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5.12

Writing up a practical as a research paper

Students write up a practical in the form of a research paper. This will give them a better appreciation of the structure of such papers, and should promote more thought about the relevance of the practical work they undertake at A-level.

Outcomes

Students will be able to:

- demonstrate an appreciation of the structure of a research paper
- carry out a practical and write it up in the form of a research paper
- demonstrate an improvement in their ability to explain the reasons for carrying out a practical and to summarise the outcomes.

Time required

Practical time in class plus homework.

Outline of the activity

This activity provides an opportunity for students to apply their new scientific writing skills to class practical. It is important to highlight the relevance of this activity to studying Sciences at university where assessment is frequently based on practical write ups.

A research paper template for the writing up of the practical has been produced and is available in the electronic resources. Students should be given the opportunity to access it before the lesson begins. The notes on the worksheet are included in the template.

Introduce the practical as you normally would, but explain that students will be expected to write it up as a research paper using the template provided. If possible, show students the template using a projector, and you may wish to re-issue some of the papers used in Activity 5.4 (or show these with a projector) to remind students of the structure of a paper. Ensure that students are able to access a copy of the template for use on their own computer - it could be e-mailed to them, or posted on a VLE.

The guidance sheet includes an example of an experimental method written in the correct format, which should help students to write their method correctly.

Tips and strategies

It will be easier to do this activity after you have completed Activities 5.6–5.10.

Talk through the style of writing employed in the experimental method, as shown on the guidance sheet. Students may not notice the detail of how this should be done.

If you are doing a practical which depends on the collection and processing of data (such as generating titration curves), it is helpful for students to have access to a laptop as they do the practical work so they can get enter data as they go along.