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Student Indignation – a worthy goal & useful tool?

Background

Effective participation in honours level study is only possible if students arrive, from prehonours, equipped with a range of essential skills. However, as we have no common pre-honours curriculum and individual modules seldom built upon material from other modules, such skills development lacked progression. An integrated approach was required. Our solution was to create a compulsory, yet non-credit bearing, "Skills for Biologists" course. Therein lies a fresh problem – how can we ensure that ~170 students recognise the value of such a course when there is no credit reward?

Whilst there is no recognised credit allocation for the course, each semester "Skills" contributes 20% continuous assessment marks for each Biology (BL2000 level) module. At first glance, the student time investment seems poorly rewarded by such a small contribution to their grades. However, with this assessment structure we create an opportunity to stress that learning developed in "Skills" is to be applied across the Biology curriculum.

Teaching is via weekly lectures and fortnightly workshops, supported by online resources and consistent presence of the course organiser, who is substantially involved in the teaching of four of our six BL2000 level modules. The combined effect of an effective teaching programme and a single person, who can optimally encourage and support the development of individuals, should not be underestimated.

Skills developed

These include:

- Critical appraisal
- Experimental design
- Report writing
- Poster presentation
- Research ethics
- Team-work, including explicit consideration and evaluation of roles performed by individuals.
- Statistics, including the use of Minitab for analysis of large sets of data.
- Learning as an active, personally driven, yet collaborative endeavour.

A strategic tool

The key priorities are the creation of (1) learning partnerships and (2) empowered individuals, who assume responsibility for their own learning. Therefore the first workshop was designed to operate in the affective domain, using human emotions and motivations to develop friendships and fight against "wrong". Students are exposed to a popular science article, which they subsequently decide displays poor reporting practice. They grow justifiably indignant. From this indignation is born motivation and self-confidence.

Student activities in the first workshop

- Make a new friend or two.
- Actively participate in discussions and critique of an article from a popular science magazine. ("Why our fears about fat are misplaced". Campos, 1st May 2004. New Scientist.)
- Exercise initiative via online searches.
- Collate discussions into a summary of key points.
- Perform literature searches using three scientific databases.
- Find online, and download, a specific research paper.

Tutor activities

- Do not wait to help with problems, instead circulate from group to group.
- Validate opinions of individual students.
- Encourage students to inspect their opinions, considering opposing positions, basis etc.
- Provoke further questions and more detailed considerations (if necessary).
- Sit or kneel with the student group, rather than looking down from full height.
- Demeanour is friendly, inclusive, teasing and respectful.