



QUAN:
Data Collection

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Data Analysis

QUAL:
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Procedures:

- Conduct surveys with participants
- Collect data on STEM exposure, mentorship opportunities, and institutional support

Products:

- Survey dataset
- Descriptive statistics
- Inferential statistics

Procedures:

- Analyze survey data using statistical tools (e.g., SPSS)
- Conduct regression and correlational analysis

Products:

- Statistical results (e.g., correlations)
- Data visualization (e.g., tables, charts)

Procedures:

- Conduct semi-structured interviews with survey participants
- Record and transcribe interviews

Products:

- Interview transcripts
- Themes and codes from thematic analysis
- Descriptive quotes

Procedures:

- Perform thematic coding of transcripts
- Identifying recurring patterns and themes
- Develop narratives or case studies

Products:

- Thematic summaries
- Quotes and participant narratives

Integration &
Interpretation

Procedures:

- Merge quantitative and qualitative findings
- Compare statistical patterns with themes
- Identify connections between datasets
- Interpret results to answer research questions

Products:

- Combine findings (e.g., joint displays, narratives)
- Explanations of trends (e.g., why mentorship correlates with persistence)
- Actionable strategies and recommendations