

[P20] Blended learning redefined: facilitating student learning 'a la carte'

Henry Keil

ASPIRE CETL, Harper Adams University College
h.keil@btinternet.com

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The findings of a study involving 2nd year UG-students in Biology will be presented during which learners use a 'pick-and-choose' approach to select their assignments from six different coursework options, all in the field of Microbial Genetics. Conceptually this study is based on a broader definition of blended learning taking into account the existence of different learning strategies of students.

An e-learning environment has been created from within which students were asked to choose a minimum of three coursework assignments out of a total of six, permitting free choice. In addition to the original single laboratory-based coursework assignment five non-laboratory based assignments were developed, with two of the new assignments consisting of group work. Calculation of the final coursework mark was based on the average of the best three submitted assignments providing students the opportunity to influence the assessment outcome by undertaking extra assignments to compensate for possible poor performance earlier on.

All source documentation was made available within the Virtual Learning Environment platform WebCT VISTA, as was the students' individual submissions and the provision of feedback.

Take-up of the options available to students was varied as was their performance across the different assignments. There was very little correlation between the popularity of a particular option and the performance of students therein. The workload for marking the various assignments was estimated to be the equivalent of two medium sized essays per student.

The class mean of the overall coursework marks showed a considerable improvement in comparison to the single assessment in previous years; there was also a large reduction in the number of failed coursework marks. Data obtained from an accompanying student survey suggested that students responded positively to the availability of choice and they also appear to engage more actively in their studies.

Some weaknesses of this scheme will be highlighted, and possible ameliorations will be proposed combined with suggestions of how this scheme may be extended to additional subject areas, other student groups and to modules with different credit ratings.

[P21] A national journal for undergraduate research in the biosciences

**C. Knight¹, S. Bonwick², J. Crowe³, A. Jenkins⁴, A. Levesley¹, M. Luck⁵,
J. Park^{6*} and J. Potter⁷**

¹University of Leeds, ²University of Chester,
³Oxford University Press, ⁴Oxford Brookes University,
⁵University of Nottingham, ⁶University of Reading,
⁷Trinity College Dublin,
*j.r.park@rdg.ac.uk

Undergraduate research is commonly carried out as part of final year research projects. Some of this research is published in peer reviewed journals, however a considerable amount of high quality undergraduate research remains unpublished. There are good examples of institutional undergraduate journals in the Biosciences, such as *Biolog-e*¹ and *Origin*². Following the success of these journals a working consortium met in 2005 to explore the possibility of launching a National Journal for Undergraduate Research in the Biosciences with the broad aim of strengthening teaching-research links within and across Universities.

Following this meeting a survey of Bioscience teaching staff was undertaken in June 2006 to which 63 people responded. A large majority thought the journal was a good idea, although there were some very negative views. Some colleagues were concerned about the actual details of submission and the practicalities of getting the journal up and running. Examples of positive comments included:

'This initiative is to be applauded. The opportunity for undergraduates to see their research in print should help to encourage the next generation of scientists, and raise the bar for existing projects.'

'I think such a journal would inspire UG students carrying out their projects and act as a benchmark of quality for UG projects nationwide'

On the basis of the support received from the survey and with support from Oxford University Press the first pilot on-line edition of the journal will be produced in the academic year 2007/08, the aim being to produce two on-line editions in the year with approximately 10 articles in each. The objectives of the journal are:

- To promote the link between teaching and research in Higher Education
- To provide a repository of high quality undergraduate research which will be useful to other students and staff
- To provide a forum for students, their supervisors and Universities, to showcase high quality undergraduate research work
- To illustrate the student skill base to prospective employers.

The journal editorial board, comprising representatives from a consortium of universities, is seeking contributions from Bioscience departments during the summer of 2007.

Departments will be encouraged to submit papers reflecting high quality assessed student research for inclusion in the journal. Submission must be approved by Departments in which undergraduates are studying (have studied), and the journal will not accept submissions directly from students without written approval from their Department. Detailed guidelines for authors will be available at the SLTC but is envisaged that Departments will effectively provide the first stage of the peer review process by submitting only high quality articles from assessed work. It is envisaged that the majority of submissions will be based on final year research projects, but that these will have been re-written by the student (with guidance from their supervisors) into concise research papers of no more that 3000 words (or 5 typeset pages). On receipt of submissions the journal editorial board will send suitable articles out for review prior to acceptance (or not) and publication.

The consortium recognise that there are still many issues to be resolved before the Journal becomes a reality but this pilot project with OUP will provide clear guidance as to whether a National Journal for Undergraduate Research in Biosciences is a sustainable proposition.

References

¹<http://www.biolog-e.leeds.ac.uk/>

²<http://www.chester.ac.uk/origin/>