

## SCIENCE OF TEAM SCIENCE (SCITS) 2018 CONFERENCE

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### ABSTRACT TEMPLATE (2-page limit)

#### **Case Study of Interdisciplinary Student Research Teams: Factors, Outcomes, and Lessons Learned**

Brent T. Ladd, Center for Science of Information, Purdue University, West Lafayette, Indiana, U.S.A.

[laddb@purdue.edu](mailto:laddb@purdue.edu), (765) 496-1693

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#### **Abstract:**

##### Objective:

From 2011-2017 the Center for Science of Information (NSF-STC), with a goal of fostering a community of practice (Wenger et. al., 2002), emphasized research collaborations across eleven member universities. This paper focuses on graduate student collaborations and research teams. Pathways for collaboration were developed. Guiding questions included: 1. Is there a relationship between collaboration and scholarly outputs? 2. Do factors of research funding source, university, gender, or length of Center membership influence collaborations? 3. What lessons can be learned from student research team formation and interactions, and their ability to address interdisciplinary questions? and 4. To what extent can a community of young scholars with large geographic distribution productively collaborate together?

##### Methods:

A survey instrument was designed to capture detailed annual research outputs, collaboration levels, and associated factors. A general linear mixed model with repeated measures procedure for unbalanced longitudinal data was used to account for interdependence of individuals across sampling years, n=264 (West, et. al. 2015). Annually, a formal pathway for collaboration is offered whereby students participate in a summer intensive. Teams form around viable research projects, with opportunity to receive funding and continue collaborations for a minimum of one year. Workshops are evaluated for effectiveness. Long-term activity and outputs of teams are monitored and documented.

##### Results:

Results show significant and positive relationship between community-based research collaborations and scholarly outputs. Length of time as a community member is also positively related to scholarly output, whereas gender, university, and funding factors have no influence. Multi-year team collaborations have resulted, several with generational impacts multiplying the results. Given careful consideration of support and training, with viable pathways across domains and institutions, our community has learned that students can achieve research collaboration success typically shown only at the faculty level (Leahey, 2016). Additional lessons learned will be presented.