

Creating and Connecting Champions for Diversity in the Geosciences:

Hearts of GOLD

P. Grady Dixon

Fort Hays State University

71% of women and 41%

of men reported being

sexually harassed when

conducting science-

related field research

Black women

report interest in STEM

at rates higher than white

women (23% vs 16%), but

only 8% of black women

complete STEM degrees as

opposed to 10% of white

women

Hamilton 2014/

Kathy Quardokus Fisher Eric Kaufman LaToya Myles

Carolyn Brinkworth

Brokers

Events

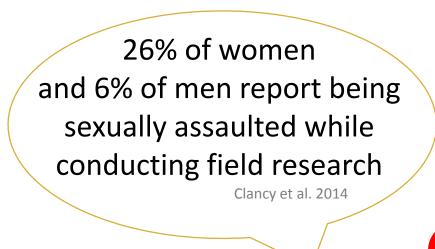
Bridges

Denise Simmons

fhsu.edu/geo/gold

Abstract

Geosciences currently trails other STEM fields in the recruitment and retention of underrepresented groups. However, we are testing a new professional-development program for established scientific leaders in the geosciences, to give them the content knowledge, tools, and skills needed to become champions of change for diversity. By targeting senior scientists who are already well-respected in the field, our project capitalizes on their reputations, networks, and social capital to build them into diversity champions with the power to make significant cultural change in their institutions and the wider field. The professional-learning sessions are called "GOLD Institutes," where GOLD is an abbreviation for Geo Opportunities for Leadership in Diversity. These GOLD Institutes occurred in Colorado Springs, Colorado, and were led by diversity-training experts from the Knapsack Institute during July of 2017 and 2018. Participants engaged in lessons of diversity, equity, and inclusion and they planned specific actions to lead change in their home organizations. In this preliminary report, we use case-study analysis to investigate how participants of the first session (July 2017) enacted change strategies.



Minority job applicants who resort to "resume whitening" are more than twice as likely to receive a callback. Kang et al. 2014

40% of women of color reported feeling unsafe in the workplace due to their sex or gender; 28% of women of color reported feeling unsafe because of their race.

Florida International University

Virginia Tech

NOAA

National Center for Atmospheric Research

University of Florida

@nsfgold

Methods

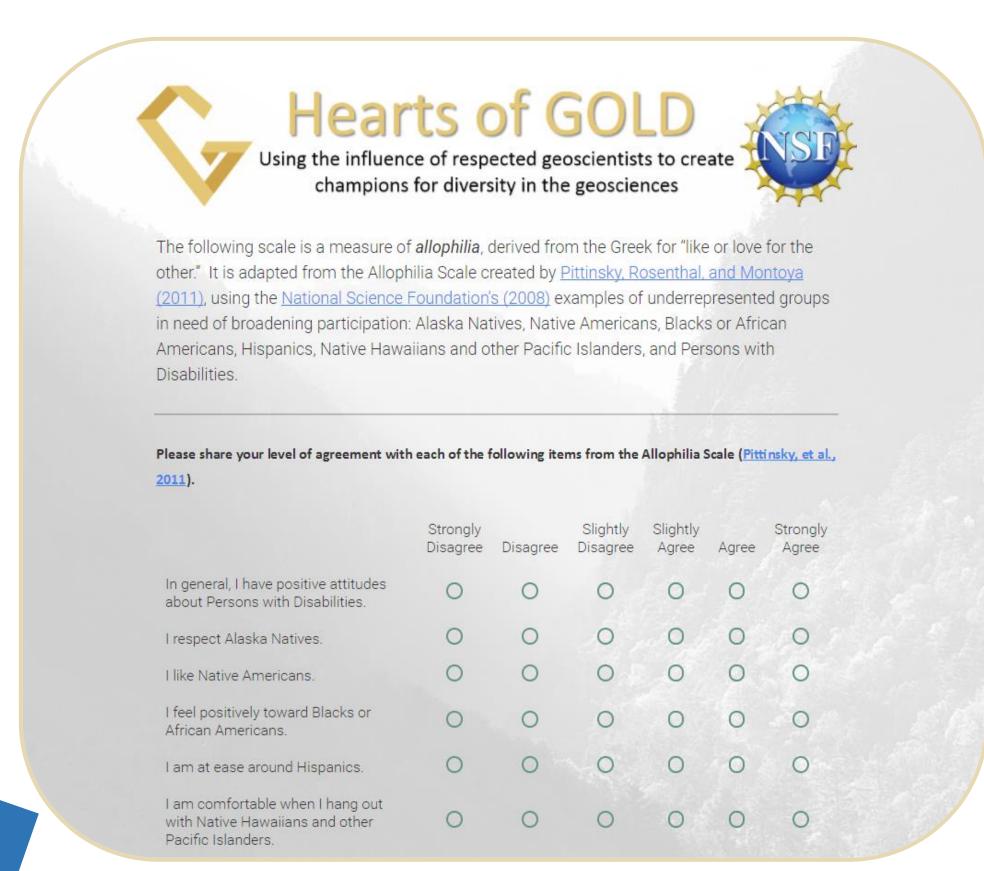
GOLD Institute

Two-day workshops (summer 2017 and 2018) designed as "intensive" training in diversity, equity, and inclusion specifically for geoscientists.





Surveys: Pre-Institute; 1 week after Institute; 1 year after Institute



Negative intergroup attitudes

Positive intergroup attitudes

Prejudice reduction → Prejudice

Allophilia enhancement—➤ Allophilia

Champions for Diversity

should be:

Role Models: allophilia (love of the other); affection, comfort, kinship, engagement, and enthusiasm(Pittinsky 2005)

Change Agents: facilitate the adoption of new ideas via changes in structures, culture, and practices

Research Questions

Role Models:

To what degree do participants express positive attitudes towards others?

Change Agents:

How do participants use bridges, create events, and/or acts as brokers to facilitate change in their home community?

Interviews: 11 participants asked about their activities in year after GOLD Institute. Responses were coded as "bridge," "broker," or event.

Term	Code Definitions
Bridge	Artifact, tool or document that can be understood by people in different communities.
	Discourse which allows people to negotiate meaning across boundaries.
Broker	Person bringing new ideas from the workshop back to their job.
Event	Physically brings the community together to help it develop a new identity.



cpaess.ucar.edu/gold

Results

	Hearts of GOLD Participant Self-Ratings				- Validation Study	
Subscale	Before (n=18)	1 Week Post (n=15)	1 Year Post (n=8)	All (n=41)	Subjects (n=200)	
Affection	5.31 (1.18)	5.25 (0.63)	5.22 (0.65)	5.27 (0.90)	4.41 (1.12)	
Comfort	4.88 (1.19)	5.20 (0.71)	5.13 (1.01)	5.04 (0.99)	4.03 (1.27)	
Kinship	3.39 (0.94)	4.16 (0.90)	3.96 (1.23)	3.78 (1.03)	3.03 (1.20)	
Engagement	5.13 (1.19)	5.28 (0.67)	5.25 (0.46)	5.21 (0.89)	3.76 (1.20)	
Enthusiasm	4.51 (1.19)	5.00 (0.76)	4.75 (1.50)	4.74 (1.11)	3.56 (1.20)	
Allophilia - All	4.72 (0.96)	5.01 (0.52)	4.90 (0.84)	4.86 (0.79)	3.80 (1.01)	

Ranking	Theme	Participants
Small adjustments to	Provided GOLD Institute material as a resource (article or definition)	4
activities by using pre- existing bridges	Discussed or facilitated discussion of DEI with colleagues outside of the local workplace	2
	Discussed or facilitated discussion of DEI with the GOLD Institute network	5
Substantial adjustments to activities by developing new	Wrote a community-guiding document on diversity, equity, and inclusion (e.g., white paper)	2
bridges	Wrote a public blog, article, and/or newsletter	4

Ranking	Theme	Participants
Small adjustments to prior	Makes a choice to attend DEI lunches or professional development	4
activities	Has had informal conversations with colleagues about DEI	2
	Includes discussion of DEI as part of hiring meetings	5
	Discuss DEI at faculty meetings	2
	Developed/developing/plans to create a DEI talk/workshop	4
Substantial adjustments or developing new activities	Create a process for strategic planning, statement, policy development	2

Ranking	Theme	Participan
Small adjustments to prior	Noticing importance of DEI in day-to-day situations	8
activities	Hiring procedures or student acceptance influenced by DEI	5
Substantial adjustments or	Resource sought out by others	1
developing new activities	Created events where brokerage could take place	3

Discussion

- We identified at least 40 "Champions for Diversity" who see the need to increase diversity in their disciplines
- They scored higher on allophilia scale than a control group
- Our response rate was much higher than expected
- All participants took actions to create change after our training
- Some actions were more impactful than others
- Some actions could/should lead to future actions by others
- It is clear that even well-meaning scientists need help
- Continued analysis of interviews (including Year 2) will add to results