Key factors for successful interdisciplinary research

WIMEK symposium
8 November 2012, Karen Fortuin

Introduction

Are we talking about the same things?

Explanation of voting system

Select 'CH': channel 41

What is your position?

1: Professor (HL)
2: Associate / assistant professor (UHD or UD)
3: PhD / MSc student
4: None of these

What do you consider yourself?

1: Natural scientist
2: Social scientist
3: Non of these

Why interdisciplinarity?
What is your personal motivation?

1: Growth of knowledge  
2: Societal benefits  
3: Personal rewards

Science for impact

- Stakeholders come in?
- But when?
- What is their role?

Statement 1: Stakeholders should

1: -1-  
2: -2-  
3: -3-  
4: -4-

be involved in defining the research agenda

be involved throughout the research process

Statement 2: Role of science & scientists

1: -1-  
2: -2-  
3: -3-  
4: -4-

The goal of science is to provide better theoretical understanding of what we perceive

Scientists have a role in solving problems / mediating competing claims

Statement 2: Role of science & scientists

1: -1-  
2: -2-  
3: -3-  
4: -4-

Theoretical understanding

Solve problems
Interdisciplinarity yes, but on what level?

T-shaped skills

Interdisciplinarity on a project level

- Initial framing of the proposal and PhD projects is crucial
- Define focal themes & research questions jointly & clearly
- Establish an accountability strategy
- Develop formal & informal communications strategies
- Address temporal & spatial scale issues
- Recognize and respect timing issues
- Target interdisciplinary training
- Identify mentors to focus on team integration issues

(Morse et al., 2007)

Traits and skills of an interdisciplinarian

What about team members?

- Are flexible and creative
- Are committed to integrated project
- Are accountable
- Adhere to team-created timelines, but adaptable
- Communicate actively to resolve/overcome barriers
- Have experience working in teams and across discipline

Key to improving interdisciplinary research is learning

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree
Acknowledge fundamental differences in assumptions & values in interdisciplinary research and be aware of the continuous collective learning that is required.

Interdisciplinarity – Walking together with different equipment.

Panel discussion

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Stimulating inter- and transdisciplinary research is

1: Strongly Agree 2: Agree 3: Disagree 4: Strongly Disagree

48% 36% 14% 2%

WIMEK should stimulate inter- and transdisciplinary research through financial incentives

WIMEK should involve research institutes, industry, policy and NGO’s much more in their research activities

All WIMEK PhD’s should develop skills for inter- and transdisciplinary research

1: Strongly Agree 2: Agree 3: Disagree 4: Strongly Disagree

26% 38% 19% 17%
Give a priority. WIMEK should stimulate inter- and transdis. research through:

(1 = first priority; 2 = second; 3 = third)

1: Financial incentives
2: Education & training
3: Promotion & lobbying
4: Involving third parties