Using engaging pedagogy to develop entrepreneurial creativity of STEM students: reflections from the Ideate project

by Lesley Drumm
l.e.drumm@staffs.ac.uk
Staffordshire University
Objectives

• The challenge – to convince HE STEM educators that they have the skills to deliver entrepreneurial education

• How – through experience of delivering the Ideate module
Overview

• What is entrepreneurism?
• What is entrepreneurial creativity?
• Background to the module/project
• What was learned?
• Conclusion
• Questions
What does being entrepreneurial mean?

• That you’ve set up and managed a successful business

BUT

• Is this necessary for you to be entrepreneurial?

Entrepreneurs exist within businesses - intrapreneurs
Competencies

• Intrapreneurs act like entrepreneurs
• So what competencies distinguish these people?
  – Identifying business opportunities
  – Evaluating business opportunities
  – Decision making
  – Networking
  – Identifying and solving problems
  – Oral communication abilities
  – Innovative thinking


Many of these require entrepreneurial creativity rather than specific business skills
Ideate

Developing entrepreneurial competencies in an intercultural and interdisciplinary way

- Partners (Finland, Slovenia, Lithuania, UK) – EU funded
- Cohort details – 4 students from each partner, plus mentors
- Experiential, problem solving team environment
The Ideate Challenge

• What if there was easier access to quality food?
• Schedule
  – Research and discussion prior to mobility in Manchester – 4 idea areas selected
  – Manchester – team building, brainstorming, developing personas, idea selection, research planning, final selection of 2 ideas
    • Short Keynotes, student exercises, student presentation, feedback
  – Interim research and collaboration
  – Slovenia – customer value, business model canvas, refining ideas, prototyping, pitching practice, refinement, pitching to entrepreneurs
  – The Winners!
Changes for cohort 2

- Finland and Lithuania
- Inter-mobility time reduced
- 4 teams will remain for 2\textsuperscript{nd} mobility
- Refinement of activities
- Role of mentor more clearly defined
- Assessment
  - Changed to reflection
- Questionnaire to gain quantitative data
Toolkit

• Under construction
  – Website with resources and information to enable lecturers to use material developed during the project
  – Initial prototype available at: Howto.Ideate.me
At the end of the module, students were asked:

• What was different about the module?
  – Travel, interdisciplinary, collaboration, cultures, chaos, freedom, many presentations, more pressure, creative, intensive

• What did you learn on this module?
  – Presentation skills, communication, intercultural teamwork, culture knowledge, interdisciplinary communication, meeting challenges, compromise, listening, business knowledge, generating ideas, negotiation, flexibility, evaluation of ideas, business attitudes and trust
And what did I learn?
What relevance does this have for you?
Finally

Ideate students developed entrepreneurial competencies/creativity by:
– Identifying business opportunities
– Evaluating business opportunities
– Making decisions
– Networking
– Identifying and solving problems
– Practicing oral communication
– Thinking innovatively
Through Engaging Pedagogy

- using Kolb’s learning cycle
- In an Interdisciplinary context
- Engaging a social constructivist theory
- Developing metacognition to enhance flexible strategic thinking
Thank you, any questions?


With the support of the Lifelong Learning Programme of the European Union.

This presentation reflects the views only of the author(s), and the EACEA/European Commission cannot be held responsible for any use which may be made of the information contained therein.