



Interdisciplinarity in the 21st Century

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Plan of the presentation

- Definitions and concepts
- Interdisciplinarity and agricultural research for development
- An interdisciplinary researcher?
- Training and capacity building for interdisciplinarity today
- Some final ideas



Some definitions

(Piaget, 1970)

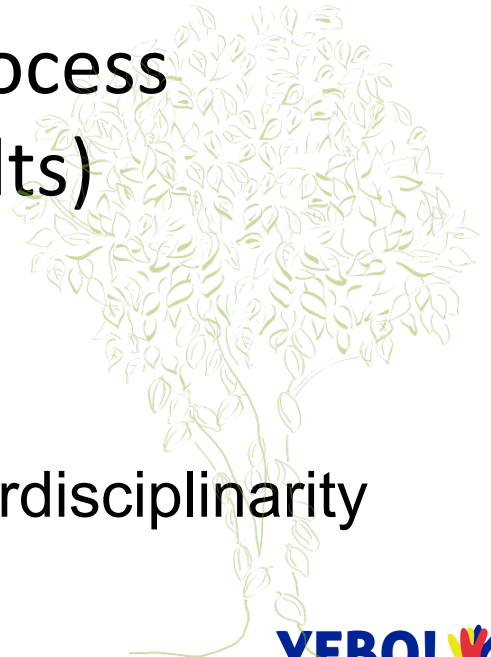
- Multidisciplinarity (juxtaposition)
- Interdisciplinarity (interaction)
- Transdisciplinarity (beyond disciplines, new entity)



Post Normal Science

(Funtowicz et al. 1990)

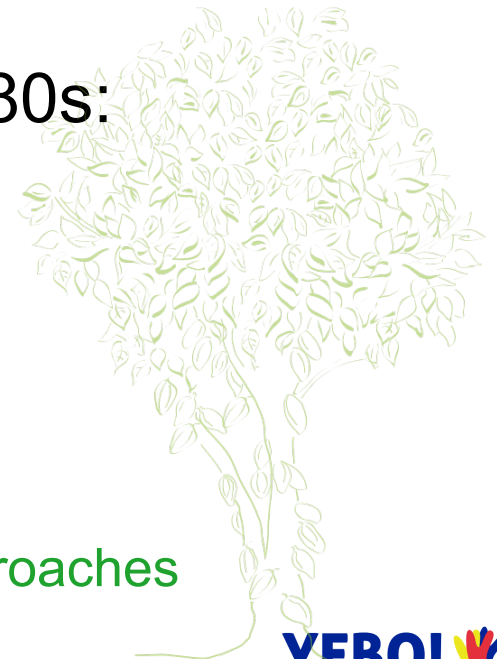
- Complexity
 - Irreversibility
 - Constructivism (through-process matters as much as end-results)
 - Participation
 - System-thinking
 - Action research
- Interdisciplinarity



Interdisciplinarity and Agricultural Research for Development

(Blundo-Canto et al. 2020)

- Agronomic research is a creation of the 19th Century
 - Positivist approach until the '70s (green revolution)
 - Constructivist approach from the '80s:
 - System modelling
 - Participatory processes
 - Multi-criteria analysis
 - Territorial observatories
 - Living labs
- => interactions, **interdisciplinary approaches**



An interdisciplinary researcher?

- In Cirad, 100% young researchers have a PhD, often a Post Doc
- A specialist, open to other disciplines
- Attitudes, posture
- Experiences in the field, in TEAMS
- Leadership capacity
- Interaction with stakeholders
- Participatory approaches and methods



Training and capacity building for interdisciplinarity

(Workshop 2019, Un. Toulouse Midi Pyrénées)

- Yet no University curriculum on Interdisciplinarity=>proposals for: Modules? Diplomas? MSc?
- Still need of strong disciplinary competence
- Advantages and risks (careers, publications, etc.) of an interdisciplinary profile
- Proposals for skills to acquire
 - Adaptation capacity
 - Exercises in teams, auto-reflexion, individual and collective functioning
 - Skills on approaches/methods to promote interdisciplinarity
- Interdisciplinary dynamics in the two directions (Social sciences \Leftrightarrow Technical training. Ex. modelling, statistics, etc.)





Thank you for your attention