Interdisciplinary final year projects to enhance the student experience and employability - **Projects with the 'E' factor**

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Introduction: FLS offers ~ 150/pa final year research projects enabling students to explore a bioscience topic in the context of a new discipline: science communication (education, elearning, media) and business. They design and evaluate an output such as an educational intervention, an elearning resource or a 'creative' communication piece (video, blog, short story, artwork). Students learn the knowledge and skills appropriate for the new discipline through seminars given by subject specialists.

Aim: To add a new dimension to these projects by developing a model for the delivery and assessment of interdisciplinary project work involving students in life sciences working with students (and staff) in other disciplines in order to enrich student knowledge and enhance the quality of outputs.

Suggested collaborations (pairs):

Bioscience and …

PGCE/English Language Education: Production and evaluation of education resources following an inquiry.

Computer Science: Production and evaluation of eLearning resources, Apps, Bioinfomatics and Biomodelling tools.

Art: Production and evaluation of arts/science materials for public engagement.

Law: Research on ethics, IP, forensics.

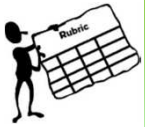
Social Sciences: Research on social statistics regarding health, lifestyle.

Business: Research on sustainability, marketing/market research, knowledge transfer

Pilot: Bioscience + PGCE = 4 pairs.

- *How does dyslexia impact on learning aspects of bioscience? (focus on alcohol metabolism and gut microbiome).*
- *How does the use of language affect the learning of bioscience? (focus on stem cells)*
- *Why do most students prefer to learn about human biology over plants?*

TIMELINE	Individual	Collaboration (loose or tight)
April-June	*Advertise interdisciplinary projects and recruit students/staff interested. Brainstorm project titles.*	
Sept	Choose a topic for individual literature review or define inquiry within discipline.	Pairing of collaborators. Allocation supervisors (1 per student within discipline)
Sept-Nov	Research topic and attend training seminars from discipline and/or introduction to new discipline	Meet to discuss ideas and introduce new discipline *– exit option*
Nov-Dec	Plan project approach	Input ideas into each other's plan *- exit option*
Jan-Apr	Undertake inquiry-based research and/or design, deliver and evaluate a product related to the inquiry.	Regular collaboration and meetings. Input into each other's work or work towards common output.



Assessment of projects with common output.

•A meeting between supervisors and students may be needed to better understand product and clarify relative contributions.

•Product and report can be assessed with criteria from own discipline. FLS already has criteria for science communication and business projects.

•Students may submit an individual report within framework from own discipline, or a common report where their individual contribution is explicit.

CHERIL Project research outputs:

•Research: Two members of staff from FLS and SEED assessed **critical thinking** similarly in laboratory-based, science communication and business reports using our Bloom based descriptors.

Output: Guidelines and tutorial activities to introduce critical thinking & writing based on Bloom's taxonomy.

•Research: Our current research projects are in parity with each other in terms of employability but team projects offer more.

Output: Employability skills audit to measure development during project.