

Research Propagation and Peer-Review

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Thank You to the PRISMATIC leadership team!

(labeled as "OC" organizing committee on Zoom names)

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Purpose of PRISMATIC

The Propagating Research Ethics around Sexual Marginalization and Transgender Issues Conference aims to provide guidance for conducting ethical and responsible research with LGBTQIA+ individuals in science, technology, engineering and mathematics (STEM) fields in higher education.

The goals of PRISMATIC are to identify best practices and considerations for conceptualizing, designing, conducting, and disseminating higher education research involving LGBTQIA+ participants, and then create and share a prioritized research agenda related to the major ethical issues.



A few definitions

- Gender identity: one's internal sense of self; can be the same or different from sex assigned at birth
- Sexual Orientation: romantic attraction to other people
- LGBTQIA+: an acronym for lesbian, gay, bisexual, transgender, queer, intersex, asexual, and non-binary, with a "+" sign to recognize the limitless sexual orientations and gender identities people have
- BIPOC: Black, Indigenous, or People of Color

Resources for more definitions:

- [Glossary of Terms - Human Rights Campaign](#)
- [LGBTQ Terms and Definitions](#)
- [GLAAD Media Reference Guide - LGBTQ Terms](#)
- [Defining LGBTQIA+](#)



Baseline Facts

- All research that involves human participants necessarily includes people with minoritized identities of gender and/or sexuality (including but not limited to lesbian, gay, bisexual, transgender, queer, intersex, asexual, and nonbinary [LGBTQIA+])
- LGBTQIA+ individuals spend time & energy assessing their personal safety and potential consequences from disclosing their identities in every situation
- There are real implications for potential harm and danger from breaches in research confidentiality, particularly for LGBTQIA+ individuals
- Responsible conduct of research with LGBTQIA+ participants needs to span the entire research process: design & planning, participant recruitment, instrumentation, data collection, data analysis, propagation of findings, confidentiality
- All researchers are responsible for ethical practices





Schedule for Today [eastern time]

2:00 Welcome and norms refresher

2:10 Introductions

2:20 Scenario discussion round 1

2:40 Sharing out round 1

2:55 Scenario discussion 2

3:15 Sharing out round 2

3:30 Details on Hybrid Conference

3:35 Open Discussion and Wrapping up

3:50 Evaluation survey



Workshop Norms

- We are here to learn from each other through discussions about ethical research considerations involving LGBTQIA+ communities
- We are not here to debate the legitimacy of LGBTQIA+ individuals and their identities, nor the need for vigilance and intentionality for the ethical inclusion of LGBTQIA+ individuals in STEM education research
- Verbal or written harassment or aggressions will lead to individuals being removed from this Zoom workshop
- [Code of Conduct](#)



Engagement & Participation

- Encourage others to participate, asking if others want to comment or add on your contributions (out loud or in the chat), and invite people in who have been quiet
- Recognizing the value of having, understanding, and using shared terms
- Engage (in whichever way you can); be an engaged listener
- Support an encouraging vibe and tone
- Have conversations based on understanding and not debate, listen to understand (to hear, as opposed to thinking about the response)
- Engage with (and agree or disagree with) ideas, not individual people



Vulnerability, Bravery, & Secure Spaces

- Taking risks, recognizing complex contexts, being willing to contribute even when we're unsure
- Everyone is coming in with good intentions but it is also okay to point out when there is an "ouch" moment
- If you disagree, accept such disagreements and pause to respond passionately
 - Disagree with the idea and not the person
- Personal stories stay -- lessons learned go with us. (e.g., don't retell stories from those that are shared in this space)
- Use I statements and relate to our own stories and perspectives, not sharing others
- At any point, you can direct message any "OC" organizing committee member to express concerns



Introductions

In small groups, we invite you to introduce yourselves to briefly share as much of the following as you are comfortable sharing:

- Name
- Pronouns
- Institution
- Goals for attending this workshop
- Fun fact about you



Responding to Evaluations from Previous Workshop

- Desire for **resources** to guide practice and engage others in the conversation
 - Yes! Our goal as a result of this conference series is to curate resources and identify areas of ethical concerns in research. We will distribute these to all conference attendees.
- Time for **open discussion** after scenarios
 - You got it! We have included this in today's session as well.



Scenario Discussion Round 1



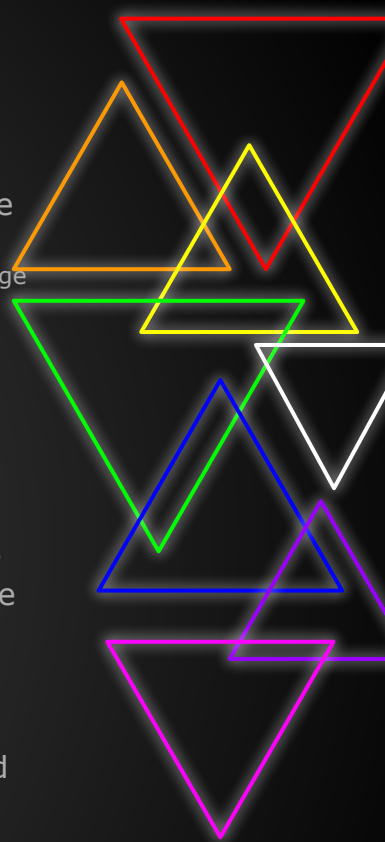
Scenario 1

Updating Published Work. After you have published an article, in which you reported qualitatively on three participants, one of the three participants lets you know they identify as being gender fluid and do not wish to be represented in print (even via pseudonym) as a woman. The research design had led you to select one woman, one man, and one non-binary student as the three participants; the analysis focuses on the relatively different experiences of the participants that they attributed to their gender identities. It will thus not be a simple find and replace for pronouns or a pseudonym to make the publication reflect the gender fluid identity of one participant. Although the journal has a mechanism for reporting a name or gender change, it does not have a mechanism for more substantial manuscript revisions. What should you do?



Scenario 1 Group 1 - Sarah, Carrie, Ryan, Tricia, Nicci, John

- Gut take: why didn't you ask for pronouns at the beginning? Another, the researchers asked for gender identity at the beginning and the participant came to understand their identity in another way afterwards, or wants to use other pronouns identities? Another, the time perspective, the process of research and how the journal publication was 1 part.
 - Some context on why the change in gender identity is occurring – researcher misrepresentation, new language comes out etc
- Are there things that could have been done on the front end to set the expectation that there were several parts of the process and that this represents a snapshot of time? Could there be a note in the methods that the descriptions here represent a snapshot of time?
- Could another part of the process be a second paper about how the evolution of identity happened? Participant could be a really cool/interesting partner
- A note/paragraph at the end (or an errata?) about how there is more that is going on
 - Wonders about how to find it or how to ensure it is linked..? Do you as a reader have to be looking for that?
- If it were methodologically my fault, I should own up to that and mitigate that in the future
- What happens if it is years later and you are in the getting ready to publish?
 - I think that earlier in the process of publishing is more able to be flexible to it
 - Publication becomes like a co-construction as we layer on frameworks, analysis tools etc
- Maybe it is more about the relationship with the participant
- Mitigation is important for the next time too – consent as a process (more than a form and more than a one time thing – lets try making it real with participants and talk about identities rather than rout and reading off a page, what it means to share anecdotes with researchers, what it means to have pseudonyms etc)
 - Which brings up the type of study – survey online where there isn't really a discussion whereas in an interview you can have a bit more of a conversation



Scenario 2

Limited Reviewers' Understanding. You get back reviews from a STEM education journal, regarding a manuscript in which you reported on the experiences of women and non-binary students in a Calculus I course. Since you had 137 women participants, you reported many of those findings quantitatively using a hierarchical linear model (students nested in courses, nested in campuses). You had 6 non-binary participants, so you reported their results descriptively. Reviewer #2 recommends your manuscript be rejected because of the different analytic techniques employed, and suggests that to be published, you should drop the non-binary students from the dataset and just report quantitatively on the women via hierarchical linear models. What should you do?



Scenario 2 Group 1

We are all facing similar issues. Sometimes sample sizes don't allow for making associations between social identities.

How do we present them 'correctly'? Don't erase people, don't misrepresent people, don't present bad statistics. It could be very insulting to group people inappropriately. Applying cis label to individuals who may not know what that means. How do we label cisgender students when many students don't check cis or trans or anything.

How do we provide feedback pushback against reviewers? Could appeal to the editor and justify the approach and decision for that analysis.

Sometimes we just have to move on to the next journal and we should be honest about that as a risk. Need to have an advocate. Need to know which journals have the expertise to handle the type of analyses you are trying to get published

A key question is what shapes 'correct'.

If dataset is too small, could have both questions of scientific validity and ethical boundaries (exposing identities of participants).

Datasets may not be comparable - may be appropriate to qualitatively describe all subgroups.

How do we educate reviewers or editors on how to handle manuscripts working with vulnerable populations? → Proceed with caution.

Good thing that could come out of end of May conversation to help researchers deal with these issues: guidelines? Decision tree? Jumping off point for discussion.



Scenario 3

Journals not accepting pronouns. When working with a STEM Education Journal, the author included their pronouns (they/them) in the author bio as part of a manuscript submission. During the page proof process, a copyeditor had changed the pronouns to she/her/hers. The author re-corrected the pronouns, but the published article showed she/her/hers. The author protested to the journal editor, and the pronouns were eventually corrected (this is an online only publication). The journal editor conveyed that the longstanding journal copy editing guidelines say to use he/she and not they as singular pronouns. What advice would you give the author? The journal editor?



Scenario 3 Group 1 - AJ, Catherine, Stacey, Madison

- Send the journal guidelines from discipline / big journals / resources to show precedent about using they as singular pronouns, and being fairly public about the problem to increase awareness and increase pressure on journal to change
 - What style guide is the journal using? The style guides are having conversations about using they-singular, and can use those to support your argument
 - Bring the issue up at conferences as well, especially at major conferences
 - Avoid the journal in the future, until they solve the problem
- Online-only publication is probably smaller journal, so trying to give them the benefit out of the doubt on the usage of style guide and encourage them to change it by providing resources
 - May not mean to do harm, and copyeditor may not have power to go against style guide, so provide pressure to change
 - Alternately: may be careless without intending to do harm, accidentally overlooking what author asked for and is willing to change with correction
 - May use database that recognizes only binary gender, not realizing the harm this may do and that the system can be updated
 - Resource: Gender is not Boolean - <https://www.morgan-klaus.com/pdfs/pubs/ScheuermanBrubaker-CSCWWS2018-GenderIsNotBoolean.pdf>
- Disconnect between preferred names and names that gets used - may work better for faculty at some institutions and more poorly for students
 - Disconnect across different sources for identifiers
 - No one wants to take responsibility for the change - doing harm by inaction
 - Previous success by showing how this benefits international students - some students come from cultures where first and last names are flipped from the US standard, students have preferred names - may encourage buy-in from a wider audience
- Ethical issues of the journal deciding the author's pronouns
 - Social media shaming as a way to force accountability and consequences
 - Serious issue to say "our style doesn't accept your pronouns, so we'll pick some for you" - out of touch with reality
- NIH says that not using pronouns is discrimination and harassment
 - Link - <https://dpcpsi.nih.gov/sgmro/gender-pronouns-resource>
- Advice to the editor - not to make the author in charge of all the labor
 - Even some of our suggestions to the author puts the labor on them to correct the journal
 - We become so used to doing the work to correct / educate people



Scenario Discussion Questions

- What are the ethical issues at play?
- What are the potential consequences (for researchers, research participants, etc)? Who is harmed and who stands to benefit?
- What are some possible actions, solutions, or responses?
- What is or could be the role of the IRB?
- In what ways does context influence the scenario/solution(s) and how would a different context matter? (e.g. field/discipline, institution/institutional type, geographic/local context)
- What are implications for LGBTQIA+ people with multiple and intersecting social identities? (e.g., race, class, dis/ability, religion)
- Are there existing resources, networks, or groups that may have specific expertise to share in this area?





Scenario Discussions

- Start with the scenario selected
- 1 volunteer (or more) to take notes
- 1 volunteer to share out
- Consider the discussion questions
- You may also share similar scenarios you have encountered and how you responded

We will have two rounds of discussions; for round 2 you there will be different scenarios (and group)



Group Sharing Out

Each group summarize
major points of discussion in
2-3 minutes

After round 1, we have new
scenarios for round 2



Scenario Discussion Round 2



Scenario 4

Arbitrary gender categories. You are reviewing a manuscript, and see that the participants are described as cis-gender women, transgender women, cis-gender men, transgender men, and non-binary as five major categories. The authors state they are using these five categories, but do not provide a rationale for this particular set of gender categories. Based on the findings, the two categories of women are statistically the same as each other (no significant differences), and the two categories of men are statistically the same as each other (no significant differences). The authors reported all of the findings using five gender categories; should they have collapsed their analysis to the three categories with statistical differences (men, women, and non-binary students)? What advice should you give the authors in your role as a reviewer?



Scenario 4 Group 1

- Two rationales: rationalize looking at gender. Rationalizing how we measured and talked about gender.
- Do the five way and the three way breakdown.
- What does their gender questions look like.
- Once you get past the binary the data gets complicated - lots of researcher degrees of freedom. Want to see clear decision making around data collection, aggregation, and presentation.
- P-values/statistical significance can't tell you if the groups are different.
- How do we ethically work with the small samples in our quantitative data sets. How do we ethically aggregate our datasets?
- Need to keep in mind that what we do now will not be what people will do in ten or four years.
- Quantitative data inherently involves erasure, how do we minimize erasure. Every study cannot do everything.



Scenario 5

Risk of re-identification. A group of researchers, all from the same university, conducted a study about departmental culture and student belonging in three engineering departments on campus. Through their interviews, it became obvious that mechanical engineering has a number of homophobic faculty members, which makes many students uncomfortable, including one lesbian mechanical engineering student interviewed. Although the researchers plan to anonymize the university name in their research, it isn't a stretch to assume readers might figure out the research was conducted at the institution where all the authors work. Further, there are so few women mechanical engineering majors that there is a real chance the woman interviewed could be identified by anyone familiar with the current students, if she is listed as a lesbian mechanical engineering major. The student's sexuality is an important dimension of her narrative, and is salient to the researchers' analysis of departmental culture. Retaliation (overt or subconscious) by the faculty members is possible, during the woman's final year before graduation. What should the researchers do? Should the researcher report the hostile department climate to anyone?



Scenario 5 Group 1 – Tricia, Sarah, Neil, Eliza

- Grounded in real-world experiences, have seen these issues arise.
- Could the researchers hold publication until the student is through the department - might limit the risk of reidentification.
- Forms of retaliation - ostracization.
- Inherent risk in conducting research at a single institution - increasing number of institutions decreases risk of reidentification.
- Use of composite cases - weave together elements of stories of multiple participants. Used often in phenomenography - capture salient elements of participants' experiences without compromising the identity of a single participant.
- Mask the department the student was in ("in order to protect identity of participants, details not-salient to the experience may be changed")
- What is the ethical responsibility of the researcher in learning of attitudes of faculty members (homophobia)? Approach the issue in a way that enhances the agency of participants.
- It is important to have a backup - how can the researcher step away if there is potential harm to the researcher. Mandatory reporter - disclose to participants that you are a mandatory reporter at the threshold at which that information might be disclosed. Don't put yourself in a position where you have conflicting obligations.



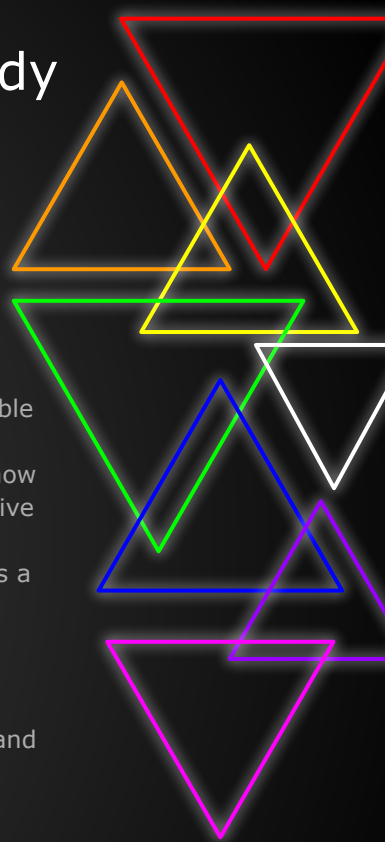
Scenario 6

Cis-hetero-Normative Deficit framing. Your manuscript is returned with reviewers requesting that you compare the experiences of gay students to the experiences of straight students (normalizing the experiences of straight students). You want to avoid the deficit orientation that normalizes the experiences of straight students compared to gay students. This particular journal has a high impact factor and you know it would help your tenure case to have a publication in this journal. Should you accede to the reviewers' requests? How can you address the reviewer concerns?



Scenario 6 Group 1: Richard, Becky, aj, Lisa, John, Wendy

- Journal reviewers should not give feedback that is essentially wanting you to write a different article that is what they would have written.
- Thus, do push back against such types of reviews
 - “I respectfully disagree with the reviewer [and this is why...]”
 - Justify the decisions you made as a researcher--could you make those decisions more clear or with more justification?
- What was the point of the study (intent of the paper) that might lead a reviewer to recommend adding a comparison to cis individuals?
 - If the point of the study was to look at differences based on cis or trans identity, then it would be reasonable to add a comparison group. But arbitrarily adding comparison groups is not appropriate
- Perhaps look at your language and methodology and try to make them more clear. Add explicit statement about how you are seeking to avoid deficit orientation (and disagree with the reviewers) and thus will not add a cis comparative group.
- This type of situation and reviewer/journal response is unacceptable. Stand your ground. We need to push back as a field to get these types of norms changed.
- Could ask the journal editor to have a zoom or phone conversation, and talk through how you could make some edits but not concede to unreasonable reviewer requests.
 - Can be an opportunity to educate journal editors and reviewers
 - Reviewers and editors are human and make mistakes, and good editors appreciate further conversations and education about ethical issues
- It can be hard to get reviewers to look at novel techniques or cutting edge, interdisciplinary work (reviewers may see the abstract as outside their field, leading to desk reject)
 - ***more members of our community should volunteer to be reviewers
 - Journals should make sure they are seeking out more diverse reviewers
 - Positionality statements can help transparency about expertise as authors and what the focus of a piece is



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Coming Next - Hybrid Conference

- **Who:** Primarily attendees of this workshops series
- **What:** Will consist of working groups to generate shareable resources and identify the ethical and responsible issues occurring within STEM education research with LGBTQIA+ individuals.
- **When:** May 31-June 2
- **Where:** Hybrid workshop in Nebraska (Online and In-Person attendance encouraged). Travel funds for 20 in-person attendees.
- **How:** Link for registration <https://scimath-portal.unl.edu/upcoming-events>
- **Why:** To further unpack issues and discussions



Open Discussion

What is resonating with
you?

What are you thinking about
after today?



Workshop Evaluation

[https://forms.gle/H5Uikf5AT
CkfT9qL9](https://forms.gle/H5Uikf5ATCkfT9qL9)

Because these workshops are funded by NSF, we need to be able to report back to NSF on how they went, via an anonymous evaluation survey.

We value your feedback and will use it to inform our future efforts in the short & long term





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