Knowledge Integration across Disciplines

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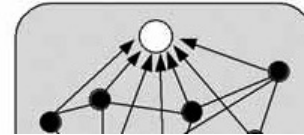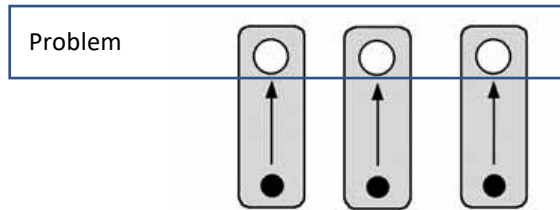
IS-GEO/iHARP Workshop

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INTERDISCIPLINARY RESEARCH CONTINUUM

Developmental process of converging through time

Multidisciplinary

Interdisciplinary

Problem

Pennington et al. (2020)

Interdisciplinary teamwork involves learning

- Deluge of new concepts and vocabulary that don't fit one's existing mental models
- New collaborators with different goals, values, and behaviors – different disciplinary cultures
- Unfamiliar data, methods, assumptions, epistemologies (what is a valid science)
- New tools

Godemann, 2008; O'Rourke et al., 2013; Pennington et al., 2013; Gosselin et al., 2020; Pennington et al., 2020)

Share and Link Your Research

1. **Individuals organize their 'messy' thinking by creating a visual**
2. **Turn-taking – individuals explain their thinking using the visual (5 mins each)**
3. **Individuals jot down potential linkages on-the-fly**
4. **Turn-taking – Individuals share their potential linkage list**
5. **The team starts from scratch co-creating a visual that incorporates one or more linkage – stop by 2:30**
6. **Team reflection on the process – what was difficult and what helped? List 3-5 barriers and 3-5 aids**
7. **Return to main room**

I will broadcast messages when it is time for the next task

Presenter: sharing your research concept map

- Objective: **simplify and organize** the messy knowledge in your head about your research area
- In a way you believe will make sense to the listeners
- Avoid too much detail – 6-8 main points
- Avoid jargon
- Explain disciplinary terms
- Hold to your alloted time

Listener: Engage in "active listening"

- Verbal and non-verbal involvement
  - Key factor: reading facial expression– don't be distracted
  - Express interest
  - Clarify terminology
  - Ask for a repeat of the statement
  - Paraphrase what you think has been said
  - Ask thoughtful questions for elaboration
  - You are trying to learn the other perspective
- DON'T
  - DON'T hijack the discussion - You will get your turn
  - DON'T spend time thinking about what you will say
  - NO email/text/other technologies

Report out (10)

What were the challenges and aids?

Use the chat to list them

Wrap up (2 min)

- Explaining your research to someone outside your discipline is very difficult
- Pay attention to your jargon and assumptions
- Listen actively to others
- Use diagrams as a way to organize your thinking in advance of explaining
- Design a lightly structured, participatory process

QUESTIONS/COMMENTS?