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Introducing Blackboard: an electronic learning platform

BLACKBOARD uses internet technology to provide a platform for teaching and learning. It is a virtual learning environment (VLE) that the user accesses by password. Blackboard has been designed for use by students and their tutors, and does not require a high level of IT expertise.

It was originally developed in the USA and the terminology used reflects this. For example, a ‘course’ refers to what we would normally describe in the UK as a ‘module’ and an ‘instructor’ is rather like a ‘module tutor’. The instructor has permission to publish learning materials on Blackboard for their students.

Preregistration nurse education

Making a Difference (Department of Health, 1999) required the introduction of a revised curriculum for preregistration nursing education at Northumbria University. This provided the opportunity to introduce Blackboard, which was being piloted by the university at the time. With the commencement of the new curriculum in September 2001, all diploma and degree students (approximately 250 students) were enrolled on Blackboard. Each subsequent intake of nursing students has been enrolled and over 1,000 students currently have access to the resource. Blackboard has now been adopted as the standard electronic learning platform across the university.

At first there were concerns that some students might be disadvantaged if they were unable or unwilling to use Blackboard. This led to duplication of material, as some teachers would supply hard copy handouts as well as publishing the material on Blackboard. However, it quickly became apparent that Blackboard was popular with most students, and soon they began to take a lead with questions like ‘Will this be on Blackboard?’, ‘Can you post additional references’ and ‘Can we have a student issues area?’ Students now have expectations of Blackboard and teachers are required to fulfil these expectations.

An aid to teaching

Additional reading material from lectures and external sources can easily be added to Blackboard for students to access both as prereading, in preparation for lectures and seminars, and for further clarification and revision after the formal teaching.

As Lemery and Lemery (2002) suggest, introducing such a system can not only improve paper management for teachers and students, with a subsequent reduction in reproduction costs, but can also encourage students to take responsibility for their own learning. The ability to print lecture notes and PowerPoint slides has been particularly useful for students with disabilities that might hinder their ability to take notes and follow the material presented during lectures. A direct link to online library services has also been introduced, enabling students to access all the university learning resources through a common portal.

An electronic noticeboard

Blackboard has replaced conventional course notice boards in the foundation year of the programme. This has avoided problems that are traditionally associated with important information, such as timetables or lecture notices being removed or defaced. Also, Blackboard has a facility that means information is automatically removed after a predetermined date, which prevents the ‘noticeboard’ from becoming clogged with out-of-date material. Announcements are posted on the students’ main page and they can be notified of any new material that has been posted since they last logged on.

Promoting group communication

Group areas can be created within Blackboard, which enable students to maintain contact with other members of their teaching group and their tutor. This function has proved very useful during clinical placements.

BOX 1. ADVANTAGES AND DISADVANTAGES OF INTRODUCING BLACKBOARD

<table>
<thead>
<tr>
<th>ADVANTAGES</th>
<th>DISADVANTAGES</th>
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<tr>
<td>Enhances teaching</td>
<td>Potential difficulty accessing the material</td>
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<tr>
<td>Eases communication</td>
<td>Incompatibility with university administration systems</td>
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<tr>
<td>Supports students with disabilities</td>
<td>Students may use Blackboard to access notes rather than attend lectures</td>
</tr>
<tr>
<td>Allows students to progress at their own pace</td>
<td>Time involved in teachers maintaining updated information</td>
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For related articles on this subject and links to relevant websites see www.nursingtimes.net
The ‘discussion groups’ function is especially valuable, as it can be used both across modules and within groups. As Rovai (2002) identified, these communication features can enrich content, engage students and widen the learning community. The ‘group page’ facility also allows students to share files and to arrange ‘virtual conferences’ with other members of the group and their tutor. However, these features have yet to be exploited in our programme.

Practical considerations

Problems using the resource can result in students becoming disillusioned and rejecting Blackboard as a learning tool. Reasons for this include:

■ A lack of access to hardware;
■ Inadequate hardware and software specifications;
■ A lack of technical knowledge;
■ Problems with off-site log in.

At Northumbria University, Blackboard was designed to operate alongside conventional course programmes, which run over two semesters per year. As a result, there have been problems adapting to programmes such as preregistration nursing, which operates non-standard course structures.

There has also been some concern that students might feel they can ‘opt out’ of lectures and pick up the notes they missed from Blackboard. This reflects a wider debate on the use of online learning environments. Using Blackboard should not be considered a substitute for teachers’ time and, as with other forms of online learning, should not be seen as a way of reducing the staff costs.

Hardware requirements

To access Blackboard from home, a computer with a minimum of 32 Megabytes of RAM, a 166MHz processor and a 56K modem are required. Many computers are already fitted with a modem when purchased (Molyneux, 2003).

Software requirements

The basic software required is Windows 95 or higher. It is essential to have access to the internet via a commercial provider and a web browser such as Internet Explorer version 5.0 or Netscape Navigator version 4. Some students have reported difficulties using some of these web browsers because of incompatibility with Blackboard.

Students may have difficulty in accessing learning materials on Blackboard, depending on the software they have installed on their computers. To ease this problem, some higher education institutions allow students to access standard desktop applications from the university server when they are off campus.

Navigating in Blackboard

Once a user is logged onto Blackboard, a personal welcome page appears. Features that can be accessed from the welcome page include a list of courses, a personal calendar and an e-mail facility. Once a course area is accessed, a maximum of nine navigation buttons allow the user to move from one area or page to the next. The course instructor can customise these navigation buttons.

Training

Students who are computer literate normally require a one-hour introductory session to prepare them for using Blackboard. A two-hour introduction session is usually adequate for computer-literate tutors, as programming skills are not needed to place learning materials, set up discussion boards, engage in virtual chat or design online assignments. Tutors can also tailor the course information to meet their specific requirements. Tutors require training on the pedagogical potential of Blackboard in order for learning materials to be used most effectively.

Getting the most out of the system:

■ Tutors should upload simple text files rather than high specification graphic presentation files, which will slow the downloading of files by the students;
■ Some students may need help building confidence with this new technology. Setting up live chat sessions as a simple introduction can be helpful;
■ Lecture handouts that include spaces to make notes can be uploaded for students to print out;
■ Reading material can also be added for students to prepare for lectures or seminars;
■ Online quizzes can provide a form of self-assessment. Many students feel that the online quizzes are a good way to test their own learning, and to increase or reinforce their knowledge (Robson, 2002). These can be designed using the built-in assessment manager;
■ Setting up the tracking facility when publishing material allows tutors to monitor the level of student activity;
■ Course statistics allow the tutor to follow the use of the quizzes in considerable detail. Analysis is provided for the overall usage of material;
■ Printing PowerPoint slides can be costly for students. Slides can be printed six or nine to a page. It may also be useful to include a Word document that lists the PowerPoint presentations that are available to reduce printing costs;
■ Administrative support, IT and academic staff should work together to ensure that students are promptly registered to the appropriate modules;
■ Opening a document in a new window using a right mouse click on the file name ensures that it occupies the full screen. This is particularly useful when viewing PowerPoint presentations;
■ If staff and students experience problems using Blackboard, they should initially seek advice from the IT support personnel at their own university. However, Blackboard also offers a range of support to students and academic staff. For example, step-by-step guides are provided to help novice instructors to set up their module.

Conclusion

Blackboard has been designed to assist learning, but its pedagogical worth will only be fully realised if it is used effectively. Positive feedback from the majority of students at Northumbria University has indicated successful implementation and usage. It is hoped that our recommendations will be of value to others who may be considering the introduction of a similar system.

REFERENCES


