

## Chapter 14

# Queen Bees, Workers and Drones: Gender Performance in Virtual Learning Groups

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### ABSTRACT

*Collaborative learning online is increasingly popular and the interaction between learners is documented and discussed, but gender is largely absent from this work. This chapter attempts to remedy this gap by offering a review of a study of undergraduate online collaboration. Using a metaphor of bees in the hive, the chapter explores gendered 'performance' in online groups through comparing learners' behaviours with that of queen bees, workers and drones. The frustrated queens, sub-groups of workers and excluded drones identified in the study do not lead to harmonious and productive working. The study concluded that a shift from face-to-face to online does not necessarily promote shifts in gender performances and that finding new ways of performing gender online might help resolve some of the conflicts arising from learning collaboratively.*

### INTRODUCTION: THE GROWTH OF COLLABORATIVE E-LEARNING AND THE INVISIBILITY OF GENDER ISSUES

Take up of online learning has snowballed over the past decade. This growth mirrors the expansion in Internet use and widening broadband connectivity. While much e-learning consists of a repository for documents to be printed off for

more conventional uses, there has been growing interest in using online spaces for collaboration between learners. Even more recently, new read/write web tools, sometimes known as Web 2.0, have been heralded as offering a diverse range of online spaces to supplement the more established virtual learning environments (Mason & Rennie, 2008). Alongside these developments, a shift in thinking about learning and teaching away from the idea of the solo learner to understanding that learning takes place in learning groups and communities is occurring, with wide recognition that learners

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benefit from social contact with peers (Wenger, 1998; McConnell, 2006).

In universities and colleges there is plenty of evidence for interaction between peers. In a social 'backstage', students discuss matters outside of the academic context of their studies, share information about teachers, practical details for assignments and occasionally also discuss the course content. Much of this activity now occurs online using email and social networking tools such as 'MySpace' and 'Facebook' (Selwyn, 2007; Salmon, 2000; Palloff & Pratt, 2001). A recent study of first year undergraduates in the UK suggested that learners value such social support and friendships highly (Yorke & Longden, 2007).

As well as this co-operative social activity, peer supported learning can be built into a programme of study more formally. Collaborative learning occurs where a group of learners undertakes a joint enterprise of producing a product which requires a deeper level of engagement. An example of this could be where learners are required to produce pieces of work for assessment collectively, or give group presentations or solve a problem as a group. Again such activity is taking place online as well as offline.

With the increasing importance of virtual learning comes recognition that not everyone has access to the technologies commonly in use for online co-operation and collaboration. Women and men from poorer economic backgrounds experience particular difficulties with the latest technologies which require computers with broadband (high bandwidth) to access the latest Web 2.0 technologies with multimedia content (Johnson *et al.*, 2008). Researchers have also noted some particular disadvantages women might face with virtual learning such as access to computers at home and fitting virtual learning into a 'third shift' after time spent on work and family (Kramarae, 2001; Kirkwood & Kirkup, 1991), and these issues have not gone away.

But gaining access to the technology is only a first step, and although gender and other issues

do not disappear when learners succeed in getting online, much research leaves gender invisible. Research on virtual learning has highlighted some of the problems of group and community working using the permanent traces of virtual interactions. Virtual groups do not attract full participation from all members: some may be passive observers or 'lurkers' or others may opt out altogether (Palloff & Pratt, 2005), while some groups have unresolved problems with 'dynamics' (McConnell, 2006). However, despite the relative ease of recording data, studies of learner behaviours online do not usually appreciate that gender and other social factors have a significant influence on how the group interacts.

In this chapter I attempt to remedy the invisibility of gender in virtual learning by presenting findings from a study which produced some data on gender and participation in virtual collaborative learning (Hughes, 2009). The study included undergraduate and postgraduates who worked collaboratively online as part of what might be termed blended learning courses - that is the courses were partly online and partly based in traditional classroom settings. The groups were mixed in terms of gender with other identity issues such as age and ethnicity also of significance. To interpret learner participation in the collaborative group and learners' sense of 'belonging' to the group, I view gender as a performance rather than a fixed characteristic and the first section of this chapter explores what this might mean.

In the next section, I present some of the learners' accounts of their online group participation. To illustrate the gendered learner performances which emerged in the study, I use a metaphor of bees in the hive. The bees represent the learners and the hive the online or blended learning environment in which they interact and the wax and honey are the products of learning. A hive contains a queen bee who is the means of reproduction and who is the focus of all activity in the hive. She is fed by the worker bees, who do the work for the hive: collecting food and making wax. Drones

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