Lessons learnt about creativity and innovation through a thriving collaboration crossing disciplinary and professional boundaries

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Improving health worldwide

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Ethics

- Please read the participant information sheet any questions?
- Session is being recorded via audio recorders please speak up
- Written contributions will also be saved flipcharts, my notes
- Consent is via participation
- You are free to leave the session at any time but it may not be possible to remove your data from the recording, although you can request for your data not to be used in the research
- All attributions in published outputs will be anonymised and appropriate steps taken to maintain your confidentiality
- Please provide contact details if you would be interested in collaborating further in this project by taking part in interviews or other types of involvement

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Session Learning outcomes

By the end of the session, you will have engaged in an ongoing, collaborative research project on creativity and innovation

- Been exposed to examples of creativity and innovation from a range of disciplinary and professional contexts
- Provided your own examples, in relation to the model
- Critically appraised the model and provided feedback on its further development
- Considered how the model may be used as a tool for enhancing students' recognition of what creativity and innovation look like in their programmes of study



A collaborative, ongoing research project

- Aims to raise awareness and recognition of "creativity" and "innovation" to enhance students' confidence and skills in these areas, and inform pedagogical development
- Objectives are to
 - Develop a conceptual model capturing the interplay between qualities and skills relating to creativity/innovation
 - Gain insights into variations/agreement in understanding across a
 - range of professional and disciplinary contexts
- Discuss the process and outcomes to date then invite feedback and collaboration to develop model further



Methodology

Data gathering from multiple sources, including:

- Notes on flipcharts from sessions
- Our notes from the workshops and analysis
- Online survey
- Interviews
- Recording and transcribing data from workshops/webinars and interviews
- Convenience sample (size unknown as yet)
- Staff and students
- Thematic Analysis



Literature review and dialogue as process

- Looked at various conceptual models and Hierarchical Taxonomies (Carter 1985 and updated Bloom - various authors) for HE and professional contexts
- Quality Descriptors (QAA and SEEC)
- Literature on relationship between creativity and innovation in organisations
 - Build upon Merx-Chermin and Nijhof's (2005): creationinnovation-learning spiral
 - Borrow from Amabile's (1988) model of creativity and innovation in organisations
- Defined against the concept of learning gain: i.e. supporting and enhancing excellence and innovation in learning and teaching (HEFCE)
- Also drew on our own discussions and reflections



Product - to date

Developed a preliminary conceptual model and applied it to four diverse case examples:

- 1. an autobiographical book on breast cancer
- 2. careers support
- 3. a game
- 4. a seminar series

Purpose of today?

- Share these examples and engage in critical dialogue
- Continue with iterative development
- Ongoing engagement in a feedback loop



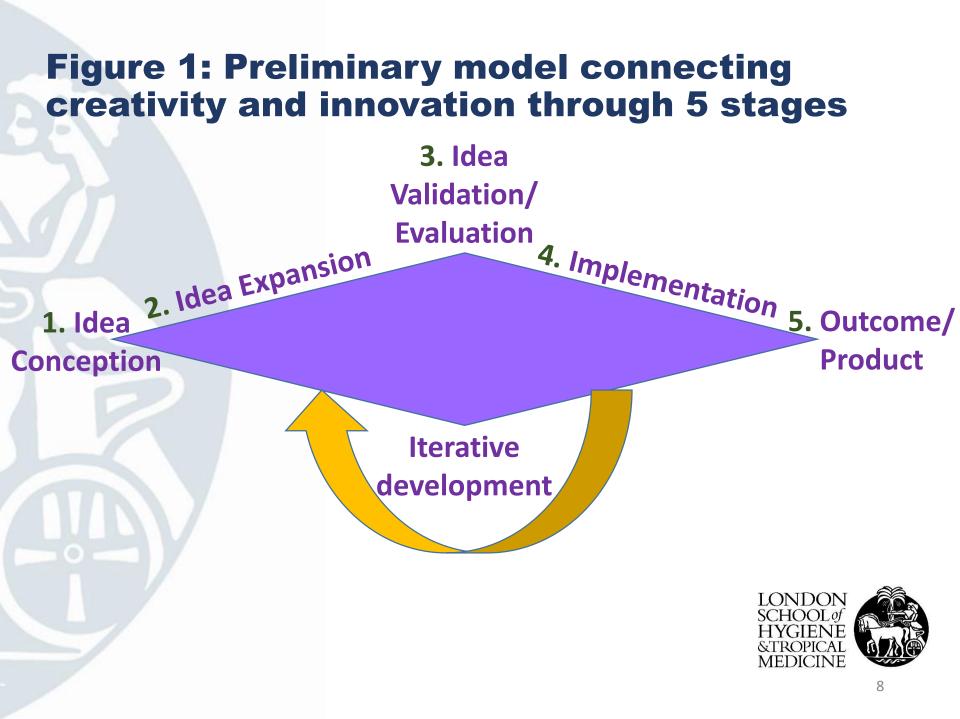


Figure 1: Preliminary model connecting creativity, innovation and related skills/qualities

and Rubin 2013,

2008, Merx-Chermin and Nijhof 2005, Munzenmaier

2002)

West

1998,

Tang

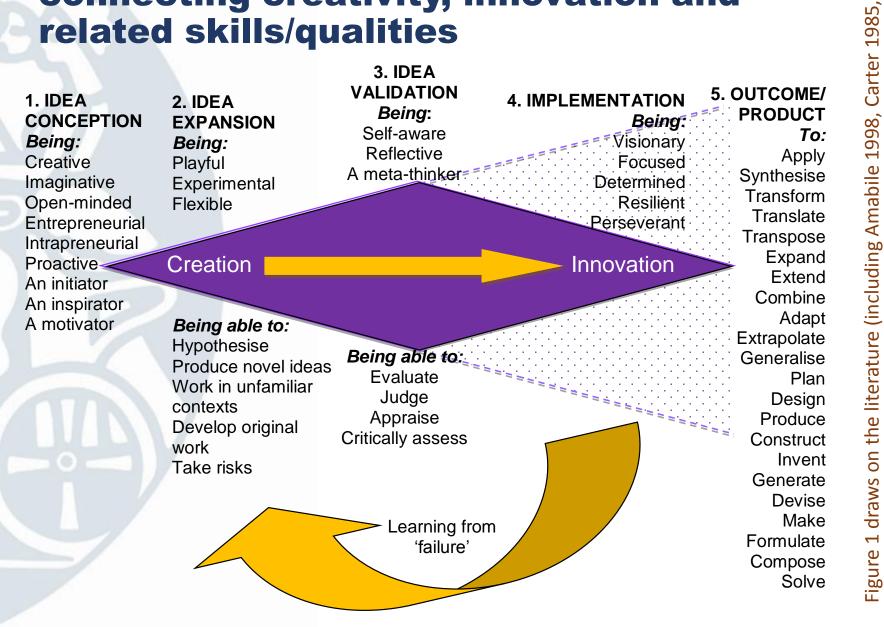
2010,

SEEC

2012,

QAA

Churches



Case example 1: Autobiographical book on breast cancer during pregnancy by Sue Lawrence

Model stage	Book title: Do you still have cleavage with just one breast?
1 Idea conception	Idea of writing the book was coaxed into action by a friend.
2 Idea expansion	How? "To silence these internal judges [regarding perfectionism], I was adamant that my book be published full of editorial flaws. The lesson for me was take a risk ."
3 Idea validation	Publisher approached understood Sue that "The book is a compilation of my journal entries and it would have to be unedited or it would lose its strength." Sue sees the lesson here as being careful who you validate your idea with and only presenting once fully formed.
4 Implementation	"Put all of yourself in or don't botherBirthing anything requires perseverance , compassion and support ."
5 Outcome/ product	"With the hard work done, the book is now a material thingavailable for sale on Amazon."

Case example 2: 'How to recognise your skills' careers workshop

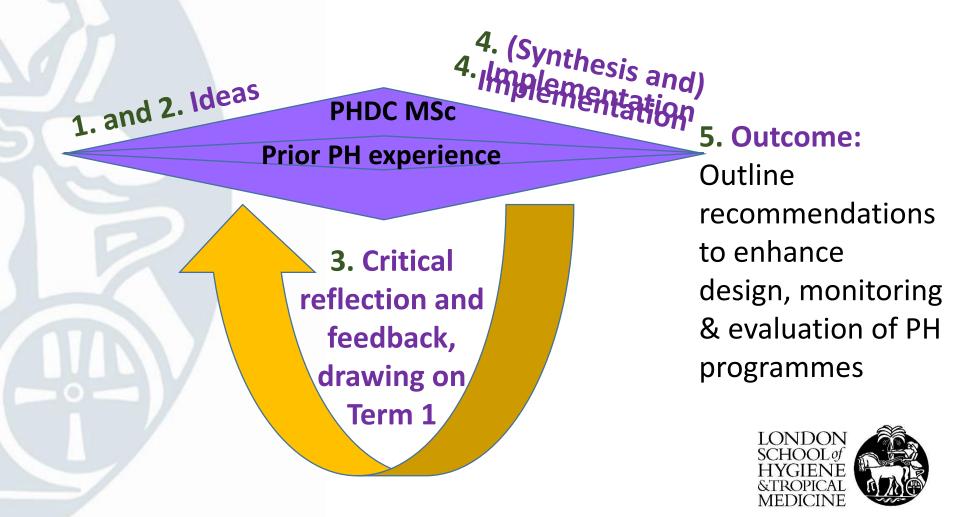
Model stage	Employability workshop for UG & PG students
1 Idea conception	<i>Careers consultant</i> – need to help students to identify and own their skills in an imaginative and creative way
2 Idea expansion	Careers consultant (CC) – experimented with asking 'What are you brilliant at?' Students (S) – playful approach, dared to identify strengths
3 Idea validation	 <i>CC</i> – reflected on qualities students self-identified and evaluated them through common skills language <i>S</i> – exercise encouraged self-awareness and provided a safe opportunity to reflect on what qualities they offer
4 Implementation	 CC – focused on importance of 'decoding' skills buzzwords S – learnt how this increases their future career resilience
5 Outcome/ product	 <i>CC</i> - novel employability product created which was successfully rolled out into different academic departments <i>S</i> - translate skills language, construct applied examples, and use a problem solving approach for job applications

Case example 3: Operationalising the Perspectivity Public Health game

3. IDEA 4. IMPLEMENTATION 5. OUTCOME/ VALIDATION 1. IDEA 2. IDEA PRODUCT Visionary Self-aware & CONCEPTION **EXPANSION** Focused reflective Determined ==== Creative Playful Ongoing reflection, Lightbulb Experimental Resilient evaluation & moment Flexible Perseverant tweaks _===== following a Formative stage -Yes - testing, tweaking, Game now game session transition from initial sonstant revalidation professionally Imaginative idea produced. Transferring to Creation Innovation another discipline **Open-minded** What format possible? Being able i Entrepreneurial Hypothesise Meet original Ethics appro game Produce nov developer Work in unfa Proactive/ A contexts Yes motivator Develop orig Belief & work Yes commitment Take risks LONDON £/\$ commitm SCHOOL HYGIENE &TROPICAI

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Case example 4: Public Health in Developing Countries (PHDC) MSc Student Seminar Series



Purple area = learning gain?!



Reflections

- Interdisciplinary and interprofessional collaboration – unintended consequences:
 - Enthused via shared values
 - Broadened our mind-sets
- Model is a visual tool for reflective discussions
 - Increases awareness and recognition of creativity/innovation skills
 - Highlights the value of lessons learnt from attempts and feedback, and importance of 'safe' validation
 - The case examples give a sense of the diversity of interpretation and uses of the model





References

- Amabile TM. A model of creativity and innovation in organizations. Research in Organizational Behaviour. 1988 [cited 13 Apr 2016];10:123-67. Available from: <u>http://web.mit.edu/curhan/www/docs/Articles/15341_Readings/Group_Performance/Amabile_A_Model_o_f_CreativityOrg.Beh_v10_pp123-167.pdf.</u>
- Carter R. A taxonomy of objectives for professional education. Studies in Higher Education. 1985 [cited 10 Sept 2015];10:135-49. Available from: <u>http://dx.doi.org/10.1080/03075078512331378559</u>.
- Churches A. Bloom's Taxonomy Blooms Digitally. TechLearning. 2008 [cited 10 Sept 2015]. Available from: http://www.techlearning.com/news/0002/bloom39s-taxonomy-blooms-digitally/65603.
- Merx-Chermin M and Nijhof WJ. Factors influencing knowledge creation and innovation in an organisation. Journal of European Industrial Training. 2005 [cited 15 Apr 2016];29:135-47. Available from: <u>http://dx.doi.org/10.1108/03090590510585091</u>.
- Munzenmaier C and Rubin N. Perspectives Bloom's Taxonomy: What's Old Is New Again. California, USA: The eLearning Guild; 2013 [cited 10 Sept 2015]. Available from: <u>http://www.elearningguild.com/content.cfm?selection=doc.2688</u>.
- Quality Assurance Agency for Higher Education (QAA). Enterprise and entrepreneurship education: Guidance for UK higher education providers. Sept 2012 [cited 14 Apr 2016]. Available from: <u>http://www.qaa.ac.uk/en/Publications/Documents/enterprise-entrepreneurship-guidance.pdf</u>.
- SEEC. Credit level descriptors for Higher Education. Southern England Consortium for Credit Accumulation and Transfer (SEEC); 2010 [cited 14 Apr 2016]. Available from: <u>http://www.seec.org.uk/wpcontent/uploads/2013/seec-files/SEEC%20Level%20Descriptors%202010.pdf</u>.
- Tang HK. An integrative model of innovation in organizations. Technovation. 1998 [cited 13 Apr 2016];18:297-309. Available from: <u>http://www.sciencedirect.com/science/article/pii/S0166497298000091</u>.
- West MA. Sparkling Fountains or Stagnant Ponds: An Integrative Model of Creativity and Innovation Implementation in Work Groups. Applied Psychology. 2002 [cited 15 Apr 2016];51:355-87. Available from: <u>http://onlinelibrary.wiley.com/doi/10.1111/1464-0597.00951/abstract</u>.

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Questions to discuss

- 1. What do the terms "creativity" and "innovation" mean in your own professional/disciplinary contexts? Jot down one or two examples per group of your own creative/innovate practice.
- 2. Consider the model and discuss whether you can apply it to the example(s) you have provided.
- 3. What do you gain, if anything, from using the initial conceptual model (Figure 1) as a tool for enhancing pedagogy?
- 4. Can you make any suggestions for improving the model's potential for empowering staff and students to better understand and/or recognise LONI creativity and innovation?

