complete outcome space. The outcome space is expected to change but not significantly.

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