Scenario 1

On presenting your module marks to the examination board for the Brain Function & Disorder module it is noted that the question on deep white matter nuclei has been particularly poorly answered. A quick look at marks for previous years shows this topic area has been a persistent problem with questions consistently poorly answered for the past 8 years. Curious as to why this may be you apply (and get!) a £10, 000 grant to investigate the student understanding of brain structure and function. How would you go about investigating student understanding on this topic? (Feel free to substitute for a 'difficult' topic in your subject area).

Summary of discussion of scenario 1

- Preliminary study:
    - analysis of marks over all years
    - assess the foundation of topic knowledge prior to module start
    - appropriateness of teaching and assessment
    - analysis of answers given by students in assessments in all years
    - Survey other universities/literature
- Interviews/focus groups: questions informed by preliminary study
- Consider additional tutorials/seminars/material on the topic
- Radically change the delivery of the topic and compare exam results/quality of answers.
- Involve students in the marking of exam essays.

Scenario 2

You are module manager for a first-year 'Practicals' module. The introductory module consists of 11 laboratory classes which allows students to practise using equipment and different techniques. The course illustrates theoretical knowledge and aims to consolidate learning and develop student's report writing, data presentation and processing skills. As part of your responsibilities

you are allocated 6 of these 3hr practical classes. Previously students have been expected to write an individual report for each of the practical classes on the course. However, the school has decided to move over to a common first year and so student numbers have jumped from 80 to 190, more than doubling your potential marking load. You've heard good reports about peer assessment – that it not only promotes student learning but can also save you time. Therefore you decide to implement peer assessment of the laboratory reports. What methodologies would you use and data you collect to convince your sceptical colleges that this change has been beneficial to student learning?

Summary of discussion of scenario 2

Assuming there is no change in style of delivery of the module (despite change in student numbers) and exercise is largely formative.

- Know your colleagues! – How will they be influenced?
- Each week, ½ students are peer assessed and other ½ assessed by staff (students won't know in advance which group they are in). Or Compare marks of 6 practicals peer marked with 5 that were not and double mark (peer and traditional) a sample of reports.
- Students would mark anonymously (student numbers on scripts).
- Compare marks with those from previous cohorts, both end of module and end of year.
- Literature review of benefit of students engaging in peer assessment.

Class questionnaire /student interviews/student podcasts

- Identify additional gains
- Give all students generic feedforward and generic feedback as well as peer feedback.
- Write up and publish in peer-assessed journal

Scenario 3

Traditionally, as part of a Biochemistry module, students are asked to give an oral presentation (in small groups) on a themed heading. The students come from a range of degree programmes and a substantial minority come with preconceptions that biochemistry is hard and have low confidence in their own abilities. You suspect that for these and other students the pressure of public speaking and its associated anxieties dominate their thoughts and hinders their learning and comprehension. This year you've done something different and asked each student group to produce a short film instead of the oral presentation. Casual observation of the students on film suggests that they are more comfortable with this approach and that their personality and creativity becomes more apparent. How would you test the validity of this observation and any changes in student confidence and conceptions?

Summary of discussion of scenario 3

Assuming students are presenting to a camera, rather than making a film.

- Ask other examiners experienced in marking oral presentation to assess the films blind.
- Look at the marks gained by same set of students in oral presentations on matters as similar as possible to film material and as close in time as possible and marked as similarly as possible.
- Survey students:
    - questionnaire with no leading questions
    - interview/focus groups with independent facilitator
- For next cohort repeat exercise with pre and post self rating or reflective log
- Give students choice of oral presentation or film.
- Get students to present in Biochemistry and a chosen subject to find out if subject matter influences performance.
- Differences may be due to gender, past experience, individual presentations, mixed groups (selected or self-selected)