URGE Policies for Working with Communities of Color for Geoscience Education Research Division of the National Association of Geoscience Teachers (NAGT)

This is what was found by the Geoscience Education Research Division of NAGT on Policies for Working with Communities of Color as well as plans for improved processes and/or needed resources.

Pods may have members from a range of career stages and involvement in the development and execution of research projects, and pod members may have different experiences or different perspectives when responding to these questions. Consider this in the summary document and focus on capturing responses that are representative of the range in your pod.

- **Audit of previous interactions with communities of color at our organization:**
  - *E.g.* How many research projects were undertaken in countries or regions with communities of color, how many of those included meaningful interactions with those communities of color? Briefly describe one or more example projects to provide context for the following questions.

While not directly representing the organization, NAGT GER members have pursued framework- and literature-based research on issues impacting communities of color. However, community members of color are rarely co-authors, and do not appear to have been surveyed/interviewed about their experiences at this point in time.

Examples of literature- and framework-based research on issues impacting communities of color:


Examples of data-based exploratory research on issues impacting communities of color:

While not directly representing the organization, NAGT GER members have pursued data-based exploratory research on issues impacting communities of color. The data-based research question was driven by NAGT GER member’s experience participating in NOAA-funded HBCU-based graduate geoscience program, NOAA-sponsored undergraduate summer research program, and NASA-funded high school summer research programs purportedly oriented towards advancing diversity in geosciences. These experiences supported routine interactions with communities of color in geosciences in New York and Maryland. The purpose of sharing the data was to bring to mind the poor representation of NSF Broader Impact efforts targeted at addressing underrepresentation in the geosciences and suggest efficient pathways to act.


- **What worked well in these interactions?**
  - *E.g. Using local names for landmarks or features, adhering to restrictions and customs such as not scheduling outreach meetings/events during hunting season*
Listening to experiences of members of communities of color. Observing interactions between communities of color and well-established, senior geoscience community members. Critically examining incongruence between diversity program intentions and reality. Mindfulness of one's own positionality, and the knowledge limitations/biases this invites.

Spend time developing relationships with communities so that research projects can be truly collaborative. (Helps to find someone who works in the community already who can introduce you to others).

We have focused on spotlighting researchers and papers from people of color in our GER newsletter, asked researchers to be invited speakers at our conference sessions (and provided pay for the latter).

- What did not work well, and how can this be better addressed in future plans?
  - E.g., We did not include priorities of local communities of color when developing our proposal, and to address this in the future we will include community member(s) in the early stages of proposal planning and writing as collaborators

A deficit perspective is deeply entrenched in the research and program design associated with increasing diversity in the geosciences. Researchers can interrogate their own positionality and biases, as well as long-established research frameworks and conventions that present obstacles to surfacing effective and non-harmful pathways for advancing diversity in the geosciences. Greater orientation towards listening to and including communities of color in education research pursuits can help illuminate and advance.

It can be helpful to explore perspectives from domains that have been historically more oriented towards valuing participatory research and cultural competence, such as the evaluation community:


Other resources include:


Qualitative research and the richness with which qualitative methods (when done well) attend to the identities and backgrounds of both the researcher and study participants has also been suggested as one way to raise awareness of identity, power, and privilege in geoscience education research (see Matteis, Murphy, & Marin-Spiotta, 2019). This is as opposed to quantitative methods, which may be prone to erasure when small sample sizes are present for certain demographic groups, and in which researcher positionality and rich descriptions of participant identities are not traditionally expected.

● Are there ways to improve the outcome of projects already undertaken?
  ○ E.g., Work with and compensate community members to translate research results and outreach materials into local language, include acknowledgements in forthcoming publications and presentations

Advocate to the editors of NAGT’s journal, editors of NAGT’s GER newsletter, and/or conference planners of Earth Educators’ Rendezvous that at least one co-author should be represented when the a community of color is described in the research, or the lands upon which native people currently reside or are of cultural significance are explored or used.

Thinking about how we pick different articles to share in the newsletter (e.g., if they are on native lands do they have a native author, do they have land acknowledgments, etc….)

Make it a norm to preface webinars and talks at GSA, the EER, and other meetings with land acknowledgements. Prepare and share guidelines as to what NAGT will expect of speakers when acknowledging lands, and the reasoning behind it.

● Are there specific resources or guidelines that are needed to improve the process for planning ahead and working with communities of color?
o E.g., Additional support/funding for early planning process of projects to include forming productive and mutually beneficial connections with communities, establish a point of contact for interfacing with communities so as not to overwhelm with individual requests from researchers and collaborators

The geoscience education research community may benefit from learning about and practicing the tenets of reflective analysis in order to recognize, acknowledge, and scrutinize the influence of their own reasoning and lived experience when engaging in diversity, equity, and inclusion research (Montari, 2015).


The NAGT geoscience education research community can interrogate why NAGT community of color members, such as the HBCU group that regularly convenes at EER, have not been popularly represented as co-authors on papers dedicated to issues affecting their communities. In collaboration with NAGT communities of color members, NAGT geoscience education research community can identify pathways for greater representation and recognition of NAGT communities of color members’ insights and expertise in formal publications. One pathway is to orient future education research efforts on issues identified as important by NAGT communities of color members. In this way, research pursuits would privilege needs as perceived by the communities the research is intended to serve. This orientation had been advocated by Raj Pandya during his 2019 EER keynote.

Incorporate the guidelines stated in the first paper, both interviews, and in the Matteis, Murphy, & Marin-Spiotta (2019) paper.

- Pay attention to how demographic data are categorized (don’t lump racial categories and center “white” category)
- Reflect on your own identity and those with whom you are working
- Build time into nascent research relationships so that trust can be established
- Approach research relationships humbly
- Honor reciprocity, ensure mutual benefit to the research
- Thoughtfully select language, privileging words that do not reflect a deficit perspective, such as “historically excluded”, “systematically non-dominant” (Debra Jenkins), “persons excluded due to ethnicity and race” (Asai, 2020), “marginalized groups”, “minoritized groups”