

Practical guide:

bringing together
e-learning &
student retention

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Introduction

This practical guide is based on research undertaken by Middlesex University as a part of the project funded by the Higher Education Academy, *Managing Connections: using e-learning tracking data to improve retention rates in higher education*. This guide is intended to provide guidance to both academic and non-academic staff on using e-learning to support the student experience. Bringing together the areas of e-learning and student retention, it provides practical tips and activities to aid student progression, especially during the first year of study. It is designed to help you think about ways of approaching and incorporating the use of learning technologies in order to enhance your students' experience.

Student success

Raising aspirations

Student Life Cycle

Moving through

Better preparation

First steps in HE

The materials provided here include:

- Activities which may be incorporated into your teaching practice
- Pauses for thought which ask you to reflect upon a number of scenarios
- Recommendations for various stakeholders
- Case studies from the research.

As this guide brings together the issues of e-learning and student retention, its primary focus is on supporting students during the early stages of the student life cycle, namely pre-entry, first semester and first year.

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Pause for thought

Are you aware of the main reasons why students withdraw from your programme?

Are you aware of the steps they have to take in order to officially withdraw?

What advice would you give to a student contemplating withdrawal?

Overview of the project

Background

The Managing Connections: using e-learning tracking data to improve retention rates in higher education project explored how e-learning tools, specifically tracking data, can be used to inform institutions of trends and information concerning students' use of e-learning materials and tools during their time at university. The aims of the project were to identify the ways in which students engage with their institutional virtual learning environment (VLE) and to explore what can be learnt from the behaviours of students who had withdrawn from their programme. This was then compared and contrasted with the behaviours of students who remained.

By investigating the ways in which these two groups of students engage with learning, the project aimed to provide recommendations on how to provide better support for all students to engage with learning through the use of technology.

The project is informed by literature in three research domains:

- Retention and progression
- Learning and teaching through the use of technology
- Identity and behaviour

Aims

- To assist educational institutions in improving the learning experience of first-year students
- To learn about factors which contribute to withdrawal and progression
- To identify how students at risk of withdrawing from their programmes manifest themselves online



Sample

The sample comprised of two groups:

- All first-year undergraduates (totalling 92) in one HE institution who withdrew from or interrupted their studies during the academic year 2007-8
- A sample of 130 first-year undergraduate students at the same institution who persisted with their programme.

Methods

Data collection methods included:

- Tracking data extracted from the server logs of the institutional VLE
- Telephone interviews with students who had withdrawn from their programmes
- Surveys among students who had persisted with their programme.

Key findings

When asked about their personal experience, ex-students tended to describe learning situations in which they were active participants and experiences which were of a more social constructivist nature. However, when they were asked about how they perceived they learnt best they often defaulted to describing an information transmission model of learning thus highlighted a gap between their model of learning derived from their previous experience and their perceived model of effective learning.

In the interviews, ex-students often reverted to discussing the physical setting and the environment rather than describing how they learn. When asked about what skills they felt were needed in order to be effective learners surface level tasks such as listening, memorising, note taking and the need to do them quickly were often mentioned.

Ex-students also made a clear distinction between passively learning *from* (being taught, watching demonstrations, etc), learning *through* (by sitting next to or in the vicinity of intelligent peers) and actively learning *with* (discussions, group work, etc) others. Occasionally they perceived their peers as obstacles.

Surprisingly, experiences in relation to learning through the use of technology were expressed in two main ways:

- E-learning was seen as a remedial task or a solution to a problem, especially when this involves correcting or improving the student's performance
- Ex-students saw technology as the medium holding certain features that serve as aids. In their responses they attributed characteristics and abilities to the technology which did things or made them do things in a particular way.

Results obtained from the analysis of the interviews were compared with the findings from the questionnaires completed by students who persisted with their studies. In contrast to students who withdrew, students who remained:

- Showed an awareness of how they learn as individuals. Current students had a greater awareness of 'self' as a learner
- Expressed a richer description of how they learn which included a range of methods (videos, blogs, slides, practice, lectures, discussion, etc)
- When asked about skills needed in order to learn, they were able to identify many of them without any prompts.

However, when responding to questions with regards to learning through the use of technology persistent students held similar views to those held by ex-students. They were equally as naive in the way they used technology in their learning as those who withdrew.

Students who withdrew

The following is a brief descriptive analysis of the participants and their actions on data held on the institutional student management system and virtual learning environment at the this particular post 1992 HEI:

- A total of 92 first year undergraduates withdrew from or interrupted their studies at this particular large, post-92 HE institution. They were studying programmes aligned to a total of 12 different subject areas (arts, business, computing science, criminology, economics, education, health, languages, law, media, philosophy and psychology)
- The majority were female accounting for 71.7% of withdrawn students and over three quarters of them (75.8%) were under 25 years of age with an average age of 23 years (min= 18, max=59)
- The majority of participants (57.2%) withdrew within the first 4 weeks of their course
- Exactly half the participants (50%) never logged onto the institutional virtual learning environment
- For the participants who did log on at least once a total of 473 logins were recorded, with a mean score of 10.28 and a median score of 5.5
- The dates and the time of day during which these students logged on is representative of the VLE usage patterns and did not highlight any areas for further investigation, even though some where logging on in the middle of the night
- The number of logins registered for these participants were significantly less than those recorded for students who persisted but they did not follow any observable pattern.

Participants who did not log on to the VLE at least once do not fall into any specific age bracket or sex. However, it was significant that:

- It was participants at the extreme ends of the age range which chose to access support materials on dyslexia (72(10)=23.6, p=.009)
- Accessing the management tools (calendar, tracking tools, etc) offered by the VLE seems to be influenced by the discipline to which participants were aligned (x2(22)=45.57, p=.002).

Complexities of the research

Definitions of the terms 'e-learning' and 'student retention' are complex and have raised issues within this project. Although research in this area often uses national government statistics in its calculation of retention figures of institutions (Higher Education Statistical Agency data), we acknowledge that institutions often have their own ways of calculating data which provide more useful information for their specific needs. Comparisons between research findings on retention, as well as retention rates within an institution and externally with other HEIs, are not always simple or valid because of the unintentional fudging of data which occurs (Carr, 2000; Simpson, 2003). Retention rates can be measured within modules (micro-retention) or within a programme of modules leading to a qualification from the institution (macro-retention). However, the method is not always made clear when reporting research outcomes.

The following activity highlights some of these complexities.

Pause for thought

How would you interpret the following scenarios?

Diane was unhappy on her programme and has chosen to leave it and to enrol on a different programme within your institution. Do you consider this to be a withdrawal? Why?

Diane then decided that she wished to leave the institution and enrolled on a programme at a different institution. Do you consider this to be a withdrawal? Why? What does this mean for the institution? What does this mean for the sector?



There are varying degrees of importance ascribed to micro and macro levels of retention data throughout the academic year. At the beginning of the year, you as a tutor, are likely to be interested in your own module/programme retention rates. At the end of the year it is likely that the institution will place importance on the macro level retention data.

Pause for thought

What does the term 'retention' mean to you?

Do you know and understand how your institution calculates retention and progression rates?

What impact do these rates have on:

- You
- Your module
- Your programme
- Your institution?

What impact does student withdrawal have on:

- You
- Your students who persist?

There are a number of complexities as to what exactly 'retention' is and how it is calculated. The way in which retention is calculated is usually driven by the funding requirements of institutions, but if we are really interested in the retention and progression of UK students it is helpful to look at both the micro and macro levels.

Use of institutional data for research

An institution's administrative records are generally of high quality (Robson, 2002) as they provide the basis for reporting to funding councils. However, for research purposes, the quality of secondary data is questionable because the requirements of those who collect and record the data are different to the requirements of the research. Student management systems (SMS) are live databases which can only provide a snapshot of reality based on data which was considered accurate at the time of enquiry. For example, if a student has not paid their fees they may appear on the database as withdrawn, but once they have paid they become fully enrolled again. Therefore, cross-referencing of information should be included in any research design.

Furthermore, devolved student administration models in some institutions may result in information being recorded inconsistently. When researching student persistence, this is noticeable in at least two ways:

- The timing of the recording of student withdrawals/interruptions may differ based on local procedures and workloads. For example, a student may notify their institution of their intent to withdraw after the first month of study, but this may not be recorded on the SMS until a much later date. As most of the reporting to relevant external bodies does not happen until the end of the academic year, this method of recording does not skew institutional reporting procedures, but may

cause difficulties for academics and researchers wanting to focus on a particular point in the academic year.

- The variation in the way information is interpreted at a local level. For example, a student may disclose in their exit interview their reasons for withdrawal. However, these may be interpreted and recorded in one way by one interviewer and in a different way by a second interviewer.

When retrospectively researching online interactions and profiles, acquiring data from VLEs can be problematic due to the integration with institutional student management systems. The integration allows much of the administration to be automated. For example, as soon as a student registers for a module on the SMS, the change is automatically reflected in the VLE and the relevant module is added to their online learning list. Likewise, as soon as a student drops a module or withdraws from their studies, they are removed from the online space and all of their tracking data and contributions are removed from the users' interface. However, an interrogation of the server logs can produce a list of all the interactions recorded for each participant. Additional work is required to obtain this information as the gatekeepers of the data in this instance are not the owners of the information but those in possession of the technical expertise necessary to extract the data. However, contributions to online discussion topics and other submissions cannot be retrieved, therefore not allowing any qualitative data to be collected.

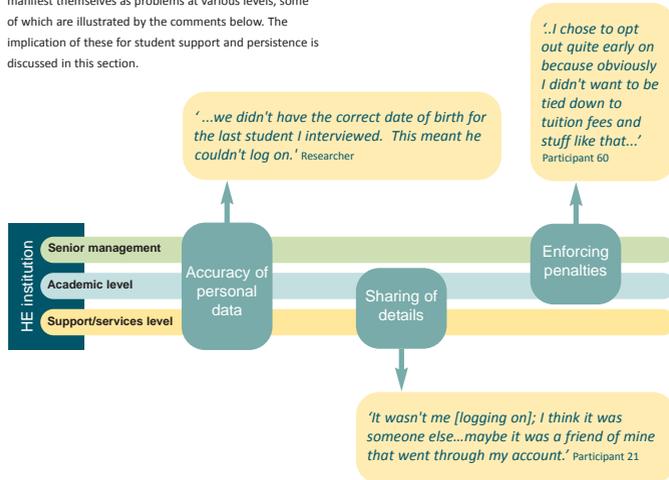
Recommendations

- Carefully consider the timing when you interrogate live databases as this only provides a snapshot of reality. Data is continuously updated.
- When reporting research outcomes clearly state how retention is defined and measured.

What's leading your students' learning experience?

There is much evidence (Ferrell et al, 2007) about the benefits of using technology to enhance learning and teaching practices. Many institutions have invested time and effort in linking learning technologies, such as virtual learning environments, to institutional administrative systems on the basis of efficiency, reduction of administrative workloads, security, data protection and also to enforce penalties. The importance of this work cannot be underestimated. However, research has shown that the integration of administrative systems with learning and teaching systems can become a barrier to student persistence in higher education and can increase upheaval at the beginning of the student life cycle.

The issues which arise from the integration of such systems manifest themselves as problems at various levels, some of which are illustrated by the comments below. The implication of these for student support and persistence is discussed in this section.



Case study

Jennifer is a 41-year-old student enrolled on a nursing programme. During the fourth week of teaching she chose to withdraw due to a combination of administrative and financial issues. Her story showed a discrepancy concerning communication between her funding body and her higher education institution. The dates by which the funding body could pay her enrolment fees and by which she could receive her bursary did not coincide with dates specified by the higher education institution and therefore these funding complications resulted in this student's withdrawal. Better communications between the sponsoring bodies and HEIs are essential in order to make the transitions as smooth as possible.

- Accuracy of personal data

Details such as student number and date of birth are often used as default passwords. However, the accuracy of personal data held by institutions may affect whether or not students are able to access learning and teaching systems. This could result in additional stress during the first few weeks of the academic year. The accuracy of data underlying the reports sent to government agencies is also a matter of great concern for institutional management.

- Enforcing penalties

Many institutions use administrative systems as a way of enforcing penalties. For example, if a student has not paid their fees then access to certain systems may be withdrawn. In the early weeks, payment of fees may be problematic (for example, there may be difficulties with invoicing employers or sponsors) and thus, through no fault of their own, students are excluded from valuable institutional resources and IT systems which are crucial to their learning experience and sense of belonging.

Some students may feel under pressure to decide very early on in the term whether they will persist with their studies. This may be due to administrative policies, such as a full or partial refund of fees only being available until a particular date. This forces students to make decisions prior to fully engaging with their chosen subject area and forming relationships with their peers, both of which are key to their student experience and persistence in higher education.

- Sharing of personal details

The sharing of passwords between students is a concern for the services attempting to ensure the security and integrity of systems, as well as for academic staff. When using learning technologies, the identity of each student needs to be verified in order to correctly attribute online interactions to the individual. This is important for ensuring the accuracy of tracking data and is clearly required for online assessments. Similarly, when using tracking data to proactively incorporate support mechanisms into teaching practices, confidence in the accuracy of the data is needed.

Pause for thought

What administrative systems and policies impact your work with students?

How can you find out about them in your own institution?

It is possible to identify the student voice in the tracking data, as illustrated in the image below. The following example has been taken from an English language and learning support online pilot with approximately 2,000 students.

Language and learning support items accessed by students	Total visits
Course Home page	1080
Calendar (what's on this week - entry x)	254
Introduction	112
External Link to Institutional Website	87
Monthly	84
Calendar (what's on this week - entry y)	81
Grammar	80
Writing	67
Organising Essays	66
Referencing	57
Student Homepages: Everyone	54
Inbox	51
The Stages of Writing	51
Giving Presentations	47
Academic Style	42
Contact a Tutor	42
The Importance of Good Organisation	40
About this Course	39
Who We Are	36

1 in 2 students visited this online course. Why?

What's on? What's happening today, tomorrow... What am I expected to do now?

Context: Where am I learning?

Content: What is important for me? (things I need to know and verify what I already know)

Who is studying with me?

More content

Who is helping me? Who are my facilitators? What are their expectations of me?

Pause for thought

What does this tell you about the above cohort?

Are there any areas in which you feel they would need support?

What support would you offer/integrate into your teaching?

Pause for thought

Consider the following tracking data provided by the virtual learning environment for Emily, a prospective student who has accepted a place at university. The students have been accessing an online module prior to formally enrolling. This module welcomes them to their programme, provides information about what it means to be a student in higher education and offers programme-specific information and preparatory materials.

Control Panel
Induction Module

Designer Options

Homepage > Expanded Control Panel > Manage Course > Track Students > Show Tracking Information

Show Distributions

Full name: Emily Sanchez	User ID: emilysanchez
First login: August 24, 2007 1:03pm	Last login: November 20, 2007 8:40pm
Total number of accesses: 51	Last page visited: Assessments

Distribution of Visits for Emily Sanchez | [Show history of content pages visited](#)

Page	Count
Homepage	11
Organiser Pages	23
Content Pages	16
Other	1

Number of Content Pages Visited by Emily Sanchez

Number of different pages visited: 14
Total number of pages: 114

Page Name	Time of Access
14 Assessments	Nov 20, 2007 8:40pm
13 Programme	Nov 20, 2007 8:37pm
12 Unit01 - Accounting Equation Solution	Aug 24, 2007 6:49pm
11 Unit01 - Accounting Equation	Aug 24, 2007 6:45pm
10 Unit01 - The Financial Accounting Equation	Aug 24, 2007 6:39pm
09 Unit01 - Financial Accounting	Aug 24, 2007 6:36pm
08 Unit01 - What is Accounting?	Aug 24, 2007 6:29pm
07 Unit01 - Objectives	Aug 24, 2007 6:26pm
06 The course is not what I expected. Is it possible to change?	Aug 23, 2007 1:45pm
05 Plagiarism	Aug 23, 2007 1:39pm
04 Grading Criteria	Aug 23, 2007 1:31pm
03 Assessments	Aug 23, 2007 1:18pm
02 Programme	Aug 23, 2007 1:15pm
01 Academic Language	Aug 23, 2007 1:12pm

- Based on the items she accessed, what impression do you form about Emily?
- Does the order in which she accessed the materials reveal any particular concerns?
- Based on this data, what support is Emily likely to require in the early days of the student life cycle?
- How might this differ from what you would normally offer?

Pause for thought (continued)

Now consider the tracking data of Julio, another student on the same programme.

Control Panel Induction Module
Designer Options
Homepage > Expanded Control Panel > Manage Course > Track Students > Show Tracking Information

Show Distributions
Full name: Julio Priego User ID: juliopriego
First login: October 5, 2007 12:13pm Last login: December 25, 2007 9:30pm
Total number of accesses: 13 Last page visited: Social Activities & Societies

Distribution of Visits for Julio Priego | [Show history of content pages visited](#)

Page	Count
Homepage	5
Organiser Pages	4
Content Pages	1
Other	2
Discussions	Count
Articles read	4

Page Name	Time of Access
1 Social Activities & Societies	Nov 2, 2007 1:37am

- What can you infer about Julio?
- Both Emily and Julio were sent their access details to the VLE on the same day. Does the date they first logged on matter?
- Julio only accessed one page of information. How does this compare with the pages accessed by Emily? What might it tell you about Julio and the support he may require?

However, caution must be exercised when looking at individual student tracking data and making inferences about their engagement. It is possible that students may be sharing their account details or even accessing the information but not using or studying it.

In the first example, Emily may have shared her password with a friend and therefore her online profile may be the result of the engagement of two individuals with the materials. Likewise, whilst logged on, students may not be engaging with the materials (ie they could be chatting on the phone, they may have gone for coffee, etc) and therefore the timing of the actions recorded by the VLE should not be considered in isolation. In these cases, increased online activity may be wrongly attributed to individuals.

Pause for thought

Consider the possibility that Emily and Julio had shared their account details with their peers.

How valuable would all the information be if this were true?

How could you discourage this behaviour?

Tracking data may be more enlightening when looking at the student in relation to their cohort and the cohort's data as a whole. Thus, if one student appears to be continually accessing the same topic for long periods of time, it may or may not indicate a cause for concern. However, if many students are also accessing the same topic for a considerable period of time, it may be an indication that the topic has not been fully understood, therefore providing academic staff with another source of feedback with regard to their students' understanding.

Recommendations

- The accuracy of personal information is key. Build into your induction or enrolment processes a check of personal data. Also, promote ownership and communicate to students early on their responsibility to maintain the accuracy of their personal records.
- Discourage the sharing of account details between students.
- Institutions should look into enforcing penalties such as restricting access to IT systems and other resources as late in the academic year as is feasible.

Understanding e-Learning

Institutional scepticism with regard to e-learning is an issue which was highlighted by the Quality Assurance Agency (QAA) in their analysis of institutional audit reports (2008). Their report states that several institutions were looking to keep a check on the balance between 'orthodox' learning and teaching practices and e-learning. Our research has found that the uncertainty surrounding the potential benefits of e-learning, and in particular the evidence of a deficit approach to e-learning, appears to manifest itself in both tutor actions and student views. Specifically, the way in which the use of technology within particular learning situations is introduced and integrated into face-to-face practice influences the way it is perceived and used by the students.



Tutors' actions:

'Um, we were told to use it by our tutors ... just to check up on any extra information...' Participant 84

'[The lecturer] just said go onto that and you'll see, if you miss your lectures or something, go onto that and that ... I'll have all my lectures there.' Participant 46

Student views:

'I'm sure [the VLE] is there for students that actually need help with their work, and I didn't really need it at the specific moment ...' Participant 78

'Um, just sort of looking up things that I don't understand, or finding additional information on things.' Participant 19

Pause for thought

How do you use e-learning in your teaching?
How do you introduce it to your students?

Now, consider the following quotes:

'I guess [e-learning is] like the easiest way out really ... if you haven't got books and stuff...' (Participant 92)

'... [e-learning] is a shortcut to learning ... and it also gives me time to do other things ...' (Participant 61)

What if these quotes referred to your module? How would you deal with a student offering these views about learning through the use of technology?

Far from being remedial and supplementary, learning technologies can be used in a way which enhances the student learning experience. Two key elements of student retention are their engagement with their programme and the building of relationships (Tinto, 1993). We have chosen three examples of how e-learning can be used to encourage persistence.

Example 1	Example 2	Example 3
<p>Prior to a lecture you could set a short quiz (2-3 questions) online to which students need to respond before attending your lecture. The quiz can be based on misconceptions that students may hold about the topic which is to be presented to them. Based on the answers received, you can customise the lecture to suit the needs of the particular cohort. The answers can be used as talking points at the start of the lecture. Students in the classroom will recognise their own responses, become engaged as part of the feedback loop and take ownership of the formal teaching session (Novak et al, 1998).</p> <p>In this case, the use of technology and its relationship with the face-to-face session supports a rapport between tutors and students.</p>	<p>You could ask your students (individually or in groups) to research a particular topic and share with their peers three resources which they found useful (eg web pages, animations, videos). Then ask them to critically evaluate these resources and write a short report on their findings, including the criteria they used, and make it available to their peers using the online discussion boards. In this way, your students are creating content and building up a resource bank of electronic material on the topic you teach which can be used with future cohorts of students.</p> <p>In this case, the use of technology provides access to current, evaluated resources and the task promotes ownership of student learning as well as engaging students in supporting each other.</p>	<p>You could encourage your students to take turns facilitating and summarising the online discussion topics related to your module/programme. This will give them the opportunity to experience e-moderating first hand.</p> <p>In this case, the use of technology in their learning will exercise their technical and online communication skills and increase the depth of content expertise gained by studying your module/programme (Salmon, 2000).</p>



In our research we found that, in contrast to students who withdrew, students who remained showed more awareness of how they learn as individuals. Persistent students had a greater awareness of 'self' as a learner. This was revealed by their ability to identify their learning styles, which in turn allowed them to maximise their strategies in order to learn. It is likely that participants' time at university and their greater engagement with personal development planning through their courses are related to the more sophisticated description of learning models and the deeper sense of 'self' in the learning process

However, when responding to questions concerning learning through the use of technology, the persistent students had similar views to those held by the students who withdrew. Consistent with recent research (Creanor et al, 2006), we found that persistent students neither had a greater understanding nor were entirely convinced of the potential benefits of using technology in their learning.

In our research many students were digitally aware and claimed various degrees of competence with IT, however often familiarity with IT was confused with e-learning. It is not possible to use technology in our teaching and expect students to use it in an educational way (Currant & Whitfield, 2007). Learners need support to get them through the initial stages of engagement with the educational setting online and to develop the relevant skills needed to achieve.

Activity

Take time out in your lesson to have a discussion about what your students believe e-learning to be. Discuss with them what you think the advantages are of learning through the use of technology and what benefits it may have for them. Explain why you have chosen to use e-learning in your module/programme.

Pause for thought

Are e-learning skills different to traditional learning skills? Which of the following would you say are traditional and which are e-learning skills?

	Traditional	E-learning
Time management	<input type="checkbox"/>	<input type="checkbox"/>
Planning	<input type="checkbox"/>	<input type="checkbox"/>
Searching & assessing quality of resources	<input type="checkbox"/>	<input type="checkbox"/>
Listening	<input type="checkbox"/>	<input type="checkbox"/>
Reading	<input type="checkbox"/>	<input type="checkbox"/>
Writing	<input type="checkbox"/>	<input type="checkbox"/>
Teamwork	<input type="checkbox"/>	<input type="checkbox"/>
Communication	<input type="checkbox"/>	<input type="checkbox"/>
Problem solving	<input type="checkbox"/>	<input type="checkbox"/>
Information Technology (IT)	<input type="checkbox"/>	<input type="checkbox"/>

All of the skills mentioned in the previous page are needed in both the face-to-face and online contexts. The two noticeable differences between traditional and e-learning skills are the context and the degree of importance of the skill (Clarke, 2008).

When studying online our understanding of what is included under the name of a traditional skill expands to encompass a number of other skill sets. For example:

- Writing is a key skill in the traditional sense and is essential for note taking and completing coursework (i.e. essays). In the e-learning context writing is also extended to include keyboard skills which are essential for facilitating online communication. Coursework may also be produced in a multimedia format which can require the use of specialist equipment (i.e. cameras) and software, consideration of structure and presentation of digital content as well as to how tutors/peers will interact with it.



In other cases our understanding, of what possessing a particular skill offers to students, needs to expand to include the greater affordances provided by the online environment. For example:

- Listening may be perceived as a traditional skill as it plays a limited role online. However, e-learners have more control of when they listen, how often they choose to listen to the same thing over and over again and can even choose only the parts of the recording/podcast to which they want to listen. The additional control which is afforded online also implies the need for a certain degree of IT competence.

Pause for thought

How can you use tracking data to assess the level of your students' learning skills?

What support could you put in place to help your students acquire these skills?

In our research we found that there was a distinct difference in the type of technology used in these two aspects of students' lives. We asked students what technology they use in their personal lives on a day-to-day basis, and responses more often than not included synchronous technologies which permitted immediate access to family and friends. However, when asked what technologies they used in their learning, their responses focused on asynchronous uses of the Internet and the use of computers as production tools (word processing, imaging, etc). It appears that technologies promoting social interaction were primarily reserved for use on a personal level rather than within an institutional context.

Case study

Aisha, is a young student studying an Arts programme. She applied to study in HE through UCAS but withdrew from her studies in week 9.

When discussing her learning Aisha feels that there is a practical element to how she learns best, an element of structure to the way in which she engages with learning and talks about learning as having time limits ('I was learning on [the VLE] just a few times') and a sequence ('Afternoons ... that's when I was in Uni; you see after lectures I used to print off...').

Concerns of legitimacy, validity and reliability feature highly throughout her interview, whether she is referring to resources (rates books over Internet resources) or expertise in her subject area (values professional expertise over academic advice) and has an implicit ranking/value system. This extends to the way in which she describes herself as a confident IT user; she recognises this to be true based on grades received in a formal test/qualification (A level).

Technologies used in Aisha's personal life are of a synchronous nature (MSN, phone, text). However, the technologies used for learning consisted of static content, whether electronic or in print. This was consistent with her experience of using the VLE for learning, which was at the level of accessing notes and resources. During her studies at the university the use of the VLE was encouraged by her tutors, however there appears to be a low level of significance ascribed to this medium by the tutors as students were asked to '... just test it out'.

Activity

1. Ask your students to list all the technologies they currently use:
 - In their personal lives
 - In their learning.

How does the way in which they use technology in their learning differ from how they use it in their personal lives?

Think about ways of incorporating into your teaching use of the technologies they commonly use in their daily lives? Can you use texting, instant messaging, social networking sites, etc?

2. Ask your students to identify skills they already have from using technology to solve daily problems in their personal lives. Consider how you can help them recognise, transfer and apply these skills to their learning. What provisions can you put in place to assist students in this transition?



Recommendations

- Clearly articulate to your students the reasons why you have chosen to use learning technologies in your module/programme.
- Design learning experiences which closely integrate the physical and virtual components of your teaching.

'Others' in learning



Learners construct their own knowledge and understanding based on their personal interpretation of the subject. This will differ between learners as they all bring a unique set of experiences to the learning situation. Engaging students in meaningful activities, such as discussions and group work, often forms the basis of their learning. Common tasks in which students need to work together, depend on and be accountable to each other can be done both in the physical classroom as well as online through the use of collaborative tools (instant messaging, discussion threads, application sharing, etc). The networking which takes place, the bonds created through the experience and the support available through collaborative learning activities are all valuable in encouraging students to persist.

In our research, students made a clear distinction between passively learning *from* (being taught, watching demonstrations, etc), learning *through* (by sitting next to or in the vicinity of intelligent peers) and actively learning *with* (discussions, group work, etc) others.

Occasionally they perceived their peers as obstacles. In these cases, far from perceiving learning as a collaborative activity, independent study was favoured. It is widely considered that student learning is equated with their in class participation. However, in many instances learning is taking place without active participation. Online, this behaviour is known as 'lurking'.

Dewar and Whittington (2000) state that students' perceptions and the learning strategies they employ in face-to-face learning situations have been validated as applicable to their experience in online environments.

Therefore, we have mapped their comments onto a spectrum of online engagement in order to assist you in deciding what strategies for interaction you may wish to employ.

Pause for thought

Students in your class may hold any one of these views on the role of others in their learning experience. It is likely that your cohort of students holds a combination of these views. How could the use of technology assist you in your dealing with the multiplicity of views about collaborative learning?

Recommendations

- Not all students like working collaboratively. Carefully consider the balance of group work when designing your learning materials.
- Consider how your teaching acknowledges lurking as a valid way of learning.

With

'I like to participate in a group because I'm able to contribute my thoughts and also learn from others.'

Participant 19, surveys

'I learn best ... with group activities, group discussions... set tasks in class rather than just take it home with you and just do it.' Participant 10

From

'...I learn by sitting in a classroom and listening to what she said and illustrated with her hands.' Participant 27, surveys

'...I normally listen to it and... I won't say memorise, but picture, you know, the information that I'm getting. So conserve all the information...' Participant 66

'We just had to go to class, and the teachers would teach us the work and we'd do the work.' Participant 80

'...we explore it [the topic] basically among ourselves and then we discuss it and then she teaches the correct, if we are wrong and she corrects us ...' Participant 27

Without

'... especially in lessons where you're taught in a group... interrupting ... causes a problem' Participant 27

'...working independently so I know what I'm doing and so I don't get distracted with other people's points of view' Participant 92

Through

'... if I sit with people it helps, it improves my English...' Participant 82

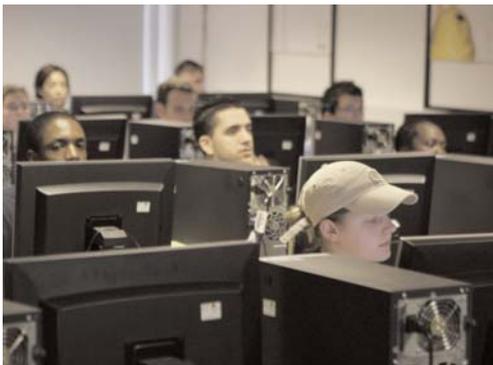
Active Participant
initiates/contributes to forums, creates content, etc

Lurker
A valid way of learning but not actively participating

Inactive
Logged on but may not be engaging

Encouraging persistence

Student withdrawal may be attributed to a number of different issues, often a combination of academic and non-academic factors. It is important to recognise that higher education is both an academic and a social activity and therefore educational institutions have to support students in their entire student experience in order to help them to succeed. Helping students to identify both the support which is available to them and the ways in which it can assist them is beneficial for both students and institutions, particularly ensuring that the support is easily available and accessible. Technologies may be used as a tool to bridge this gap and may assist in easing the transitional period by helping to manage expectations and link the students' existing and new support networks.



Another activity which may help to encourage persistence is to build in a reflective log through online personal development plans (PDPs). Ask students to reflect upon their motivations for being at university, to document this and to refer to it on a regular basis. Thinking through and detailing their reasons for being at university, as well as considering the value of the student experience, may encourage them to persist in difficult times.

Asking for help can often be a difficult thing for students to do. The following examples illustrate how technology can be used to help support students in their academic lives, social lives or both, combining their student experience.

Activity: Exploring why I'm here

Ask your student to reflect upon:

- What motivated them to enter into higher education?
- Why did they choose their programme?
- What will this experience of higher education give/add to them?

Case study: Embedding support

Support maybe available in many ways at your institution, eg, learning support, counselling support, financial support, etc.

The language and learning support area at our institution has designed a number of online materials supporting students with language needs. These materials include guidance information, exercises for students to complete and examples of work. They have been designed and incorporated into the institutional VLE and are available to all students, not just those who recognise that they are experiencing difficulties and need to actively seek out specific support materials.

Pause for thought

How can you learn about your cohort of students from your institution's VLE tracking data?

What can you infer from students who have not logged onto the VLE and for whom you therefore do not have tracking data? How could you support these students?



Case study: Managing Expectations

Online materials have been developed and placed on the institutional VLE which are available to prospective students over the summer period, prior to their entry in September. These materials cover generic information regarding university life and introduce them to the culture and ethos of the university and to specific programme information. Social elements of the university are also included and prospective students are able to interact with one another through the discussion boards. This helps to build a sense of cohort identity before they start their studies at the institution.

The materials have been designed to be engaging and interactive and use tools such as quizzes and surveys. The intentions of these materials are to engage students during the summer period, to help manage the students' expectations of university life and their programme and to help them become accustomed to the institutional VLE. In addition, information about what students can expect from university life can be added to help parents and partners better understand what the student may experience.

Tracking data from these materials can be used to identify concerns that incoming students may have and to make provision for these.



Recommendations

- Ensure that links are made between the academic and social aspects of your students' lives in order to see the student experience as a whole.
- Engage students with their VLE from the start so that logging into the institutional VLE becomes part of their daily routine.



Activity: Support Network

The diagram on the next page is intended for you to use with your students at different stages of the academic year, in particular, at the beginning of the year and at times drawing near to assessments.

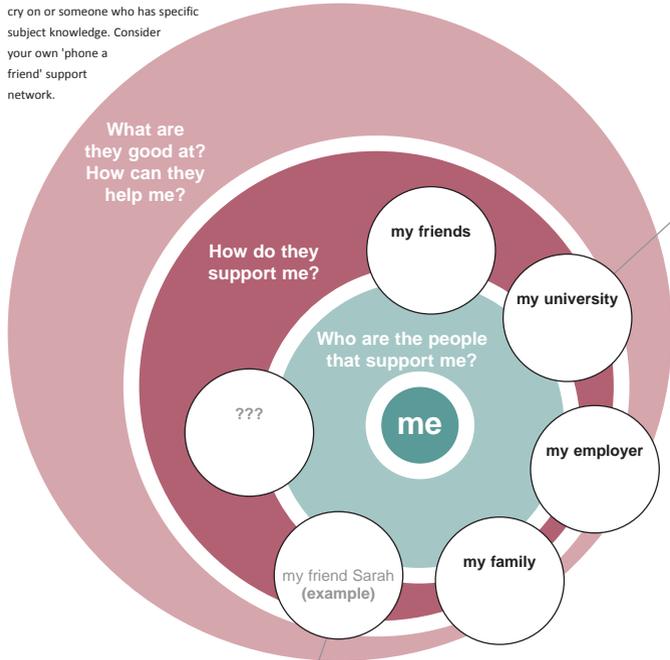
In the early weeks of the student experience ask the students to fill in this diagram, thinking about their existing personal support network. Who do they currently go to for support and advice? How do these individuals support them? With what are they likely to need support at university and how might these individuals and others help?

Revisit this diagram with your students in the run up to assessments and ask them to focus on where their support now comes from and how these individuals can assist them during this time with the focus on assessments. Has their support network changed/grown? What can these individuals add?

Activities such as this one can be placed in the institutional VLE and added to the students PDP pages/e-portfolio.

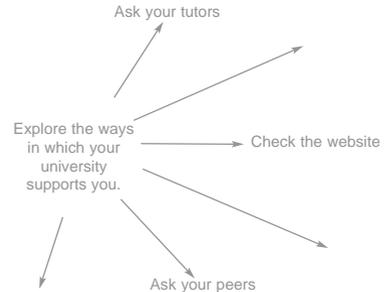
My Support Network

When studying all kinds of support can be valuable, whether it is encouragement, child-minding, a shoulder to cry on or someone who has specific subject knowledge. Consider your own 'phone a friend' support network.



Sarah listens to my problems. She is very patient, sympathetic and organised.

She works as an editor so I'm sure she can help me with my writing.



Recommendations at a glance



- The accuracy of personal information is key. Build into your induction or enrolment processes a check of personal data. Also, promote ownership and communicate to students early on their responsibility to maintain the accuracy of their personal records.
- Discourage the sharing of account details between students.
- Institutions should look into enforcing penalties such as restricting access to IT systems and other resources as late in the academic year as is feasible.
- Ensure that links are made between the academic and social aspects of your students' lives in order to see the student experience as a whole.
- Engage students with their VLE from the start so that logging into the institutional VLE becomes part of their daily routine.
- Not all students like working collaboratively. Carefully consider the balance of group work when designing your learning materials.
- Consider how your teaching acknowledges lurking as a valid way of learning.
- Carefully consider the timing when you interrogate live databases as this only provides a snapshot of reality. Data is continuously updated.
- When reporting research outcomes clearly state how retention is defined and measured.
- Clearly articulate to your students the reasons why you have chosen to use learning technologies in your module or programme.
- Design learning experiences which closely integrate the physical and virtual components of your teaching.



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