ASSESSING THE ENGABILITY OF ONLINE COURSES: A CASE STUDY

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ABSTRACT

This paper investigates engagability in the context of moderating online courses. It investigates the influences on the use of the online modules and student engagement. The authors explore this through a study of an online course in Professional Studies for Media and Communications. The study describes the reflections of students by applying textual analysis of user-tests and interviews. The methods provide a potentially useful tool for measuring engagement with online resources.

KEYWORDS

Usability, Engagability, Professional Studies, User-Lab

1. INTRODUCTION

Web-based learning come into vogue in the era of the e-society. Educational and commercial organizations are making web-based learning part of their offering and thereby utilising the webs accessible, time-saving and flexible qualities. The increasing popularity of online learning necessitates greater research in how to design and evaluate online learning environments effectively. The purpose of this study is to explore the problems of creating effective and satisfactory online learning environments that go beyond traditional usability concerns. In order to do this the research had to investigate usability and engagability as well as issues of moderating online forums.

A study was carried out on a professional studies module of a degree course in Media. The module had existed as a lecture-based programme and was put online in order to facilitate distance learning. The online content focused on providing tools and forum for students to learn about professional studies and then develop their own work placement programme. This

was delivered via a website. The authors carried out usability studies on the website in order to ensure there were no barriers to use. Then the study aimed to answer following research questions:

1. What are the participant's experience of the module and the web site?
2. Are there different use patterns among users?
3. Which features and functions were used or not used?

2. BACKGROUND

There are important strategies that need to be considered in designing online courses. For example, the course should foster and support the formation of a community. Ideally, this community is proactive and becomes a community of learners beyond the bounds of immediate pedagogical goals. At the same time, online course should also encourage an effective and efficient interaction among the community members with a common aim of an agreed learning outcome of a pedagogical goal. In order to do this a number of conflicting influences and stakeholders needs have to be balanced. Most often technology is seen as a panacea to learning problems and offered as a quick fix. Only recently has the notion of blended learning and the integrated deployment of appropriate and complimentary methods to learning been recognised outside of pedagogical research. Indeed, Schrum and Hong (2002) note, the real challenge in designing successful online courses is to "understand the relationships between the user and the technology, the instructor and the participants, and the relationships among the participants".

This means taking a learner-centred design approach and focusing on the quality of the interaction between the user and the course. Previous experience with the technology can make students feel more or less comfortable with using online tools and content. This can lead to better participation with the course, although having to learn both technology and the course content can multiply the challenges for learners (Schrum and Hong, 2002). At best the technology is simple to use and intuitive, so that the students can overcome the possible problems easily and focus on the learning elements.

The relationship between the instructor and the participant is also important and needs to fulfil the ideal student-teacher relationship. One of the challenges for online course development is that because does not rely on face-to-face communication, it may be difficult for the instructor to identify the problems students are facing. Indeed, Collier and Morse (2002) suggest that instructors should be suspicious about students' readiness and at the early stages of the course they should require exercises to evaluate students' skills. At a more subtle level the lack of face-to-face communication makes it more difficult to communicate and understand stakeholders deeper attitudes and reactions.

In order to motivate students, the course needs clear goals. These should help students attend the course with clear and appropriate expectations and help them be successful as ongoing learners. The balance between course goals and student's expectations strengthens student's trust to the instructor and this encourages an increased interaction with the instructor. According to Collier and Morse (2002), increased interactions with instructor and building trust between students and instructor not only has a positive impact on student satisfaction but also influences the quality of the assignments produced by the students. In addition,

responding to students' questions and giving timely feedback to students is also important to help the students remain motivated.

Another important feature in the design of the online course is that they should allow the development of an online community. To create this sense of community, Schrum and Hong (2002) advise instructors to encourage students to post a brief autobiography at the beginning of the course. Collaborative assignments also help students get closer to each other, as they help to those who might have problems with studying online and individually. Chat rooms, forums and bulletin boards are all examples of technology supporting communities. While chat rooms let the members speak and discuss issues that are of common concern at a certain time, bulletin boards and open forums create an environment for persistent communication regardless of time. However, these technical platforms are only as good as the human communication they support. In essence, tools needs to help communities to form, develop and evolve.

2.1 Interactivity, engagability and instructor's involvement

In its simplest form, interactivity is considered as the communication between students and instructor, and course content (Smith and Winking-Diaz 2004). Obviously, interactivity is one of the most distinctive elements of web-based learning. Researchers (Picciano, 2002; Collier and Morse, 2002) relate increased satisfaction of students and faculties to the quality and quantity of interactions. Therefore, it has become common for online courses to encourage students to take part in online discussions or set a specific amount of postings per week in bulletin boards (Picciano 2002).

Other factors that promote student engagement and learning are instructors' involvement and feedback (Smith and Winking-Diaz, 2004). When the instructor manages discussions, gives students enough time to think and offers timely technical assistance and support, then the interactivity level of the course and the engagement increases (Smith and Winking-Diaz, 2004; Levin *et al* 2001).

Levin *et al* (2001) also place the success of online courses on instructors' shoulders and identify five dimensions for instructors. These focus on providing relevant and challenging assignments, constructing coordinated learning environments, building rich environments for student-to-student interaction and encouraging flexibility by fostering anytime anywhere teaching and learning.

For Smith and Winking-Diaz (2004), the learning environment should meet the needs of learners reading, reflecting, discussing, generation and sharing of information and ideas. While this supports fostering student interactivity in learning they also warn that, sometimes students choose to demonstrate their understanding of the course material by posting "either applied examples or personal anecdotes". Therefore, not all contributions and interaction in online discussions demonstrate effective learning.

As interactivity is crucial for learning, so is engagability. Engagability research pertains to motivation, education and understanding human experience. Quinn (1997) says engagement, in relation to learning, comes from interactivity and embeddedness. For example, when the student's interaction with a course task such as online class discussion reaches to an intense point that the student deeply concentrates on the activity and losses sense of time, then this shows that the student is engaged with the task.

The feeling of being engaged in experience has been investigated by Csikszentmihalyi (1991), who describes the qualities of optimal experience and flow. In Csikszentmihalyi's terms, engagability is to be intensely involved "with the challenges at hand" (1991:71).

Many have made the connection between flow engagement with game playing. This is often connected to the satisfaction with overcoming challenges and Jordan focuses on hedonic use qualities stating that:

 "Games are an example of a product type that are designed primarily to promote emotional enjoyment through providing people with a cognitive and physical challenge."

Jones *et al* (1994) describe engaged learning tasks as "challenging, authentic, and multidisciplinary. Such tasks are typically complex and involve sustained amounts of time… and are authentic". Jones *et al* (1995) go on to suggest six criteria for evaluating educational technology in the context of engaged learning: Access, operability, organization, engagability, ease of use and functionality.

In connecting with learners cognitive motivation and personality type (*in terms of needing or repelling challenge) engagement has an emotional component. Indeed, Norman's work with Andrew Ortony and William Revelle (2003) proposes that people are engaged in compelling experiences at three levels of brain mechanism comprising: "The automatic, prewired layer called the visceral level; the part that contains the brain processes that control everyday behaviour, known as the behavioural level and the contemplative part of the brain, or the reflective level." (2003:6). Furthermore, "These three components interweave both emotions and cognition", both key factors in learning.

2.2 Course Background

In order to apply this research a study was undertaken of a pilot Professional Studies module. The module was based at UCE Birmingham and utilised bespoke web-based learning material. F5 Professional Studies at level one on the BA (Hons) Media and Communication is the first of three professional studies modules whose learning outcomes are focused on employability. The module aims to train the student to locate, secure and participate in a work familiarisation placement in a media organisation; utilise computer and information technology for research and communication; outline the organisational and working practices of a range of media establishments and identify the career opportunities available in such organisations.

Much of the module is taken up with students securing a two-week work placement in a company and sector of their choosing. Traditionally the module has relied on lead lectures (to a student cohort of about 85) that offered practical advice from teaching staff and media professionals on methods of contacting companies, writing CVs/covering letters as well as how to develop contacts. Most students found work placements and the module tended to rate as "met aims" in student satisfaction surveys. The most common criticism levelled at the module was that the curriculum consisted mainly of "common-sense" information. The shift towards using distance learning materials over the last two years (a printed booklet accompanied by support tutorials) has gone some way to increasing the student satisfaction rating of the module.

3. METHODOLOGY

3.1. Initial Usability Testing

Before the website went online the User-Lab undertook some testing with the aim of diagnosing usability issues. The rationale for this was that student engagement would be negatively affected by poor usability. Testing involved five participants. Participants signed non-disclosure forms and were briefed on their role in the test. The test involved participants undertaking tasks (n=12) on the site. Each test lasted one hour. A test administrator observed participants and a usability engineer logged events and recorded participant's verbal responses. Video cameras recorded participant's facial expressions and interaction on the screen. At the end of the test participants were interviewed and asked to reflect upon their experience with site. Tests were then repeated with other participants and results communicated to the development team. Analysis of the tests resulted in diagnostic recommendations being made to the development team.

3.2. User-Lab Co-Discovery Session

The aim of the co-discovery session was to understand student's patterns of use with the site. The session involved four participants recruited on the basis of their learning styles. The format of the sessions replicated the user-tests but with a greater emphasis on reflection about the module and the Web site. The sessions lasted one hour and were video taped and conducted by the usability engineer. Participants were asked to describe the module. The second-stage involved participants describing the methods they used to get a placement. The aim of this part of the session was to investigate different students' methods of getting a placement, the resources they used and their interaction and attitudes to other students. The final stage involved participants discussing the site and demonstrating the features they used or did not use to the researcher. The aim of this part of the session was to understand why certain features and functions were used or not used.

3.3. Text Analysis

Semi-structured interviews, which were conducted in the co-discovery session, were transcribed and these transcriptions were analysed with Rubin and Rubin's (1995) approach to data analysis. For Rubin and Rubin (1995:229), the aim of data analysis is "to organize the interviews to present a narrative that explains what happened or provide a description of the norms and values that underlie cultural behaviour".

Following Rubin and Rubin's approach, transcriptions were read repeatedly. Core ideas, themes and concepts were selected and coding categories were set up according to these concepts. Responses describing the similar ideas were grouped under the same categories and the material was examined in individual categories. Then, subcategories were formed in each category. The overall aim of grouping ideas and related themes was to "build a broader description or an overall theory" (ibid:247).

4. FINDINGS

4.1. Initial Usability testing

The results of the initial usability test suggested the need for a more prominent Home button. Participants commented on the lack of a course overview. The interactive sections of the site were investigated in terms of expected features and more generally participants information needs. Overall the site performed well with the few errors being corrected prior to release. The site scored highly in subjects evaluation of 12 features in terms of ease of use.

4.2 User-Lab Co-Discovery Session

All the participants mentioned the chat room as a feature of the module and one that they used, although not all took place in the discussions. All valued the content of the chat and named ones that interested them. Some (n=2) found the speakers unrelated to their field of study. All (n4) mentioned the three components of the module. Participants valued having an archive of the discussions. This was positive (missing discussions through illness) and negative (lack of involvement). There was a general feeling that moderation of the discussions presented barriers to student's involvement. The time taken for long messages to appear and the inability to directly question the speaker were cited as negative features. However, overall all participants valued the discussions and especially those involving high profile speakers. The regularity of the discussions was welcomed although actual involvement peaked at the beginning of the module. It would seem from participant's comments that a more engaging model would involve more interaction before and after the discussions. Other positive responses were that the site (and discussions) could be accessed at home and that less confident students were likely to feel more relaxed in online discussions.

Participants valued having access to course information online. The resource section of the site was underused despite being a valued feature during initial testing. Negative features of the site were that it did not support different types of users needs and that the content was static. This informal investigation suggested that student's strategies for getting a placement and their involvement on the module could not be explained by differing learning styles alone. Other factors seemed to have had an impact on participant's involvement, learning and success including personality, age and experience, access to social networks and even their preferred place of study.

4.3. Textual Analysis

According to the main questions of the research, the responses of the subjects are grouped under five main categories:
- Understanding the module and the website
- Experiencing the module and the website
- Methods of getting a placement
- Other students: Interactions and types of participants
- Popular and unpopular features of the web site

4.3.1. Understanding the module and the website

'Getting placement' as the main goal

The main idea of the module was understood as 'getting a placement' by most of the students (n=3). All the subjects mentioned writing CVs and covering letters, gaining information about the important dates for assignments and chats and archive when they were asked to describe the module. Although all the subjects were clear about the assignments and about the aim of the module, only one subject was unclear about the goal of the module. Mentioning the solitary studying nature of the module, the subject described the module as:

> "…a lot of people on my course didn't know what was going on with it because it is specifically web based. The whole Professional Studies module is a bit vague. Sort of, there is your requirement, there is a web site and there if you want to use it"

'Relaxed instruction'

Some students (n=3) described the module 'relaxed', as they studied at home and "didn't go to university on a Friday". It was also mentioned that for students and also for guest speakers, it would be easier to attend the module in their own office or room, rather than talking in a lecture theatre. Also, this informality was thought to be encouraging for students to participate and ask questions (n=1). However, not every student considered this relaxed nature of the module positively. One of the students related relaxedness to easiness and insignificance:

> "Professional Studies seems like a lesser part of the course and this seems to be a common theme between a lot of mates. You get a lot of work and Professional Studies will probably be put on the back somewhere. And because it's more lax than any of the other subjects you're doing, it's sort of do it yourself. It's not stressed that it's all that important, so you do it when you've got time kind of thing."

4.3.2. Experiencing the module and the website

Logging on

Most of the students (n=3) said they contributed to online chats. For the ones they missed, they used the archive. Only one of them admitted that they did not log on often and rather "read the chat logs after".

Unchallenging tasks

When the subjects were asked about module assignments, they mentioned CVs, covering letters, writing to companies and getting placements. Most of them (n=3) had a CV before the module. Two of them said they did not need to use the web site to get information on writing CVs. For one of them, this information was more relevant for the younger students.

Passivity leading to distraction

Most of the subjects (n=3) thought the online chats had been useful. However, one of the challenges was waiting until the end of the interviews in order to ask a question, considering the time spent waiting for the speaker to write a block of answer and post it. Students were

remaining passive during the online chats and this was leading to distraction such as getting involved with other things on the Internet:

> "You'd watch it having all these different windows with other things going on. Cause you are awaiting for people to sort of put in quite a block of type. … Some of them were slow typers than others."

A student commented, "Maybe … they might have … had their chat first and have that posted up and then ask questions and answer thing".

There was one particular speaker, Kerry Thomas, that two students mentioned for remarkable chats. They described her chat session as useful because:

- "…this girl was quite speedy at typing… She obviously knows the stuff and she's got quite a lot to say"
- "…she publishes it [Fused Magazine] herself, it is her own thing. Quite good actually… Got into it, writes for it…"

In addition, another student mentioned not having enough time left for themselves to ask questions. Especially when the chat session was engaging and many students were eager to ask questions, it was likely that some of them left without answers due to the limited time. For one student the quality of the speaker determined the quality of the chat. Another one was motivated by the background of the speaker. For example, most students, who are interested in Public Relations, would prefer to work in the private PR sector, thus, would prefer to have a speaker from a similar type of company or from the media. Therefore, a speaker from a city council was deemed to be irrelevant. Likewise, web chats on web design were uninteresting and irrelevant for this student.

4.3.3. Methods of getting placement

Only one of the four subjects had not got a placement at the time of the interview. Also, three of the subjects found getting placements difficult and mentioned that many of their friends failed to get one.

The student without a placement also failed his module assignment, 'covering letter'. The feedback he got from his assignment was that it was not personalised enough for the company to employ him. On the other hand, he explained his failure in getting a placement as "not exploring it in full capacity".

There are two methods used to get placements: *Social networking* and *contacting companies.*

Two of the students got their placements through social networking and mentioned that their friends had used the same approach. Their comments suggest the influences that age and experience have on getting success. According to them, older students have a network of friends that is wide enough to help them get a placement. They think the whole process is more difficult for the 'younger' students, who might not have a social network. For two students, module chats contained important and relevant information for getting placements. Only one student mentioned using chat room message boards to interact with other students and gain information on their experiences of getting placements.

4.3.4. Other students: Interactions and types of participants

Lack of community formation

It was noted that there was no interaction between the students through the web site; therefore no sense of online community was formed. Three students mentioned that the module took place in the first semester of the first year. They did not know each other and even when they started to get to know each other through other lectures, they did not have enough time to become a community.

'Hardcore'

Most of the students (n=3) mentioned that at the beginning of the term participants showed more interest to the discussions. Their enthusiasm was also linked to being newcomers: "First years in the first term… They are all quite eager to explore everything.". However, two of the students mentioned that this variety of people vanished after the first weeks and it was mostly the same people, who logged on every week for discussions. One of them used the term 'hardcore' to describe this constancy. Students were also asked about the motivations that made them take part in the chats. One of the students said that because there was no obligation to take part in the chats, the people who participated were highly motivated. The effect of posting a question and having your name seen on the screen was also mentioned as a factor for participating.

4.3.5. Popular and unpopular features of the web site

Popular features

The chat room was unsurprisingly the most popular feature of the module. Two subjects closely followed the chats every week. One subject said he watched it but did not take part in it. Another subject did not take part in any of them. The next feature, which is as popular as chat room, is the archive. All of the subjects used it at least once. Most of them (n3) used it when they missed a chat. One subject read all the chats through the archive. All the participants valued archive as it helped them keep up with the module. Next popular feature of the web site is the availability of information on deadlines of the assignments.

Unpopular features

The discussion board received negative comments from the subjects. One subject did not understand what it was for and another thought it was not kept up to date. Subjects also mentioned looking at the information on writing CV and covering letters. Because most of them had their CVs written before, they did not use this part of the web site effectively. Finally, one subject had a problem with submitting his placement form onto the website. Although he found a placement and submitted his placement form, later he learned that his form was not submitted successfully, so he failed the assignment.

6. DISCUSSION

Overall, the aim of the module was understood clearly, apart from one subject. However, because the aim of the module was perceived as getting a placement, students, who managed to find a placement at the early stages lost their attention later on. This could also be the reason for decreasing participation in the chats after the first few weeks.

The interviewees found the assignments and the course content regarding writing CV and covering letter too easy for their level and experience. This explains why the information on CVs and covering letters was also the most unpopular feature of the module. The unchallenging assignments led students to perceive the module "not as important as the other modules". Students implied this easiness by finding the course content more relevant for the 'younger' students. This attitude reveals that students attended the module with higher expectations.

The 'vagueness' mentioned in the findings relates to the easy tasks and high expectations. It is very likely that the students thought that there should have been more information, content or activity, and when they could not find it, this made them think they were missing some parts of it. This resulted in a lack of interaction between the students and the course content. One of the downfalls of the module web site was that it was not being updated. One of the students mentioned a "hook": "There's got to be a hook on it to keep you going". This hook could be new content and without the sense of community and engagemnent dies. Updating the course content, adding new, interesting, and challenging readings regularly, asking students to discuss the readings through the discussion board and even setting a specific amount of posting as obligatory would improve engagability (Picciano, 2002).

The chat room was the most popular feature of the module. Yet, it did not provide a sufficient place for an interaction among the students. They could not participate much during the chats and thus became passive . Some described their participation as 'watchers' - of the moderator and the speaker. Because every student had different interest areas and therefore different questions, they said they would like to question the speaker directly. Obviously, the time they had for their questions through the end of the chats was sometimes insufficient to do this. Nevertheless, students said that the chats had been very useful for them not only in learning from the experiences of other people, but also in learning about the key themes of their industry. The 'archive' received positive feedback from the students. It helped students stay connected with the module even if they missed sessions. However, its useful nature encouraged some to miss the chats.

The discussion board was a problematic feature. Although it was always available, this was not enough to motivate students, who did not know each other at the time. Having the first lectures in the classroom could help the formation of a sense of unity and this would lead to better and relaxed interaction in the digital environment. In addition, as the literature supports, setting collaborative assignments could encourage the students to share their experiences and this would also be useful for the ones who were having difficulties with working individually and online. More importantly, all these could increase interaction, open the way for an online community and increase satisfaction (Picciano, 2002; Collier and Morse, 2002).

Finally, the module was accessible and usable. No one mentioned having major problems with using the technology. However, there was a lack of engagability, mainly because of the lack of interaction, unchallenging tasks and insufficient content.

7. CONCLUSION

The findings of this research with Media Studies Professional Studies curriculum supports the findings of Schrum and Hong (2002), with regard to "establishing a sense of community and thus facilitating an active participation". The findings reveal the importance of interaction between students and instructor and among students for successful learning environments.

The study also bears out the findings of Levin et al. (2001). Their five dimensions for instructors, particularly setting relevant and challenging assignments, having coordinated learning environments and developing rich environments for student-to-student interaction are in parallel with our findings.

Other than these, the researchers observed the need for requiring feedback from students during the course and making reconfigurations according to these views. The initial usability testing, which was conducted before the module web site went online, brought several benefits to the usability of the site. Likewise, it is believed that feedback from students and even face-to-face communication with students will improve the online learning environment.

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