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Building STEM Equity and Identity in the Community

Colleen Doci

Marian University - Indianapolis, cdoci@marian.edu

Adrianna Ernstberger

Marian University - Indianapolis, aernstberger@marian.edu

Davyd Hall

Marian University - Indianapolis, dhall@marian.edu

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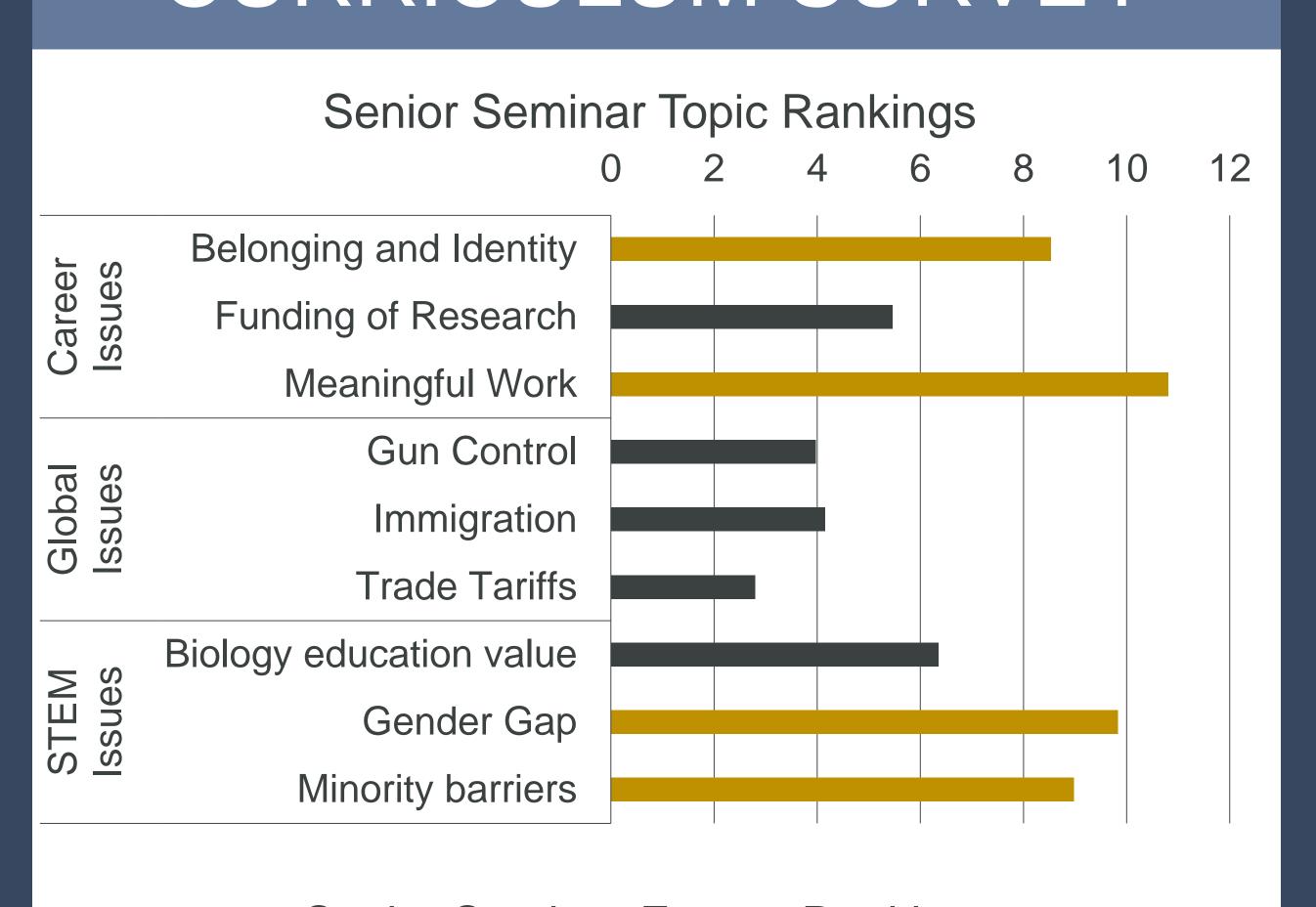
BUILDING STEM EQUITY AND IDENTITY IN THE COMMUNITY

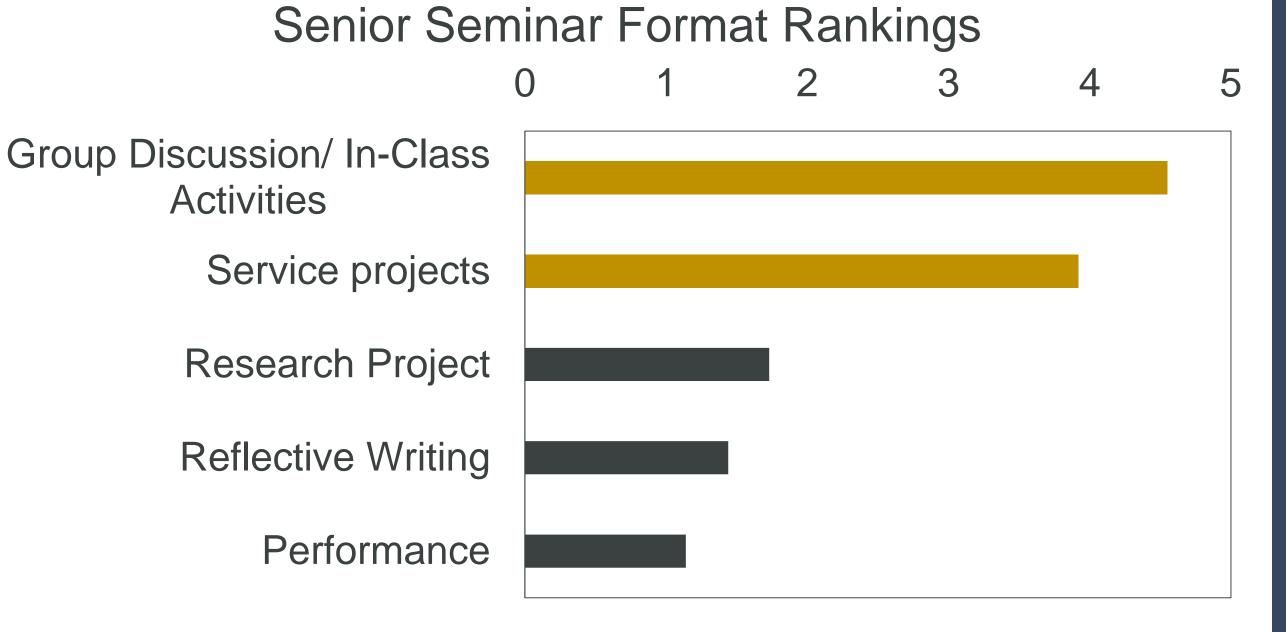
Colleen Doci, Adrianna Ernstberger, and Davyd Hall

BIO 490 GOAL

Develop collaborative curriculum with senior biology students to explore topics of significance in the field and positively impact our community

CURRICULUM SURVEY





LEARNING OBJECTIVES

- Explore personal and professional identity
- Investigate factors that sustain STEM engagement
- Develop activities that promote STEM identity
- Transition resources to Indianapolis classrooms

IDENTITY AND INTERSECTIONALITY Intersecting Axes of Privilege, Domination, and Opression Adapted from Kaltryn Pauly Morpan. "Describing the Emperor's New Citches: Three Myths of Educational (DisEqualty: The Corder Ducation in Energy Padigue, And Diler et al., Boulder, CO. Westver. 1998. The complex, cumulative way in which the effects of multiple forms of multiple forms of

What identity markers currently define you?

privilege or

discrimination

combine, overlap,

or intersect

- Which are most significant?
- Which relate to your choice of major?
- Which have helped you be successful?

What circumstances created those markers?

- Which are intrinsic?
- Which have developed over time?
- What was most impactful in creating them?

Markers that inspired your biology major

Good at

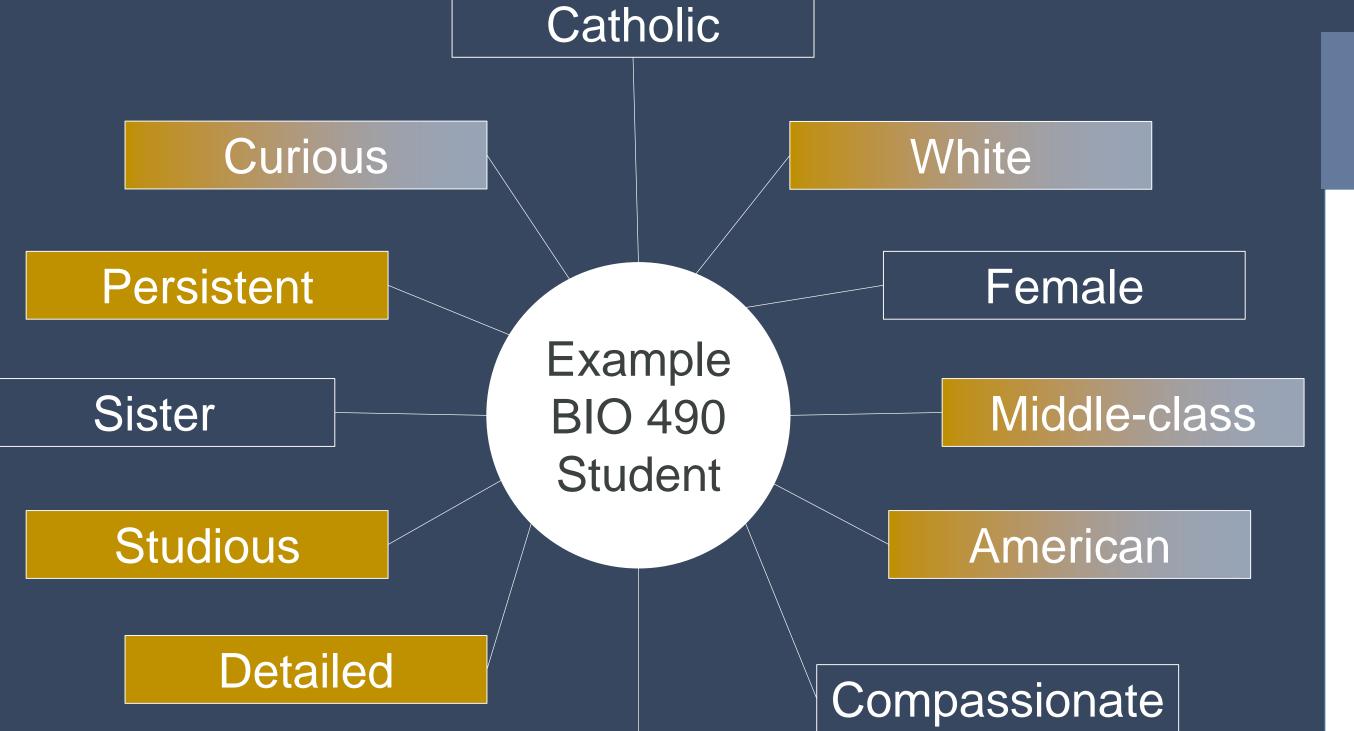
math

Markers that helped you be successful

Markers
associated
with scientists

Socially

awkward



Resilient

Intelligent

STEM IDENTITY RESEARCH

STEM Identity is a strong predictor of sustained interest and engagement in these fields

Many STEM initiatives fail to engage identity-forming pedagogies

Formative identity markers that address intersectionality issues are most impactful

"Re-Purpose"
common
classroom
activities in
ways that
build STEM
Identity for
underrepresented
youth in our
community

Community/ Family Anchoring

Reframe universal learning values

BUILDING STEM IDENTITY

Implement Formative Grading

Emphasize global character traits

STEM IDENTITY PROJECTS