



Innovative Approaches to Researching Transdisciplinary Teamwork for Effective Science- Policy Translation in the Americas



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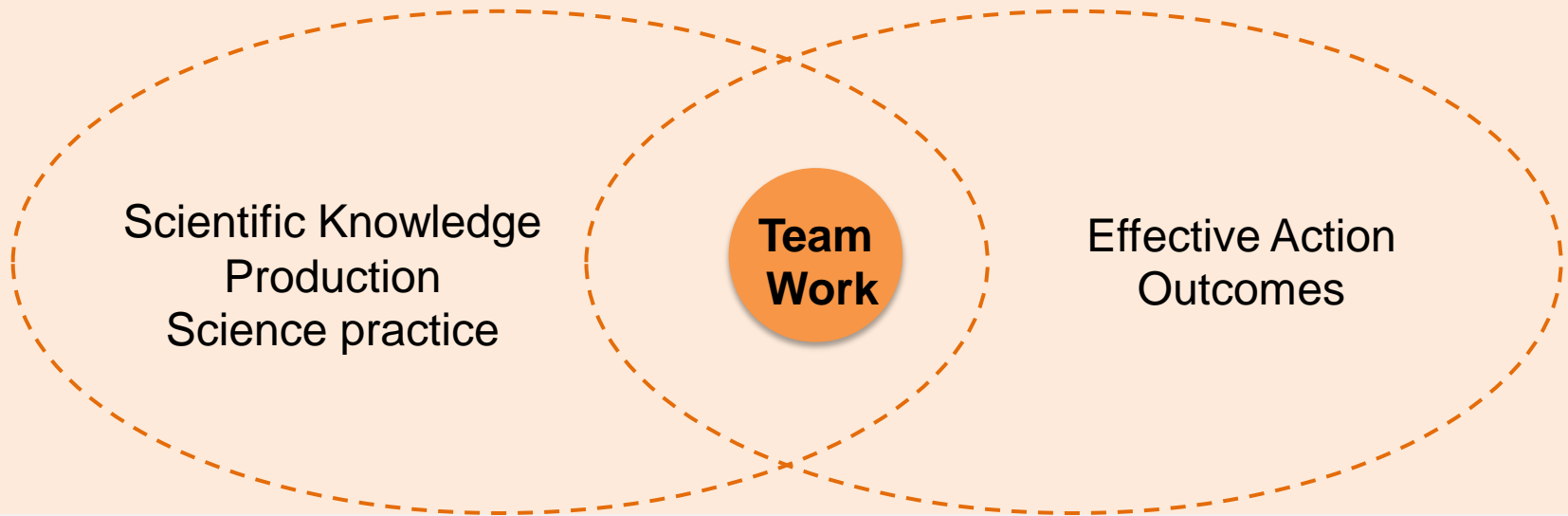
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Science

Visible Solutions

Confront global challenges

Premises



- 1) Science as practice
- 2) Team work (Interdisciplinary and Transdisciplinary)
- 3) Individual traits
- 4) Outcomes and their impact on society

Effective teamwork for action

- Individual traits

(Hilgard, 1980; Kozlowski & Ilgen, 2006)

Think (cognitive)

Feel (affective)

Do (conative)

- Levels of Outcomes

(Olsen, 1997, 2003)

Scientific Impact (articles, thesis)

Policy Impact (policy documents)

Visible solutions (on the ground actions)



Research questions

- 1) Which team member attributes/characteristics lead to ID and TD team research outcomes that successfully bridge the knowledge-action gap?
- 2) How do individual team member attributes interact to influence ID and TD team research outcomes?



The Research



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- Qualitative design
 - Survey
 - Interviews
 - SNA
 - Self-reflections
 - Document Analysis
 - Scenarios
 - Field Observations
- 22 ID & TD Projects
 - Ongoing and Completed
 - Seed Grants, Small Grants, Collaborative Research Networks
- 51 junior and senior scientists and policy makers
- 17 countries



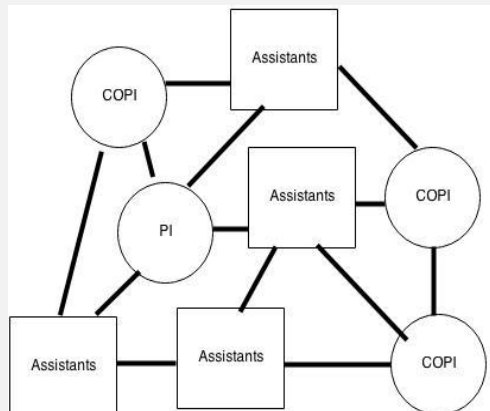
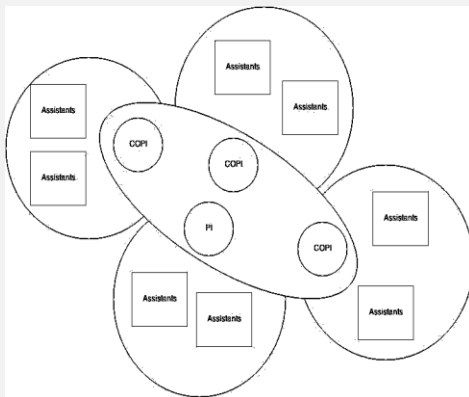
IAI Projects

Instrument design (Survey & Interview questions)



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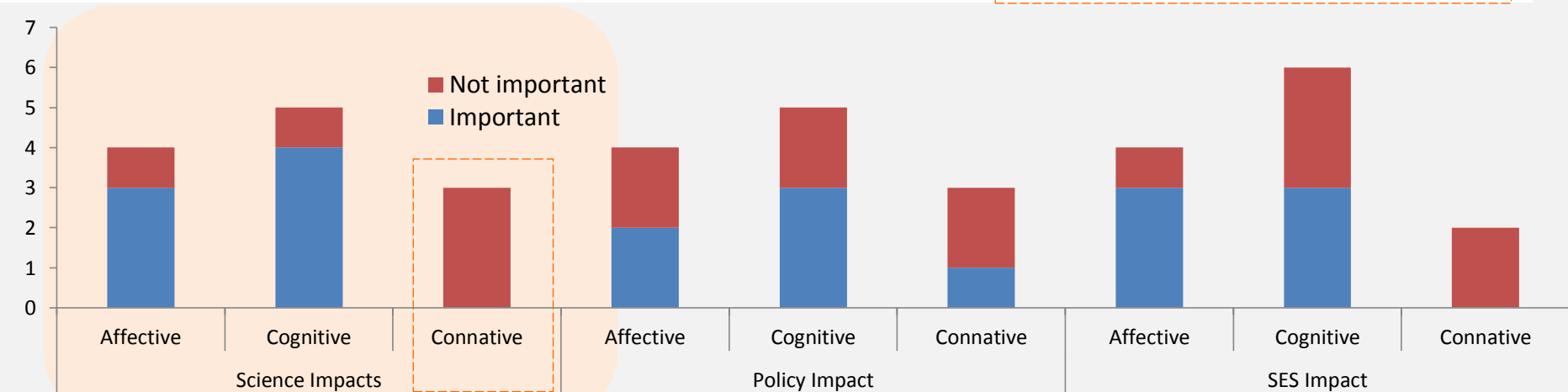
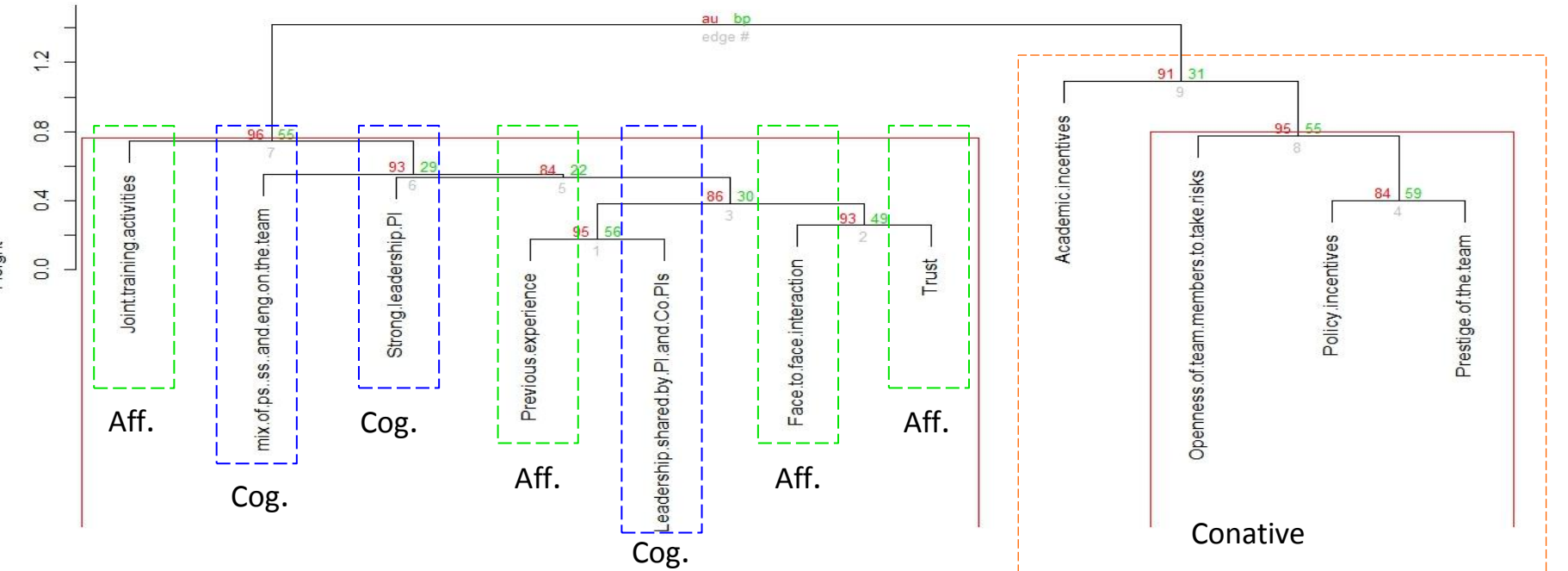
Dimension	Attributes	Item example
Cognitive	Mental models, <i>learning</i>	Learning: I know the tools and materials, resources that other team members require for conducting their work.
Conative	Incentive, <i>motivations</i>	Motivation: I prioritize team meetings of this project over other commitments.
Affective	Affect-based trust, <i>backup behavior</i>	Backup Behavior: Team work continues if a member is sick or absent.



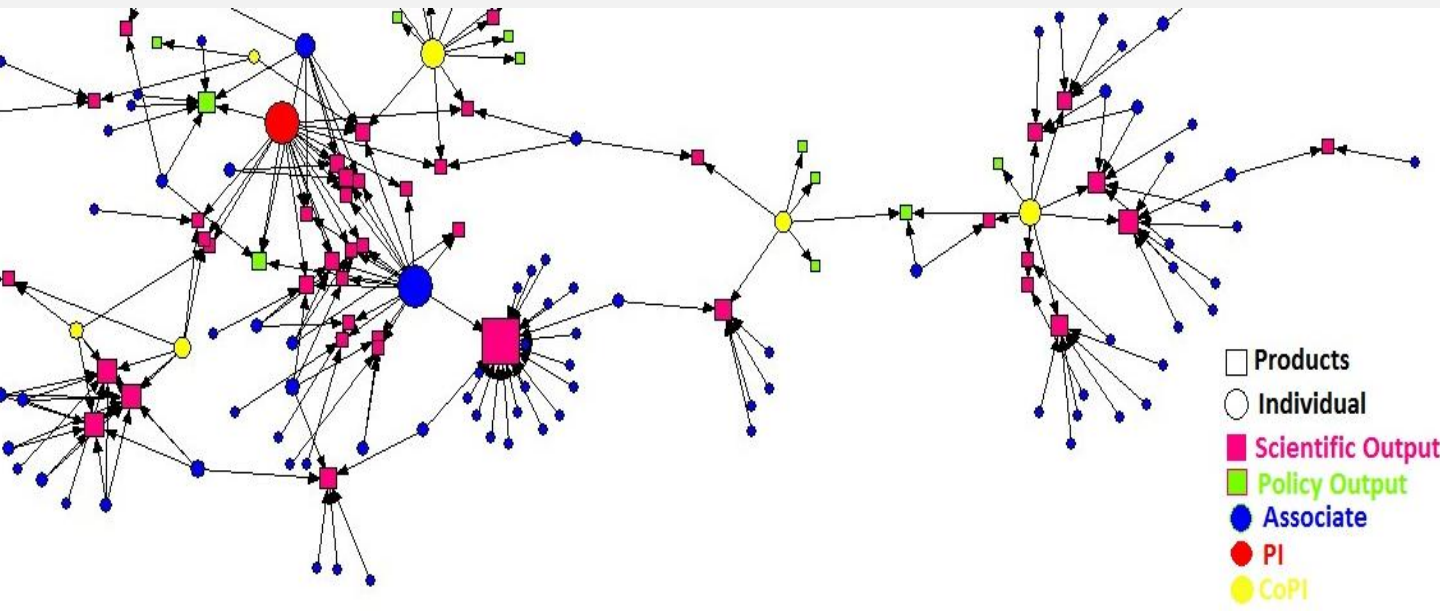
Scenarios:
Diagrams,
Representation of
possible
teamwork situations

Exploratory and Descriptive Analysis (survey)

Scientific Outcome



Data Analysis (documents and interviews)



- Social Network Analysis (documents)

- Situational Analysis (Interviews)

“I contribute my expertise on TD and ID work. That’s my role in the team”

“I choose to work with people that I know in person and people I like”

“I don’t do this for the money. I don’t get a salary. I do it because I like to work on complex teams dealing with complex topics”

“Those of us in academia, need to publish a lot and usually ID and TD research takes more time”

Preliminary Findings



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- 1) Affective and cognitive dimensions were identified as important for effective teamwork across all three levels of outcomes
- 2) Curiosity, intellectual challenge, and friendships are important incentives for teamwork
- 1) Institutional pressure to publish overrides scientists' interest and motivation to conduct ID &TD teamwork, leading to the prioritization of scientific outcomes over policy outcomes and visible solutions
- 1) To meet funding agencies' requests for ID & TD teams, researchers with ID & TD expertise may be added to projects solely to fulfill this requirement.

Contributions to SciTS scholarship



1. Innovative approaches to researching teams (scenarios and mixed analytical methods)
1. Our research is unique because it focuses on the relation between specific outcomes and individual team members' attributes and interactions
2. Our research encourages further conversations about the role of institutional constraints faced by scientists and policy makers and the impact of these to the effective translation of science to visible solutions

Thank you!



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