

[W4] Fifteen ways to hit your science students: enhancing the student experience and how to make it happen

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Introduction

As a science educator, effective learning and teaching is all about hitting your students in the most effective way. Although at times the use of a pair of wet fish, Monty Python-style, may be desirable, we are in fact referring to ways of enhancing the science student experience by the inclusive use of relevant tools.

Good practice in teaching is all about having the most impact for each individual student and making waves that travel to the deepest levels of their understanding, be that:

- in the lab,
- in the field, or
- in more formal classes.

This workshop will highlight fifteen effective and inclusive ways to hit your science students: that is, by using different media, by exploiting different mechanisms, and by understanding how to go about making the necessary changes happen.

Format

Using a stimulating mixture of short presentations and audience involvement in a range of group-based activities, this workshop aims to expose the participants to a wide range of approaches of effective inclusive science teaching and learning, giving them practical, achievable things to try, while underlining the ethos of inclusion in learning and teaching. Participants should leave with a definitive suite of actions that will enable them to hit their students more effectively.

What to hit your students with: Media

The inclusion benefits to science learning and teaching of a range of media will be discussed with the workshop participants, covering three broad areas:

- Printed media / Text – When creating documents there are a number of simple techniques you can implement to ensure they are accessible and navigable for your students. Discussion will centre around the most commonly used formats (e.g. Microsoft ® Word and Adobe ® PDF)

- Images – This section will discuss the use of images as an important tool in science education and provide hints and tips to ensure their effective use.
- Audio – People can sometimes be cautious with using audio-visual content as it can be seen as ‘inaccessible’. This section attempts to dispel these myths and provide practical examples of their effective use.

How to hit your students: Mechanisms

Ways in which common tools and procedures can be best utilised to enhance inclusive practice in learning and teaching will be discussed, including:

- Repositories and sharing,
- Interactions (For example: Wikis, Bulletin Boards, Online Assessment, Media boards),
- Interactive voting,
- Interactive whiteboards.

Who can help you hit your students: Making It Happen

The final part of the workshop will examine ways of identifying the key people and key resources needed within an institution to effect change. Circumstances and individuals can obstruct good inclusive practice, often unintentionally. The workshop will compare experiences of these obstacles and suggest ways to remove them and suggest how to include key individuals in the enthusiasm for inclusion and accessibility in science learning and teaching.

Outcomes

Delegates who attend this session will:

- Be exposed to a wide range of approaches,
- Get practical, achievable things to try,
- Gain understanding of the ethos of inclusion,
- Have clear action points for implementation.