

Positionality practices and dimensions of impact on equity research: A collaborative inquiry and call to the community

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AGENDA



What is Positionality?



Introduction: Positionality and Engineering Education



Research Process



Six Dimensions



Results



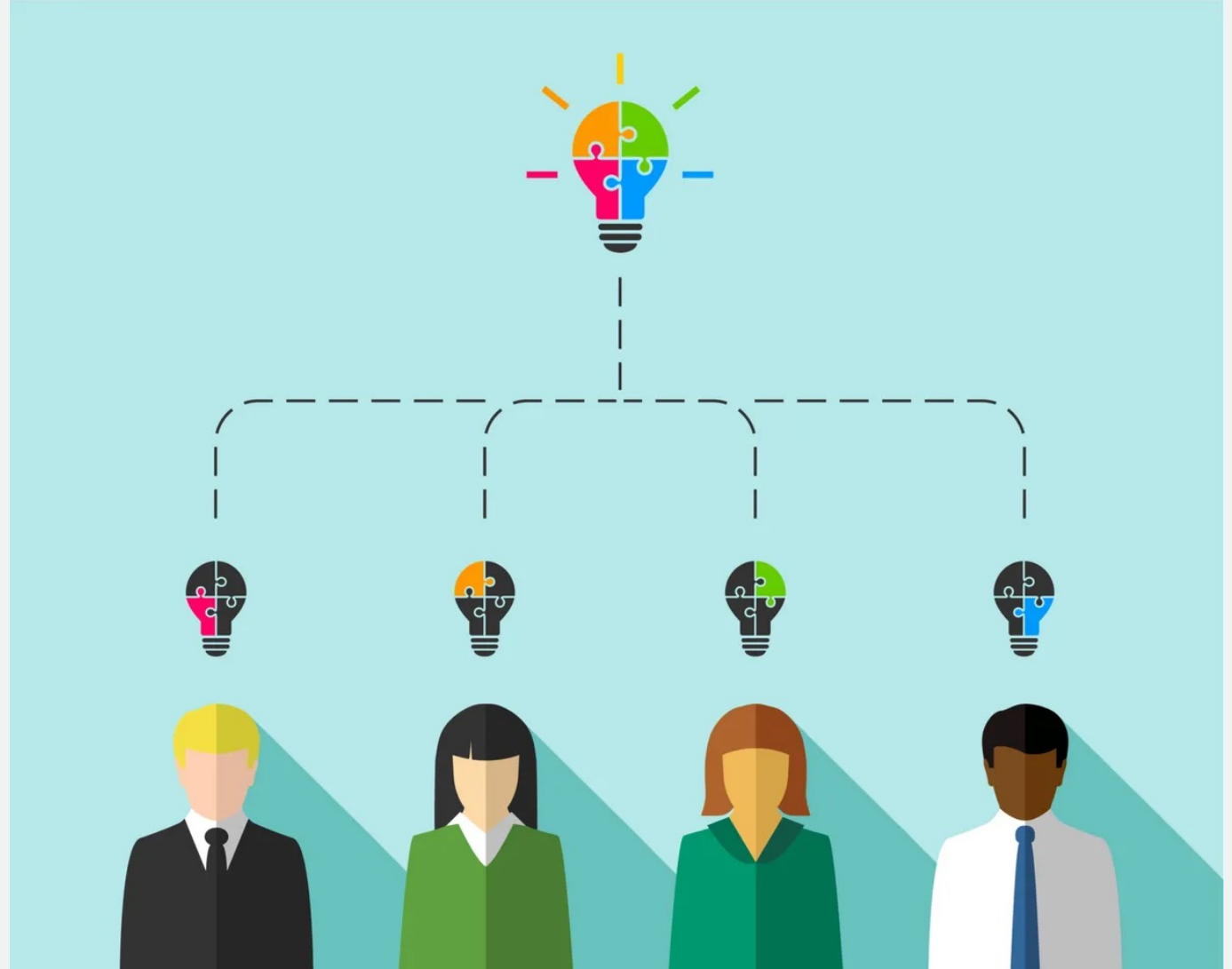
Conclusion



Personal Thoughts

What is Positionality ?

Positionality refers to the ways in which a researcher's social identity, background, and experiences shape their perspective and influence the research process. It is the recognition that researchers are not neutral or objective observers, but rather bring their own biases, assumptions, and values to their work.



Introduction: Positionality and Engineering Education

- Today's worlds have many Engineers as Engineering Educators. They have been trained to act instrumentally about solving problems.
- Most important aspects of Education process are Known Unknowns.
- challenging aspects include power relations and patterns of inequity among demographic groups in education and overlapping dimensions such as pedagogical goals, learning trajectories, and social relationships, which can create an increasingly complex interaction of human dynamics in engineering education.



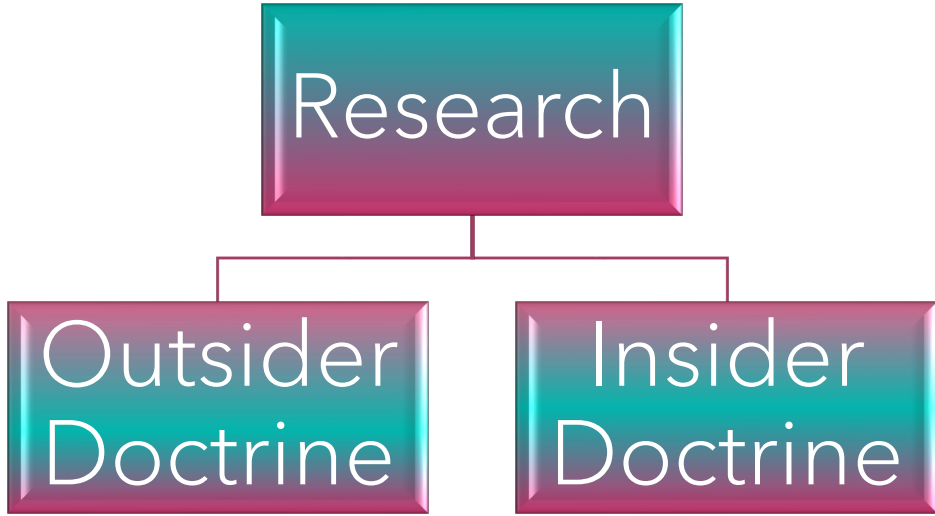
The engineering education community has an opportunity to enhance its impact through deeper reflection on the positional aspects of its research.

The Authors came up with six dimensions

1. Research topic
2. Epistemology
3. Ontology
4. Methodology
5. Researcher as instrument
6. Communication.



1 Mertens Dichotomy

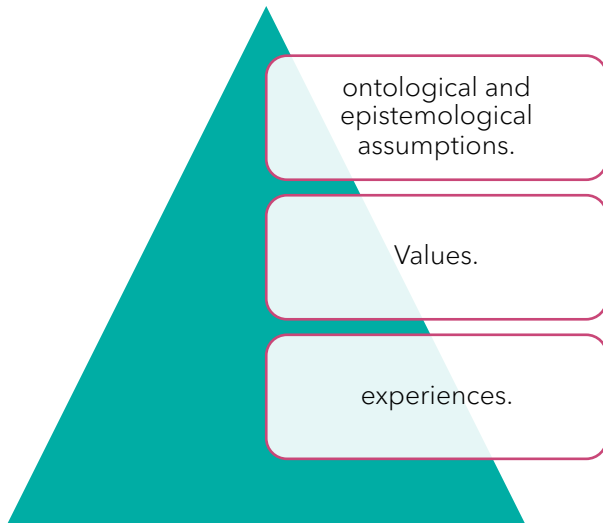


2

Positionality has been operationalized as reflexivity, an activity in which a researcher identifies, examines, and owns their backgrounds, perspectives, experiences, and biases in an effort to strengthen research quality.



3 Sochacka Three-tier Model



The Authors conducted a focused literature search using two representative online publication locations:

1. The American Society for Engineering Education (ASEE) Conference Papers on Engineering Education Repository (PEER).

2. The Journal of Engineering Education



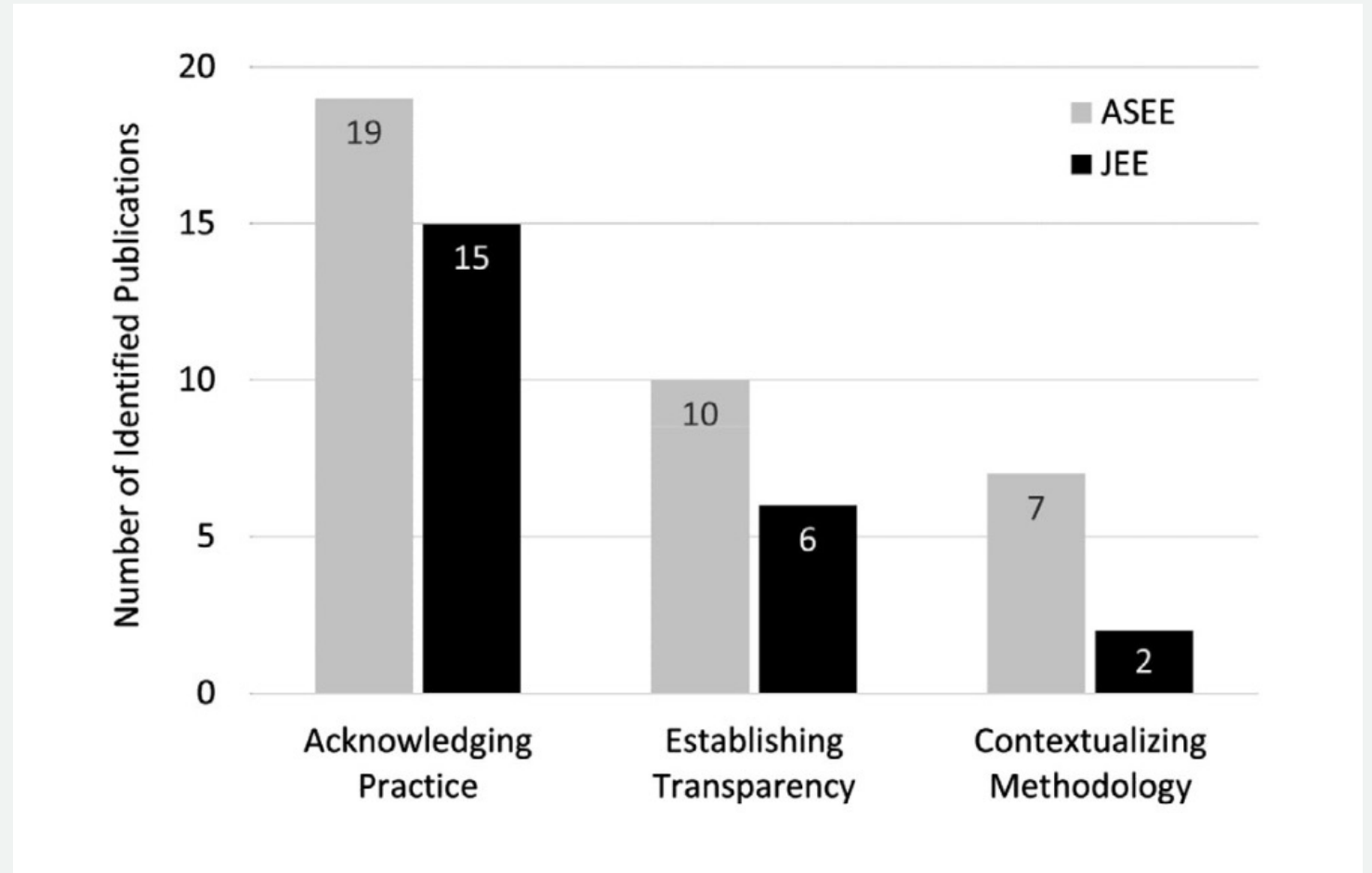
The second Author McCall with the help of the first Author Secules categorized into three:

Acknowledging Practice

Establishing
Transparency of Self
Attributes

Contextualizing
Methodology

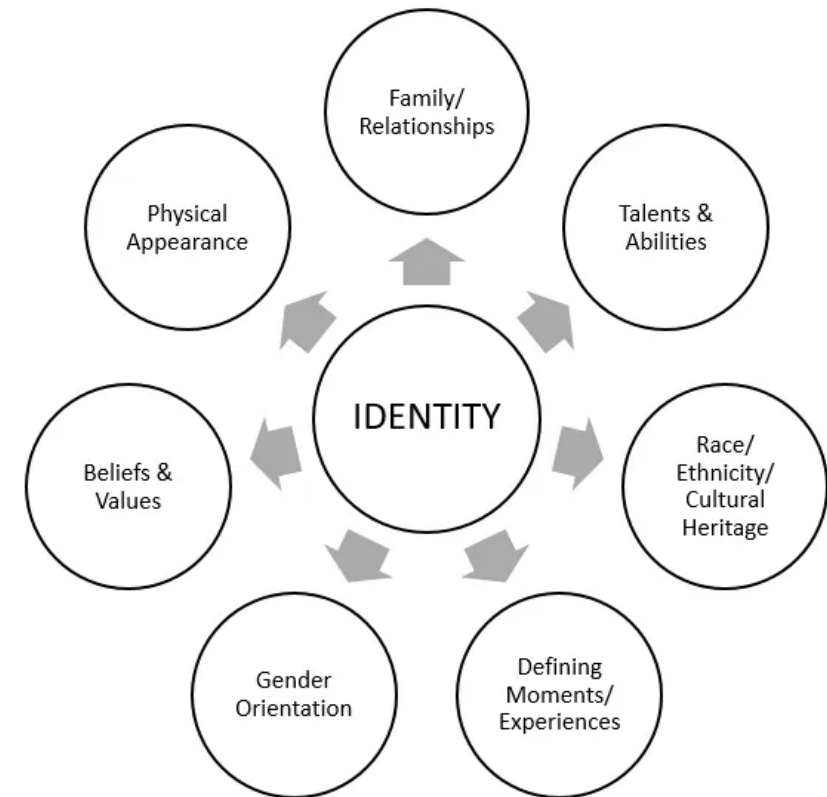
They searched for the term's "positionality", "reflexivity", "audit trail", "bracketing", "memo writing", and "diffraction" within the gathered publications and found fifty-nine publications.



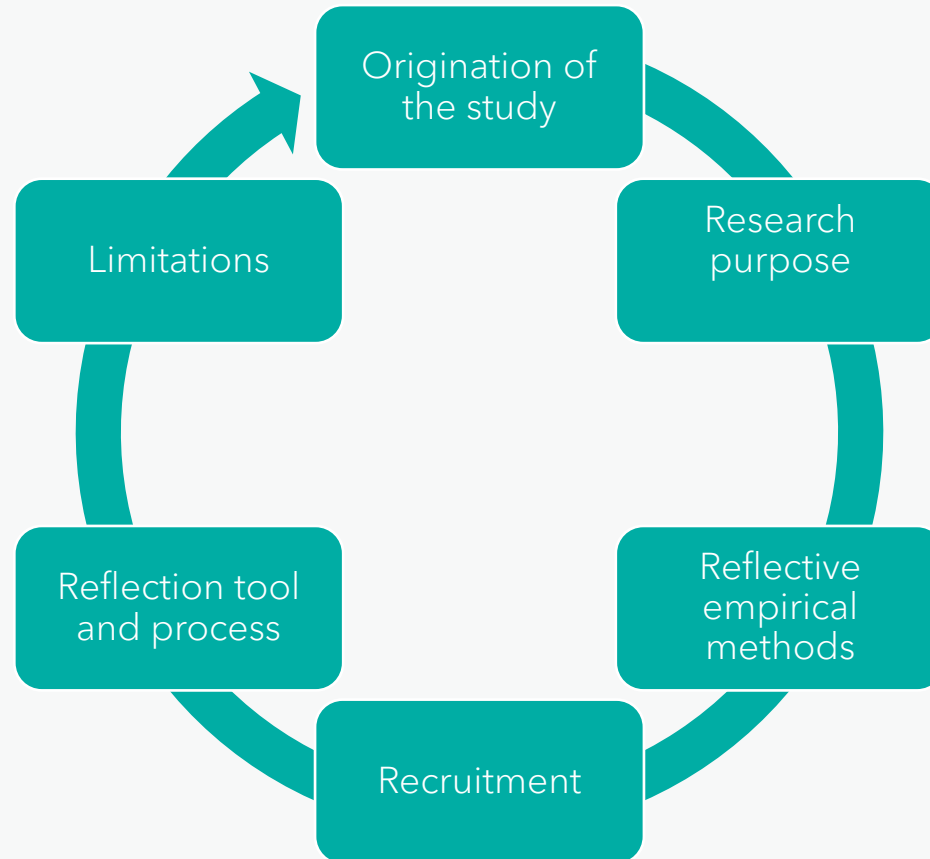
Identity



- An Identity can be anything like Male, Female, White, Black, Physical appearance, Race, Abilities, etc.
- Identity is not only an individual's personal choice for how to identify or something ingrained in their personhood. Identity is a combination of who one elects to be known as and what society views as that individual's group membership.
- Identity involves both the agency to decide and the structure to impose, and the two elements do not always align. In considering these dimensions, scholars often discuss identities as hidden or apparent.



Research Process



Six Dimensions

1 Selecting research topics and questions

How does your positionality impact what research you choose to do?

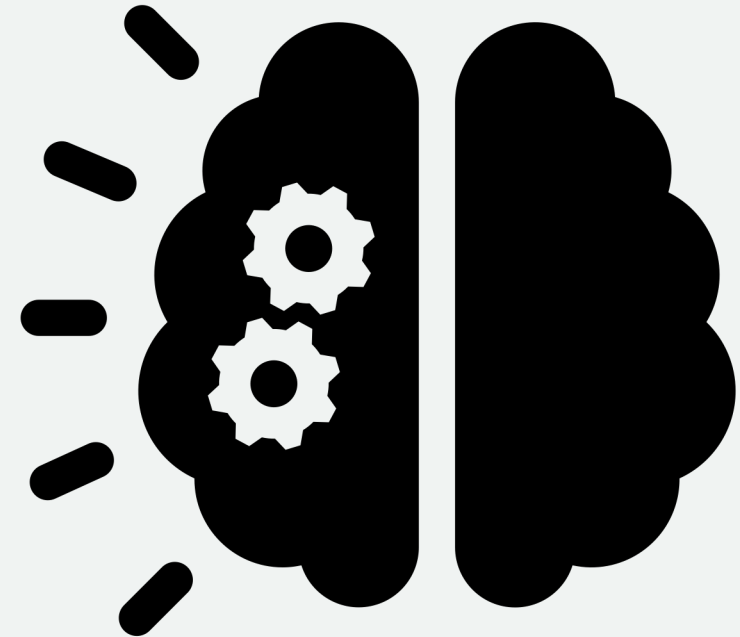
- Beebe
- McCall
- Sanchez-Peña
- Svyantek
- Secules



2 Epistemology

How does your positionality impact how you know what you know?

- Svyantek
- Beebe
- McCall
- Secules
- Mejia



3 Ontology

How does your positionality impact what you can observe as researchers?

- Secules
- Beebe
- Mejia



4 Methodology

How does your positionality impact how you make methodological choices?

- Secules
- Svyantek



5 Researcher as an instrument

How does your positionality impact how you relate to research participants?

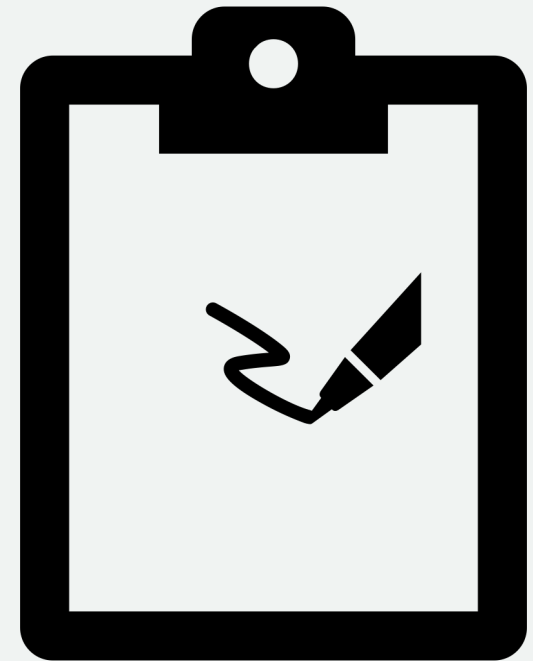
- Sanchez-Peña
- McCall
- Masters
- Secules
- Mejia



6 Communication

How does your positionality impact how you represent yourself in writing and other communication?

- McCall
- Sanchez-Peña
- Masters
- Secules
- Svyantek
- Mejia



Results

1 Calling for and modeling a contextualized positionality

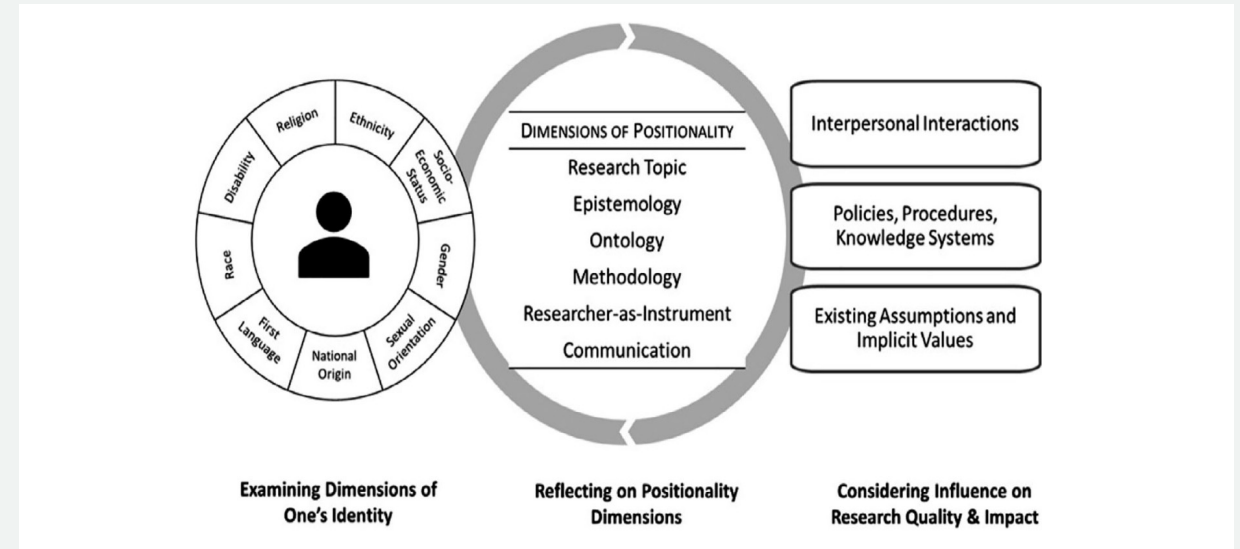
How researchers found ways to contextualize positionality in the research.

2 Nuances for marginalized, privileged, hidden, and apparent researcher positionalities

Recruited coauthor researcher participants to discuss how their experiences of marginalization or privilege and hidden or apparent identities have influenced their research. Marginality is relative and intersectional, and personal experiences of marginalization can motivate research or create distance from personally charged topics.

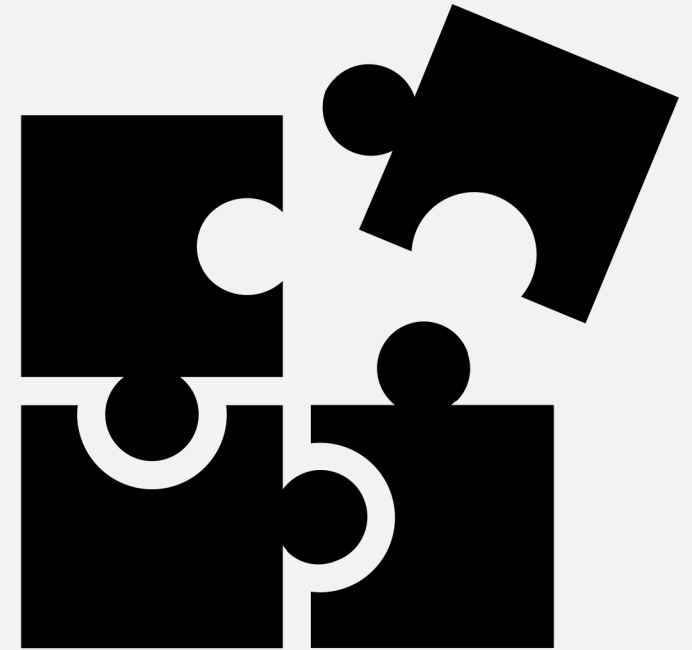
3 Process for examining identity, positionality, and impact

Reflection prompts can help researchers examine their impact on existing infrastructure and communities. Participant coauthors found that reflecting on their values and decisions helped them engage more deeply with the quality and impact of their research. The framework encourages researchers to examine their interactions with participants and stakeholders, as well as their relationships to policies, procedures, and knowledge systems and may lead to clearer conceptions of the purpose and goals of their work.



Conclusion

- The complexity of positionality in research lies in the multifaceted ways in which identity impacts research, the limited space for representing it, and the risks that can come from disclosures and transparency.
- By creating additional tools, the authors hope to make deeply examining and openly representing positionality the norm within the research community, making it safer for all scholars.
- Positionality matters for the entire research community, and the authors call on all researchers to critically examine and represent their identities in relation to existing power dynamics in their research contexts.
- Understanding research requires understanding one another, and the authors call for a community that continually and bravely tells one another who we are.



Personal Thoughts

- As a researcher, They recognize the importance of acknowledging their own positionality and how it may impact their work. By being transparent about their own demographic identity dimensions, they can establish trustworthiness with participants and limit potential biases in their research.
- It's important to recognize that positionality is not just about individual identities, but also about power dynamics within a research context. Researchers must be aware of how our own positions of privilege or marginalization may impact their interactions with participants and their interpretations of data.



Thank You !



Any Questions / Suggestions ?