Bolger, P. (2021). A study of faculty perceptions and engagement with interdisciplinary research in university sustainability institutes. *Journal of Environmental Studies and Sciences*, 11(1), 115-129.

Bolger (2021) investigates the role of research centers (research institutes) in interdisciplinary research, including collaboration rates. Specifically, Bolger is interested in integration of and not simply including researchers of multiple disciplines. Bolger wanted to know the extent to which the center influences collaborative behaviors and what mechanisms these successful centers facilitated interdisciplinary research. Are interdisciplinary research centers fulfilling their goals to be interdisciplinary?

Bolger explores the perspectives and perceptions of faculty and how the centers facilitate interdisciplinary research. Bolger does this by surveying the faculty of three well-established research centers, each at a different institution. The survey asked participants about their reason for being part of the center, their perception of interdisciplinary research as a mode of addressing global issues, and the frequency with which their research was interdisciplinary. Participants also indicated the level of interdisciplinary research they engaged in. The level of interdisciplinary was defined as “within-discipline,” “short-distance,” and “long-distance.”

[As I understand it, the collaboration between researchers in the same department but with different focus areas is interdisciplinary research within the discipline. For example, two biologists who study different areas of biology. Collaboration between researchers in the same college would be seen as short distance. Researchers in the STEM fields but from differing departments are considered short-distance interdisciplinary collaborations or within super-discipline. Between super-discipline collaborations occur when the natural and social sciences are combined.]

Participants responded to questions about how the center prioritizes, supports, and increases interdisciplinary research. They also defined how the center provides support to them and ways that the center could improve on their support.

Key findings from the survey of faculty at Cornell Atkinson, Earth Institute, and Wrigley Institute include:

1. Primary Benefits of Institute Affiliation:

* Access to a network of university faculty interested in sustainability (75% average across institutes).
* Support in acquiring research funding (42% average).
* Promotion of research and organizing events (24% average).
* Prestige of being part of a leading research institute (33% average).
* Opportunities for interdisciplinary research (67% average).
* Access to external stakeholders like industry and policymakers (31% average).
* Access to institute facilities (10% average).

1. Necessity of Interdisciplinary Research:

* A significant majority (93% average) believe interdisciplinary approaches are always or usually necessary for global sustainability issues.

1. Reasons for Interdisciplinary Research:

* The most common reason was addressing specific research questions (75% average), followed by idea cross-fertilization (67% average), intellectual curiosity, and access to different skills (55% each).

1. Frequency of Interdisciplinary Engagement:

* Over three-quarters (76% average) engage in interdisciplinary work for more than one-third of their research time. Nearly half (50% average) spend more than two-thirds of their time in such collaborations.

1. Collaboration Patterns:

* Most faculty (95% average) collaborate outside their discipline, with 40% in short-distance and 55% in long-distance interdisciplinary research.

1. Institute's Role in Facilitating Interdisciplinary Research:

* Over 99% of faculty believe interdisciplinary research should be a core part of the institute's mission. 84% feel that institute affiliation has enabled greater interdisciplinary collaboration opportunities.

1. Desire for Increased Interdisciplinary Engagement:

* A significant majority (80% average) wish to participate more in interdisciplinary research.

1. Importance of Institute Support:

* Most faculty (84% average) find institute support important for conducting interdisciplinary research.

1. Perceived Supportiveness of Institutes:

* A large majority (87% average) view their institute as supportive of interdisciplinary research.

1. Key Institutional Supports for Enhancing Research:

* The most valued supports are providing seed funding (81%), fostering collaborative environments (67%), and offering workshops on sustainability problems (45%).

1. Faculty Recommendations for Institutes:

* Suggestions include enhancing networking initiatives, providing seed funding, offering education and training, and integrating humanities and social sciences more deeply.

Bolger (2021) provides comprehensive insights into the role and effectiveness of research institutes in fostering interdisciplinary research, particularly in sustainability studies. The survey of faculty members across Cornell Atkinson, Earth Institute, and Wrigley Institute revealed several key findings: The primary benefits of institute affiliation include access to a network of university faculty (75% average), support in acquiring research funding (42%), and opportunities for interdisciplinary research (67%). A significant majority (93%) believe interdisciplinary approaches are crucial for addressing global sustainability issues. The main reasons for engaging in interdisciplinary research are to address specific research questions (75%), cross-fertilization of ideas (67%), and intellectual curiosity (55%). Regarding the frequency of interdisciplinary engagement, over three-quarters (76%) of faculty participate in such research for more than one-third of their time, with nearly half (50%) spending most of their time in interdisciplinary collaborations. Collaboration patterns show that 95% of faculty collaborate outside their discipline, with a mix of short-distance and long-distance interdisciplinary research. The role of institutes in facilitating interdisciplinary research is overwhelmingly recognized, with over 99% of faculty affirming its importance and 84% acknowledging that institute affiliation enhances collaborative opportunities. Furthermore, 80% express a desire for increased interdisciplinary engagement. Institute support is considered vital by most faculty (84%), with a large majority (87%) perceiving their institute as supportive. The most valued institutional supports for enhancing research include seed funding, collaborative environments, and workshops on sustainability. Faculty recommendations for institutes emphasize enhancing networking initiatives, seed funding, education, and training, along with deeper integration of humanities and social sciences.