

Evaluating Epidemiological Data

A case study in web-based
learning.

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Objectives

- To deliver AS Biology 'Infectious Diseases' and 'Epidemiology' topics via Internet.
- To experiment with on-line learning tools.
- To experiment with on-line assessment tools.
- To investigate potential of collaborative work using Virtual Learning Environment (Blackboard).
- To re-purpose web-based material (especially on JISC servers) for educational use.

Why?

- New Learning Experiences.
- Potential for 'independent learning' to reduce pressure on in-class contact time.
- Potential to reduce staff marking burden.
- Potential for distance learning / use on part-time courses.

How?

- Advanced Tutor Role.
- JISC funding - remission time and hardware.
- Lots of technical help!

Benefits of on-line approach

- Material presented in a novel format, e.g. animated presentations.
- Interactivity - students engaged.
- Differentiation - extension materials for stronger students, support for weaker ones.
- Pace - students work at their own speed.
- Students improve their IT skills.

Possible difficulties

- Lack of personal contact.
- Technophobes / students with poor IT skills.
- Monitoring student progress and chasing up stragglers.
- Access for students with special needs.

Assignment design

- Simple worksheets.
- VLE quizzes.
- Interactive worksheets.
- VLE Group work.

Simple worksheets

- Set of questions to be answered by visiting a website.
- May involve calculations.
- May involve relatively complicated interaction with website, e.g. [AIDS data worksheet](#).
- Can easily be printed off and kept in notes.
- **DISADVANTAGE** : not easily tracked, unless e-mailed to teacher.

VLE quizzes

- Easily constructed within Blackboard.
- Can be used to confirm learning at end of topic.
- Non-threatening, can be re-taken.
- Can give student thorough feedback.
- Self-marking, and entered into spreadsheet.
- **DISADVANTAGES :**
 - some limits with question style.
 - not suitable for assessment.

Interactive worksheets

- Unlike earlier worksheets, students enter their answers into a form of 'VLE quiz'.
- Answers are fed into 'Gradebook' spreadsheet. Monitoring is better.
- Immediate feedback is possible.
- **DISADVANTAGE** : Although answers can be printed off, they do not make very convenient notes for later revision.

VLE group work

- Students work together on a research project.
- Research groups each consist of 3 students from different classes.
- Communication is through VLE discussion boards.
- Students' contributions are logged, and progress can be tracked by teacher.
- Teacher can intervene or chase if group is not making progress.

Potential Key Skills (!)

- Communication – clearly counts as a report, and use of 2 or more information sources.
- Working With Others - possible whole key skill in one go (if some evaluation is added).
Depends on whether EdExcel will accept electronic evidence...