The Student E-learning Experience

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Abstract This paper examines the student experience and expectations of e-learning at the University of Teesside, a post 1992 university catering for a very varied student demographic. Many of the students can be described as untraditional in that they are mature, part-time, international or off-campus on placement as part of their course. The university must therefore be able to support students who may be uncomfortable with learning technologies or who are more reliant on e-learning to support their studies. As part of the University’s Higher Education Academy funded Pathfinder project, a detailed study of student needs in relation to e-learning was conducted. This paper will explore the main findings of the survey and will look at how these results compare to other significant international research on students and their use of Information Technology. It will also look at methods for involving students in e-learning innovation and policy, in order to make sure that universities use of technology is appropriate to student needs. The findings will be presented by the project team, including a member of the university’s Student Union who was instrumental in supporting the survey. The survey aimed to be fully inclusive of all students and is to be followed by a series of focus groups on identified topics of interest. Our initial findings show that although student IT skills have improved over the last few years, they have decreased proportionally due to the fact that there are so many more technologies available. Universities therefore need to reconsider what a ‘basic’ level of IT skills is and how to best support students. It is hoped that the session will enable further discussion about the best methods of monitoring student utilisation of technology and increasing the input of student opinion into guiding e-learning developments in universities.

Background

The University of Teesside Pathfinder Project, E-Quality was a year long project with the aim of enhancing and embedding e-learning. As part of this aim, a detailed analysis of student needs in relation to e-learning was required in order that the University could assess and improve the student e-learning experience at Teesside. To this end, a University-wide survey was conducted. The survey explored the experiences students have had of e-learning and how these experiences could be improved. In order to ensure student representation from as wide a range as possible, careful consideration was given to ensuring both the design of the questions and the distribution of the survey was suitable for all students. Particular attention was given to ensuring access to those who were either mature, part-time, first generation or disabled.

Methodology

The survey primarily consisted of an online student questionnaire which was sent via email to all University of Teesside students. Participation was encouraged by entering participants into a prize draw to win an Ipod and students who were less comfortable with the online format where accommodated for by the provision of paper copies. The survey which had over a thousand respondents was followed up by a series of focus groups intended to explore areas of interest and questions raised. The survey aimed to reach as many students as possible and succeeded in having a respondent demographic that largely resembled the university demographic in terms of school representation, age and mode of study.

E-learning before university and expectations of e-learning at university

It was found that although the majority of students had not used a virtual learning environment (VLE) before coming to the University of Teesside (61.02%), students had still had experience of using a wide range of technologies in their education already. The results showed that students had used more varied forms of technology before starting university. Some of the learning activities that were more common before coming to university were completing online quizzes, watching videos online,
posting and reading messages on a discussion board and accessing external websites via links. With the exception of submitting coursework online, students were more likely to have done the suggested learning activity before coming to university than whilst studying at the university (see Figure 1).

![Figure 1: Responses to the Pathfinder student survey question 'Which of the following activities have you done in a learning context?' (Armitstead-Pinkney, L. & Webb, E., 2008)](image)

Despite this students claimed to have few expectations of e-learning when coming to university and claimed to be pleased with the resources available. Interestingly, this links in to another area that the survey investigated. One variable which was thought to be potentially influential in the student e-learning experience at the start of the survey was whether students had close family members who had attended university or were first generation students. It was actually found that there was no significant difference in the e-learning expectations or experience of first generation students compared to second generation. This may well be due to the fact that the introduction of e-learning is a relatively new development and therefore the generation of students attending now are one of the earlier generations to have experienced e-learning at a university level (Pascarella,E.T., 2004). This means therefore that no student, whether first or second generation, is likely to have a clear idea of what to expect in terms of e-learning before arriving at university. This was surprising as one would expect younger students to have recently used technology in school and college and, as the results show; most students had used a range of technologies before coming to university.

A possible argument for why students do not claim to have any expectations of e-learning from their university experience is that they see e-learning as intrinsic to learning and therefore, when asked about their expectations of e-learning, tend to think about more complicated or newer technologies than virtual learning environments such as wikis or podcasts. This theory, however, was not supported by
the findings of the research. As part of the survey, students were asked what they thought of as e-learning. The majority of student answers identified e-learning as any learning which took place online and specifically mentioned activities such as accessing lecture notes and using internet resources. This implies that students genuinely do not have high expectations of e-learning in their university experience. The explanation for this, as offered by students in the focus groups, was that students were unsure of what to expect from their university education generally. It was suggested by students that electronic means could be used to provide more information for new students on what they could expect from their time at the University of Teesside. This supports a program already in progress at the university to provide a pre-induction site for all students that would aim to provide online support and information to new students. Students particularly wanted access to items such as module guides and book lists that would give them an idea of what was expected from them in terms of being a student and that would give them a picture of what their university learning experience would entail (see Figure 2).

![What pre-induction online materials or opportunities would it have been useful to have access to?](Armitstead-Pinkney, L. & Webb, E., 2008)

Interestingly, students commented that they would find such a site useful, not only as new students, but also as they transitioned from one stage of study to another, such as from first year to second year. It was suggested by the students that a particularly useful resource for this would be a discussion site where they could ask questions of more experienced students.

**E-learning at the University of Teesside**

Due to the fact that most students had few expectations of what e-learning provision there would be at university, most students were pleased with the e-learning resources they had access to at Teesside. Students learnt to use the university VLE (Blackboard), quickly and found that they liked the convenience and ease of communication it affords. One aspect of the research which is striking is that although students do not see the more innovative technologies as essential, those students involved in the focus groups commented on how much they enjoyed using new technology in their learning and many students, both in the focus groups and in the survey, claimed that the use of new technologies encouraged lecturers to be more interactive in their teaching which students found helped them to learn.

**Student perceived advantages of e-learning**
Results from the student survey indicated that the advantages students feel e-learning gives them are the same at Teesside as at most other institutions. Students commented that they found having materials available online was convenient for them and they felt that it allowed them more freedom in their studies. This was reflected in the online features that students selected as supportive with ‘well organised online resources so everything can be found’ (80.40%), ‘announcements’ (74.33%), ‘being able to contact staff easily if there is a problem’ (74.03%) and ‘reminders of deadlines’ (71.34%) being listed by the most students as supportive. These results tie in with the studies carried out by The Educause Centre for Applied Research (ECAR) in the USA which found that students feel that the greatest value that e-learning has added to their learning experience is the increased convenience it offers (Caruso, J. B., 2004, Caruso, J. B. et al, 2005, Caruso, J. B. et al., 2006).

One of the potential areas for improvement in e-learning that students saw was the fact that many module sites are unorganised and that there is often little uniformity between module sites. This actually fits in with the findings of the ECAR surveys which have consistently found that the biggest advantage students see in e-learning is the convenience that it offers for the learning experience. Students want to be able to access their course materials quickly and easily and if a module site is confusing in its layout or inconsistent in when and where lecture notes are placed, it can often become more of a hindrance than a help to learning.

“One of my modules is very unorganised…(the lecture notes) are not all on there… it’s very confusing” (Student 1).

Students claimed that what they want most from e-learning, more than more technologies even, are module sites which as well organised and easy to navigate.

“Keep it simple, keep it relevant, keep it organised!” (Student 2).

**Student IT skills and e-learning**

The level of IT skill at the University of Teesside among students was reasonably high overall as can be seen in Figure 3 which shows the self-assessed skill levels of students with IT in general.

![Pie Chart](chart.png)

**Figure 3** Responses to the Pathfinder student survey question ‘What is your skill level using the following computer technologies and applications?’ (Armitstead-Pinkney, L. & Webb, E., 2008)

One of the findings of the ECAR studies was that students’ self-rated IT skills had decreased between 2005 and 2006 and the survey was compared to these results. The 2006 ECAR survey showed that the student’s self assessed mean skill level with IT had changed from 2.75 in 2005 to 2.67 (Caruso, J. B. et
al., 2006). This was measured on a scale of one to four with four as the most skilled. The ECAR research team suggested that this was due to better questioning but it also seems possible that this change was due to better student awareness of the range of technologies available, and therefore the range of skills needed in order to rate one’s own skills in terms of IT. This theory could be supported by the data obtained at the University of Teesside. The survey showed that students had experience of using a wide range of technologies but very few students claimed to be an expert in using them. This is supported by the fact that the School of Computing, whose students would be expected to have a higher skill level with many technologies, did not rate themselves significantly higher at most technologies and even in those technologies where they did appear to have more experience, such as video/audio software and graphics software, there were still relatively few students that claimed to be either experts or competent.

Part-time students

One of the main findings from the survey was that part-time students are more likely to feel isolated due to their lack of a peer group. Of the students at Teesside, 56.51% are registered as part-time. The survey showed that, unsurprisingly part-time students are more likely to work long hours and have family commitments meaning that their time for study is restricted. E-learning can therefore be very useful for these students as it improves the convenience of learning. The provision of email and assessment information and course documents such as module handbooks online, mean that part-time students do not always have to come in to the university if they have a problem or question; they can simply check the internet. Likewise, if they have to miss a lecture due to family or work commitments, they are likely to have access to lecture notes and reading lists easily. The problem that comes with this convenience is that this can lead to part-time students feeling disconnected from university life. Part-time students are unlikely to belong to a continuous cohort throughout their university life, in contrast to full-time students who often meet the same students, not only in each lecture, but also in each module (Kember D., Lee K., Li N., 2001). A full-time student moving from their first year to their second is likely to have peers with whom they feel comfortable making the transition with them. They would therefore have a ready set of peers to go to in order to compare experiences and discuss problems. A part-time student is less likely to have this support and this can lead to part-time students missing out on advice and experiences that are usually shared by their full-time contemporaries. In the focus groups, it was found that part-time students were the one group that consistently mentioned they had problems in their university experience due to their student status.

“When I first started I was a full-time student, see, but I had to become part-time, see. But that’s the difference between full-time and part-time, see; when you’re full-time, you like, know your peers more and it feels like you’re more inclusive a little bit, but when you come part-time, I feel as though, like, you’re forgotten about a little bit really.... You don’t feel part of the whole experience” (Part-time Student 1).

Part-time students felt that they often missed out on information that was routinely given to full-time students.

The part-time students who participated in the focus groups felt that e-learning could be extremely useful in improving the university experience for all part-time students. They suggested they would find it helpful for there to be an area online with information specifically for part-time students and, more importantly from their perspective, an area where part-time students could discuss their learning experiences. Part-time students felt that e-learning tools such as discussion boards could be extremely useful in creating a sense of community for those students who do not belong to a set student cohort. A discussion area such as this would enable students to access it at a time and place which suits them and to have a forum for questions equivalent to those that full-time students might be likely to ask each other face-to-face.

Involving students in e-learning at the University of Teesside

The findings from the survey are intended to help move the University forward in terms of e-learning. One specific area identified for action is an increased involvement of students in the use of innovative e-learning tools. The survey found that it would be valuable for students to have more input into decisions at the University that impact the learning experience. For this reason it was decided that
there should be direct involvement from students in the use of e-learning. Those students involved in the survey commented that they wanted to be involved in deciding which technologies are used at the University and the University is keen to look at ways to facilitate this.

**E-Assistants**

Student assistants are being used at universities such as Sheffield Hallam University who have employed students to assist staff with building course sites on the university’s virtual learning environment (Hepplestone, S., & Rodger, H., 2005). These have been a great success at Sheffield Hallam University, both in terms of improving the quality of module sites and involving students in the university’s development of e-learning. By increasing student involvement in creating e-learning resources, the University can ensure that it is implementing e-learning in a way that students find useful, rather than simply encouraging increased use of e-learning for the sake of using technology. To this end recruitment of current students to act as e-assistants in each of the six schools is currently underway. These will be trained by the central e-learning team but managed within each school. Their roles will be determined by the needs of each school but it is envisaged that this will involve giving advice on module design and use from a student perspective. It is anticipated that they may be asked to ‘test-drive’ sites, produce resources, canvas other students’ opinions and make suggestions for improvement.

**Need for annual research**

The input of students into their learning experience is invaluable to understanding how the University of Teesside can best support students. It was felt therefore that the Pathfinder Student survey should result in the creation of an annual student survey. It is envisaged that the survey would be run in much the same way as the Pathfinder project using a combination of an online survey emailed out to all students, with provision of paper copies for those less comfortable with technology, followed up with a series of focus groups. The incentive of a prize draw for all participants would be used with a cash prize offered in order to appeal to the largest number of students. It is envisaged that the survey would be shorter than this survey and would focus specifically on the degree to which students are satisfied with their e-learning experience and what could be done to improve it. It is envisaged that a shorter survey would encourage more students to take part and would allow the inclusion of any other questions that might be pertinent to current University issues. The students who participated in the focus groups commented that they had found it valuable to contribute to the research on their learning experience as it helped them to feel involved in the University. They also suggested that it might be helpful to have an area on a general University discussion site for suggestions for improving the e-learning experience. As a discussion forum already exists on the Students tab in Blackboard, there may be room for communicating this information to students more explicitly as part of the induction process.

**Conclusions**

The survey found that students appreciate the benefits of e-learning such as the added communication opportunities and the convenience of having course materials such as module guides online. It found that students have relatively little idea of what to expect from e-learning when they first come to university but that they have the skills to cope with those elements of e-learning they use. Students felt that the most effective way in which their e-learning experience could be improved is by streamlining those materials available, mostly by improving the organisation and consistency of the module sites. Students want to be able to access course materials quickly and claimed that many sites were disorganised and disorientating. Students argued that their experience could be greatly improved if staff learn to arrange their module sites in a way that is clear and intuitive. Part-time students felt that e-learning could be particularly useful to them as the communication opportunities offered online could help them to connect with other students and to become a more aware and active part of the University.

The Pathfinder Project student survey has highlighted some major areas for work in the University, such as the experience of part-time students and demonstrated how e-learning can be used appropriately to better support students in their learning, namely, pre-induction materials, the organisation of module sites and the learning experience of part-time students. The survey has also demonstrated the value of involving students in the implementation of e-learning and shows that e-learning offers an opportunity to open discussions with students as to what their needs are and how the University can best meet them. The survey showed that using tools such as discussion boards can help to integrate students who spend a high proportion of time off campus. These findings supported the
findings of research bodies such as ECAR who suggest that the biggest differences that e-learning brings to university life are increased ease of access to information and improvements in communication options, between staff and students, and between students and their peers (Caruso, J. B. et al., 2006). E-learning is set to continue to be important in the progression and improvement of the student experience at the University of Teesside and student involvement will be central to this. It is hoped that the Pathfinder survey can be seen as the start of an ongoing dialogue between staff and students in terms of how e-learning can enhance student life, not just in terms of learning but of the whole student experience.

References

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