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(WORK IN PROGRESS)

Background

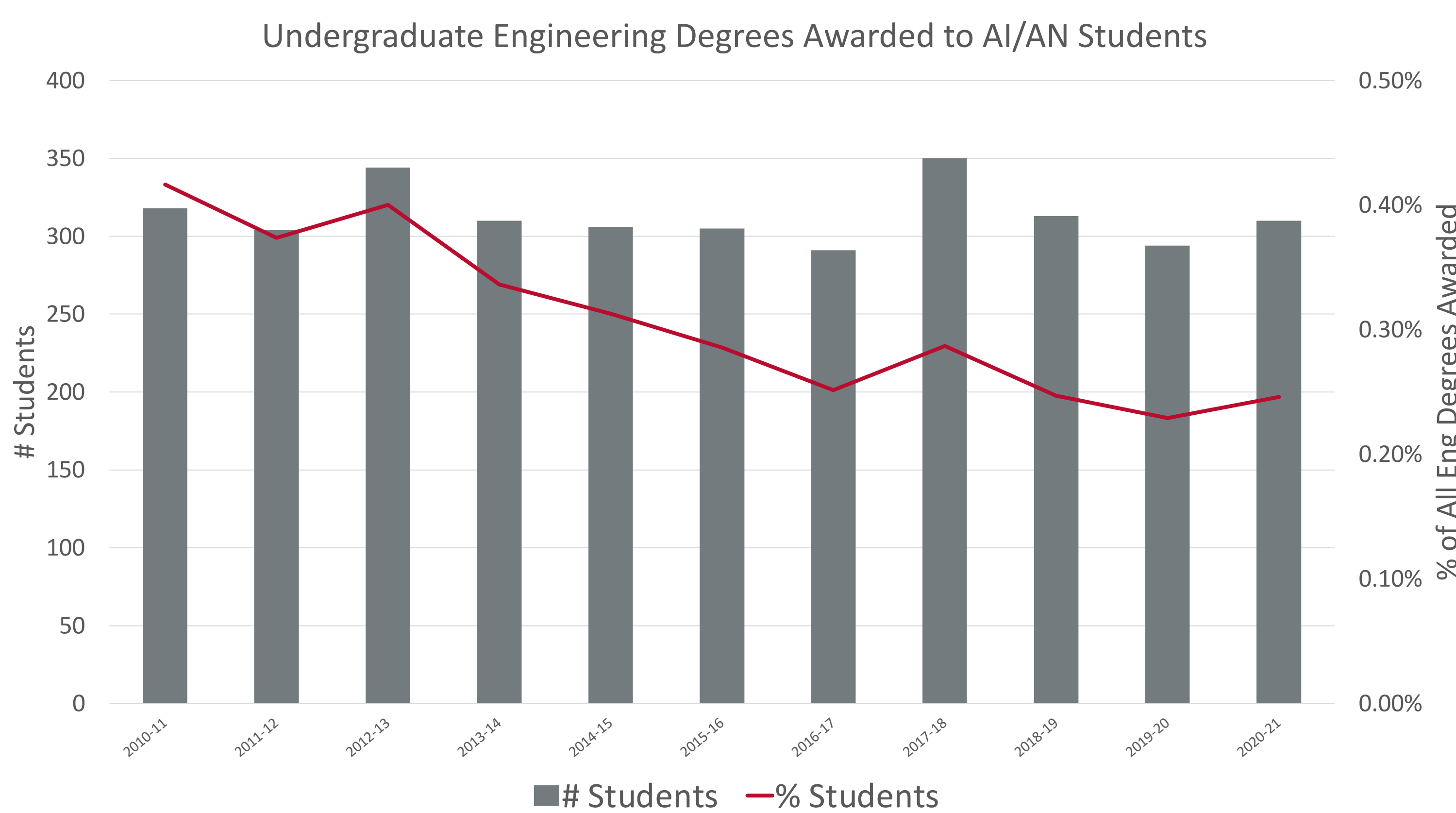
NEED

Tribes have articulated a need for a new generation of engineers to assist with Native nation building

"For the first time, we [a Tribal College] are producing students who can advise the State and Federal governments, and our students are becoming knowledgeable enough to oppose them with evidence-based research, when necessary to maintain tribal sovereignty." (Kant et al., 2015)

Existing engineering education pathways have remained closed to many AI/AN students

REALITY



OBSTACLE

Students do not view engineering as relevant to tribes (Kant et al., 2015)

OPPORTUNITY

Orient engineering towards Native nation building (Brayboy et al., 2014)

Engineering education research is in need of a **paradigm shift** which recognizes that, for AI/AN students, equitable outcomes are built upon solutions that **strengthen tribal sovereignty**

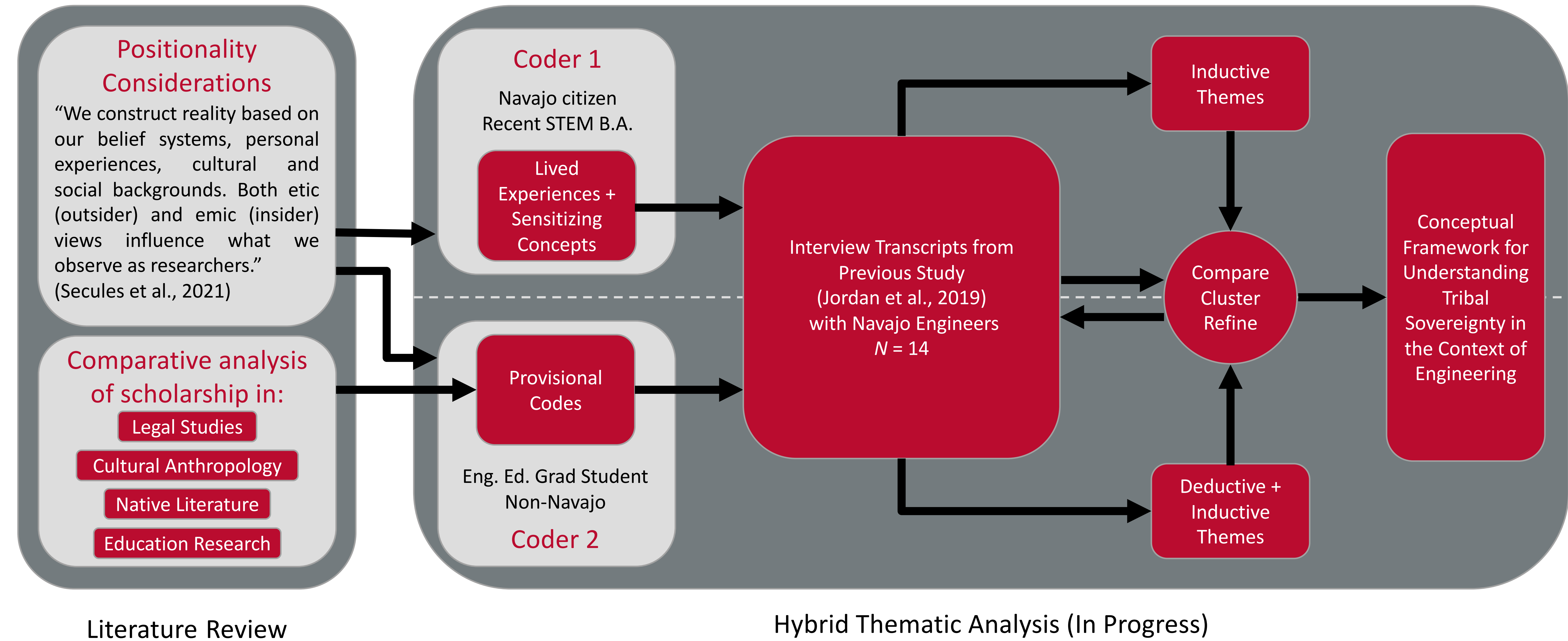
Acknowledgements

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Research Overview

Using existing data, can we pilot a qualitative framework that operationalizes tribal sovereignty within engineering education research?

"the definition of sovereignty covers a multitude of sins, having lost its political moorings, and now is adrift on the currents of individual fancy." (Deloria, Jr., 1998)



Provisional Codes

Tribal sovereignty is expressed through actions or strategies in engineering that...

EXISTENCE

defend or promote an aspect of the tribe's independence or cultural integrity

INTERNAL

deal exclusively with tribal citizens and/or institutions

LEGAL-POLITICAL

arise from factors in the legal-political domain

CONTINUANCE

project the tribe's autonomy or cultural integrity into a future setting

EXTERNAL

deal in whole or in part with persons and/or institutions external to the tribe

ORGANIC

arise from factors outside the legal-political domain

Looking Ahead

How can tribal colleges grow the capacity to sustain an engineering department?

What does a "sovereign" engineering undergraduate program look like?

Development of a quantitative instrument to evaluate tribal sovereignty