Student diaries: using technology to produce alternative forms of feedback

NUZ QUADRI University of Hertfordshire
PETER BULLEN University of Hertfordshire
AMANDA JEFFERIES University of Hertfordshire

Abstract Students at the University of Hertfordshire are increasingly exposed to e-learning through the extensive use of the Managed Learning Environment (MLE), and the heavy investment in various technologies for classroom learning. This type of learning is disparate to previous generations and for some may be challenging, therefore it is important to measure how beneficial it is to students' learning. Rather than using conventional methods of evaluating students' use of e-learning, the university has integrated technology into its evaluation process through the use of video cameras, voice recorders and web logs (blogs). This study is work in progress but follows on from a project conducted during the previous academic year with video diaries. As the study is exploring issues arising from e-learning and using technology in learning, it was thought appropriate to use different media for students to express their views. Moreover, the institution wanted to use a type of research method which was 'open' and not constrained quantitatively or by the researcher. In this evaluation project, students' participation will involve producing diaries over seven days, given the choice of three media: video cameras, voice recorders and blogs. Students will be asked to comment on various aspects of e-learning around the university, and also teaching and learning in general. The findings of this study will be analysed to explore students' views of e-learning and to ensure that students are learning effectively through such methods. In this paper, the method and findings of this study will be presented, and the value of e-learning that students perceived in their studies will be discussed.

Introduction

Evaluating students' perceptions of their academic environment is vital for improving students' learning experience and this is very often done by using standard questionnaires or interviews. For example, at the University of Hertfordshire students will complete Student Feedback Questionnaires (SFQs) evaluating the performance of modules on their course in relation to assessment, delivery, staff, and so on. Although such methods do provide information required for evaluation, they may not be the best method of obtaining students' views because the feedback is very often restricted and the topics may not be broad enough to cover all of the student views.

Evidence of surveys not covering all aspects of students' learning is given by Devlin (2002) concerning the Perceptions of Learning Environments Questionnaire (PLEQ).

The PLEQ was designed by a team of researchers who worked on the Teaching and Learning in Tertiary Education (T&LiTE) Project and aimed to investigate students' perceptions of their learning environment (Queensland University of Technology 1994). The PLEQ was seen as providing a tool for gaining detailed student views on these perceptions – views which had previously been limited. This was done by including factors such as finding out why students have particular views (Clarke 1995; cited in Devlin 2002). However, even though the PLEQ covered extensively and explicitly the views of students, it remains a tool that "still may not measure student perceptions in sufficient detail" (Devlin 2002). Despite aims to design the PLEQ in ways to produce a comprehensive account of students' views, the resulting questions were designed so that students focussed on the behaviours of others and how this contributes to their learning, rather than themselves. This highlights how systematic methods can have flaws in achieving a representation of students' views.

One medium by which to measure students' perceptions of their academic environment is video. Video has the advantage of allowing an in-depth, personal and unrestricted insight into people's views. When people talk alone to a camera the chances are that they will be more open compared to being interviewed or when communicating via other mediums. This has very often been observed when people take part in reality TV programmes such as Big Brother.

Using video in education to evaluate students' perceptions is not as popular as it is with evaluating social behaviours such as relationships on TV. However, this process of evaluation could gradually become a more favoured approach. Noyes (2004) reports on how video diaries were used as part of a process of investigating students' views on the transfer from primary to secondary school; other methods employed in this study were participant observation and interviewing. Reasons for using video diaries were simply to use a tool whereby school children might talk more freely about certain experiences which couldn't be captured through interviewing or observation. Noyes comments on how successfully more in-depth the diary entries were compared to responses given when students were being interviewed, and also how what was expressed by the children was "incommunicable on paper".

With these outcomes in mind, the research team at the Blended Learning Unit decided to use the method of diaries, with an emphasis on video diaries, to receive feedback from students. The aim of the project was to explore what students' opinions were of their teaching and learning experience, and to

215

provide feedback on the use of technology at the University. One of the Blended Learning Unit goals is to evaluate students' learning and for this feedback to be used to inform institutional change, so it was thought appropriate to use video cameras as this would allow the students to be more open. The Blended Learning Unit aims to enhance students' learning by combining technology with traditional face-to-face teaching, therefore it was thought appropriate to explore students' perceptions of their learning at the university through the use of technology. Other reasons for using a video camera were so that video clips could be used to report directly to staff what students' perceptions are of various issues relating to their university experiences. The edited video clips would be used to help staff understand student study patterns, and to identify opportunities to employ new technology which can support learning, and to identify strengths and weaknesses of different approaches to teaching and learning.

Two projects have been conducted using video diaries; the first was a pilot, and the second was improved to ensure it produced more focussed student feedback. In this paper the second project, conducted in February 2007, will be discussed giving details of the method, findings and conclusions.

Method

Students were recruited using StudyNet (the University of Hertfordshire's MLE) where a news item was posted informing students of the project. Students were given the choice of using a video camera, a voice recorder or blogs to produce the diaries so that more students would have the opportunity to take part. Out of thirteen students, eight wanted to use video cameras, five wanted to use voice recorders, but no students wanted to use blogs. Interested students were asked to email the Blended Learning Unit's Student Consultant, who was coordinating the project, and then attend a five minute session where they talked to the camera about why they would like to take part in the project. This was done to determine whether the students would be able to talk in front of a camera. The student's were offered vouchers, typically for books or CDs, as an incentive to participate in the project and in recognition in the time spent on the project.

Each student was loaned a video camera or digital voice recorder for the week. To add to the use of technology throughout the project, students were handed seven different coloured envelopes at the start of the week and were sent a text message everyday informing them which envelope to open for each day. In the envelope were questions that the students were asked to respond to for each day. As the project was run in collaboration with the Students' Union, the project ran over seven days to include the weekend so that feedback could be provided on their social life as well as their academic lifestyle. Students were asked to comment for no longer than fifteen minutes each day, and were asked to be as open and natural as possible. Emphasis

216

was made on the objective of the project from the students' point of view which was not to act as a model student but rather to portray to staff what would be a student's typical routine.

The videos were watched by the Student Consultant and the comments students made in answer to the questions were transcribed. The analysis of the project was done by using the transcriptions to explore any similarities and differences between the students' comments so that themes could be developed. Under each of these themes, students' comments were used to produce video clips, and these clips were then available to show to staff a selection of student views.

Findings

The themes which emerged from this data were: resources and StudyNet use in learning and teaching; communicating with staff at the University; lecturers' influence on the students' learning; and students' studying behaviours. Examples of each of the themes are given below with an explanation of the students' comments.

Resources and use of StudyNet in learning and teaching
This theme related to any references made by students to how technology, including StudyNet, had enhanced their learning. All of the students made positive references to resources being used whilst studying, and also spoke positively of StudyNet commenting on how they were able to learn whilst being away from the campus or from the Learning Resources Centre (LRC):

"StudyNet's great, great helpful tool, to keep in touch with lecturers. They can put notes up there, lecture slides, you know you might have been in lecture making some notes but you missed a certain bit at the end of the slide so it's great when that goes up because you can read over that again, make some extra notes for you" (Electronic Music, Sports Studies and French, Year 1).

Communicating with staff at the University
This theme is associated with the types of communication that students use with staff across the University and how this could be improved. All of the students used email as a means of communicating and many felt this was the easiest method. Other methods of communicating online with lecturers and students were also used. One student talks about using discussion forum as a good way of communicating with lecturers:

"They have class discussion, they have forums and that's probably a good thing, because when they answer a question, if there's other people who have the same question then everyone else will be able to see the answers" (Psychology, Year 1).

217

Lecturers' influence on the students' learning
This theme was related to lecturers' use of e-learning to complement face-to-face learning, and also how technology use could be improved in face-to-face learning. Many of the students commented that some of their lecturers did not appear to have the relevant skills to use e-learning, for example when using StudyNet to upload lecture notes, and although the lecture rooms are equipped with data projectors, laptops and visualisers, lecturers still tended to use OHPs. With regards to improving face-to-face learning with the use of technology, a suggestion is made by one student on how this could be done:

> "Maybe we could have some kind of video theme where possibly they could record lectures. Obviously that doesn't mean that I would not attend because they have registers and stuff but maybe we could have like a summary of the lectures recorded or the whole lecture and put it on StudyNet so that we can download and watch the lecture again" (Music Technology, Year 2).

Students' studying behaviours
This theme was related to students describing their studying patterns and preferences whilst studying at University. Most of the students followed a similar pattern: attending their classes during the day and then studying through the night. This was apparent when the students stated what the time was each time they spoke to the camera. One student describes how she studies:

> "Because I have internet in my room at home – I'll normally stay in my room and if I've got research to do it will get done late at night either two nights before it's due, or if it's only a little bit of work I'll stay up I'll do it about midnight the night before it's due, go to bed get a few hours sleep and then get up and go to my lecture either 9 or 10" (Nursing, Year 2).

Discussion

As was anticipated, the use of video diaries, as opposed to other methods such as surveys or interviews, has resulted in feedback from students which is much more open and expressive. The students showed that they felt unrestricted in what they commented on, and could bring in any experiences when answering the questions for each day. However, using this method as a form of feedback has advantages and disadvantages.

Many of the students' behaviours in the video diaries could not be expressed using a survey or interview, as explained above, so the data was much more valuable. As the project ran over seven days it included the weekend so it was possible to see what the students' behaviours were when outside of the class,

including what resources they used and how they used these resources. However as the students had the opportunity to express their opinion they tended to talk for long periods of time and very often their comments were not "to the point". Another downside to students being in control of the feedback was that they didn't always comment on each day, so in one day they would start by answering yesterday's questions and then lead into answering the questions for that day. This made analysis slightly confusing and meant that the response was not as spontaneous because the students had to answer two sets of questions in one day, and appeared to become fatigued by this.

The sample of 13 students that took part in this project was very small and so could not be representative of the entire student body. Out of these students, only eight produced video diaries. Although this number is very small and unrepresentative, it is the quality of feedback which is of importance. The data is rich and credible so can be used as qualitative data where small sample sizes are taken. The students that took part in the project were from a mix of disciplines so this meant that different perspectives were taken on things like technology used in lectures and communication with members of staff. It was interesting to see how students who took part in the project were not just those who were studying a technology based subject area, such as Music Technology. Discipline areas included Nursing and Psychology which gave a range of opinions and so the data was less biased.

From the findings in the project, the students generally spoke positively of their learning at the University. The resources that were available to them for learning were sufficient when studying on or away from the campus. Most of the students discussed how they use StudyNet and commented on how it is an essential part of their learning as they access it everyday. The availability of lecture notes enables them to revise and also summarise the lecture. Aside from StudyNet, other examples of resources used were videos in Nursing lectures and advanced technology available in the Music student's class. These examples show that the resources and use of StudyNet is enhancing students' learning.

Students were content with the technology that was used in lectures, although many lecturers did not use laptops and projection screens to deliver the lecture. This feedback highlights the point that staff may need more guidance on using technology in the classroom, and perhaps this would involve the Blended Learning Unit setting up workshops for staff to attend. These comments from students video diaries have revealed scope to improve students' learning which may not have otherwise become apparent.

The feedback also showed that although email was the form of contact used most prevalently by tutors it was not seen as the best form of communication as students needed to wait for a reply which could often take a few days. One student suggested using Skype to get in touch with tutors and to have office

219

hours at certain times when they would be available. Another student commented on video recording lectures so that they would be made available to students after the lecture for revising and to have as a summary. Another solution, which one student commented on as being a valued form of communication, is the discussion forum which has the benefit of many students being able to contribute and contact the lecturer. It appears that the discussion forum is not as widely used as email so this could be improved. These suggestions are being put into place as the Blended Learning Unit is working on implementing more technology into improving communication and availability of lecturers. These comments, suggesting that more technology be implemented, are supported by a recent flexible learning study where students were asked to respond to a survey with questions regarding how, when and where they would like to study. Students are very keen on using web 2.0 social software including social networking sites like Facebook, and so they would be capable in using such technologies and would find them useful.

The students generally did their own studying late in the evening or through the night, and they were able to do this because the LRC is open 24 hours. StudyNet's facilities also enabled them to study whenever they want: they commented on being able to study from their bedroom. A lot of the students commented on how they do their independent learning and they understood the importance of acquiring independent study skills. Students also maintained a balance of social life and studying throughout the week, and many took advantage of days off or late starts to recuperate from late nights.

Using these video diaries, staff can be shown students' views with far greater impact than showing graphs and figures or just by summarising findings from an interview or focus group. When watching the video clips which are produced from these diaries, it is possible to see the students' body language and their facial expressions which add to the quality of the comment and make conducting such research very valuable. However when watching the diaries, it is not possible for the student to be probed on a comment which needs further exploration unless the student is followed up after the project, but this may have its own disadvantages such as them not being available.

To conduct such a project a lot of time is required because of the process of getting students involved in the project and analysing the data from all the students. There is more planning involved in gaining feedback by using video diaries than conducting a survey, and once the project is complete the data can require hours of careful analysis. Although the sample here was small and less representative, a larger sample of students would mean more time required for analysis. However the findings from such a project may outweigh this disadvantage because responses have been gained here which previously had not been obtained and the responses do not need interpretation.

220

According to the Blended Learning Unit's aims, this project has successfully allowed the implementation of technology to produce student feedback. As the project was titled '7 days in the life of a student', the students were able to provide responses to the questions relating to their learning experience, and also provide details of their daily lives and routines. By using a video camera, it is possible to see where and how students study outside of the classroom, as they would film their bedrooms and show their desks, laptops, filing systems, and so on.

Conclusion

Feedback like this, such as being able to show staff how and where students learn, has not been possible prior to these video diary projects as conventional methods of evaluation do not allow for this to happen. For this reason this method is much more powerful but also because it requires less interpretation. As well as the Blended Learning Unit being able to achieve one of its goals successfully, students also feel like their opinions are valued as they have the opportunity to get involved in informing institutional change by providing feedback. This feedback supports and can be supported by other research which has been conducted with students at the university to evaluate their learning experiences, and to provide a representative profile of what students need to enhance their learning. Having such views from the student body means that implementing technology in students' learning can be successful as it is the true opinion of students at the University.

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Biographies
Nuz Quadri was Student Consultant at the Blended Learning Unit, University of Hertfordshire until July 2007. Her role involved conducting student focused evaluations, working directly with students and the Students' Union. She worked on a number of projects designed to measure students' attitudes and experiences on

blended learning. Research has involved conducting interviews, focus groups and surveys with students. Web address: www.herts.ac.uk/blu

Peter Bullen has been Director of the Blended Learning Unit since April 2005. His interests in blended learning stem from work with Ford Motor Company and in particular the development of an MSc programme for employees of the motor industry. One of the outcomes of this work was the development of VALE (Virtual Automotive Learning Environment) prior to the implementation of StudyNet. He is a practicing teacher and is enthusiastic about the opportunities offered by a combination of e-learning, blended with more established ways of teaching and learning

Amanda Jefferies is a Principal Lecturer and University Teaching Fellow in the School of Computer Science at the University of Hertfordshire. She is also a BLU teacher. a.l.jefferies@herts.ac.uk