



Thursday 10<sup>th</sup> September 2015

Developing Enterprising  
Educators and Researchers:  
Developing PhD Researcher  
Skills Through Enquiry-Based  
Learning



Prof. MariaLaura Di Domenico & Dr Paul Tosey

# Session outline

1. Introduction - who we are, EBL and our project, the focus of the session/ how it will work - 5-10 mins.
2. Interactive Group Facilitated Discussion Activity by delegates: A case example: collaborative writing (practical activity involves group discussion of designing an enquiry with peers) - 15 mins.
3. Groups report back to all other delegates on their thoughts on a design and questions/issues that arose in groups as they addressed this task - 10-15 mins.
4. Discussion and review covering - What did we/our PhD students think of this approach to learning? Uses/ applications for delegates - Max 10 mins.

# 1. Focus of the session

- Contributes to the conference aim of creating an exciting vision for enterprise education for 2020 by encouraging collaborative, creative, learner-led and enquiry-based models.
- Emanates from prior work using EBL and insights from an EEUK funded project.
- Facilitative interactive session which encourages a novel and learner-led approach.
- Designed to explore and discuss the benefits/challenges for educators/students of adopting an enquiry-based pedagogy.
- Focus on stimulating and encouraging an (EBL) method to tackling a problem-based collaborative project..

# Enquiry-based Learning (EBL)

EBL encourages learners to:

- learn through a process of enquiry
- use their own initiative in an enterprising, resourceful and (often) collaborative way
- apply principles and practices of academic or professional inquiry, scholarship or research
- engage with problems or questions that are often open-ended
- explore a knowledge-base actively, critically and creatively
- participate in building new meaning and knowledge
- develop process skills and knowledge in enquiry methods
- share the results of the enquiries with each other and with wider audiences.

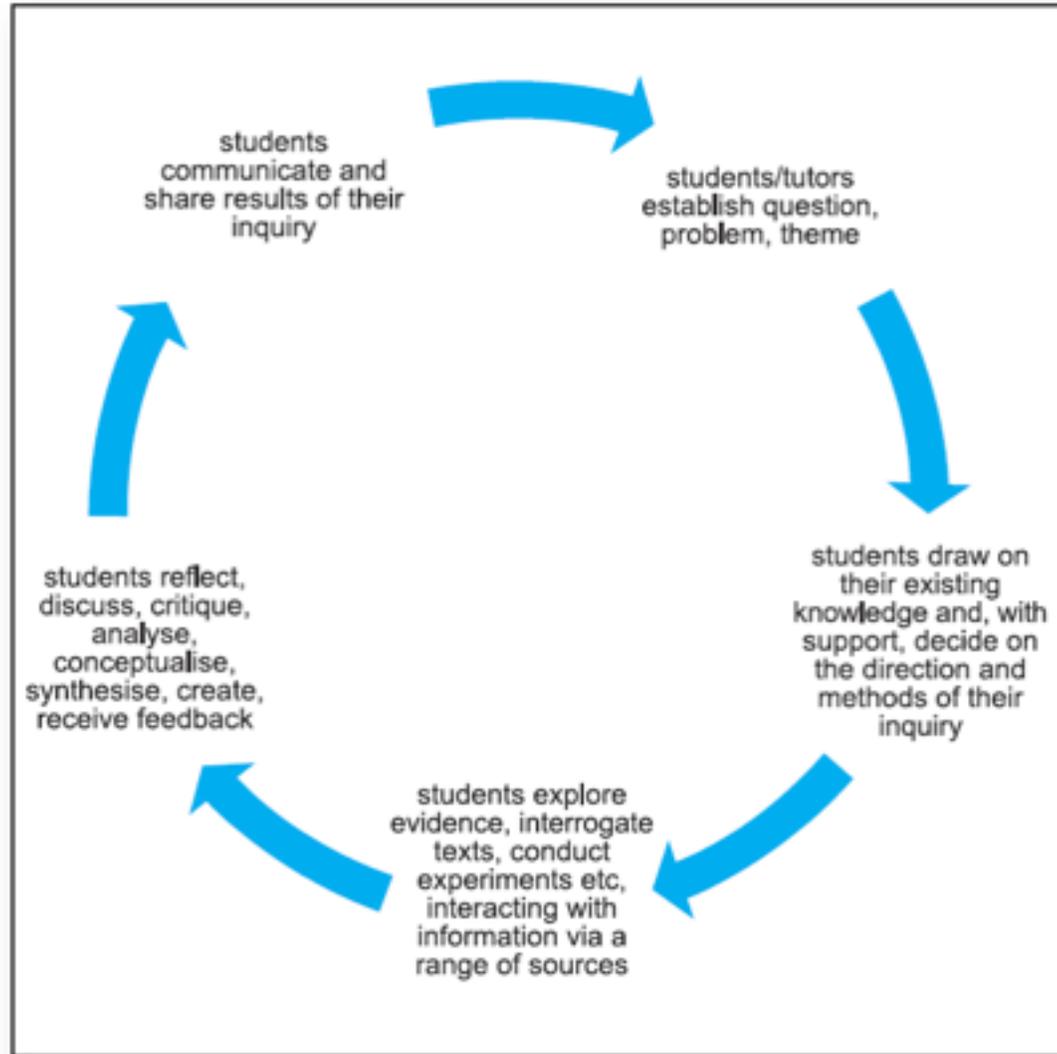


Figure 1: An EBL Cycle (Sheffield Companion p.6)

## 2./3. Activity: Designing an enquiry into collaborative writing (in groups, 15 minutes)

Imagine that you are participants in a programme that uses enquiry-based learning as a method of researcher development. You and your peers have chosen to improve your knowledge and skills of effective collaborative writing.

Your task as a group is to discuss how you might design an enquiry that would enable you to:

- Demonstrate advanced knowledge and critical understanding of the collaborative writing process;

*and*

- Produce evidence of improvement in your own ability to write collaboratively.

You may assume that:

- `Collaborative writing' can refer to any form that professional researchers would engage in (e.g. co-authored journal article, collaborative funding bid, multi-authored teaching resource etc.).
- The scale of the enquiry is approximately that of a one-semester module, i.e. around 25% of a full-time programme of study for 3 months.

Report back on *the design issues and questions* that arose in your group's discussion. For example:

- What opportunities and problems does designing this enquiry pose for you?
- How could you find out what makes for *effective* collaborative writing?
- How might you satisfy the requirement of producing evidence of improvement in your own ability?

## 4. Discussion and review

- Shared fascination in the potential power and usefulness of EBL and collaboration as important approaches for researchers/ doctoral researchers
- Applications to our own pedagogical teaching and research practice
- Importance for skills development/ careers in HE



# What did the PhD students think?

*“... entrepreneurs [are] normally go-getters, they go there and collaborate and network so that they can build their enterprise, that’s an entrepreneur from a business point of view. However being entrepreneurial on a PhD is being able to collaborate with other researchers and being able to grasp opportunities for when you need to publish an article or something. So that’s ... [the] entrepreneurial spirit. Being able to collaborate well with other researchers.”*

*“... I’m good with statistics, with the numbers and everything ... and she [reference to a collaborator] has a different kind of view ... and she brings the ideas and then she challenges ... and then we start to have a conversation and then it goes deeper and then you go somewhere else but at times you meet at a certain point because the thing is we are not stubborn [in our views].”*

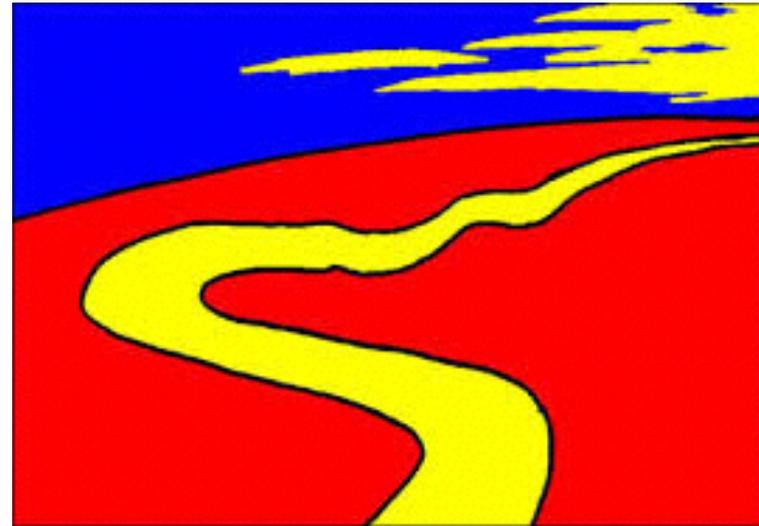
*“...you get a much broader picture and a deeper picture. You meet people, different disciplines, things get sparked off.”*

# Next steps – what have we learned?

- The best way to learn collaborative working skills is to work *collaboratively* ideally on something *real*.
- Reaching out - understanding the perspectives and experiences of both learners and educator-facilitators
- Discussing and sharing our learning - acknowledging both benefits and challenges
- An intrepid yet considered approach
- Into the ‘unknown’ - the learning journey

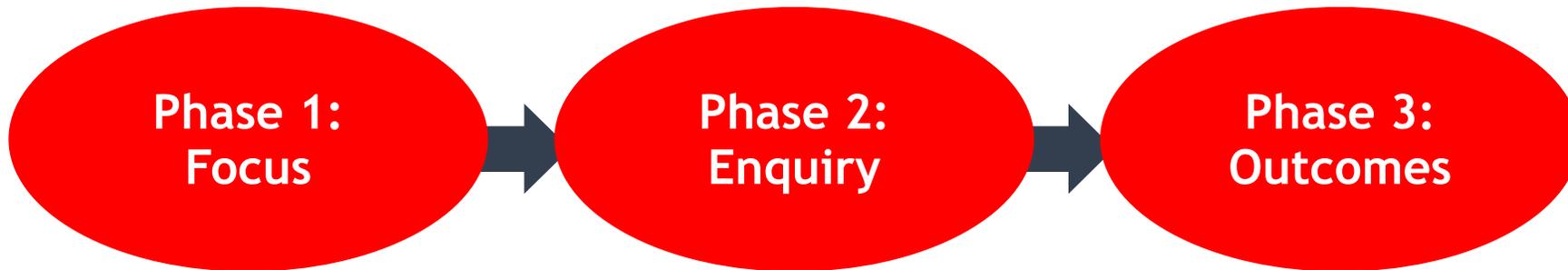
# Looking Ahead

- Encouraging conversations and further use of EBL approaches
- Feedback on materials
- ‘Open’ rather than prescriptive/ pre-defined learning
- Research and learning as a journey of discovery - impact and dissemination



# Into the unknown: The learning journey

|                   |   |   |  |
|-------------------|---|---|--|
| <b>Enquirers:</b> | <ul style="list-style-type: none"><li>• Reflect on role models, aspirations</li><li>• Review skills, developmental needs</li><li>• Choose a focus</li><li>• Select exemplars</li><li>• Plan the enquiry</li></ul> | <ul style="list-style-type: none"><li>• Discover from exemplars</li><li>• Review literature</li><li>• Test new knowledge by applying to self</li><li>• Synthesise new knowledge</li></ul> | <ul style="list-style-type: none"><li>• Present evidence of:<ul style="list-style-type: none"><li>• Applied knowledge (behavioural improvement)</li><li>• Practical knowledge (teaching others)</li><li>• Propositional knowledge (theory)</li></ul></li><li>• Self-assess</li></ul> |
|-------------------|---|---|--|



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|--------------------------|---|---|--|
| <b>The guide's roles</b> | <p>Facilitator/ Teacher:</p> <ul style="list-style-type: none"><li>• Principles of enquiry-based learning</li><li>• Professional researcher skills (e.g. the Vitae framework)</li><li>• Theories and types of knowledge</li><li>• Enquiry methods</li></ul> | <ul style="list-style-type: none"><li>• Coach (e.g. `surgery' sessions)</li></ul> | <ul style="list-style-type: none"><li>• Learner (learns the skill from the enquirers)</li><li>• Assessor</li></ul> |
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