INTRODUCTION

This guide is for those bioscientists teaching in higher education who are interested in using self- and peer-assessment in their learning and teaching activities, but who may feel they have little understanding of how to go about doing so. Some of the reasons for choosing self- and peer-assessment as opposed to other assessment methods are outlined in Table 1 on page 5.

This book is written to a specific format, made up of three chapters:

Chapter 1 is an introductory chapter that discusses some concerns about the most common assessment practices within higher education today. Through this under-standing, we can proceed towards illustrating how self- and peer-assessment can be a positive instrument for change. In order to be used effectively, it is helpful to understand the theoretical learning framework which underpins these student-centred assessment practices. Chapter 1 concludes with a discussion on effective learning through self- and peer-assessment. This chapter is very much about providing a rationale for the need for change and provides a way in which meaningful change can be brought about.

Chapter 2 considers in detail how you can get started with self- and peer-assessment. Specific issues related to the effective design, implementation and evaluation of self- and peer-assessment, such as the central role played by students engaging with marking criteria are discussed in detail. Here we take a deeper look at those requirements, from developing marking criteria to the development of a community of practice, providing practical suggestions in undertaking self- and peer-assessment, whilst illustrating some requirements for good practice.

Chapter 3 reflects the world in which students are being prepared. This is a world which requires the achievement of complex learning outcomes in order to meet the demands of employment and engagement in lifelong learning. Such learning outcomes are part-icularly well served by the application of self- and peer-assessment. The Chapter then moves from learning environments that use self- and peer-assessment, such as problem-based and reflective learning, to consider the role of formative and summative assessment and finally to considering how students and tutors perceive each assessment source.

The structure of the book is therefore to look at the rationale for using self- and peer-assessment, to outline effective application and finally to see how effective a learning tool both self- and peer-assessment can be.

In order to illuminate the role of self- and peer-assessment in practice, this book also contains seven bioscience case studies. Expanded versions of these and other case studies, marking criteria, and video streams of peer-assessment in action, are available from the website supporting this guide (http://www.bioscience.heacademy.ac.uk/TeachingGuides/). In addition, the chapters draw on a number of specific examples from published research of practice, each chosen because they illustrate a particular aspect of the assessment process well. Whilst some of these examples are from bioscience, a number are not, but in these cases the examples can be readily transferred into a biosciences setting.

TABLE 1. A COMPARISON BETWEEN SELF- AND PEER-ASSESSMENT AND OTHER ASSESSMENTS	
Self- and Peer-Assessment	*Other Assessments*
Student-centred.	Students often excluded.
Clear transparent criteria.	Norm referenced assessment. Or if criteria used, these may be given to students without discussion.
Student empowered. There is a strong sense of personal ownership.	Students isolated from the assessment and therefore from the learning process.
Likely to encourage a deep approach to learning.	Likely to foster a surface approach to learning.
Allows students to actively construct their learning.	Does not provide the incentives to construct own learning.
Encourages discussion between students and tutors.	Little discussion, sometimes none.
Formative feedback.	Feedback misunderstandings due to lapse of time or loss of ongoing communication between student and tutor.
Opportunity to revise or review weak areas of learning.	Results final, with little point in going back over boxes 'ticked'.
More trial and less error in student learning.	Results received too late in the method to revisit or be useful in learning process. Little trial and a lot of error in learning.
Prepares students for the lifelong ongoing journey of learning.	Often end-point destination only learning.
For peer-assessment often several assessors.	One assessor and a moderator or at most two assessors.
Provides good opportunities for formative assessment.	Little formative assessment.
Likely to increases student's confidence.	Limited or negative effect on confidence.
Increased performance/learning quality of the learning output.	–
Often authentic learning tasks.	Rarely authentic learning tasks.