How Was It For You? An Evaluation of Student Learning Experience Following the Introduction of an MLE in One English University

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Abstract

The Dearing Report (NCEHE, 1997: 13.1), called for the effective use of information technology in learning and teaching in higher Education, suggesting that it, '… holds out much promise for improving the quality, flexibility and effectiveness of higher education'. Six years later it is time to take stock of what has been achieved. Technology in learning and teaching is no longer peripheral. Its presence is ubiquitous at the strategic if not always at the operation level. However, relatively little is known about its real as opposed to claimed effectiveness in enhancing student learning and their experience of higher education.

There are multiple claims about e-learning enhancing learning and teaching (Britain and Liber, 1999; Conole, 2002; Allen, 2003; Littlejohn and Higginson, 2003) – such as supporting active learning, facilitative rather than didactic teaching and increased student motivation – but these are not pre-determined outcomes. Much depends on how lecturers use them and how students respond to that use.

The research reported here is based on an investigation into students' views and experiences of the introduction of BobCat (an MLE) in one university in England. It follows from and builds on a previous research project (2002/3) that investigated lecturers views and experiences of the introduction of BobCat in the same university. Seven focus groups were used to follow-up issues raised from a structured survey of just under 1,000 students.

This research aims to

- *Understand students' views about the accessibility and usefulness of their particular MLE (BobCat).*
- *Understand students' perceptions and experiences of the ways in which staff use on-line learning to complement the traditional face-to-face delivery of material.*
- *To identify emergent good practice from the students' perspective.*
- *Map any similarities or divergences between the views of students and their lecturers on the use of BobCat to enhance learning and teaching.*

***Key Words**: Computer-based Student Learning,, Student Perspectives, MLE, pedagogy*

FULL PAPER

CONTEXT

The continued growth and development of Managed Learning Environments (MLEs) within universities across the world has prompted a re-structuring of design and delivery mechanisms in education programmes. Alongside the need for institutions to evaluate the effectiveness of their preferred delivery system for its technical capabilities, it is equally necessary to assess its impact upon student learning.

The Dearing Report (NCEHE, 1997: 13.1) called for the effective use of information technology in learning and teaching in Higher Education, suggesting that it, '… holds out much promise for improving the quality, flexibility and effectiveness of higher

education'. Following Dearing (NCIHE, 1997) the University took a strategic decision to develop its own, bespoke, in-house, Managed Learning Environment (MLE). The University has a history of delivering successful projects that utilise many of the technologies that go into making a successful MLE. It chose to build on this experience and expertise rather than purchase a commercial package such as Blackboard or WebCT in order that the MLE integrated with systems already in place and to tailor it specifically to institutional needs. Development work started in November 2000 with a pilot release date of September 2001. It was delivered on time, has a high level of integration with central systems, is adaptable to the modularity of many of this University's degrees, and automated. It provides tools comparable to commercial offerings; it is Lotus Notes based, provides portals for all modules for University staff and students (20,000 FTE) across three campuses and includes email. The system has been fully operational since September 2002.

Six years on from Dearing it is time to take stock of what has been achieved. Technology in learning and teaching is no longer peripheral. Its presence is ubiquitous at the strategic if not always at the operation level. However, relatively little is known about its real as opposed to claimed effectiveness in enhancing student learning and their experience of higher education.

There are multiple claims about e-learning enhancing learning and teaching (Britain and Liber, 1999; Conole, 2002; Allen, 2003; Littlejohn and Higginson, 2003) – such as supporting active learning, facilitative rather than didactic teaching and increased student motivation – but these are not pre-determined outcomes. Much depends on how lecturers use them and how students respond to that use.

Our 2002/3 study of lecturers responses to their MLE has been reported elsewhere (ALT-C 2003, NLC 2004). In summary we found that the impact of BobCat on pedagogy was varied. The most used BobCat facilities were module information and news, teaching materials (mainly lecture notes or power point presentations), upload of reading lists i.e. BobCat was used mainly as an information source and administrative tool. Group discussion had been tried but had proved unsuccessful for several staff. However, these lecturers did recognize BobCat's potential for more interactive work and greater student independence and autonomy in learning. There was some evidence to show that staff were adapting and gradually changing their teaching methods.

"I'm not sure it helps learning but increased (student) independence / autonomy, take more responsibility for learning, gives students confidence… "

"I can work through the material much more interactively rather than wait for students to copy slides/ write notes on handouts.

However, there was limited evidence to demonstrate that BobCat had had significant impact on pedagogical development and change across the university. Face-to-face teaching was still preferred by many staff, and considered necessary, albeit alongside e-learning.

Tutor users were generally enthusiastic about BobCat because it was an extra teaching resource that students "could drop in and out of"; it was a useful repository with everything in one place; it was useful for distance learning, and with larger and larger classes it enhanced communication and information sharing with students.

The Natural Science and Engineering faculties appeared to use the BobCat assessment facilities more than other faculties and this may reflect a difference between

disciplines in the types of assessment used and how well they do (or do not) transfer to the electronic environment. Articles and papers, and students' own contributions ranked higher in Humanities and Human Sciences than in Natural Science and Engineering. We concluded that BobCat was and will be used differently by different disciplines in terms of pedagogy.

Tutors' views on the use of BobCat for supporting students' learning were limited. Most suggested that we ask students this question! Those who did respond thought BobCat was helpful to students through information being available in one place plus electronic links to the library and other resources, and several thought it made students more independent.

There was some evidence that good practice was evolving and being disseminated throughout all faculties but with varying degrees of success. Tutors used BobCat for quizzes and question and answer sessions, for web links, posting seminar papers and good examples of an essay (anonymised and with permission), as a discussion facility to extend classroom time, for case studies and to provide skills booklets to students.

"The class discussion facility is used quite extensively ... staff respond to students queries that are raised, I also post up information of interest ... draw students attention to it and have a discussion around it on the class discussion facility."

"Last year we had a quiz ... very simple multiple choice thing on (X) for the students which was again just a basic knowledge testing exercise which the students quite enjoyed and things like that are time consuming to write but once they are written they can be used again and again ... it's a gradual building up of resources."

Overall, analysis of staff data suggests that money, time and workload affect staff access and use. As a communication and information distribution resource it is well used but its impact on the enhancement of learning and teaching is, so far, fairly limited although some examples of good practice were identified.

The research reported here is based on an investigation into students' views and experiences of the introduction of BobCat (an MLE) in the same university. It follows from and builds on the previous staff project. Both projects were led by staff from several different disciplines but were based in the central educational development unit and computer science department.

The student project sought to build on the staff project by surveying a representative sample of students across the University's faculties to determine their usage, experience and opinions of BobCat and its impact on their academic studies.
By analysing responses from students studying in different faculties, light is shed upon how BobCat is being used, whether or not there are discipline-specific differences in its use and how students experience it.

Both studies were funded in-house. The staff study ran during the academic year 2002/2003. This was the first year in which BobCat had been fully operational. Following pilot use in 2001/ 2002 with Level 1 and post graduate courses, in 2002/ 2003 all staff were expected to have a BobCat presence on all taught courses at undergraduate Levels 1 and 2, plus all post graduate taught courses. In 2003/2004, the time of the student survey, institutional standards required all courses at all levels to have a presence on BobCat.

THE STUDENT STUDY

This study had the following aims.

- To understand students' views about the accessibility and usefulness of their particular MLE (BobCat).
- To understand students' perceptions and experiences of the ways in which staff use on-line learning to complement traditional face-to-face delivery of material.
- To identify emergent good practice from the students' perspective.
- To map any similarities or divergences between the views of students and their lecturers on the use of BobCat to enhance learning and teaching.

An optically read questionnaire (see Appendix 1) was completed, at the end of a lecture, by groups of first and final year undergraduate students from four faculties across the University (Engineering and Information Sciences (EIS), Health and Human Sciences (HHS), Law and Business). These faculties were chosen to represent laboratory, practice and library-based disciplines and covered both natural and human science subjects. The faculties which were not surveyed were Interdisciplinary Studies, Humanities and Education and Art and Design. This was a largely captive audience and despite questionnaire completion being voluntary there were very few students who declined to participate.

In total just under 1,000 students completed the questionnaires, which is approximately 10% of the student population in the sample populations. 84% of responding students were 24years old or younger, 57% were female and 93% were studying full-time. 18% were students from overseas. Only 12 students claimed not to have used BobCat at all. It was not possible to survey all students in all faculties and all years. However, a representative range of faculty 'types' were surveyed (Business, Law, HHS and EIS) and two distinct year groups (Year 1 and Year 3) to enable comparisons to be made. Ten per cent of the target population is a reasonable sample size (Questionnaire).

Seven student focus groups were then used (36 students) to follow-up in greater depth key issues arising from the questionnaire survey (Appendix 2). These lasted approximately one hour, were led by one of the project team working with the research assistant, were videotaped, audio-recorded and transcribed. A preliminary analysis of Focus Group data has been undertaken but there is more work to do on this. There were 17 male and 19 female Focus Group participants, 13 from year 1 (Level 1) and 36 from year 3 (Level 3). They comprised 11 computer scientists, 11 business studies students, 8 from Law, 4 from HHS and 2 engineers. It is recognised that the Focus Group participants were largely self selecting and may therefore not be truly representative of students using BobCat at this particular university. However, the larger proportion of year 3 students suggests that Focus Group responses are likely to be more confident and critical in appraising BobCat than if first years predominated. There is a balance between human and natural/ hard sciences, and between library, practice and desk/ laboratory-based students. The transcripts show that lively discussion did take place and a wide range of views were expressed.

FINDINGS

Is BobCat useful and accessible to students? Most students found BobCat facilities useful (Table 1), in particular, 88% rated Teaching Materials as 'Extremely Useful' or 'Reasonably Useful', Module Information 82%, Accessing their University e-mail 79% and Module News 76%.

Table 1: Rank Order - Usefulness of BobCat Features (Questions 27-35)

Q.		A.Extremely useful	B.Quite useful	C.Not very useful	D.Useless	E.Not used at all	Summary A+B
29	Teaching materials	52%	36%	7%	3%	2%	88%
28	Module info.	31%	51%	12%	3%	3%	82%
35	Email	44%	35%	10%	4%	7%	79%
27	Module news	23%	53%	14%	4%	6%	76%
32	Electronic resources	18%	44%	16%	6%	16%	62%
30	Class discussion	14%	34%	24%	11%	17%	48%
34	Group work	10%	27%	16%	8%	39%	37%
31	Coursewk. On-line	12%	23%	11%	5%	49%	35%
33	Freq.asked questions	6%	26%	22%	9%	37%	32%

The group work, submission of course work on-line and the 'frequently asked questions' facilities were the least used BobCat facilities (39%, 49% and 37% respectively).This may indicate either that some students did not use them by their own choice, or, that some tutors did not provide for or expect these students to use these facilities on their modules. Given the outcomes of the staff survey we suspect the latter may more frequently be the case. When these facilities were used by students (and tutors) more than half found them useful.

There was less certainty about the impact of BobCat on students own learning with considerable minorities suggesting there had been 'No change'. 51% agreed that 'BobCat has improved the way I learn' (Table 2), 14% disagreed. 35% said it had made no difference to the way they learn. 54% agreed that 'BobCat has made me a more independent learner', 14% disagreed.

Table 2: Rank Order - The impact of BobCat on Student Learning (Questions 41-47)

Q.		A,Strongly agree	B. Agree	C. No change	D. Disagree	E.Strongly Disagree	Summary A+B
45	More independent	13%	41%	32%	8%	6%	54%
42	Changed way I learn	11%	40%	36%	6%	7%	51%
44	Learn at own pace	12%	40%	35%	8%	5%	52%
43	Improved way I learn	13%	38%	35%	8%	6%	51%
46	Manage time more effectively	10%	35%	40%	10%	5%	45%
41	Inproved IT skills	10%	30%	44%	6%	10%	40%
47	Improved group skills	5%	24%	49%	14%	8%	29%

In terms of providing an environment where students can learn asynchronously, 45% agreed that 'BobCat has enabled me to manage my time more effectively,' with 40% reporting no change in their time management due to BobCat. Preliminary analysis of the focus group transcripts suggests that students accessed BobCat primarily for lecture notes and other class materials, for e-mail and to communicate with their lecturers. They also accessed past exam papers and the Voyager library system through special links set up in their BobCat modules. Some students said that they now seek information via the internet rather than using books from the library and most use the computer as an information tool a lot more. The data indicate that improved learning through on-line activity and interaction is present but less prevalent than information gathering. Student's overall ratings of BobCat are given in Table 3. Only 8% regard the system as poor or very poor.

Table 3: Student's Overall Ratings of BobCat (Question 48)

Q.		A. Excellent	B. Very good	C. Okay	D. Poor	E. Very poor	Summary A+B
48	Rating of BobCat	20%	42%	30%	6%	2%	62%

Students prized the convenience of having their study materials in one place and their ability to access them from anywhere. 73% had internet access from their term time accommodation and 66% had accessed BobCat from there, though a small majority (51%) mainly accessed BobCat from the Learning Resource Centre (LRC) on

campus. 96% used BobCat at least once a week. Most user support mechanisms were well used and valued by students, with induction, integration into course teaching and on-line guides found to be the most useful. LRC surgeries were thought useful by 41% but 33% had not used them at all so had no view.

Students reported that staff use BobCat in the following ways. 81% said that BobCat was used on all or most of their modules and this mainly involved teaching materials (79%). However, tutors rarely used frequently asked questions (just 24% of all or most of these student's modules) or submission of coursework on-line (just 16%) (see Table 4).

Table 4: Rank Order - Tutor use of BobCat Facilities on Student's Modules (Questions 22-26)

Q.		A. all	B. Most	C. Over half	D. Less than half	E. None	Summary A+B
22	Use of BobCat in general	53%	28%	12%	5%	2%	81%
23	Teaching materials	49%	30%	12%	6%	3%	79%
25	Module News	23%	29%	16%	18%	14%	52%
26	Freq. asked questions	8%	16%	16%	25%	35%	24%
24	Course wk. on-line	5%	11%	9%	23%	52%	16%

Staff primarily appear to use BobCat as a 'one-stop-shop' for making course related information and resources available to students, and students access and use this information resource. Regrettably we failed to ask students directly about their tutors' use of interactive facilities, such as discussion groups and group working, on the modules they studied, although we did ask if they found any of these facilities useful. In this latter context 39% said they had not used group work and 17% had not used discussion groups, but this does not mean that their tutors had not made them available. Despite the use by some tutors and students of interactive facilities information repository is BobCat's main current use. The active processes of learning still remain largely classroom-based, with most Focus Group students and staff believing that BobCat complements face-to face teaching in various ways but that it should not be used to replace it.

What did these students regard as 'good practice' in the use of BobCat? In the Focus Groups, ease of communication between peers and between students and tutors was stressed. They really liked being able to contact their tutors electronically. When used effectively, class discussions were well liked as was on-line submission of course work. The posting of handouts and lecture notes raised divergent views. Some thought it encouraged students not to work, read or attend lectures, others found it useful preparation and that it made listening and note taking easier during lectures.

How can BobCat be improved? These students' main suggestions for improvement revolved around lecturers' use of it, which they felt was sometimes inconsistent and limited. They would like more standardisation between lecturers' postings on BobCat, so that information is stored in similar ways on different modules and thus easier for students to find. They would also like more consistency in tutor use of BobCat facilities across modules so that skills learnt in one module, such as group work, discussion or on-line course work submission are further developed in subsequent modules. Constant logging in is seen as an irritant by some students, others felt the system crashed too often and was too slow. Several suggestions were made about improving Prayer, the e-mail system used on BobCat, and one student would like more file space. The cost of printing was a source of resentment, having largely replaced the free distribution of handouts and course materials. Some students would like easy access to other modules on which they are not registered but which they feel may be of use to them. Others want a staff contacts / address book and a 'brighter' more interesting interface.

There are some differences in BobCat use between first and final year undergraduates but this seems to reflect more the gradual development of BobCat since 2001 than differences in use of particular facilities by level 1 and level 3 module tutors. Third year students, like tutors, have lived through the growth and development of BobCat and have increased their use of it as they and the system have progressed. First year students encounter it as a fairly complete fully functioning system that is used on virtually all modules and with which they must come to grips quite quickly if their learning is not to suffer.

There are some differences in BobCat use between faculties and there will be further analysis and comparison of data to explore this. Early analysis suggests that student appreciation of BobCat and their assessment of its impact on their learning differs between faculties. For example, Business and Law students are more likely to agree that BobCat allows them to learn at their own pace, and to rate BobCat more highly, than their EIS and HHS peers. EIS and HHS students are more likely to report 'no change' in their learning than Business and Law students.

SUMMARY

The student study reported here had four specific aims or intended outcomes.

1. To understand students' views about the accessibility and usefulness of their particular MLE (BobCat).

BobCat is thought useful and accessible by the majority of student respondents though their assessment of its impact on their learning is less marked. It has become an essential information tool, well used and accessible. In terms of changing and improving student learning it is having an impact but still has some way to go. How much of this is due to lack of student or tutor use of active learning facilities available on the system is debatable but students did complain of inconsistency in tutor use of facilities and if tutors don't activate some of these facilities students simply cannot use them. We are aware that there are issues of access for some students, for example if they have no home computer and childcare costs prevent or limit LRC access (Bowl, 2003). This was not an issue raised by the students in the Focus Groups but it

was raised by tutors in the staff survey as a key issue. Staff suggested that many assumptions appeared to be made about computer literacy and skills, about access to computers and the Internet. They were particularly concerned that off-site, mature and 'Widening Participation', i.e. non-traditional students, were at risk of having unequal access to BobCat and increased technology costs.

2. To understand students' perceptions and experiences of the ways in which staff use on-line learning to complement the traditional face-to-face delivery of material.

Eighty-one per cent of students reported that BobCat is used on all or most of their courses. Where particular BobCat facilities were used by tutors they were generally well received by students. Their biggest complaints revolve around inconsistency of use by tutors.

The systems are quite easy to use, but some lecturers are more organised and better at putting up things than others.

I think it is just the way the lecturers don't use it to the best of its ability, not putting lecture notes up in time, they don't use class discussions which I think is the best thing on it…

I think it is inconsistent in terms of the way it is being used by lecturers. Some use it more than others. If it was used at the same level all the way through it would be easier for students.

This year some subjects use it a lot some subjects don't put on anything at all, which is a shame because it is a very good function if they do use it well. But some of them just don't use it.

These students are generally happy to have access to BobCat and all its facilities but, like their tutors, most see it as complementary to face-to-face teaching rather than as a potential replacement for it. While some students expressed concern about 'other' students not attending lecturers because all the information was on BobCat most saw benefits in attending, to ask questions, to interact with their tutor and peers, to have things explained, to listen.

3. To identify emergent good practice from the students' perspective.

BobCat is generally liked by students because of the convenience of having all teaching and learning information in the same place, accessible 24/7. If tutors use it well it saves students time and effort and can enhance learning. Ease of communication is the other main strength of BobCat recorded by these students. They can email tutors and peers over work related issues and expect, and usually receive, prompt replies to questions or concerns. They find this a considerable improvement on searching for tutors in their offices. Students also like the support mechanisms provided for their use of BobCat, in particular where its use is integrated into lecture time and induction processes.

4. To map any similarities or divergences between the views of students and their lecturers on the use of BobCat to enhance learning and teaching.

Both groups primarily use BobCat as an information and communication resource, and value it as such. Students can only become engaged in interactive facilities and

resources, such as discussion groups and group work, on BobCat if their tutors initiate and maintain them.

In the Staff Survey we found perceived diversity in teaching styles across Faculties and Departments. BobCat was perceived by staff to be more suited to 'science' based subjects than 'art' based, student-centred and professional courses, such as teacher training and those for health professionals, that required more 'hands on' and face-to-face teaching. The University recognises that subject-disciplines have different needs and approaches, that BobCat cannot be a 'one size fits all' facility, so relevant policies and benchXs are established locally (in faculties). We recommended that work be undertaken to identify, demonstrate and disseminate exactly what it is that BobCat 'does best' for each Faculty.

As noted above, there are some indications of differences in BobCat use between faculties in the Student Survey which require further analysis and comparison of data. Our early analysis suggests that student appreciation of BobCat and their assessment of its impact on their learning also differs between faculties. Students in library and practice-based disciplines are more likely to agree that BobCat allows them to learn at their own pace, and to rate BobCat more highly than their technology and science-based peers: the latter are also more likely to report 'no change' in their learning. Quite how this relates to staff views that BobCat is more suited to 'science' type courses remains to be seen but early indications suggest that staff may be underestimating BobCats impact on students studying library and human/ social disciplines.

CONCLUSIONS

Development work began in 2000. The BobCat pilot was rolled out in 2001. In 2004 use of some of its facilities is now mandatory across all taught courses. It is a top-down initiative, led by two development groups and designed to embed e-learning in higher education practice and to enhance student learning. The initiative also contains two significant bottom-up mechanisms to ensure that it meets the different, and discipline specific, needs of its staff and student users. There is Faculty representation on the development committees and a general feedback facility on BobCat that allows all staff to influence its development. Local policies are well established, in recognition that 'one-size does not fit all', and faculties have ownership of their own targets for implementation. Level of uptake is quite unprecedented, one of the highest in the country, with over 20,000 users (staff and students) and 3.62 million log-ins in 2003/4, after just three years of operation. Contrary to concerns expressed by some staff and students in the surveys, the University does not see BobCat as a replacement for face-to-face teaching. It has the capability to support distance learning (and indeed it does support some distance learning courses) but the primary strategic thrust is a blended learning approach (Thorne, 2002), which includes making the best possible use of face-to-face teaching and learning encounters.

Following Dearing (1997), we ask ourselves, is this university's e-learning environment being used effectively? Is it improving the quality, flexibility and effectiveness of higher education for its students? The Staff Survey and Student Survey, combined, have sought to take stock of what has been achieved so far, from the perspectives of the actors most closely involved in its day-to-day delivery.

It is clear that flexibility has dramatically improved and is fully evidenced in both surveys. Quality and effectiveness are harder to assess. There are undoubtedly many examples of excellent practice and dramatically improved student outcomes, along a spectrum of activity from excellence to minimal compliance. Students gave us many examples of these. More generally we can say that good practice continues to evolve and is being disseminated with varying degrees of commitment and success. Available examples of quality and effectiveness do appear to increase in number, year on year.

However, while non-users are extremely rare, staff users do cover the full gamut of Moore's Technology Adoption Life-Cycle (Moore, 1991), from 'innovators' to 'late majority'. The 'late majority' teachers in our sample tend to fit more closely a pattern of compliance rather than convinced commitment. They meet the required institutional and Faculty minimum 'standards' of use but are not creative interactive users of BobCat in the ways in which the literature claims enhanced learning can be achieved. They may eventually become committed, but if Johnstone and McCormack (1996) are correct then these particular lecturers will need to be convinced that there are good educational reasons for using BobCat. They will need opportunities to explore their own thinking and to develop personal confidence in making changes to their traditional teaching practices.

What do we now know about BobCats real, as opposed to potential, effectiveness in enhancing student learning? By their own report BobCat is impacting on students learning with slightly over half the survey respondents reporting improvements in the way they learn. It may also be impacting on students in ways in which they are not aware, and are thus not captured by the Student Survey, but which never the less benefits their learning. Inevitably this is a gradual process, especially for those staff who need to change and develop their prior understandings and methods of teaching, from competent curriculum delivery in face-to-face encounters with students, to 'risky attempts at interactively supporting' student learning (Edwards and Protheroe, 2004).

Laurillard and McAndrew (2002) note that

As professional teachers, academics are facing a difficult challenge from learning technologies, as they have to renew and develop their model of the learning process well beyond the traditional transmission model.

There is clearly potential for greater interactivity and reflection, increased student independence, autonomy and power, and more extensive resources for learning and teaching through e-learning environments such as BobCat. But it is only potential. As Conole (2002) notes, like Jones (1999), these are not inherent features of the technology itself. Their realisation depends on the use tutor's make of the technology. 'Document dumping' by tutors will not have the desired effect, any more than simple document download by students.

Unlike some staff, today's students are better equipped than their predecessors to take advantage of e-learning opportunities and expect quality e-learning to be part of their experience from day one in higher education. Given progress so far, over three short years, it seems likely that quality and consistency of use will continue to develop in this University, and, with good management and support for 'late majority' staff, Dearing's hopes for e-learning in higher education will be realised.

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APPENDIX 1

Student BobCat Questionnaire 2003/04

1. If you are female answer (a); if you are male answer (e).

2. How old are you?
   (a) under 21 (b) 21-24 (c) 25-29 (d) 30-39 (e) 40+

3. Are you?
   (a) Full-time (b) Part-time

4. What is your student status?
   (a) Home (b) EU (c) Overseas

5. Do you have access to the Internet from your term time accommodation?
   (a) Yes (b) No

6. Do you use BobCat at all?
   (a) Yes (e) No
   If your answer to this question is no then please go to question 49.

7. How many days a week on average do you access BobCat?
   (a) 6-7 (b) 5-6 (c) 3-4 (d) 1-2 (e) not every week

8. Where do you mainly access BobCat from?
   (a) LRC (b) Faculty/Department IT labs (c) Student halls of residence
   (d) Student house/home (e) other.

9. Do you access BobCat from your term time accommodation?
   (a) Yes (e) No

10. Have you ever accessed BobCat from outside the UK?
    (a) Yes (e) No

For the questions 11-15 please indicate how useful you have found the following sources of support for developing your BobCat skills:

11. Taught within a module/induction session?

(a) Very useful (b) Quite useful (c) Not very useful

(d) Not useful at all (e) Not used/NA

12. On-line student guides?

(a) Very useful (b) Quite useful (c) Not very useful

(d) Not useful at all (e) Not used/NA

13. LIS self-help guides?

(a) Very useful (b) Quite useful (c) Not very useful

(d) Not useful at all (e) Not used/NA

14. Other students?

(a) Very useful (b) Quite useful (c) Not very useful

(d) Not useful at all (e) Not used/NA

15. LRC Skills/surgery sessions?

(a) Very useful (b) Quite useful (c) Not very useful

(d) Not useful at all (e) Not used/NA

Your use of BobCat (Questions 16-21)

16. How many times, on average, do you check your **university email account** through BobCat each week?
    (a) 6-7 (b) 5-6 (c) 3-4 (d) 1-2
    (e) Never as I use an alternative email system

17. How many times, on average, do you access your **course information** through BobCat each week?
    (a) 6-7 (b) 5-6 (c) 3-4 (d) 1-2
    (e) Never

18. How many times have you accessed the **additional services** through BobCat (Learning resources, Student support, Social area, UH News & information)?
    (a) Most days (b) once a week (c) once a month (d) several times
    (e) Never

19. How many times have you accessed the **Programme news** through BobCat?
    (a) Most days (b) once a week (c) once a month (d) several times
    (e) Never

20. How many times have you accessed the **Pathway group news** through BobCat?
    (a) Most days (b) once a week (c) once a month (d) several times
    (e) Never

21. How many times have you accessed the **University news & information** through BobCat?
    (a) Most days (b) once a week (c) once a month (d) several times
    (e) Never

Tutors use of BobCat (Questions 22-26)

22. During the current academic year how many of your modules have made extensive use of the **BobCat facilities**?

    (a) All (b) most (c) over half (d) less than half

    (e) none

23. During the current academic year how many of your modules have placed **Teaching materials** on BobCat?

    (a) All (b) most (c) over half (d) less than half

    (e) none

24. During the current academic year how many of your modules have allowed you to **submit your coursework online** through BobCat?

    (a) All (b) most (c) over half (d) less than half

    (e) none

25. During the current academic year how many of your modules used the **module news facility** within BobCat?

    (a) All (b) most (c) over half (d) less than half

(e) none

26. During the current academic year how many of your modules used the **frequently asked questions (FAQ**) facility within BobCat?

    (a) All (b) most (c) over half (d) less than half

    (e) none

Indicate how useful the following features of BobCat have been during your current academic studies (Questions 27-35):

27. Module news?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all
28. Module information?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

29. Teaching Material?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

30. Class Discussion?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

31. Online submission of coursework?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

32. Access to electronic resources selected by the tutor
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

33. Frequently asked questions?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

34. Group working with shared documents?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

35. Accessing your University email account?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

How useful do you find the following additional BobCat features (Questions 36-40)

36. Information from the Support (student support) menu item?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

37. Information from the Social menu item?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

38. Information from the news and information menu item?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all
39. Programme news?
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

40. Pathway group news
    (a) extremely useful (b) reasonably useful (c) Not very useful
    (d) Useless (e) Not used at all

The impact of BobCat on your learning (Questions 41-48)

41. BobCat has improved your IT skills?
    (a) Strongly agree (b) Agree (c) No Change
    (d) Disagree (e) Strongly disagree

42. BobCat has changed the way I learn?
    (a) Strongly agree (b) Agree (c) No Change
    (d) Disagree (e) Strongly disagree

43. BobCat has improved the way I learn?
    (a) Strongly agree (b) Agree (c) No Change
    (d) Disagree (e) Strongly disagree

44. BobCat has allowed me to learn at my own pace?
    (a) Strongly agree (b) Agree (c) No Change
    (d) Disagree (e) Strongly disagree

45. BobCat has made me a more independent learner?
    (a) Strongly agree (b) agree (c) no change (d) disagree
    (e) strongly disagree

46. BobCat has enabled me to manage my time more effectively?
    (a) Strongly agree (b) agree (c) no change (d) disagree
    (e) strongly disagree

47. BobCat has improved my group (team) working skills?
    (a) Strongly agree (b) agree (c) no change (d) disagree
    (e) strongly disagree

48. What is your overall rating of BobCat?
    (a) Excellent (b) Very good (c) Okay (d) Poor
    (e) Very poor

Non-users of BobCat (Questions 49-50)

49. Why don't you use BobCat? H
    (a) Don't know how to use it (b) Don't like using computers (c) Cn't access it
    d) I have a disability that makes access difficult
    (e) Don't believe that BobCat will assist me in my studies

50. What would encourage you to use BobCat?
    (a) Better written guidance/ support (b) Access when off campus
    (c) A supervised practical session with support from tutors
    (d) Clearer understanding of how it might help my learning

All students

51. Would you be willing to take part in a follow-up group discussion on the use of BobCat?
    (a) Yes (b) No

If you have answered 'yes' to question 51 we need you to complete your name at the top of the EPAC sheet so that we can contact you again to arrange the discussion group.

Finally, can I thank you for taking the time to answer the Student BobCat Questionnaire

Appendix 2 : Focus Group Protocol

An evaluation of the impact on the student learning experience following the introduction of BobCat
Evaluation Focus Group Protocol

Number of Participants_____ Year_____

Faculty _____ Location_____

Date_____ Facilitator_____

Instructions
My name is _____ Thank you for taking part in this discussion. The meeting is being recorded on video by _____ who I would like you all to meet now. It is also being recorded on audio. If anyone objects to being recorded in this way, please say so now. All participants will treat anything said here in the strictest of confidence and the tapes will be erased at the end of the study.

The idea is to discuss freely what you thought of BobCat and your experiences of using BobCat on your modules. In this meeting, I will start the discussion and I would like you to discuss the topic raised as you please. I will interrupt from time to time, but I would really appreciate your views. Please feel free to contribute to the discussion in any way you like, showing respect for each other at all times.

Probes:

General

- Did you use BobCat?
- What did you use it for?
- Was it difficult to use?
- If you had difficulties using BobCat, what did you do?
- What did you think of using BobCat?
- Did you access BobCat at times and places convenient to you? (Where, when?)

Support

- Did you have adequate support in using the system? (Staff, technical)
- What improvements in terms of support would you like to see?

The affect of BobCat and practice

- Was BobCat used on all your modules?
- In what ways was it used? (identify good practice)
- What did you like about this?
- What did you not like? (identify bad practice)
- How could this be improved?
- Do you think you learned anything by using BobCat?
- Do you think you have learned any new skills by using the system?
- Do you think BobCat has prompted you to change the way you do your work?

Choosing UH

- Do you think students would be encouraged to choose UH because of BobCat?
- Would you recommend students choose UH because of BobCat?

Future

- What could be done to improve the system? (Features, support (staff, technical), improved access?)
- What could be done to improve your use of the system?
- Would you like BobCat to replace face-to-face contact?
- Is there anything at all you would like to say about BobCat?

Thank you for taking part.