

# COMPUTER-BASED FORMATIVE ASSESSMENT WITH WEBOL LITE

**F**ORMATIVE ASSESSMENTS ARE designed to aid learning primarily through encouraging participation, guiding efforts, enabling progress to be checked and practising for summative tests. This can be achieved through traditional means but some of the pedagogic advantages of formative assessment by Computer-Based Assessment (CBA) are:

- >> repeatability
- >> immediate feedback
- >> consistent marking
- >> increased diversity of assessment styles
- >> flexibility of timing & access to assessments
- >> increased range of design options for questions

Three factors that can limit the introduction of formative CBA are (i) time to construct the assessments and support materials; (ii) the availability of easy to use software tools, and (iii) support by the institution.

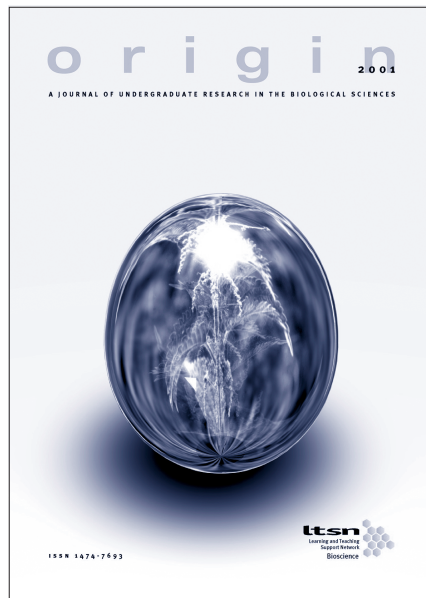
WebOL Lite was produced using a LTSN Bioscience Teaching Development Fund grant and is designed to address these issues. Students using the software do not have a steep learning curve. At a workshop at the Association of Science Education (ASE) 2001 participants with no previous experience of WebOL were able to construct an assessment in under an hour. Questions and web pages within an assessment can easily be utilised in other assessments. The software is free and can be easily obtained (<http://bio.ltsn.ac.uk/resources/bioscience/projects/tdf>) and installed by an individual user or by an institution. WebOL has built in help so that it does not require any formal support from an institution. An exception is when projects are to be delivered over the Internet or a local area

network (LAN) when the project files need to be put on an internet or LAN server respectively. However, WebOL simplifies this task through maintaining all of the files for a project in one directory ready for distribution.

WebOL is a flexible tool for creating assessments and courseware that can be distributed through a variety of media – Internet, LAN, CD-ROM, floppy disc, etc.

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## ORIGIN

**O**RIGIN IS AN IN-HOUSE JOURNAL developed in 2001 to publish representative examples of undergraduate research by Biological Science undergraduates at Chester College. The potential for excellent undergraduate research to be published in professional journals and reach an academic audience already exists for a very few students however, there is much of value in the work that is not of this calibre. For example, other students may benefit by being able to see examples of achievable best practice and may be able to build on earlier work published in

*Origin*. External organisations that support student research by allowing access to their land or facilities can be openly acknowledged. For contributing students there are the benefits of completing the full research cycle from the initial inception of an idea through to publication. At Chester 14 per cent of Biological Sciences students go onto further discipline-specific study and this extended research opportunity to contributors was a major driver in developing *Origin*. This view seems vindicated. One of last year's authors was informed at an interview for a place on a competitive, vocational Masters programme, that her achievement in *Origin* contributed to her acceptance on the course.

In addition to the informal feedback from students and staff, a major part of developing *Origin* was to evaluate both the product and the process. Among both the staff and students there has been overwhelming support for the initiative. Student authors have praised the support and structure for publication and in almost all cases have identified an increased interest in undertaking further research and science writing. Students reading the work have commented on the value of seeing work they could realistically achieve. The positive nature of the feedback has been reflected in the increased number of manuscripts submitted to the journal in 2002. The staff have also been enthusiastic: a crucial element to the success of the initiative given that the project sits outside the curriculum. The development of *Origin* has made some staff more careful in developing and supporting potential research ideas for students as they now need to consider the feasibility and originality of the work for publication in *Origin*.

You can find out more about *Origin* and look at work by student authors at the website: [www.chester.ac.uk/origin](http://www.chester.ac.uk/origin) or by sending an email to [biology.origin@chester.ac.uk](mailto:biology.origin@chester.ac.uk)

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