

# Scenarios and Discussion Themes for Ethical and Responsible Research with LGBTQIA+ Populations

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## Introduction and Framing of Scenarios

The following document presents several scenarios around ethical and responsible research with LGBTQIA+ individuals that were developed as part of the National Science Foundation (NSF) funded PRISMATIC conference grant (DUE-2220269).

The overall goal of PRISMATIC was to provide guidance for ethical and responsible research with LGBTQIA+ individuals in STEM higher education contexts. To do this, we brought together subject-matter experts to discuss salient ethical considerations, create resources for STEM education researchers, and draft a national agenda for ethical and responsible research involving undergraduates who hold minoritized gender and sexual identities in STEM higher education contexts. This document represents one such resource that was developed, with others accessible on the project website: <https://scimath.unl.edu/prismatic>. The creation of this artifact was the result of several stages of development and synthesis as outlined below.

### Phase 1: Scenario Generation

These scenarios were generated by the leadership team of the PRISMATIC Conference (Appendix A) based on our experiences conducting educational research with LGBTQIA+ individuals. During January and February of 2023 we meet as a group to brainstorm and discuss issues we have encountered when conducting research within this area. Although the names and specifics of the scenarios are fictitious, they each represent themes and real experiences that we have had when navigating ethical and responsible research. The scenarios were grouped and developed around the following topics: (1) Identifying ethical research needs, (2) designing research and participant recruitment, (3) collecting and storing data, (4) Analyzing data, and (5) research propagation and peer-review.

### Phase 2: Community Engagement with Scenarios

After the creation of the scenarios, we hosted a series of virtual webinars for each of the topic areas. We invited stakeholders (IRB personnel, researchers, graduate students, LGBTQIA+ participants, support staff, and others) to attend the webinar and engage in discussion around the scenarios. The structure of the webinar was consistent and included: (1) welcome, providing definitions and norms for communication, (2) an introduction to the topic, and (3) two breakout sessions where the scenarios were discussed, (4) whole group sharing, and (5) wrap-up and completion of an evaluation survey.

The welcome portion of the meetings included the following 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](#)

We included the following information on workshop engagement and 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 which ever 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

We included the following framing on 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

We provided participants with the following questions to frame the discussion:

- 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 with this situation?
- 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?

During the breakout and discussion of the scenarios a participant was assigned to be a note taker and another to share out highlights when returning to the full group meeting.

### **Phase 3 Developing the Resources**

In developing this artifact, the primary authors extracted themes that were discussed around each scenario based on the notes taken during the meetings. We also leveraged our own expertise and knowledge to provide additional information and resources where appropriate.

# Identifying ethical research needs

## 1. Community membership.

*Taylor is not a member of the LGBTQIA+ community but does research on the experiences of LGBTQIA+ undergraduates in STEM courses. Some colleagues tell Taylor that he should not be doing such research without a member of the LGBTQIA+ community as part of the research team. Are the colleagues right? Should Taylor be doing research on a community to which he does not belong?*

### Possible discussion themes

- **Tokenism (the policy or practice of making only a symbolic effort).** There is real potential that merely “including” a member from within the community on the research project will result in tokenism. From the 2011 Institute of Medicine report: “Best practices for research on the health status of LGBT populations include scientific rigor and respectful involvement of individuals who represent the target population. Scientific rigor includes incorporating and monitoring culturally competent study designs, such as the use of appropriate measures to identify participants and implementation processes adapted to the unique characteristics of the target population. Respectful involvement refers to the involvement of LGBT individuals and those who represent the larger LGBT community in the research process, from design through data collection to dissemination” (Institute of Medicine, 2011).
- **Power dynamics.** In addition to the power dynamics that are at play between a researcher and a participant, there are also power dynamics between members outside the LGBTQIA+ community who hold privilege in their gender and/or sexuality studying individuals with a marginalized gender identity and/or marginalized sexual identity.
- **Research “with” versus research “on” insider/outsider.** There are different notions of doing research “on” a population that evokes ideas of animal studies and other outsider research that may cast the population being studied as exotic or dehumanize them. This stands in contrast to doing research with a population that involved them as partners in the research (Dwyer & Buckle, 2009; Salmons, 2021).
- **Exploiting hot topic research areas.** The researcher should engage in reflexive practice to determine the motivations they have for conducting research with this population and ensure that they are not exploiting the population because the research area is considered trendy or en vogue.
- **Diversity of LGBTQIA+ communities.** No one person will “represent” everyone within the gender and sexuality spectrum or necessarily be an expert. Furthermore, membership in any of these communities doesn’t imply research expertise.
- **People’s identities as LGBTQIA+ (or not) and their (non)disclosure changes over time.** Identity and self-identification fluctuate over time and context, thus it should not be assumed that because someone does not currently identify with the LGBTQIA+ community they have not held that identity at some period of time or they may only identify with this in particular contexts.

### Areas of caution or tension

- One area of caution is **assuming or requiring researchers to disclose** their gender or sexual identity. This risks the danger of “force outing” a researcher which may cause harm or put them in danger. This also means that requiring positionality statements or other disclosures to conduct and publish research should be approached with caution.

### Evidence-based responses and suggestions to the scenario

- **Paid consultants or advisory boards.** The researcher may consider including an advisory board or paid consultant within the community that has expertise (lived experience and research) in this area to provide guidance and feedback throughout the research project. We highly suggest that the consultant should be compensated, acknowledged, or considered as a co-investigator to honor their time and expertise.
- **Member checking.** Researchers can support the validity of their data collection and propagation efforts by utilizing member checking from research participants to view for accuracy or resonance with their experience (Birt et al., 2016).
- **Participatory research methods.** Consider using participatory research methods that actively involve LGBTQIA+ research participants in the study design, analysis and propagation.
- **Attend to your positionality and reflexivity.** The researcher should engage in reflexive practice where they interrogate their positionality and their role in the research, and ensure that it promotes ethical and responsible research (Jamieson et al., 2023; Dodgson, 2019).
- **Rely on imperfect teams.** We'll never have enough members of marginalized communities to reasonably carry the load of conducting this work. Therefore we must acknowledge that research about LGBTQIA+ issues will be conducted by those outside of the community. When you are in a position of power, it's important to open the door for others without having a “savior complex.” It's important to have real respect for everyone's lived experience and not just tokenized participation.

## 2. IRB Perspectives.

*Morgan is a member of an institutional review board and noticed that a proposed research project plans to ask undergraduate participants for their gender identity as part of a larger questionnaire about experiences with a chemistry course, but the analysis plans do not mention how gender identity will be used, and instead plan to use past chemistry course-taking as the primary covariate. The particular project is under a short deadline from the funding agency to get IRB approval. What should Morgan do, if anything, about the potentially unnecessary request for student gender identity?*

### Discussion themes

- **Proper research alignment.** Ensure that the focus of the research question, data collection, and analysis are aligned and additional data is not being collected without clear intention for analysis.
- **Re-identification Risk.** Potential harm for collecting personal information in the case of



data breaches or re-identification. Small N for some sub-groups being potentially identifiable even in officially de-identified datasets (e.g., if this research is conducted as planned and only 1 person indicates a transgender identity in the dataset, the person may be too identifiable to protect their identity in research propagation efforts)

- **Collection Methods.** How is the gender identity data being collected (open-ended or multiple choice)? Although this scenario is about a questionnaire, there are also different/related considerations if the same information is being collected via interview.
- **Role of IRB.** This highlights the role of IRBs in research ethics and in ensuring research plans reflect ethical considerations and mitigate potential risk.

#### Areas of caution or tension

- The role and capacity of **IRBs varies across different institutions** and thus it's difficult to make universal claims about the right approach.
- The **pressure from funding agencies to quickly approve research** in order to get awards (and institutions highly valuing such grant awards) may lessen the safeguards for participant protection. When the potential for harm or danger to participants is real, the burden should be on researchers to demonstrate how they will protect such identity information.
- The **current (2023) political climate makes** it even more important for researchers in some states to go further in protecting research participants' identities, such as de-identifying data with no potential for re-identification.

#### Evidence-based responses and suggestions to the scenario

- If researchers have not taken the time to consider the ethical issues of their data collection plan, it is the role of the IRB to call attention to these ethical issues and also to protect research participants from harm. Collecting data that will not figure into the data analysis plan constitutes an unnecessary burden on research participants, even before considering the potential harm from disclosure of gender identities. At a minimum, Morgan should pose issues of clarification to the researchers to seek to determine why the researchers want to collect gender identity data, how those data would be safeguarded and how those data would figure in analysis and propagation plans.
  - Even with a short timeline, the **IRB has responsibility to ensure ethical plans are in place** for data storage, permanence, and redaction/de-identification of participants; these issues should consider research scope, including potential broader impacts, generalizability, and representation
  - **How is identity being protected to not do harm to participants?** The IRB has clear responsibility to protect participants from likely harm. Researchers need to consider how much demographic data - even if de-identified - is provided in publications to ensure that participants are not identifiable.
  - Given that there are differential participation levels and outcomes in STEM based on gender identities, a different approach would be to affirm the collection of gender identity in the dataset, but **press for meaningful data analysis** that considers gender identity.
- People do not always share their gender identity with others in various settings (e.g., a

college student may be out to their peers but not their parents). If there is not a level of trust on the part of the participant for the researcher and purposes of the research, the participant may not disclose their gender identity (*Dignity of Risk*, 2023).

- **A person's experience of gender is part of their personal identity.** If you ask them about their gender demographic, their experience of gender may be more complex than pronouns and presentation. Gender identity can evolve over time, or people can have differing willingness to express their gender identity over time and in different situations.
- Consider approaches like asking participants to **self-identify their preferred pronouns, pseudonyms and even avatars** to represent themselves in the data. Researchers should provide a range of response options, such as open-ended gender identity questions, select-all-that-apply, and multiple response options for gender identity. Have a "do not wish to answer" option. Give participants agency to choose not to share information and know who it is being shared with.
- **IRBs could also ask about researcher identities and positionality** as part of IRB review. IRB could ask: "How do/will you have access to this population?" not directly asking about gender identity but can be part of researcher's response (often is the case with LGBTQIA+ focused research)

### 3. Token representation.

*A group of researchers have been preparing a grant proposal that would fund a project to engage gay undergraduate men in a virtual reality simulation. The research team determines their proposal would be more competitive if they had at least one gay researcher on their team, so approach Devin a few days before the proposal is due to ask him to sign on to the proposal and join their team. What should Devin do?*

#### Discussion themes to discuss

- There is the potential of **overburdening people with various minoritized identities**, often referred to as the "minority tax".
- The discussion themes from this scenario are similar to those presented in scenario 1.

#### Areas of caution or tension

- **Representation is important**, and if the research aligns with Devin's interests and priorities, Devin might choose to become engaged.
- **"Tokenization fear"** when reaching out to someone from marginalized populations is real and can be a barrier to growing one's network.

#### Evidence-based responses and suggestions to the scenario

- Suggestions include having Devin engage in a **frank conversation about their potential role on the project**, the status on the research team, the degree that their research interests are aligned with the proposed project, the desired outcomes, the time Devin has to review the proposal, and the willingness of the team to make revisions based on Devin's suggestions.

- Devin could ask: “What value can I bring to the project?” and “What value does this project bring me?” What are the power dynamics: what potential good or harm could come to Devin or the research team?
- If the extent of the invitation is to sign on to an existing proposal but have no voice to influence that proposal, Devin should probably decline the invitation.
- **Consider the budget as an indication of value.** Budgets often reflect where we place value and prioritize efforts. How much money will they put towards Devin’s contributions?
- **Has this proposal gone through IRB review?** Devin can read the draft proposal to see how much legwork the team has already done to thoughtfully consider this vulnerable population
- If Devin was asked because previous people they contacted were too busy and Devin was recommended, how do we **grow the network of researchers** so this work isn’t falling onto the few people holding these identities (e.g., minority tax)?

## Designing Research and Participant Recruitment

### 4. Choosing a framework.

*Kat is designing a survey to examine campus climate in STEM disciplines for LGBTQIA+ individuals. In the survey, they would like to select 2-4 latent constructs to measure climate and belonging. They could choose from two frameworks. The first is firmly established in the literature, where the benefits include broad translation across a large number of previous studies and the limitations include lack of applicability to LGBTQIA+ communities. On the other hand, they could select a lesser-known framework that centers LGBTQIA+ experiences. What should Kat do?*

#### Discussion themes

- **Embodiment.** There is queer and trans embodiment that needs to be treated as a unique experience and a unique framework (i.e., performativity) that have been developed by queer and trans individuals.
- **Centering Queer Scholars.** In the decision making on framework and instruments, consider how you are centering and elevating the voices of queer scholars. By selecting frameworks and instruments developed within the LGBTQIA+ community and properly attributing them you are raising the awareness and implicitly endorsing the research outcomes of queer and trans scholars.
- **Survey Validation and Sensitivity.** One way to validate a survey is through its implementation. Researchers should consider if the survey design will be sensitive to the LGBTQIA+ population or will mask or further perpetuate harm within this community if not carefully developed and reviewed.

### Areas of caution or tensions

- Be careful to do **thorough research on frameworks** when planning the study. Learn how to design surveys and use frameworks with ethical treatment of LGBTQIA+ individuals in mind

### Evidence-based responses and suggestions to the scenario

- **Consider your audience and document the decision making** on the instrument and framework choices (i.e., pick a familiar theory that may be more aligned with research funding, pick a critical theory to speak to a specific issue; pick a framework that practitioners will resonate with if looking for change in practice)
- **Combining Frameworks.** The researcher may consider combining or aligning two frameworks to generate new knowledge and ideas within the field, that would also allow for a firmly established framework to be mapped onto a less visible or emergent framework.

## 5. Planning a survey.

*Tim is designing a membership survey for a STEM organization, which has 12,000 members. Association leadership have asked that they keep the survey to 10 minutes or less to ask questions about members' social identities and satisfaction with the organization. Knowing that they can likely only ask two questions concerning gender/sex, what items should they include? What are the benefits and limitations of each approach?*

### Discussion themes

- When asking about gender identity and/or sexual orientation, researchers often encounter sub-groups with small N (particularly when giving respondents an open-ended option). If the categories end up being collapsed together for analysis, then it may have been better for researchers to have just **started with fewer categories**. For example: we anticipate using 3 categories in our analysis for gender identity: cisgender man, cisgender woman, gender queer. Please indicate which of these is most appropriate for your identity in this dataset.
- A key consideration is **how the researchers want to be able to analyze the dataset later**--which subgroups may be most informative for comparison or other reporting? The literature (particularly recent literature) can be informative for which gender or sex variables might be most salient. Since this survey is for a STEM organization, if the organization has particular values, statements, or goals (such as a goal to have more women members or historically under-represented ethnic groups) then those variables would be more important to include.

### Areas of caution or tension

- This is an area of **ongoing evolution of best practices** and appropriate terminology.
- There was some support among PRISMATIC attendees for the phrasing: What is your gender? Select all that apply: Man, Woman, Genderqueer or Non-binary, Agender, Transgender, Cisgender, A gender not listed, Prefer not to say. However, this wording

**implies respondents should pick** cis vs trans gender, and someone who is a trans woman may prefer to just pick woman, and not also select trans; a non-binary person may not see themselves as cis-gender or transgender (Rohde et al., 2017; Ashley, 2021).

- Allowing an open-ended response for gender identity and/or sexual orientation can result in **malicious responses**. Researchers need to consider how to handle such responses in the dataset (e.g., removing those responses, removing entire survey responses based on malicious responses to those items, or other decision) (Garvey et al., 2019).

#### Evidence-based responses and suggestions to the scenario

- As part of the PRISMATIC grant we have also developed a resource to aid in survey design, see <https://scimath.unl.edu/prismatic>
- Consider reflective questions to **interrogate the purpose of asking for gender identity and/or sexual orientation**--how those variables will figure in the analysis, the risks of having the responses (is the survey anonymous?)
- **There is not a single best/correct way to ask questions** to get at gender identity and sexual orientation--the best answer is that "it depends" on the purpose of the research and the intended outcomes (Spiel et al., 2019).
- Researchers may want to **consider reputable national sources** for updated language (*Glossary of Terms*, 2023; *LGBTQ Terms and Definitions*, 2017; *Glossary of Terms: LGBTQ*, 2022; *Defining LGBTQ+*, n.d.).
- For quantitative analysis, consider **leveraging descriptive statistics and data visualization**. Introduce analyses by including all respondents and go into deeper inferential stats by excluding smaller categories; this method may be imperfect, but it **recognizes all respondents**. Open-ended responses in survey designs can introduce both general stats and broad ID classifications as well as narrative-centered data with respondents' specific ID.

## 6. Compensation dilemma.

*At Jon's institution, there is a severe underrepresentation of LGBTQIA+ people of color in STEM disciplines. Jon's provost has asked that they conduct interviews and focus groups with LGBTQIA+ students, faculty, and staff of color to better understand their experiences and propose new initiatives for support. However, the provost has only given a very modest budget so Jon would only be able to compensate individuals with a small token of gratitude (\$10). Should they proceed with the assessment, knowing that this compensation does not adequately compensate these individuals? Are there other ways to compensate participants that an IRB would approve? Or should they decline to collect these data altogether?*

#### Discussion themes

- **Appropriate financial incentives.** Participant compensation is typically determined based on average wages (salary based on profession) and time spent on tasks. Compensation that is more (or less) than this amount should be justified by the researcher so that it is not coercive but also does not exploit the time/labor of the

research participant.

- Researchers must also take into account **how low financial incentives will bias or skew data** for those that are not able to participate. This concern is especially prevalent within the LGBTQIA+ community which are more at risk for housing insecurity, and a higher proportion are below the federal poverty level (Wilson et al., 2023).

#### Areas of caution or tension

- There may be potential **career-related issues** in how the researcher responds to this situation. Be mindful of both individual principles and professionalism.
- It is important to be mindful of how offering inadequate compensation or not properly representing the compensation for participation may **erode trust with marginalized communities**.

#### Evidence-based responses and suggestions to the scenario

- **Consider non-financial forms of compensation.** In addition to the modest financial compensations, researchers may consider how they can compensate research subjects for their time and investment in non-financial ways. This may include acknowledging them in propagation efforts or forming a feedback-type committee or advisory committee to recognize their contributions in a CV-worthy way, while keeping in mind to not forcibly out participants through public documentation of acknowledgement.
- **Further dialogue with the funder (provost).** In this situation the researcher may engage the provost regarding the issues of modest compensations. This may include informing them of normative financial incentives for research subjects, discussing how values are communicated through budgeting, consider drawing on existing research that is not institution specific, and discuss how the low financial incentive will skew the results of the data for participants who are financially able to devote the time to participating in the research.
- **Decline to conduct the study.** Researchers should take into account the potential harm or re-lived trauma, eroding trust with the LGBTQIA+ community through exploitative labor, what the impact of the research findings will be towards the community, and how marginalized communities are often overburdened with service and other volunteer activities.

## **7. Active inclusion.**

*Mel is designing a study centering diverse experiences in STEM, looking across many lines of potential diversity. They want to ensure diversity from not only LGBTQIA+ communities but also BIPOC communities. How should they seek out communities to engage with their work?*

#### Discussion themes

- It is important to be **cognizant of the burdens** placed on minoritized and marginalized communities. There is usually a small number of folks on a campus who can assist in this kind of work, either directly or indirectly, and requests can quickly overburden folks.
- Given aspect of intersectionality and the small subgroups, researchers should ensure

protection of the participants and confidentiality of the data.

- **Research Purpose.** Its important to consider the purpose of your research and what you are hoping to answer/accomplish as a result. Who is your study in conversation with and what are your intents with it?

#### Areas of caution or tension

- There is likely a **small pool of students**, so could a quant survey keep them anonymous?
- In qualitative approaches there is a desire of **not wanting to overtax members** of communities, what role do they want to have as part of it? How can the work uplift the population? How important is it to have the person doing the interviews need to reflect those identities?
- Be conscientious when reaching out to groups, making sure you **don't ask them too much or accidentally out them**, be an ally and respectful and include them but ensure they're comfortable, especially if you're not part of that community yourself.

#### Evidence-based responses and suggestions to the scenario

- **Reach out to affinity groups at institutions.** This may include student or campus organizations, such as an Office of Diversity, Equity, and Inclusion, an LGBTQ+ resource center, multicultural affairs, and other groups. Be proactive at reaching out and establishing relationships with other groups on campus, talk to and engage with them. They may be able to help direct research requests.
- **Consult BIPOC folks during all stages.** Incorporating/including BIPOC members of staff, faculty, researchers as part of the study conversation, not just in recruitment but in doing the study and analyzing the data. Consider ways to compensate them for their time.
- **Snowball sampling** is a way to encourage diverse folks to engage with study. Snowball sampling asks participants to share recruitment materials to others or informs the researcher of additional organizations/avenues to explore.
- **Add a question about interviews / focus groups to the end of a survey.** The survey could have a question at the end asking about interest to be interviewed or participate in a focus group to get more information for students from specific groups.

## **8. Hostility toward recruitment.**

*Aryn is a graduate student and has designed a research study that includes recruiting undergraduate students at their college to participate in interviews that will elicit LGBTQIA+ students' experiences in computer science courses. Aryn got permission to put recruitment posters up in various locations on campus, including the student union and computer science resource room. However, someone has defaced the two of the recruitment posters and written transphobic slurs on them. No students have volunteered to be part of the research study yet. What should Aryn do? Does the situation with the recruitment posters need to be reported to the IRB?*

### Discussion themes

- **Malicious vandalism. This is likely a case of** Vandalism, which is the deliberate destruction of or damage to public or private property (e.g., graffiti and defacement).
- **Hostile climate** likely limits willingness of participants to engage in the research study.
- Appropriate ways to recruit LGBTQIA+ students into research studies in ways that protect identities and are clear about protections from harm.
- There is a **responsibility of universities** to improve their climates for LGBTQIA+ communities.

### Areas of caution or tension

- When recruiting students in a hostile climate, **more protections are needed** to safeguard participants.
- If the climate is known to be hostile, exposing LGBTQIA+ students to defaced posters can be **harmful for mental health and increase feelings of exclusion**.

### Evidence-based responses and suggestions to the scenario

- Consider involving the IRB to **report the incident and associated risk**, as well as others at the institution, to alert them to the hate acts of vandalism.
- **Consider different recruitment methods** other than posters. Posters can be hard to effectively communicate safeguards. Snowball sampling, recruiting through LGBTQIA+ organizations, or directly contacting students may be more effective and safer.
- If a researcher does use public posters for recruitment, they have a **responsibility to monitor the posters and remove or replace them if defaced**. Also, are there signals of trust that could be included on a poster (such as a connection to oSTEM)?

## Analyzing Data

### **9. Conducting a Survey.**

*A doctoral candidate, Navi, is conducting a survey on the experiences of pre-medical students from their first to second year transition. In looking at the data after collecting two waves of data, they realize that a few responses on identity categories (gender and sexuality) changed from particular cases from one year to the next. In talking to their advisor who does not do queer and trans research, the advisor states that this may mean the data are not reliable and suggests simply focusing on one year's experiences.*

### Discussion themes

- This demonstrates an Ignorance of the **dynamic nature of the gender identities and sexual orientations** people are willing to disclose and can often be fluid.
- The research design should account for how to handle people's changing identities (could reflect evolving identities or changes in the identities people are willing to share with researchers).



- **Erasure of data.** Disregarding the data can lead to erasure of LGBTQIA+ participants in research and denies their lived experience. Removing data that shows changes in gender and sexuality is an act of erasure, yet doesn't fit neatly into quantitative analyses.

#### Areas of caution or tension

- There are **power dynamics** that are at play between a graduate student and an advisor

#### Evidence-based responses and suggestions to the scenario

- **Seeking allies, navigating power dynamics.** Can the graduate student seek out a co-advisor or find a different faculty member who could be an ally? Finding someone to advocate for the inclusion of the data with the advisor, who has power/influence to have a conversation with the advisor.
- **Data Inclusion.** Research should be designed to handle people's potentially evolving identities and changes in the identities people want to share with researchers.

## 10. Interview Data.

*Shih-Wei is conducting a longitudinal study on queer and trans STEM students of color during their college years at a particular institution. They are conducting qualitative interviews with each participant during each semester. One participant who identifies as a non-binary trans man who is also mixed race reviews the transcripts from their first year interviews. They share during their first semester, second year interview that they do not feel comfortable with the ways that they were describing their gender identity in the first year as they have been exploring more of themselves during college. They ask Shih-Wei not to include any of the data that Shih-Wei collected in the first year, because they are worried about how they will be perceived by others who read their narrative. They also worry that they will be too identifiable because of the people who know them within the engineering department.*

#### Discussion themes

- The research design should account for how to **handle people's changing identities** (could reflect evolving identities or changes in the identities people are willing to share with researchers).
- There is real potential **harm from re-identification** of participants and ethical considerations in research with marginalized individuals (Tessier & Bonnemains, 2018; Toom & Miller, 2017).
- There are some general resources about including anonymizing qualitative data (*Anonymising Qualitative Data*, n.d.) and quantitative data (Rodriguez et al., 2022); however, these do not contain explicit recommendations regarding LGBTQIA+ individuals or communities

#### Areas of caution or tension

- Capturing **evolving identities is a potential outcome in any longitudinal study.** There is a strong tension in reporting on those evolving identities in ways that participants can accept and not feel harmed by. Yet, removing data is a form of erasure.

### Evidence-based responses and suggestions to the scenario

- Consider (or reconsider) carefully the **original agreements made regarding confidentiality and anonymity**. This type of scenario may well call for additional masking of details to prevent the re-identification of particular participants.
  - If the study is part of a larger project with multiple institutions, or multiple departments in one institution, it may be more possible to maintain anonymity of participants.
  - Consider talking with the participant about the originally planned **levels of confidentiality and anonymity** (that the participant consented to), leaving it open for the participant to revoke or alter their consent, or to request additional levels of protection in reporting the data and results of the research.
  - From the outset of the research, ensure that **information is included in the recruiting script and consent forms** to detail the ways in which identities will be confidential and/or anonymous throughout data collection, storage and reporting, along with participants' rights to consent and withdraw and what information they can choose to provide.
- How can the narrative be changed or masked in such a way that the participant feels comfortable with it?
  - It could be a great choice to **change the narrative with the participant**, asking them how they would like to be represented, and what language is most appropriate to use
  - It might be appropriate to **ask the participant to tell you more**, to help explain the discomfort and which parts/terms of their earlier narrative are problematic.
  - Follow the participant's lead, to try to **help them feel empowered** to craft their own narrative and representation in the research
  - **Communicate the research question** you are hoping to answer, and how the participant's experiences could provide key insights along with intended venues for propagating findings
- **Embargo Publication**. You could include delaying publication until after the student graduates by placing an embargo on the study or delaying when you submit for publication.
- To what degree can **flexibility be built into the study**? How open-ended can researchers plan for, to design studies that can accommodate evolving participant identities (and other factors that can change over time)?
- Note that we **use the language of anonymizing data or protecting confidentiality**; we do not use the term "blinding" as that is able-ist language that denigrates visually impaired people and their abilities.

## **11. Data Management and Ownership.**

*Anyes has been conducting a study on the experiences of LGBTQIA+ students at public colleges and universities in their state. Their institution has a formal policy that all data collected or stored using university resources belongs to the university, although researchers have*

*perpetual irrevocable license to publish from the data and use it for noncommercial purposes. A state senator has asked the university to turn over all data pertaining to LGBTQIA+ initiatives and a university administrator has notified Anyes that their data is included in the request and will be turned over to the state. Although the data has been stripped of direct identifiers, Anyes is concerned about potential re-identification of participants.*

#### Discussion themes

- **Minimal Data Compliance.** What information is required to be included in such a request? How can LGBTQIA+ participants be protected when information must be turned over?
- How do requests like this inhibit **academic freedom**? Can academic freedom be protected moving forward?
- What is the **institution's motivation in complying with this request**? Are they following the letter of the law, or are there ethical issues involved with how they are working with state legislators. Institutions may need to take a stand against such requests to protect the safety of participants.

#### Areas of caution or tension

- Many U.S. states are passing **discriminatory LGBTQIA+ laws**, including trans-exclusionary legislation. Become familiar with the laws applicable in your state and exercise caution in what data you collect and store. The ACLU tracks and provides information about these efforts: <https://www.aclu.org/legislative-attacks-on-lgbtq-rights>

#### Evidence-based responses and suggestions to the scenario

- Consider **certificates of confidentiality to deny these requests**. These are often included in NIH funding, but would not be required to provide data even if requested from law enforcement. They may also be available from an institution's IRB. This can be applied after the fact.
- In the **data management plan**, include plans to say only aggregate data will be provided, or consider finding particular regulations you could include from your institution/state to protect the data from the beginning.
- In planning your **consent form, include stipulations about this scenario** for additional protections. At a later date, you could also introduce a second consent form around data transparency, and participants could refuse to allow data to be shared.
- Consider ways to **repackage the data to protect participants**. Consider only disclosing the minimal amount of data that is required, which may just be a list of pseudonyms and the IRB application.
  - De-identify as much of the data as possible, and remove details from data.
  - Do not give raw data.
  - Offer an executive summary of the data/project
  - Gather as many regulatory citations as you could to offer most aggregated level possible to limit risk of re-identification
- **Consult with individuals who have expertise** in this area.
  - Consult with **compliance folks** about regulatory violations like FERPA at your

institution to learn what protective steps you can take, especially if the institution is accessing the raw data without your consent.

- Talk to **legal teams** about what is possible being shared and what can be protected. And what are the legal implications if you deny the request.
- Discuss the request with **colleagues and supervisors**, and determine if this ask is an overreach.
- For a broader approach to this issue, consider **consulting with professional societies** to be an advocate for the protection of data. For example, societies could choose not to advertise job postings for those states and not hold conferences in those states until the laws discriminatory efforts are revoked. Professional societies may also have leverage or influence that can be used to help you protect your data.
- Discuss the situation and potential steps with your **funding agency**. They may note this is a breach of confidentiality as nullifying certain parts of the proposal you submitted and be able to intervene.
- It may be possible to **collect and store data outside of institution-provided resources**. Consider checking with your IRB for alternatives and, if approved, destroy any data on institution servers.
- **Question if the institution is being over-broad** in what information they are surrendering to the state. Educate administrators on the nuances of the dataset they are handing over and inform them about the dangers of participants being re-identified from it. They may not be aware and could seek alternatives to help protect the data.
- **Ask the institution to narrow the request.** Inform the institution about the scope of the data being requested, as it would be a lot.
- If there is no other option but to hand over the data, consider **malicious compliance** by adhering to the letter of the request and overburdening the system. Provide a copy of all the literature, paperwork, websites, and other inconsequential public information along with the data.

## 12. Gender Analysis and Observations

*Alex is a doctoral student whose advisor has a large grant using multiple research methods to investigate inclusive undergraduate teaching in STEM classrooms focusing primarily on gender and race/ethnicity. As part of their graduate assistantship, Alex has been asked to observe selected undergraduate courses throughout the semester. Within a computer science course that Alex is observing, the instructor explained that students would be paired by gender to complete coding exercises and assignments—a practice aimed at reducing sexism and empowering women to be leaders in the class. The instructor paired students using the class roster generated by the university that includes names and headshots. Alex’s observation protocol calls for recording details related to student interactions and the ways gender and race, in particular, may play a role in these interactions. As the semester kicks off, Alex is wondering about the ethical and practical implications of the observations and how the data collected from the observations might be used.*

### Discussion themes

- **Gender Presentation versus Identity.** The instructor and possibly the observing doctoral student are using gender presentation as opposed to gender identity. The instructor may want to gather the gender identity, pronouns, and grouping preferences of the students at the start of the academic term, as opposed to using institutional data and physical presentation to identify gender identity.

### Areas of caution or tension

- **Resisting Gender Binary.** The research study and instructional approaches reinforce the gender binary and seem not to account for non-binary, gender queer, and transgender folks.
- There are potential **power issues** that impact this scenario given the observer is a graduate student. There is a risk of retaliation towards the graduate student based on the reporting.
- It's a **common practice to arrange groups based on students' identities** in order to limit having a single marginalized student within a dominant group. However, some students may not desire such pairing strategies, and making this gender pairing explicit to students may be harmful practice of misgendering.

### Evidence-based responses and suggestions to the scenario

- There are unanswered questions regarding how the research team is planning to identify gender within the study. If they are leveraging gender presentation as an area of research interest, they could bring in a **second observer** to improve validity and leverage the multi-method nature of the study to situate the observation.
- The research team is also interested in race, and could focus most of the observation and analytic lens to **examine racialized interactions** and make note of the limitations in the study based on how the instructor used gender presentation.

## 13. Trauma Response During Interview

*Anita is conducting qualitative interviews with queer and trans individuals. In an interview, a participant flat-out refuses to answer a question because they perceive the question as an intrusion into their past trauma for the gaze of other researchers, rather than an authentic representation of their experiences. What should Anita do? Does this need to be reported to the IRB?*

### Discussion themes

- **Consent and Resources.** The researcher does not need to report the incident to the IRB; however, they should ensure that their consent form and process empowers and informs the participant about data usage and resources for support when traumatic events are discussed or invoked during human subjects research.

#### Areas of caution or tension

- Although you as a researcher may want to gain access to the data to further your research agenda, you need to understand that not all stories and lived experiences of participants are your stories to tell.

#### Evidence-based responses and suggestions to the scenario

- **Reframe.** Consider if there is another way to capture the data you are seeking that respects the participant consent to the interview. The researcher could reword the question, return at a later point in the interview, leverage semi-structured interviews for greater flexibility.
- **Clarify.** The researcher may want to clarify with the participant how they are interpreting the question, what it means to them, and what concerns they have with sharing their experience.
- **Revise.** The researcher may revise their interview protocol, eliminate the question, and/or work with participants to improve the protocol and identify questions that the participants are interested in answering.

## 14. Cisnormative deficit orientation to analysis

*Amy is proposing an NSF grant, and they have an idea to center trans communities. They have a plan and are using a data set by and for trans people. They met with a program officer, and the program officer told Amy that they need a comparison group of cis-gender participants. What should Amy do?*

#### Discussion themes

- **Centering Non-Marginalized Groups.** The request from the program officer may result in decentering the focus on trans communities in order to have a comparative sample. In quantitative work there is inherent tension with statistical measures that often align cis-gender heterosexual men with the reference group and thus results are framed in differences or deficiencies of the marginalized population (e.g., gap-gazing).

#### Areas of caution or tension

- There is **tension in working with funding agencies** to attentively respond to their revisions and feedback in order to get the research funded, but also designing and conducting research that aligns with your overall goals.
- There is **tension provoked regarding whether trans folks needed to be defined in relation to cis gender folks**, and when comparison is necessary, appropriate or valuable (Browne, 2008). There are many people in STEM coming from a perspective that science needs to have some kind of control group and may not be aware that there are different methods that also produce evidence-based findings.

### Evidence-based responses and suggestions to the scenario

- **Consider a Comparative Group.** There may be value in being able to situate the results for the trans community within larger societal perspectives by including cisgender participants. These types of results could be used to inform policy and interventions that benefit the trans community. The researcher might consider a different comparison (STEM vs. Non-STEM) for trans and non-binary folx. This resists the idea of “gap-gazing” and focuses on the context and structures impacting trans and non-binary students.

## 15. Queer Theoretical Framework for Analysis.

*Rob is attending their dissertation proposal meeting. They have a sampling and analytic plan to interview BIPOC queer students, and have chosen a liberatory queer framework to center liberation. The committee members say this framework is not aligned enough with mainstream STEM education research, and asks them to use social cognitive theory. What should Rob do?*

### Discussion themes

- **Graduate Student Empowerment and Mentoring.** There are clear power dynamics present between graduate students and faculty committee members which can complicate any decision that Rob makes regarding the theoretical framework. The committee should aim to best support and empower Rob through specific and targeted feedback in order to make productive choices on the framework selected. The committee should consider Rob’s professional goals and how adjustments to the framework could impact the timeline and progress towards degree.

### Areas of caution or tension

- From the IRB perspective there might be an issue of a research study **not being able to meet its goals** if the student is prevented from using a frame that fits their research question.
- **The field may be skewed or biased.** The mainstream theoretical frameworks may present bias, or represent historical developments that fail to capture the lived experience of diverse participants.
- There is tension in how the committee is engaging with student's ideas, asking the student to do research in the way the committee wants instead of the best way for the student to do the work. Not using a queer liberatory framework may misrepresent their experiences and does not take LGBTQIA+ identities as part of the center focus of analysis.

### Evidence-based responses and suggestions to the scenario

- **Multiple Frameworks.** The researcher could use multiple frameworks within the same study. This may mean combining frameworks into a single merged framework, suggesting a framework that bridges between the two frameworks, or using different frameworks for separate analysis.
- **Certain frameworks fit different audiences for propagation,** and thus consideration

should take into account who is the intended audience for the research study.

## 16. Pre Existing Data Sets.

*Ash got awarded an industry contract to analyze involvement in leadership from an existing survey database, but once they have access to the database, they realize the survey incorrectly collected gender as binary, which is not only restrictive, but reflects biological sex, not gender identity. Should Ash proceed to fulfill their contractual obligations? If so, how could they move forward?*

### Discussion themes

- **Duty of Care.** There is a responsibility or duty or care that the researcher acknowledges and addresses the limitations within the dataset. This might include advocating for future data collection that more accurately captures diverse gender identities, and being transparent regarding the limited nature of the variables.
- **Data Imputation.** The research could consider imputing missing data to have complete data sets so the coefficients can represent the whole data set, but impute gender from other responses.(e.g., infer an approximation of their response to a gender question).

### Areas of caution or tension

- **Large Scale Data Analysis Efforts.** There are calls and initiatives for doing work with large scale datasets even though those datasets are often limited in regards to gender and sexuality. Yet, in order to further our understanding of LGBTQIA+ issues, we need researchers to conduct such analysis and highlight the limitations within existing data. Discarding that data entirely may discount the work that went into creating it, it represents people's experiences, and it can show the persistence of inequities over time.
- **Contractual Language.** It may be worth the researcher considering wording that offers protections or specifically defines the obligation to use data appropriately to fulfill contractual obligations and thus protecting them from unethical imperatives.

### Evidence-based responses and suggestions to the scenario

- **Make the hidden visible.** The researcher could ensure that identities outside the binary sex markers are made visible through analysis and presentation of the data. For example, creating graphs that include the missing data options within the key or figure labels presented alongside the existing data. This is similar to what is happening in historiographies and sociology (*Information*, 2022; Fuentes, 2016) with respect to racial analysis of examining unseen forces behind a dataset.
- **Decline Analysis.** It may be reasonable to decline conducting a gender analysis or refuse overall to conduct the contractual obligations because the anticipated data is not available.



## 17. Limited Recruitment Success Results in Mismatch with Analysis Plan.

*Binh is doing a study about belongingness in engineering for trans and nonbinary students, but after 3 rounds of outreach for recruitment, their only respondents are trans masculine people. Do they continue to recruit more students or just focus on the trans masculine students? Do they change the scope of their question and theoretical framing, and then change the theoretical approach in their analysis?*

### Discussion themes

- **Context Limitations.** The researcher should critically reflect on why they are having difficulty in recruitment efforts for their targeted population. Does the targeted population exist and willing to participate within the context for recruitment (e.g. institution)?
- **Recruitment difficulty as a finding.** Depending on the study and context, it may be worth noting that the lack of participants within this study could be a finding regarding their representation or apprehension with identity in order to participate in the study.
- **Explore Alternative Recruitment Strategies.** The researcher could explore alternative recruitment strategies such as snowball sampling, community engagement meetings, increasing the compensation, social media postings, paid advertisements, and other techniques. They should also review the language within their original recruitment materials to ensure they are inclusive and accessible.

### Areas of caution or tension

- **Non-Homogenous Group.** Trans masculine (Trans masc) is not a homogenous group of individuals. It may be good to reconsider your assumptions you are bringing into the space about gender & gender variation.

### Evidence-based responses and suggestions to the scenario

- **Revise the research study.** Research is often not a linear progression, and thus adjustments and adaptations are often needed depending on the realities of the implementation. This may result in adjustments to the frameworks, research questions, expansion of the targeted population (e.g., including graduate students, faculty), interview protocols, closer attention to intersectionality. This may also require a reframing to account for the variations of masculinity and not casting them as binary notions of masculine and feminine.

## Research Propagation and Peer-Review

### 18. 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?*

#### Discussion themes

- **Consent as a process.** It may be fruitful to approach participant consent as a process and dialogue as opposed to a form or a one time thing. Consider making the goals of the study, risks, and benefits real with participants and talk about identities rather than rout language and reading off a page. Discuss what it means to share anecdotes and experiences with researchers, or what it means to have pseudonyms.

#### Areas of caution or tension

- There can be tension in the longer duration that it takes to develop a manuscript and work towards publication compared to the quick changing nature of LGBTQIA issues broadly in society and personally for an individual throughout their lifespan.

#### Evidence-based responses and suggestions to the scenario

- **Time-specific identity and results.** The researcher would benefit from acknowledging and incorporating aspects that attend to the identity of participants as a “snapshot” in time that reflects the reality of the participant in that moment. This may require communicating that approach to the participant, when deciding on the theoretical framework, and when presenting the methods or results.
- **Participatory Research.** Using participatory research methods that involve the participants in the research study, analysis and propagation can be a way to mitigate misrepresentation of findings.
- Include an **Errata or Addendum** that acknowledges and affirms the participants requested gender identity and pseudonym. If the error was a result of the researcher/author, they should acknowledge this and work towards mitigating future issues.

## **19. 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 nonbinary 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?*

### Discussion themes

- **Data Reduction as Erasure.** There is inherent tension in quantitative data that essentializes and can erase certain identities based on choices for analysis. This is often compounded with small sample sizes or small groups within a dataset that often get combined or removed from the analysis.

### Areas of caution or tension

- **Honoring Participants' Identities.** There is no one way to present data “correctly,” and care should guide decisions in order to not erase people, misrepresent people, or present bad statistics. It could be very insulting to group people inappropriately such as applying cisgender labels to individuals who may not know what that means.

### Evidence-based responses and suggestions to the scenario

- **Push back against the reviewer's suggestion.** Presenting descriptive statistics is a suitable approach to report on findings from data without erasing the participants from the study. Reviewers and editors should educate themselves to promote analytic techniques that are inclusive.

## 20. 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 copy editor had changed the pronouns to she/her/hers. The author re-corrected the pronouns to they/them, 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 copyediting guidelines say to use he/she and not they as singular pronouns. What advice would you give the author? The journal editor?*

### Discussion themes

- **Oversight versus policy.** The change of pronouns might be an oversight or mistake changed during the production process, or it might be the policy of the journal based on style guidelines and editorial decisions. Journals should explicitly state their policies and aim towards inclusive publishing guidelines.
- **Bias or Discrimination.** There is the potential that such disregard for pronouns is the result of bias or discrimination. For instance, the National Institute of Health promotes the use of pronouns and highlight the legal rights within the US regarding protection from gender and sex discrimination (*Gender Pronouns Resource*, 2023).

### Areas of caution or tension

- **Emotional Labor.** Many of the suggested changes and work needed to correct these issues adds additional labor on the part of the author and marginalized community, which has become a normalized response. We suggest work on the part of editors and those in charge of style guidelines to be proactive in finding solutions to minimize the

harm and labor required. Many are resistant to take responsibility and initiate such changes, but this often does harm by inaction.

#### Evidence-based responses and suggestions to the scenario

- **Send the journal editor resources** from major styles guidelines that support the use of singular “they” pronouns such as the American Psychological Association (*Singular “They”*, 2022), Chicago Manual of Style (*Pronouns*, 2017), and other major sources (*Singular They*, n.d.). This can put pressure on journals to change their policy and adopt inclusive publishing practices.
- **Avoid future submission or promotion of this journal.** The author may choose to avoid this journal for any future submission and to communicate at conferences or other scholarly networks about their experience with this journal. Sharing experiences publicly can build knowledge within the field about receptive and inclusive journals and put peer-pressure on journals to make policy changes.

## 21. 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?*

#### Discussion themes

- **Data Reduction as Erasure.** There is inherent tension in quantitative data that essentializes and can erase certain identities based on choices for analysis. This is often compounded with small sample sizes or small groups within a dataset that often get combined or removed from the analysis.

#### Areas of caution or tension

- **Choices for analysis and data reduction change throughout time,** and what is suggested as current best practices may change as the field and society evolve over time.

#### Evidence-based responses and suggestions to the scenario

- **As a reviewer you could ask for further clarification** on how gender information was collected from participants, the rationale for looking at gender, how the gender variable was constructed from the data, and how gender is theoretically operationalized within the study.

## 22. 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?*

### Discussion themes

- **Disagreement with Reviewers.** It is completely acceptable to politely disagree with a reviewer's feedback. Authors can provide examples and justification for why they are choosing not to conduct comparative measures that may support deficit orientations, gap-gazing, or analysis that de-centers the LGBTQIA+ participants.

### Areas of caution or tension

- **Informed Reviewers.** It can often be hard to get scholars who are willing to review novel techniques or "niche" topics such as LGBTQIA issues in certain journals. As such, we need more informed reviewers willing to volunteer for such requests, more members within the LGBTQIA community who are reviewers and editors, and identify training for inclusive reviewers practices.

### Evidence-based responses and suggestions to the scenario

- **Provide a response that addresses and justifies the rationale** for your analysis choices, "I respectfully disagree with the reviewer's suggested changes to conduct a comparison between gay and straight participants in the study as this may entrench comparative measures that decenter the focal participants. Such results may further a gap-gazing outcome that could be used to further harm the queer community."
- **Provide explicit language and justification in the methodology** for your analysis choices and why you have decided not to compare gay and straight participant outcomes.
- **Reach out to the editor** to have a conversation about the suggested feedback from reviewers, and educate them on why you cannot concede to the unreasonable reviewer request and how that may promote unethical research that harms the queer community. Journal editors are usually open to such conversations, and this can help push the field to change norms regarding analysis with marginalized populations.

## 23. 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?*

#### Discussion themes

- **Retaliation.** There are many forms of retaliation that the participant may experience including reprisal, hostility, ostracism, and maltreatment such as receiving failing grades, prevention from school activities and events, expulsion, and harassment. These act of retaliation may fall under Title IX violations.
- **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.
- **Enhancing Participant Agency-** Approach the issue in a way that enhances the agency of participants, so it does not facilitate a paternalistic "savior approach". As the participant directly what resources or assistance they desire regarding the situation.

#### Areas of caution or tension

- **Hostile Educational Environments.** It is important to have backup resources, self-care, and harm reduction in place for the researcher. Hearing such stories can produce emotional responses for the researcher and support should be put in place before conducting the research.

#### Evidence-based responses and suggestions to the scenario

- **Embargo** - The researcher may consider an embargo period (temporary stop or ban on disclosing information contained in a research paper) to allow for the student to graduate and limit the possibility of retaliation. The researcher could also delay any propagation efforts until after the student has graduated.
- **Single Institution or Context Studies** - One of the inherent risks of conducting research at a single institution or context is the increased risk of re-identification. The researcher may want to consider collecting additional data from other institutions and/or masking the departments the students were from all together, which may include a statement such as the following, "in order to protect identity of participants, details not-salient to the experience may be changed."
- **Composite Cases** - The researcher may use composite cases to weave together elements of stories from multiple participants to capture the salient experiences or themes without compromising the identity of a single participant.

## Resources

*Anonymising qualitative data.* (n.d.). UK Data Service.

<https://ukdataservice.ac.uk/learning-hub/research-data-management/anonymisation/anonymising-qualitative-data/>

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## Appendix A

Leadership team listed in Alphabetical Order by Last Name:

- Mike Bergland-Riese, University of Nebraska-Lincoln
- Tricia Clayton, Wake Forest University
- Antonio Duran, Arizona State University
- Eliza Gallagher, Clemson University
- Jay Garvey, University of Vermont
- Madison Fitzgerald-Russell, Texas State University
- Bryce Hughes, Montana State University
- Ryan Miller, University of North Carolina at Charlotte
- Wendy Smith, University of Nebraska-Lincoln
- John Sutton, ResultED
- Matthew Voigt, Clemson University