



CENTRE FOR

bioscience



Work related learning

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*Supporting teaching in higher education to improve the student learning experience in the
Biosciences*



What is work related learning?

Much unproductive semantic debate about this!!!!

Used here in a broad context to include:

- **Work-based learning**
- **Learning at work**
- **Learning in work**
- **Learning through work**
- **Placement learning**
- **Learning through scenarios, problems, contexts and simulations of **real work situations****



Why is work-related learning important?

- **Relates the discipline to real life situations**
- **Motivates students**
- **Keeps academic feet on the ground**
- **Makes links and engages with employers**
- **Provides insights on possible careers**
- **Maintains currency of information and context**
- **Meets a diversity of student need**
- **Develops **skills** as well as knowledge**
- **Develops **attitudes and behaviours** which are valued by employers and academics (professionalism, time management, focus, responsibility, independence, discipline etc)**

What makes returning 'year in industry students' so different?



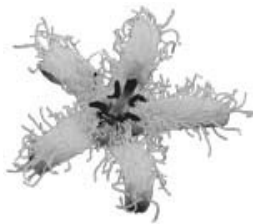
What are the issues?

- **Recognition of WRL as such** (by students and employees)
- **Work does NOT equal paid employment** (all sorts of settings provide valid WRL)
- **Recognition of extra-curricular WRL**
- **WRL for students** (transient, bonus add-ons, new environment) **or for employees** (permanent, dissatisfaction, questions raised, dilutes productivity, familiar environment). **It makes a difference!**
- **Location – in WORKPLACE or at UNIVERSITY?** (Arrangement/time-table, Timing, Accommodation)



Where can WRL be incorporated?

- **Practical/project write-ups** (in form of industrial report, journal paper)
- **Posters and presentations** (in the format and style of professional body/learned society meeting)
- **Practicals/projects** (undertaken in work environment or context)
- **PBL/scenario teaching** (case-studies of real work situations)
- **Research based teaching** (using real work problems)
- **PD/CPD** (using work based appraisal formats)
- **Create work-like environment** (e.g. deadlines; changes; hierarchy; professionalism)
- **Work-based employees input/review/give lectures**



Work related learning 1

Data analysis and interpretation

Learning Objectives: team work, communication skills, knowledge, data interpretation and analysis, decision making, corporate responsibility

Duration: 2 days

Activity: Groups of 4-6 students progressively given data on properties of compounds and asked to decide which compounds would be progressed through the stages of the drug discovery and development process. Each group presents a justification for their decisions to progress or discard compounds at each stage.

Notes: certificated voluntary masterclass after examinations.
Exercise and data developed in conjunction with AstraZeneca



Work related learning 7

Editing/proof reading scientific paper

Learning Objectives: editing, proof reading, correcting the work of others, following set rules, preparation of material for publication.

Duration: various depending on task

Activity: Academic staff select one of their recent (preferably short) publications and produce a version into which mistakes have been introduced. These can be in grammar, spelling, English usage, data presentation, formatting requirements, references etc etc. Errors in scientific interpretation and deduction can also be introduced as can statistical errors. If the latter have been introduced students should be told. **KEEP A RECORD OF THE MISTAKES INTRODUCED.** The student's task, in small groups is then to detect and correct the errors. They are provided with the 'instructions to authors' relating the publication which are available from the journal's website.

Notes: This can be done at all levels, with a whole class or in small groups. Plagiarism is a problem if it is not done all at the same time. The level, type and complexity of the introduced mistake can be tailored to the group of students.



Work related learning audit


Good course design and good teaching provide many work related learning opportunities - you may not know it but many work related learning elements are already embedded in your course.

- 1. Raising awareness**
- 2. Relationships with employers**
- 3. Work related learning element(s)**
- 4. Provision of support for students and others involved**
- 5. Assessment**
- 6. Extra-curricula work related learning**
- 7. General and spin-off benefits**



Work related learning audit

Course team runs audit preferably with student involvement.

1. **Raising awareness** 
2. **Relationships with employers**
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1. Raising awareness

- **Are academic staff aware of the benefits of WRL?**
- **Do academic staff know who WRL elements contribute to the LO of the programme?**
- **Are students aware at an early stage of the employment opportunities open to them?**
- **Are students able to choose modules known to contain WRL elements?**
- **Are the views of previous cohorts of students on the value of WRL elements known to current students?**
- **Information on WRL available to prospective students?**



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3. Work related learning element(s)

- **Are WRL components identified within a module?**
- **Are the students required to reflect on the WRL activities and given time and a structured environment in which to do so?**
- **Do students have a choice of WRL elements within a module?**
- **Is there capacity for all students who wish to participate in WRL to do so?**
- **Is the ratio of time involved to credit rating known and comparable to that for other module components?**



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Placements are just **ONE** aspect of **WRL**

The environment has changed

- 1. Precepts and guidance on placement learning. (QAA)**
- 2. Code of good practice for operation of placement element of sandwich courses in HE. (National Centre for Work Experience)**
- 3. Health and Safety guidance for placement of HE students (local university)**
- 4. Health and safety when working overseas**
- 5. Placement contract (university, student, industry); placement checklist; placement approval form; aims, objectives, assessment, supervision, support, problem rectification, confidentiality, feedback**



Take home messages

Work related learning

- comes in many forms and in many contexts
- should be identified explicitly when it is used
- increases student employability, not just preparing them for a specific job
- is not difficult to incorporate in courses
- increases student motivation
- has spin-offs for staff and students