Teaching philosophy and scholarship

David Hodge

October 29, 2024

Main tenets of my teaching philosophy

1. My focus should be on helping students learn, not 'teaching' them.

2. Students' long-term learning comes from being personally engaged with their own learning and being provided with pedagogically sound approaches from their lecturers and tutors.

3. Knowledge and understanding is incremental, so helping students learn new concepts and ideas is normally about them somehow attaching that new learning to their existing knowledge.

Students' experiences (I hope!)

1. A lecturer who listens.

2. A lecturer who guides.

3. A lecturer always focussed on their learning.

4. A lecturer who loves helping people learn.

Teaching vs Learning

Teaching is just the part I do. The performance.

- How much thought have I put into my explanations?
- How much work have I put into the notes?
- My mental preparation
- My appreciation of the attitude students come to class with

Student learning. What happens inside their heads.

What are my objectives:

- Help students acquire knowledge through their learning
- Help students develop their ability to learn new things
- Help students acquire specific competencies/skills
- Help students develop confidence

How my philosophy impacts my teaching

Moderate and larger group teaching

My focus is always upon creating an environment where they can learn

In lectures:

Stimulating, memorable, encouraging attendance, focus on key/difficult ideas, offering multiple ways to think about difficult things (tech/animations/interactives), frequently drawing parallels and relationships with related concepts across the curriculum.

For home:

Well-designed homeworks and courseworks (helping students that **this** is typically where they truly learn).

Feedback:

Well-designed solutions, opportunities to ask questions, personalized feedback at key stages.

Smaller group or one-to-one sessions teaching

Two-way communication with all students

To discover what the students are finding difficult and easy, and giving them what I judge they best need.

Promote an atmosphere where they are comfortable to ask questions that will help their learning.

My fundamental approach

My belief that students' personal motivations to learn need to be central to what I do.

> **Expertly guided and unhindered learning**
>
> The majority of my engagement with scholarship activities are focussed upon providing environments which embrace, encourage and provide opportunities for students' desire to learn to progress unhindered.

This especially extends to ensuring that 'solutions and feedback' provided to students are designed with their learning in mind. Given how much importance many students give to provided solutions it is important to exploit them for learning.

Many of my scholarship activities began life with interactions with students who came to me for help, and I found they were being held back not by any lack of desire to learn but by some barrier unintentionally created by how their learning has been structured or how they were approaching a topic.

My areas of scholarship

Learning Opportunities (LO)

I have developed new ways to help students learn subjects where existing approaches have been turning students off, or were not learning focussed.

Learning Technology Innovations (TI)

I have put my extensive knowledge and proficiency with learning technologies to improve or innovate in the learning environment.

Enhancing Learning Resources (ER)

I have a large portfolio of work around improving learning resources. When teaching new modules I am always quick to identify opportunities to improve the offering for students.

Assessment Practices (AP)

With extensive expertise and experience with assessment I have developed my own, and supported staff with assessment design, especially e-assessment and programming.

A sample of my experience and activities - I

Question Driven Instruction: Inverted classroom approach to a final year mathematical finance module. 48-hour lecture course delivered entirely through questioning and peer discussions.

Outputs: Workshop, presentations and good practice sharing.
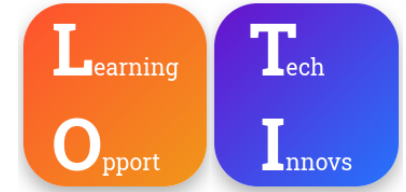
In-class polling: Used with QDI (above) but also for engagement during online and face-to-face classes. Experience with Pingo, Itempool, Mathmatize, Mentimeter (and others).

Outputs: Staff development, faculty presentations, good practice sharing.

Programming assessments: development of new learning outcome focussed programming (with R), including pedagogic use of coarse rubrics. Focus on student learning and confidence development.

Outputs: Faculty presentations, good practice sharing.

T&S
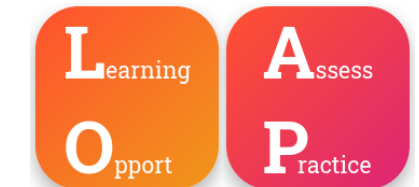
A sample of my experience and activities - II

Accessible resources: Expertise in RMarkdown/Quarto, accessibility topics in STEM.

Outputs: TALMO talk, RMarkdown workshops, conference talks (collabs), departmental templates, university digital accessibility documentation, good practice sharing, UK JISC working group contributions.
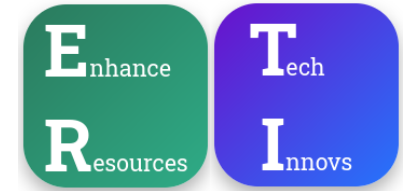
e-learning resources: HTML notes & tutorial sheets for interactive learning, including automated marking of questions, branching and personalized feedback.

Additional learning resources, e.g. RShiny, HTML applets, including visual aids for statistics and stochastic dynamics.

Outputs: shared templates and resources.

Further expertise and experience

Design of MCQs and e-Assessment: 14+ years experience working with MCQs for both summative and formative assessment. Developing new assessments in my own modules and assisting others with improving and designing theirs (Moodle, Numbas, Möbius, Xertes, and others).

Assess **P**ractice

Tech **I**nnovs
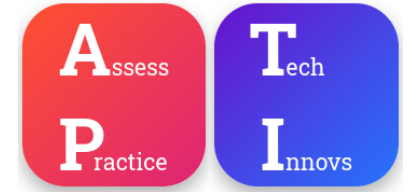
Lecture note annotations: early adopter of use of annotation software in lecture delivery, sharing expertise with colleagues and the wider university.

Tech **I**nnovs

Enhance **R**esources
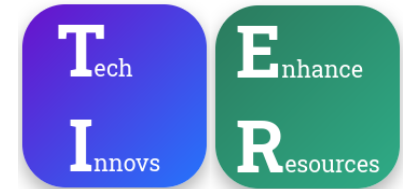
Peerwise: Learning through student-created questions, peer-evaluation and feedback. Student tasks are to create questions on topics learned.

Learning **O**pport

Tech **I**nnovs

Thanks!

Personal projects at Nottingham

- QDI: massive exercise in learning through questions
- Lecture notes design: clean, colour-coding, use of boxes, strong labelling, consistency, use of variety of media
- Coarse rubric mark schemes (and associated Learning Outcomes)
- Teaching Ideas Forums
- Peerwise engaging students with thinking about how they learn

More details about coarse programming rubrics & QDI

- Coarse computing: came out of wanting to improve programming. Students had 1st year compulsory where computing. Copying was rife, overly difficult for most, easy for others.

- Introduced 3rd year computing opportunities: Numerous students spoke to me at graduation, or after graduating saying the module was their favourite and let them develop real skills and confidence.

- QDI borne out of a relatively theoretical module which students chose as they want to go into finance. With their standard approaches focus too much on revising for tests, and not long-term information retention, so QDI shifts focus heavily to discussing bigger ideas, explaining to each other, transferrable skills around the topic.

- Confidence and ability to take students with me was important