Discussion session: Integrating research, teaching and learning in the Biosciences

Led by Professor Kevan Gartland

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Continuing the discussions

In groups of 4 or 5 please discuss the following:

1. Why do we want R-T linkages (or R-informed T)?
2. What are the desirable graduate attributes we would seek to foster through linkage of R-T?

Why do we want R-T linkages (or R-informed T)?

- Research is basically enquiry-based learning
- To communicate enjoyment of and enthusiasm for subject
- Recognition of the frontiers of the subject
- Appreciation of the difficulty of providing definite answers to some Q’s
- Transferable skills aspect; "preparation for life"

What are the desirable graduate attributes?

- Appreciation of "the complexity of coming to know"; learning as a non-linear activity
- Critical thinking skills, problem solving, other analytical skills
- All feed in to "employability" of graduate in the widest sense
- (Aside: discussion on assessment. In particular, how assessment practices can encourage / discourage these attributes. Shift away from high component of "bookwork" in end of course exams in later years.)

Focus on our practice

1. What is common practice in linking R&T in your departments?
2. What is more innovative practice?
3. Does the practice above exemplify the four strategies page 44 or do particular strategies predominate?

What is common practice in linking R&T in your departments?

- Final year research project (can be "wet" or "dry") Cost implications of these
- "Research skills" activities
- "Current topics in....."
- Group projects
- Literature surveys
- Abstracting journal papers
- Attending research seminars
- Research conference (students prepare a short presentation on a research topic / paper; peer reviewed)

What is more innovative practice?

- Some covered under previous question
- The historical or "classic" experiment of a discipline / phenomenon
- Engagement with "real" research e.g. bioinformatics tools on WWW

Barriers preventing wider adoption of good practice

- Large numbers / resource implications
- Student views / expectations (particularly in earlier years - the disjunction between what they think e.g. Physics is all about and the way we would like to teach them).
- The volume of content in current degrees, preventing the space to focus on more skills-oriented activities.