GENDER & TEAM SCIENCE:
Improving Collaborative Effectiveness of Research Teams
INTRODUCTION

"Team research, especially interdisciplinary research, is characterized by synergies among experts that can transform both scholars and scholarship“

– John Cacioppo, PhD, the Tiffany and Margaret Blake Distinguished Service Professor in Psychology, The University of Chicago, from the Arete Initiative website http://arete.uchicago.edu/ (2010)
Collaboration, Networking and Teams

- Connecting researchers and resources in pursuit of large collaborative projects
- Compiled a 1K+ reference Team Science resource library (and have read most of the abstracts in it!)
- Published primary research findings that inform effective collaboration, especially for science teams
- Developed and taught one of the very first-ever Team Science graduate courses, co-developed an online Team Science course
- Chaired the Science of Team Science Conference for 3 years
- Paid team science consultant for almost two dozen US universities
The Challenge

- Both interdisciplinary research and collaboration in science are on the rise
- Team Science produces more highly impactful research
- Despite decades of efforts, disparity persists between participation of men and women in science
- H2020 includes an explicit objective: “Gender balance in research teams.”
- Small body of research literature on gender and team science
- Paucity of the application of the research to policy and practice
The Opportunity
The Foundation

- Gender Differences in Research Collaboration
- Gender Diversity and Team Productivity/Performance
- Gender Differences in Expertise Recognition and Evaluation of Performance
- Collaboration Strategies and Networks
Mendeley SciTS Group

http://www.mendeley.com/groups/3556001/science-of-team-science-scipts/
Groups of Documents

http://www.mendeley.com/groups/3556001/science-of-team-science-scits/
The References

- Joshi, A. (2011). Role Models, Black Sheep, or Queen Bees?: The Effects of Women’s Incongruent Status on Expertise Recognition in Groups (Champaign, IL: University of Illinois at Urbana-Champaign).
Gender differences in research collaboration

- Real or Perceived Gender Differences in IDR Participation
- Bibliometric approach to examine gender differences in the propensity to collaborate by fields, disciplines, and forms of collaboration
- Experiences that stretch a person may foster the ability to work in teams
Gender diversity and team productivity/performance

- Gender differences in scientific productivity (scientific publishing) and lack of research collaboration
- Gender heterogeneity on teams and relationship to higher quality output
- Gender diversity has a positive effect on team processes and performance
Expertise recognition and evaluation of performance

- Differential expertise recognition of individuals in groups by gender
- Role of gender in recognizing expertise and contribution to a team
- Gender composition of teams impacts performance evaluation (team effectiveness)
- Recognition of women’s contribution to collaborative work
Collaboration strategies and networks

- Gender as a predictor of network centrality
- Gender differences in network reach
- Gender, network, connectedness, and success
- Research networking tools help uncover connections
Coauthor Reach by Gender

Reach by Age and Gender

- Male
- Female

Reach

Age
Visualize Your Own Network
This is a public portal; no subscription or login is required to access the site and browse the profiled researchers at the four institutions. The site’s semantic service of its data is available through the Semantic Web Portal.
Collaboration Analysis

Researcher Key
- Northwestern University
- University of Chicago
- Fermilab
- Argonne National Laboratory
IN THE END

“Whatever women do they must do twice as well as men to be thought half as good. Luckily, this is not difficult.”

– Charlotte Whitton, Canadian feminist and mayor of Ottawa
ACTUALLY, IT IS MORE DIFFICULT...
The Charge

- Translate Empirical Evidence Into Policy and Practice
  - Commitment for change because research indicates that it leads to better science
  - More research to identify problems and potential causes
  - Research for intervention development and testing
  - Forums for sharing information and effective practices
SciTS Listserv

- The Science of Team Science (SciTS) listserv facilitates conversation among individuals who are engaged in, studying, or managing team science, in the US and internationally. The listserv is maintained collaboratively by the SciTS Team at the National Cancer Institute, Division of Cancer Control and Population Sciences, Behavioral Research Program (http://cancercontrol.cancer.gov/brp/scienceteam) at the NIH.

- TO SUBSCRIBE: Send an email with a blank subject line to: listserv@list.nih.gov. The message body should read: subscribe SciTSlist [your full name]. Please do not include the brackets. For example, for Robin Smith to subscribe, the message would read: subscribe SciTSlist Robin Smith. You will receive a confirmation email.

- TO POST TO THE LISTSERV: Send an email to SciTSlist@list.nih.gov. Any subscriber may post to the list.

- TO VIEW THE ARCHIVES: To view the archives of all previous postings, go to: http://list.nih.gov/archives/SciTSlist.html

- TO RECEIVE MESSAGES IN A DAILY DIGEST: The default setting sends you each message as it is posted to the listserv. To receive one daily digest, instead, go to: http://list.nih.gov/cgi-bin/wa.exe?SUBED1=SciTSlist&A=1 and select “digest” as your subscription type.

- TECHNICAL PROBLEMS WITH YOUR SUBSCRIPTION? Contact the list administrator, Judy Kuan, at: kuanj@mail.nih.gov. Please be sure to state that your email is in reference to the SciTS listserv.
National Academies Consensus Report

- Assembling the science team
- Leadership, education and professional development for science teams
- Institutional and organizational structures and policies to support science teams
- Areas where further research is needed to help science teams and groups achieve their scientific and translational goals
NIH Science of Team Science (SciTS) 2015 Conference
National Institutes for Health
Natcher Conference Center, Bethesda MD
June 2-5, 2015

http://www.scienceofteamscience.org
OCTOBER 23-26, 2015 AT ASILOMAR CONFERENCE CENTER

Improve Your Research and Leadership Capacity


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