



The use of learning platforms in the ICT Test Bed FE colleges

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Selecting a learning platform

Prior to the ICT Test Bed project, few educational institutions had established practices in the use of learning platforms. Many FE colleges, including two of the ICT Test Bed colleges, purchased learning platforms around 2000 with funding from the Further Education Funding Council. The ICT Test Bed project gave the colleges in the project the opportunity to upgrade and extend this provision. The two ICT Test Bed colleges which already had a learning platform experienced various problems with the software or their suppliers and both decided to switch to a new system during the project.

All three ICT Test Bed colleges reviewed several systems before making their decision. One college told us that they were looking for a system that had the ability to create an integrated but flexible solution. An open source system (learning platform A) was adopted by this college after it carried out a detailed evaluation and testing of the system and found it performed well in all the tests.

[Learning platform A] is very well developed and people who are actually supporting it are very good and clever. The integration with MIS is not tightly defined as you will find in a commercial product, because you can develop it in a way that suits you best. (MIS manager)

The second ICT Test Bed college also selected learning platform A as the replacement for their previous system. One of the major reasons for this choice was that once a course has been created, the teacher has complete control over all aspects of that course. They can enrol students and add new content, all in one area. When they log onto the learning platform, there is a link on the front page that takes them straight to their course. The college found that other systems required much more involvement from technical staff in setting up course areas.

The third ICT Test Bed college produced a requirements list and carried out detailed investigations of a number of learning environments in the first year of ICT Test Bed, including product demonstrations and visits to other colleges using the systems. This college selected the learning platform B system, which is a hosted system that removes the need for local hosting as materials are uploaded and stored on a remote server. This means that the college doesn't need to employ staff specifically to run the system. However, the college has to pay for the hosting space and as rich digital content is particularly storage intensive, it was decided to host this locally on college servers instead.

Setting up and training

All colleges set up ICT Test Bed management groups to manage the project. All used external consultants, particularly in the early stages of the project. In one college external consultants were used to help with setting up the learning platform. Another college used a specialist IT consultant and this was crucial in helping to integrate the ICT Test Bed work with other IT systems in the college and to help the staff to work together effectively. In the third college, consultants were used to advise on the implementation of the MIS and on wireless networking. In addition, consultants were often brought in to deliver training on specific systems or software applications.

Prior to ICT Test Bed, all three colleges had existing teams with responsibility for e-learning. Two of the colleges had purchased a learning platform prior to ICT Test Bed but little work had been done in establishing it across the college. In the event, both colleges opted to install new systems during the project and as a result, all three colleges had to gain technical knowledge of a new learning platform. There was clearly a steep learning curve for staff in the colleges. To assist with developing the necessary skill base, each college recruited staff with the appropriate technical skills to set up and manage the learning platform.

Using the learning platform

There was evidence at the end of the project that learning platform use was being extended across the college to curriculum areas that had not been part of ICT Test Bed. Two of the colleges had set up e-learning groups, set e-learning targets and nominated e-learning champions in a number of curriculum areas. Colleges were also running best practice workshops where ICT Test Bed staff could demonstrate how they were using the learning platform to enhance the learning experience of their students. During the lifetime of the project, the great majority of the learning platform usage was content based. There was much less use of the learning platform for assessment and little use of the communication tools.

By the end of the project, learning platform use was growing in all the colleges:

- College X had over 1500 students on the system. The number of course areas set up on the learning platform had more than doubled since November 2004 and the number of student visits to the learning platform had increased by around 50 per cent.
- In College Y the student learning platform was being built up and there were 45 courses with around 300 learning resources and over 3000 students. Resources tended to be concentrated in ICT Test Bed course

areas. The learning platform was starting to be used in student inductions. Courses were set up by the Test Bed team as lecturing staff requested them.

- In College Z the ICT Test Bed curriculum areas were among the first to have an area set up for them on the learning platform and usage was beginning to increase rapidly. In 2005-06, student induction was offered via the learning platform; this covered college information, sites and facilities, rules and regulations and health and safety information. Over 200 students completed the online induction, which included links to basic skills screening tests held on a separate system.

Although the majority of the content was mainly static, some tutors and teams were using interactive features in the learning platform, for example, creating quizzes for formative assessment and revision and using online discussion areas. An example from ESOL demonstrated how a learning platform can be used to encourage students to participate when they may be reluctant to do so during traditional lessons.

Most of them [the tutors] who've taken it up are really starting to use it, it's snowballing quite quickly. It's being used in the classroom, also at home. More and more are coming in and asking "How can my students get on it at home?" (Learning platform administrator)

In one college other curriculum areas had requested access to the learning platform although the usage with students was low. This reflects the need for tutors to become familiar with the use of the learning platform, upload and structure their materials and to work out a way of integrating the use of the learning platform with their model of practice. Other studies have shown that this is not an insignificant amount of time.

Promoting learning platform usage

We found a number of mechanisms in use, including the following:

- Awareness campaigns or emails informing staff what was happening on the learning platform
- Setting up staff areas on the learning platform
- Selecting a 'resource of the week' which was sent to all tutors
- Giving designated staff the task of promoting e-learning in their team
- Training: all colleges started with formal sessions, sometimes delivered or facilitated by external suppliers or experts. In the later stages of the

- project, all colleges were also offering more informal one-to-one or team-based training.
- Creating resources for general use, such as online induction resources and template-based resources
 - Supporting staff in creating resources by offering support from the in-house team or using external developers. One college set up an in-house content development team which was to become a self-funding venture after ICT Test Bed.
 - Management championing through college publicity, through setting targets for curriculum managers, through directives such as requiring all schemes of work to be on the learning platform
 - Automating processes to make it easier for staff to use the learning platform, for example creating links to the MIS to facilitate adding users to the learning platform, implementing single sign-on for users and providing services such as reporting and statistics.

We have implemented a new process. We sit with the staff and help them plan their [learning platform] site. We had four pilot areas which received lots of support from the ILT team. This grew to eight faster than we expected. We decided not to turn anyone away. We haven't had to crack whips. There has been no insistence, people have just kept coming and requesting help – for example, a [learning platform] site or whiteboard training. The new approach may have helped. (Learning platform manager)

Learning platforms in teaching and learning

Learning platforms can provide sophisticated reporting on what learners do, how long they spend doing it and the marks they gain. However, this was not yet a significant benefit because the majority of the content was static and there was little use of the built-in assessment and tracking features which generate the data for the reports. Few tutors were using the learning platform to facilitate and manage the group work their students were doing. Similarly, few were using the learning platform to receive and return student assignments and other work.

We saw some examples of the learning platform streamlining processes:

- Having online induction materials can provide feedback on what students do in induction.
- Sharing of materials on the learning platform reduces the workload of staff and can facilitate quality checking and standardisation.
- The learning platform can make it easier for tutors to provide resources for revision – once created, these remain available for use at any time. Some

tutors used learning platform quizzes for students' revision and homework – the marking and feedback from the learning platform was helpful to students.

In terms of quality of learning, we saw many examples of tutors creating materials for the learning platform that were of high quality and added value to activities that would otherwise not involve technology. However, it is the technology that is the crucial factor, not the learning platform *per se*. The learning platform was largely just a convenient mechanism for delivering the materials to the learners.

Tutors placing materials on the learning platform makes it easier for students to find the resources and avoids them getting distracted by other websites. Students save time, but this means that tutors need to spend time in planning the activity and locating the resources. Throughout ICT Test Bed, tutors commented that locating suitable resources for their students was a time-consuming task.

You take the time to look at things, like the FENC stuff, there's quite a bit of ESOL material in there. It's all very high level. So you have to commit all that time to have a good look at it, evaluate it and think 'Hmm, it's only useful for say entry three or above' so you're taking the time and found it's not really what you thought, what you want but you've still taken the time. That's the great thing about [learning platform A] as well, things that work straight away where previously we'd say to our students 'Go to that site and look at it'. They'd take ages to get there and get lost on the way rather than going straight into the activity you want them to do. It all takes a lot of time. (ESOL tutor)

Learning platforms have improved flexibility. Tutors can prepare and upload learning resources from anywhere at any time. Similarly, learners have access to their learning materials 24/7 from anywhere that suits them. ICT Test Bed learners accessed the learning platform from their classrooms, from college learning centres, from home and sometimes from other countries. The learning platform enabled some students who were ill to continue with their studies: one student was able to continue studying throughout a long period in hospital. Maintaining this type of positive contact is much more difficult without the learning platform. The learning platform was also particularly helpful to day release students and students who were working as well as studying as they could access materials if they missed a class. The learning platform was also used as a revision tool; some tutors created revision tests which provided feedback on the answers and helped students to identify their areas of weakness. In one example in science, these tests developed collaborative working patterns in the student group.

Widening participation in FE

The learning platform enables colleges to offer online courses, but that will not widen participation unless it attracts new groups of learners. The learning platform can help support disabled learners or other learners unable or unwilling to travel to college. It can also support learners who have periods of illness or enforced absence from college. However, learning effectively via a learning platform, whether as a wholly online course or as a component in a blended learning experience, requires specific skills which 'hard to reach' learners may find it difficult to develop. Learners need not only technical skills but also communication and organisation skills which may limit the benefits of the learning platform for disadvantaged or hard to reach learners.

Links to management information systems (MIS)

The link from MIS to the learning platform was in place in two of the ICT Test Bed colleges. The third college had not yet put this link in place as they felt that, at the current stage of learning platform development, the number of lecturers using the learning platform and therefore the number of students requiring access were both too low to make this effort worth while.

At College X the link to the MIS was established in January 2005 and the learning platform was populated with data on full-time students from the MIS. A file is produced from the MIS and 'tweaked' by the learning platform Administrator to ensure that students are given access to the correct areas of the learning platform. The learning platform provides an administration routine to associate students with the appropriate learning platform areas. Part-time students were added on request to the learning platform administrator.

At College Y students were added to their courses by the ICT Test Bed team or they could enrol themselves. At the end of the project, the potential audience for the learning platform was less than 20 per cent of the student population and did not justify a bulk import from the MIS.

By contrast, at College Z enrolled students were automatically uploaded into the learning platform from the MIS although students could also enrol themselves. This was achieved by adding a learning platform code to the course record in the MIS which indicates the correct learning platform area for the students on that course.

Links to other college systems were not yet in place and are rare in the sector as a whole. However, ICT Test Bed colleges were ahead of many colleges in their use of e-registration, which enabled attendance data to be stored and reported on for curriculum managers. Attendance data could also be provided by the

learning platform, through measuring online attendance and study, but it is not yet common to see data from learning platforms being fed back into the MIS. We did not see any formal links to student support software.

Lessons learned

The development and implementation of learning platforms in the ICT Test Bed colleges has highlighted a number of key points:

- Open source solutions proved to be flexible and robust. Colleges which chose this route found that tutors were keen to use the learning platform with their students and the uptake of the system was faster than they expected.
- It was useful to start with a small number of enthusiastic staff within a curriculum team who could build some momentum and share their practice with their colleagues.
- Management support was effective in raising the profile of the learning platform.
- Tutors appreciated support and help in creating materials; this was done in several ways, including using professional content developers, creating templates for some standard types of resources or giving staff free time to create resources.
- Formal training proved to be not very effective – either because training was at the wrong level or equipment was not available at the right time. Training from outside suppliers or consultants was least effective.
- There were problems with large amounts of hardware and software being introduced at the same time.
- Inevitably there was a lack of understanding of the pedagogical change processes required to effectively implement the learning platform; staff needed to gain experience through working with the learning platform and their students. These stages needed to be worked through as part of the process of embedding the technology.
- It was important to avoid raising staff expectations – sometimes college systems or technical problems delayed equipment and resources reaching the curriculum staff and this led to demotivation.

The overall impact of learning platforms

The project found evidence that shows that the impact of the learning platform on the learning experience was significant in the ICT Test Bed curriculum areas. However, the learning platform is a whole college resource and all colleges had been able to realise benefits that transcended the limited ICT Test Bed curriculum areas. We found that learning platforms had led to significant changes in the tutor role and were helping learners to become more responsible for their learning.

The impact of the learning platform in the ICT Test Bed colleges is considered under the four categories set out in the Becta learning platform functional requirements specification (Becta, 2006).

Content management

Both learning platform A and learning platform B meet the requirements of the specification in their management of resources. The learning platform makes it much easier for tutors to manage their resources and for learners to access those resources. It is possible for tutors to set up resources for individual students or groups of students, thus increasing the opportunities for personalised learning. The project found that learning platforms were quickly populated with resources; often documents and presentations particularly in the early stages. However, care must be taken to present and structure resources in such a way that learners are not presented with long lists of resources which all look the same.

Curriculum mapping and planning

Both learning platforms provide the facility for organising learning materials into structured lessons or learning plans. Learners have some control over the way the system looks in terms of colour and layout.

Before the learning platform, tutors were largely responsible for planning, developing and organising their individual resources. The learning platform has encouraged sharing of resources between tutors teaching on the same courses or the same topics. Learners benefit from access to resources from different tutors.

As practice was shared and tutors developed expertise in using the learning platform, they started to create interactive assessments within the learning platform.

Learner engagement and administration

Both learning platforms enabled learners to be assigned to specific learning groups or sub groups for project work. Learners have their individual log in IDs which are authenticated by the system and used to select which resources are presented to each learner.

Care needs to be taken with making the learning platform usable for students. In a learning platform, each course looks very much the same, with the same

standard features and although this increases familiarity and makes the system easier to navigate, it makes it difficult for tutors to inject individuality and interest. It is also important that there is a substantial amount of material for a course; otherwise students have little incentive to log in on future occasions. Learners need to be trained to make best use of the learning platform and may need to be guided in organising their use of the resources. Learners need to know that they can be tracked as they use the learning platform; this may provide a greater incentive for its use.

Learning platforms enable resources to be available at any time and from any place, and this helps learners manage their studies. To do this effectively requires learners to develop new skills in managing and taking more responsibility for their work and progress. The same opportunities are available to tutors, of course, and there is evidence that tutors have extended their working hours as a result of using the learning platform.

Tools and services

There is still some way to go in realising the full benefits of the learning platform. In all colleges, tutors were not yet routinely using the full range of features, tools and services of the learning platform. For example, there are further gains to be made from using the assessment functions within the learning platform to automate some of the marking task, receiving and returning student work electronically and making more use of communication with the whole learner group and smaller sub groups for project work. Learners and tutors can communicate within the learning platform through forums, journals, blogs or wikis. Such tools offer benefits to both tutors and learners that are not yet being fully realised.

However, at the end of the project, all three ICT Test Bed colleges had a robust and stable learning platform which provided a platform for further developments across the whole college. The work done by the colleges in establishing and promoting the learning platform and developing expertise in its use has been one of the major benefits of the ICT Test Bed project to the colleges.

References

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