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## 5. Utilising support agencies when integrating technology into teaching and learning

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**Course : Physiotherapy**  
**Software : TLTP Mathwise**  
**TLTP Life Sciences Consortium**

**This case study is about a bottom up approach to introducing technology into teaching and learning and demonstrates how an effective support mechanism can influence a change in attitude across departments towards using technology in teaching.**

**In particular it highlights the important role that can be played by support staff in disseminating information about learning technology.**

### **Background**

The Department of Physiotherapy at Queen Margaret College, Edinburgh has been using technology in teaching for several years. Students are required to undertake first year modules in Principles of Investigation in which they are introduced to electronic mail, databases and spreadsheets. The assessment for the module requires the students to use technology and must be submitted in word processed form. Students also use computers for real-time data gathering within other modules on the course. Computers are not generally used for assessment purposes as the numbers on the course are relatively small. However, software packages are used where appropriate to support learning and teaching in some modules eg biomechanics and physiology.

### **Software selection and installation**

LTDI became involved with the Department during 1995 when the TLTP Mathwise software was demonstrated to the lecturer in biomechanics. This was installed in a centrally managed workshop to provide background material and study support for those students who required additional help with basic maths and physics or who found conventional texts on these subjects difficult to understand. During

1995/6 software became available from TLTP project 32 (Life Sciences Consortium) which was specifically developed for teaching biomechanics and which is of direct relevance to core areas of the curriculum. Relevant commercial CDs also became available and after demonstrations by LTDI several items of software were purchased for implementation and used in teaching during the first semester of 1996/7. Initially some software was installed by the IT central support staff and some was managed by the library staff. Looking to the future, the Department aims to integrate references to relevant parts of these packages within the course material and to provide the students with direct access to them via a departmental LAN and server, thus integrating the materials fully into the teaching programme in biomechanics.

At about the same time, the lecturer in physiology, who had been successfully using some DOS based software in his teaching, attended an LTDI workshop and identified several pieces of TLTP software appropriate for his subject area. These were subsequently purchased by the Department and integrated into the curriculum.

Because of the relatively high level of computer literacy and high motivation of students on this particular course the use of additional computer software was not a particular problem.

### **Support staff as catalysts for change**

Whilst this type of implementation of learning technology within a department is not exceptional what seems to be happening as a result is worthy of mention as an example of good practice. At this particular institution the Department of Physiotherapy has the use of a technician to support staff in their use of all forms of technology including computers. The technician became involved in the use of the teaching materials when he was asked to purchase software and liaise with the IT Centre staff and librarians regarding installation. Once he became aware of the availability of subject

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based material at a modest cost through the TLTP projects he was able to identify additional materials which could be of benefit to other staff in the institution. As well as supporting the Department of Physiotherapy, this particular technician also supports the Department of Podiatry and Radiography and the subject areas of Human Performance and Physiology, some of which is taught from within other departments in the institution. As a result of this cross-fertilisation, changes in teaching practice which were initiated in one department are filtering through into other departments. From the technician's viewpoint he has become proactive in identifying software, purchasing software and disseminating information to the academic staff. Whilst this is extremely beneficial for the busy academic ultimately it is the academic who is responsible for implementation of the software within a teaching programme.

**Lessons to be learned:**

- Effective support staff can be of great value in implementing learning technologies into teaching. Liaising with other support services eg library, information technology centre and identifying software within the subject domain are valuable activities. For this liaison to be effective, good relations between academics and support staff must exist.

- Cross-department/cross-subject fertilisation of teaching practices can occur as described above but could be further encouraged by the setting up of focus groups or other for a at which both academics and support staff could meet for the exchange of ideas.

**Conclusion**

This case study deals primarily with local technical support issues and interdepartmental co-operation. Other support services which may be needed to achieve effective implementations include the librarians (if support materials are to be stored/referenced in the library or if information retrieval support is required); the IT centre (if installation of support materials is on a central rather than local server); learning and teaching centre if they are involved in either storing materials or advising on issues of pedagogy and integration of materials; and staff development teams for support of staff in the use of technology for teaching. To provide an effective support infrastructure for learning technologies it could be argued that all these functions should be managed from a single co-ordinated point. However, as indicated above local technical support is vital because of the local knowledge of subject areas and teaching practices.