

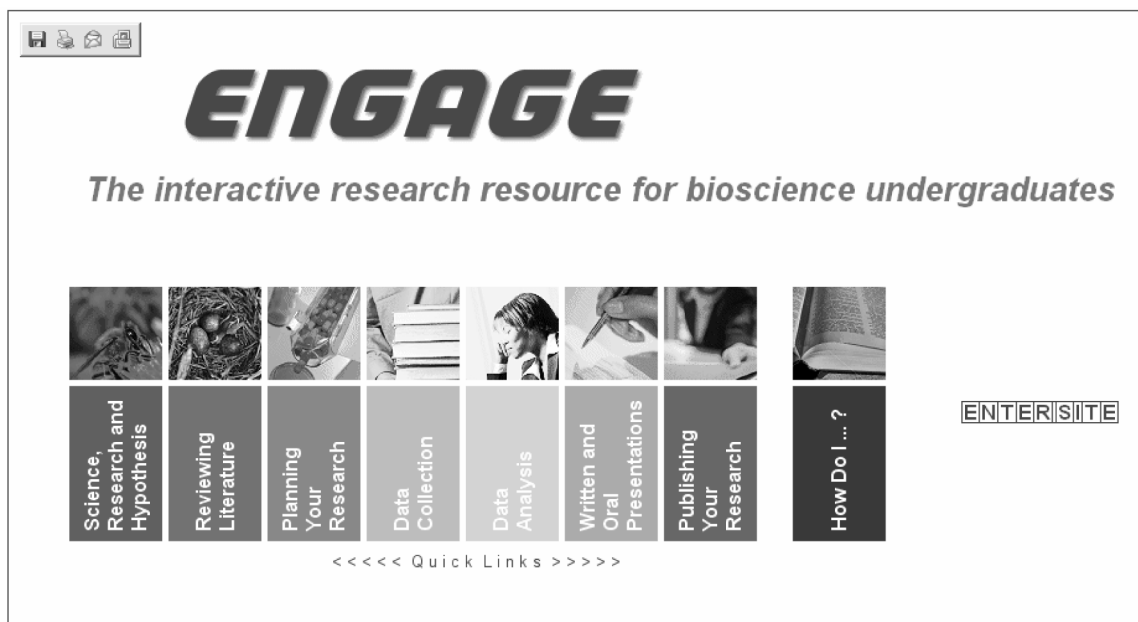
[P14] From principles of science to publishing: a new interactive resource for bioscience undergraduates

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This poster outlines the new 'ENGAGE' research skills website for bioscience undergraduates. The aim of the website is to provide an interactive resource for undergraduate students to support them in their research from first principles through to publication.



ENGAGE has been designed and developed as a resource to encourage active learning through the inclusion of interactive activities. It is envisaged that students will variously use the website for example:

- If they have an interest in scientific research and wish to find out more information about the research process or
- If they need information about a specific topic, for example they may have been asked to write a literature review on a topic and they want to know how to get started.

We anticipate that ENGAGE will primarily be used by undergraduates as an 'external' resource, although we would welcome colleagues to consider embedding it as a resource within their courses/modules, where appropriate.

ENGAGE will provide generic information on a range of topics relevant to undergraduate research in the biosciences, and will include the following sections:

- Getting Started in Science: What is research; what is a research topic/question and how can I develop these; what are hypotheses?
- Reviewing Literature: What is a literature review; where can I find sources of information; how do I reference correctly?
- Planning your Investigation: Is my research experimental, observational or opinion-based?; important aspects of experimental design; essentials of data collection; how to effectively manage your time.
- Step by Step Statistics: Basic statistics (mean, probabilities etc.); testing for differences; testing for relationships; what analysis should I use?
- Writing Scientifically: What's expected of field reports, lab reports and final year projects?; how to write scientifically: how to use scientific language.
- Presenting Science: Where can I present my work?; what should I include in an oral presentation?; dealing with questions from the audience; creating poster presentations; how to survive a viva.
- Going Professional: Can I publish my research?; which journal should I submit my work to?; who decides if my paper gets published?

As well as providing detailed information, each section will contain a series of worked examples, formative exercises with answers and 'quick quizzes' for students to work through at their own pace. We have developed these resources to be used by students as an aid to learning but all materials can also be downloaded by staff to be used as in-class teaching resources.

In addition, undergraduate students and colleagues at Reading have recorded a series of Podcasts, which are embedded within ENGAGE, and which offer advice and 'top tips' to students on a wide range of research-related topics. These range from a member of staff discussing the reliability of information sources, to a final year student, discussing how she chose the research topic and question for her final year dissertation. We also plan to incorporate video footage of undergraduate students engaged in research activities as the website develops.

In addition, ENGAGE also has a 'Quick Tips' section, which provides downloadable (pdf) sheets on topics such as referencing, oral presentations and writing laboratory reports.

ENGAGE will be piloted in mid 2007 by staff and students at the University of Reading, after which time it will be available nationally.