

How do students 'get learning'? Unexpectedly diverse pathways in an activity based, online orientation site



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Students face a variety of hurdles when commencing further study involving online learning environments. There is no shortage of print-based orientation advice and static online tips; however, rarely do these supports mirror the activities and pedagogies of formal online learning. Two collaborating faculties of health at the University of Sydney developed a modular orientation site known as *GetLearning* for beginning postgraduate students. Tracking data, moderator journal data and design team reflections were analysed to identify student use patterns. This paper presents insights about access patterns and interactions with the resource. Findings reinforce the need for timely, interaction-based orientation activities, and highlight student need for both individual support and ongoing access to orientation style resources throughout the semester.

Keywords: orientation, postgraduate, distance, online, student support, health sciences

Introduction

Three major trends in higher education are intersecting: increasing diversity of the student population, use of new technologies to deliver course materials and actively engage learners, and reduced (blended learning) or nil (some distance learning) classroom contact in favour of student learning at personally selected times and locations. Often the result is learners frustrated and confused as they grapple with a learning environment at odds with prior experiences (Ko & Rossen, 2004). It is not only that negotiating the new technology adds to learners' workload and eats into their available time; learning how to engage both with new content and with virtual tutors and fellow learners will also impact on time and workload (Levy, 2006). Previous experience with undergraduate students using computer mediated communication tools in blended learning environments has shown that planned and staged orientation activities can ease the transition and also lead to improved learning outcomes (Wozniak, 2007; Wozniak & Silveira, 2007).

Accounts of formal online learning supports and scaffolds for learners new to using online technology are sparse. Orientation information usually focuses on enhancing computer skills, navigating around course management systems, and providing FAQs (Ko & Rossen, 2004). When Salmon introduced her five stage model for supporting novice users of online communication tools, she noted a need for large scale induction for students, with provision of opportunities for learners to experiment with the technology and make mistakes in a supported environment (1998). Several years later Levy (2006) suggests that an orientation to the learning space, information environment and pedagogical approach is required. Others researching student engagement with online communication tools suggest that students may need instruction in how to engage more actively in online learning communities (Geer, 2003; Meyer, 2004; Price et al, 2007).

Motteram and Forrester (2005) investigated the experiences of both on-campus and distance students in an induction program consisting of online versions of print-based materials and videos. They concluded that students are likely to fall into two types: those adept at using technology through prior experience, and those who are complete novices. They concluded that the "challenges for distance educators is [sic]

being able to properly meet the various needs of different students as they begin their online studies" (p292).

This paper will outline our experiences and observations of postgraduate students accessing an orientation site designed to ease the transition to learning online and participating in virtual communities.

Background

In 2006 a strategic elearning development project was initiated by the Faculty of Health Sciences (FHS) to create a suite of three interconnected online orientation packages for postgraduate coursework students studying in flexibly delivered courses. This suite contains interrelated learning activities and aims to improve student awareness about how to approach online and/or distance based learning. It is made up of three specific components:

- *GetReal*: An open access web-based resource for prospective students to assess their technological and personal readiness for postgraduate study developed to articulate with FHS coursework programs (available at: <http://www3.fhs.usyd.edu.au/getreal/>). The design and conceptual framework for this site has been described elsewhere (Lever, Mahony & Wozniak, 2007).
- *GetStarted*: An online and paper-based guide to assist students to navigate and improve their confidence in using WebCT.
- *GetLearning*: A modular website for enrolled students (described below).

The *GetLearning* website is situated within the University of Sydney's learning management system - *WebCT CE6*. The site's key objective is to develop a student's knowledge and confidence starting from a beginning online learner just finding the way around a website through to a more experienced learner who grasps how online learning activities can be used both for gaining knowledge and for actively participating in a collaborative learning community. There are five modules, requiring an anticipated commitment of one hour to complete each module:

1. *Finding your way around*: Navigating around *WebCT* sites, learning the jargon and getting ready for study
2. *Communicating with others*: The basics of *WebCT* discussions, *WebCT* email, and University email
3. *Building collaborative groups*: Online groups, how to make online discussion contributions useful
4. *Getting your assignment done*: Downloading journal articles, electronically submitting assignments and finding grades and feedback
5. *Doing the right thing*: Understanding and avoiding plagiarism, setting up *EndNote*

The research

This paper focuses on the first implementation of the *GetLearning* site with 179 postgraduate students enrolled in five coursework Master's programs in the Faculties of Health Sciences and Medicine and a professional doctorate program in the Faculty of Health Sciences. The majority of students were commencing their studies with the exception of 36 students enrolled in one Master's program where the coordinator was concerned about the impact of a *WebCT* upgrade from version 4 to 6. Typically for distance delivered courses, students ranged widely in age from early 20s to late 60s. Students were sent an advisory email and the *GetStarted* guide in pdf or hardcopy, and encouraged to work through the five modules by the end of the semester's first week. Two of the authors (Wozniak and Mahony) moderated the discussion board activities (three activities in total, occurring in modules 2 and 3) and on a daily basis monitored student use of the site for the first three weeks of the semester (via the detailed tracking data available in *WebCT*). Students were asked to complete an anonymous 3 minute feedback evaluation survey at the completion of each module. Wozniak and Mahony also kept reflective diaries during the first month of the semester, recording their time involvement, their actions and their observations of student activity. The findings derived from this data are used to plot the diversity of student access to this type of modularised resource.

Access details

Of the 179 students enrolled in the *GetLearning* site 157 (88%) accessed the site, with 100 (64%) of these accessing the site within the first three days of semester. Of those never accessing the site, 50% (11) were students from the previous year's cohort. The student access was most active between 4 and 5pm and similar on weekdays and weekends.

Diverse pathways

Analysis of the tracking data together with observations and reflections by the moderators indicated a larger than expected diversity of patterns used by students when moving through the site. We had expected that most students would follow a more or less linear pathway through the modules, commencing with module 1. During semester one (March-July, 2007), students fell into three groups according to how they *first accessed* the site:

- Group 1: 52% (81 students) started by going to the homepage and selecting a module. 51 students chose module 1, 7 module 2, 6 module 3, 13 module 4 and 4 module 5.
- Group 2: 26% (41 students) started by going to the homepage but did not explore any further in their first session (i.e. logging out before clicking links to modules or course tools). Of these 40 students, 13 students never returned to the site, 28 returned (from a few hours later to 10 weeks later) to further explore the site.
- Group 3: 15% (24 students) first explored the course tools links (Announcements, Assessments, Assignments, Calendar, Discussions, Mail, Search, My Grades, Notes). 13 of the 24 then explored one or more modules. The remaining 11 students never looked at any modules.
- Group 4: 7% (11 students) started the orientation by skipping the homepage entirely, entering the site through the “new discussion message”, “new assignments” or “new assessment” icons on the course listings page. Of these 8 then explored one or more modules.

Over the first three weeks of the semester, the moderators observed six orientation patterns which required intervention. Table 1 reports the patterns and actions taken. Students demonstrating the reported patterns were sent individual messages during the latter half of week 1 and the following two weeks of the semester with advice about how they could move through the site and complete any remaining activities. Students who failed to access the site in the first three days of available access were sent a personal welcome message from the moderators encouraging them to log in and explore the site. It was imperative for the moderators to quickly identify the potential causes of these patterns and suggest an action, as there was only a small window of time for the orientation to occur before students became engrossed in their studies. Most students (76%) responded to the intervention with further online activity, or advised the moderators of their reasons for not engaging, indicating that a personalised approach may be required to encourage students to see the relevance of orientation activities to their learning and completion of study with online components.

Table 1: Patterns identified and actions taken by the moderators over the first three weeks of semester

Identifiable orientation pattern	Moderators' interpretation of pattern	Action suggested to student	% (no.)
1. Students missed the module content on their first access only finding course tools or icons on the course listing page (group 3 and 4)	Students confused by the various links and icons, did not find the contents and activities in each module	Students told to click on the course title and explore the 5 modules on the homepage	25% (35)
2. Students completed module 1 (Finding your way around) but did not go on to the following modules	Time poor and/or did not feel a need to go further	Students reminded to complete the remaining modules	10% (15)
3. Students accessed the communication tools modules (2 and/or 3) but did not complete any activities by posting a message on the discussion board	Lack confidence to become visible in online learning environment	Students encouraged to post a message and experiment with the discussion tool	13% (20)
4. Students completed only module 4 (Getting your assignment done)	Students prioritise understanding how to submit assignments	Students reminded to complete the remaining modules	2% (4)
5. Students accessed the home page but did not access content in any of the modules (included in group 2)	Unable to find or access the content of the module, or decided the site was not relevant to them	Instructions provided to assist students to navigate to content in each module	7% (11)
6. Students had not entered the site by the 3rd day of semester	Time poor or already familiar with online environments	Encouraged to log in especially with new version of <i>WebCT</i>	43% (67)

(note some students received more than one action message)

Interestingly, many students (31%, n=49) continued to access the site in the second half of the semester. Students reported through the 3 minute feedback surveys that the orientation site was a positive learning experience with the appropriate mix of content and interactive learning activities: “Any sort of practice

will help in online learning, having a step by step guide makes it so much easier- takes some of the anxiety out of it.” “I think this is a brilliant idea and is good for those who haven’t studied in ages.” They also found the modular design helpful: “It worked well because it was straightforward and not overwhelming with too many instructions”. Further detailed analysis of the student evaluations is beyond the scope of this paper.

Discussion

Clearly, monitoring patterns of student activity in the site greatly assisted us in understanding the initial experience of students in an online learning environment and determining where improvements may need to be made. Whilst the uptake and ongoing student access to the orientation site supports the need for induction to online learning environments we wonder if the large and positive response would have occurred without the associated support and encouragement of the moderators early in the semester. This is being tested in semester 2 with additional postgraduate courses using less intervention and moderation. Ongoing research in the second half of 2007 will investigate student experiences using focus groups and explore the impact of the *GetLearning* orientation approach on student learning outcomes.

The variation in access patterns might normally be accounted for by students’ strategies for coping with competing demands on their time (work and family), sampling and choosing only those activities they judge essential. Alternative explanations emerged from close tracking of student behaviour early in the semester. Navigation to the content in the modules from the *GetLearning* homepage posed a surprising hurdle (pattern 1) and suggests that essential information can become lost in the print-based instructions (*GetStarted*). Other researchers have noted the need for various forms of supports to cater for different student learning needs (Motteram & Forrester, 2005; Levy, 2006). Lurking in online discussions (reading messages without posting) was present; however, it was encouraging that the activities in the communication modules prompted over 300 postings and relatively few students needed prompting to post a message (pattern 3). “The components that worked well in this module, were the interactive activities which forced participants to enact the tasks they would be completing as part of their online studies”. “The discussion group activities worked well, especially for those who are not IT literate”. “The comments by the moderators were helpful.”

Feedback received confirmed the need for early student orientation to new learning environments, a challenge when timely advice to students often falls outside the boundary of institutional enrolment processes. “I felt I should have received this much earlier, especially when I was accepted on the course, now I feel am rushing this, when there is a lot of other things that have to be taken into consideration.” While universities assume a face-to-face ‘O’ week is “normal”, university enrolment processes often limit embedding an online ‘O’ week.

There are limitations to orientation resources such as their inability to meet a diverse range of student needs. They may target areas outside the curriculum of specific courses, overlap other institutional support systems, or simply lack the formality of a prescribed learning activity (Bozarth et al, 2004). Investigations into these issues and the impact of the orientation site on the whole of student learning experience and learning outcomes including grades are for the second half of 2007. Recruitment for this further data collection has posed some difficulties as the Human Research Ethics Committee requires students to volunteer to take part in the research and to date this has received limited uptake.

Conclusion

Orientation of new postgraduate students to online learning is necessary but design of such orientation is not ‘one size fits all’ due to student diversity. Nor is it appropriate for this orientation to be a completely unsupported independent learning activity for students. Findings in this study indicate the need for yet more attention to clear, detailed instruction and/or acknowledgement that close monitoring with proactive intervention is required to ensure students at most risk of a difficult start in an online learning environment are supported.

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