

Introduction

Communication skills are an essential part of all university degree courses, and chemistry is no exception. Recommendations from the National Committee of Inquiry into Higher Education, statements from industry, and feedback from recent chemistry graduates all emphasise the importance of communication skills. In general, communication skills are developed throughout undergraduate courses via a range of activities – for example, in tutorials and workshops, and during final year research projects – and many departments already have substantial parts of their course aimed at transferable skills. However, the exercises in this book can be used to address specific aspects of communication skills, or can be run as a complete ‘module’.

There are two key themes underpinning the design of the book. Firstly, as communication skills are learnt rather than taught, the exercises provide students with many opportunities for first hand practice and experience. Secondly, the exercises are all set in a chemistry context, so students see the skills as interesting and relevant, and are encouraged to discover, explain and use chemistry. The aspects of communication skills identified in this pack are:

- information retrieval;
- written delivery;
- visual delivery;
- oral delivery;
- team work; and
- problem solving.

The material for each exercise is divided into three parts; a summary of the activity is given, including background information for tutors and a proposed timetable for running the exercise. This is followed by copies of the information for students, and then a detailed tutor’s guide containing information needed for the tutor to run the exercise. In addition, suggestions of alternative ways/styles of running the exercise, sources of extra material and assessment ideas are included. This format ensures that the exercises can be run as described, or easily modified to meet specific needs. The activities are aimed at undergraduates in the penultimate year of a BSc(Hons) degree in chemistry. Brief descriptions of the ten exercises and their key features are given below, and detailed summaries of the exercises can be found at the start of each exercise.

Title of exercise	Key feature(s)
1 The Flurofen Problem	Team problem solving
2 Scientific Paper Workshop	Comprehension/problem solving
3 Computer Keyboard Skills	Basic computer skills
4 World Wide Web Treasure Hunt	Information retrieval
5 New Chemist Article	Writing a concise report
6 Dictionary of Interesting Chemistry	Information retrieval/ concise report writing
7 Hwuhe-Hwuhe Bark	Team work/problem solving
8 Annual Review Presentation	Oral presentations
9 Interviews and Interviewing	Interview skills
10 Poster Presentation	Preparing posters

The exercises typically require approximately two hours of contact teaching and ten hours total work from the students, although there is some variation. It is possible to run a “module” using several (or all) of the exercises, although each of the exercises presented in this book is stand-alone and concentrates on a particular aspect of communication skills.

The exercises have been trialled by colleagues at several institutions.

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