Doctoral Education at the 'Eye' of the Perfect Storm

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As Doctoral Educators, we face our 'Perfect Storm'

- The storm signals are there:
 - questions about the disciplinary context in which doctoral education is delivered
 - the need for research-based responses to the grand challenges facing society
 - the employability beyond academia of the PhD graduate

To Catch The Wave (& Ride Out The Storm).....

- The doctoral researcher needs
 - to explore and exploit the value latent in the thesis research
 - to recognize the corresponding need to interact with others
 - so that, together, they might progress from disciplinary expertise through multi-disciplinary interaction to interdisciplinary outcomes
- Doctoral education is challenged to develop within the researchers new and different skills and perspectives.
- Combined, the elements of this response define doctorateness as a new threshold concept

Our Objective Then Is...

... to explore how distinctive learning spaces can be built into doctoral teaching-learning environments (TLEs) in order to create opportunities for cross-disciplinary transformative learning to occur.

How Can We Create Doctoral Learning Spaces That...

Enable students to:-

- think beyond their own discipline
- communicate across traditional disciplinary divides
- in order to exploit the potential in their thesis research while not diluting the disciplinary core of the research.

Established Components of Doctorateness

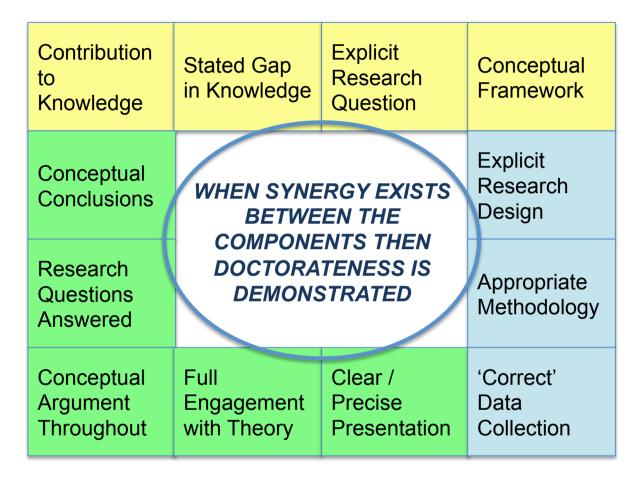
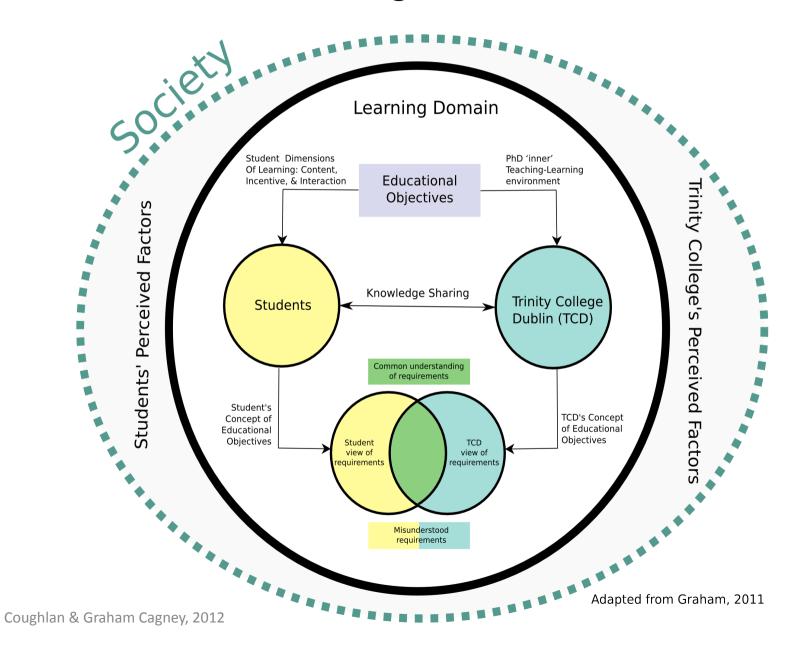


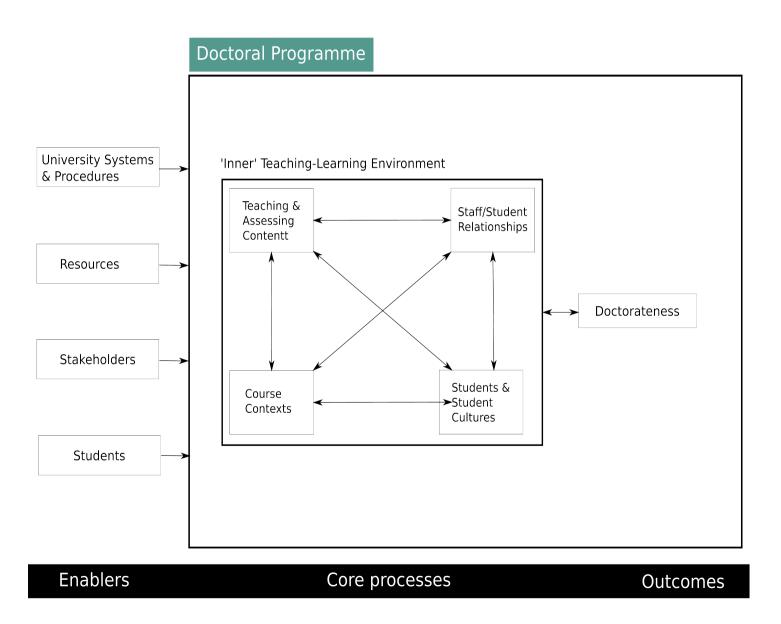
Figure 1: Components of Doctorateness, Trafford & Leshem (2009:5). Adapted by Graham Cagney & Coughlan, 2012

- Demonstrating 'doctorateness' comes from integrating
 - high levels of competence in research
 - deep discipline knowledge
 - competence in presentation of the argument

What Common Understanding of Requirements do Students and Higher Education Share?



Congruence in the 'Inner' TLE Leads to Doctorateness

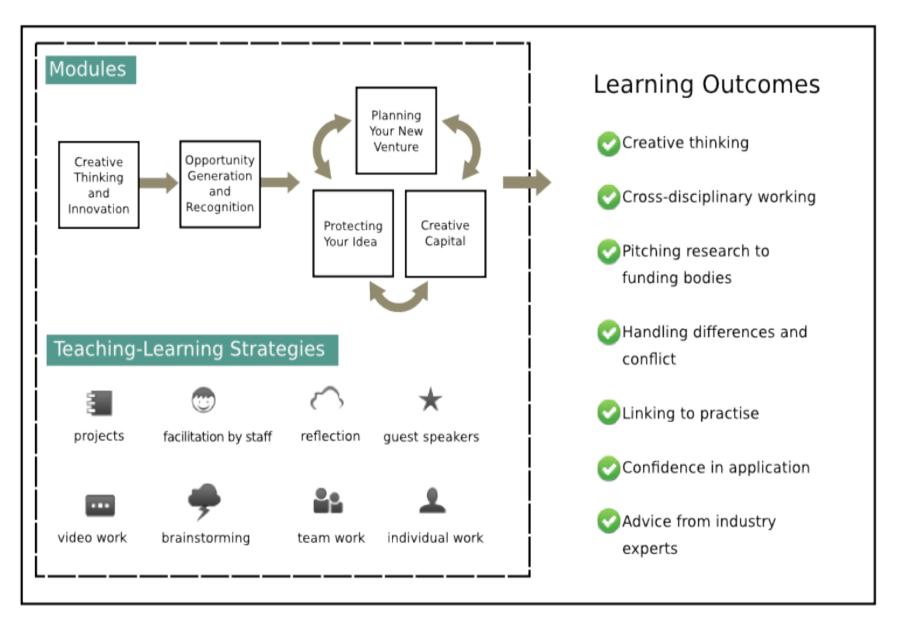


The PG Certificate in Innovation & Entrepreneurship

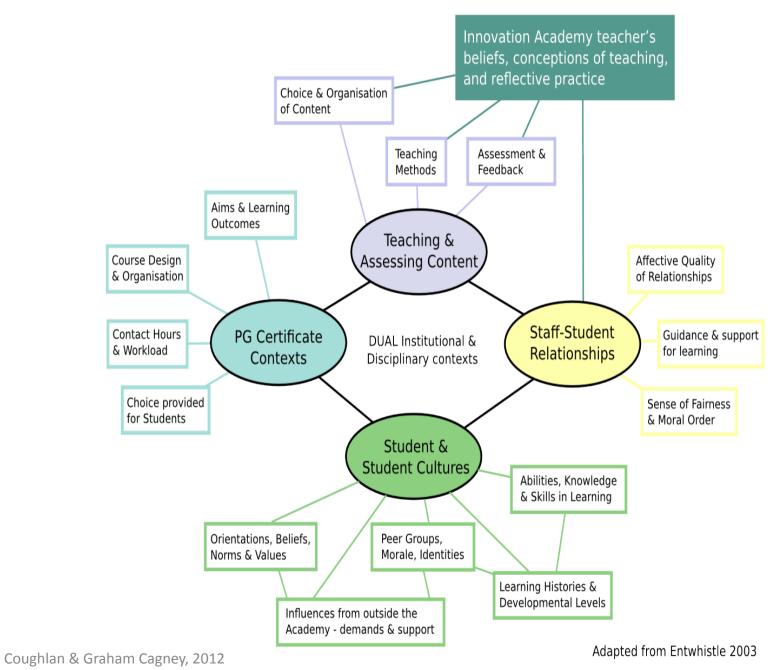
Core Modules: Innovation - from idea to value Creative Thinking and Innovation **Opportunity Generation and Recognition** (10 ECTS) (5 ECTS) Developing confidence in creative thinking Identifying what innovation means in the context · Evolution of innovative ideas in of my PhD thesis research and my career multidisciplinary teams aspirations · How to translate ideas into value creation Identifying critical components for capitalizing on my innovative potential Promoting my innovative ideas externally Multidisciplinary Team Project Specialised Modules: Capitalizing on innovation (15 ECTS in total)



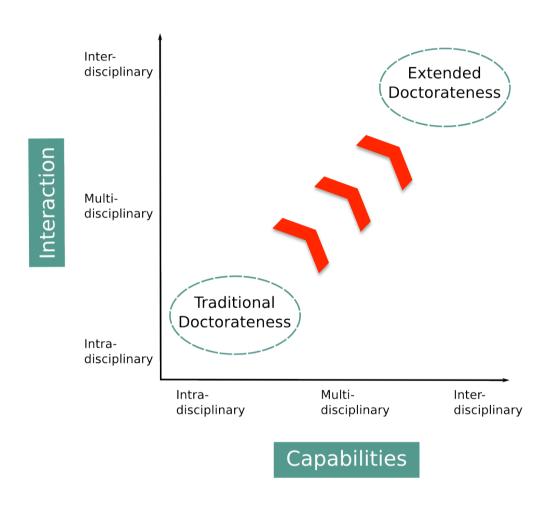
Innovation Academy TLE



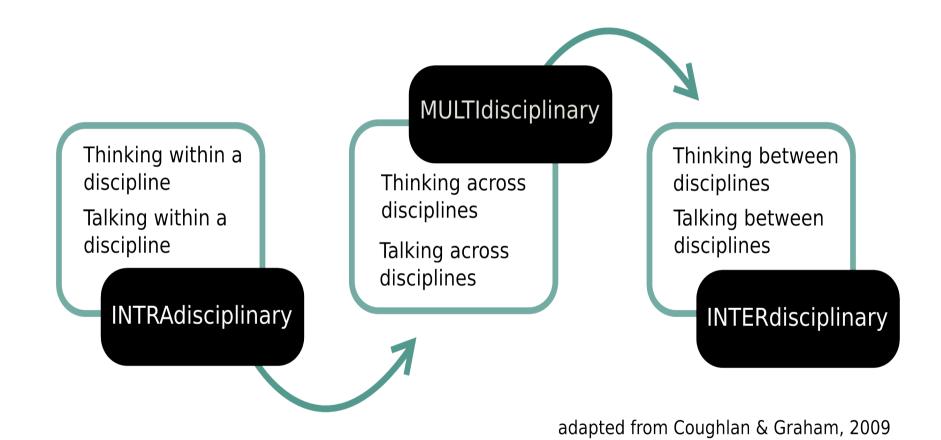
Conceptual map of the 'inner' Innovation Academy Teaching-Learning Environment



Catching the Wave



'Thinking and Talking' Toward a Different Perception of Doctorateness



Extending the Components of Doctorateness

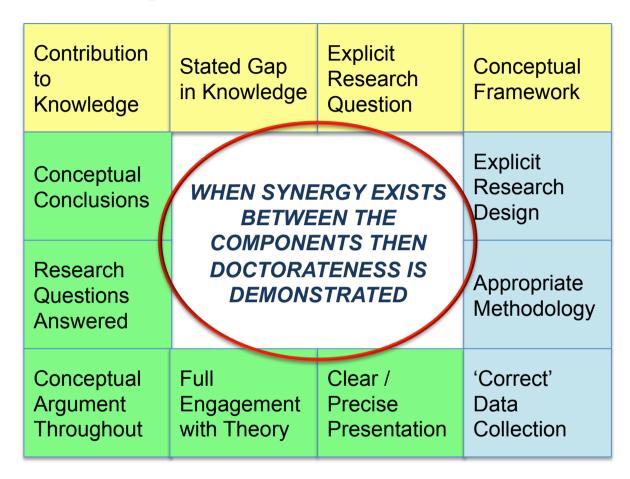


Figure 1: Components of Doctorateness, Trafford & Leshem (2009:5). Adapted by Graham Cagney & oughlan, 2012

- Demonstrating 'extended doctorateness' comes from integrating:
 - high levels of competence in research
 - deep discipline knowledge
 - competence in <u>linkage, application</u>, presentation of the argument



LIMITATIONS

UNTIL YOU SPREAD YOUR WINGS,
YOU'LL HAVE NO IDEA HOW FAR YOU CAN WALK.