

Cal Poly Humboldt

Digital Commons @ Cal Poly Humboldt

IdeaFest 2022

2022

Students' Experiences with Diversity, Equity, and Inclusion in Research Methods Courses

Brandilynn Villarreal

Cal Poly Humboldt, bjv7@humboldt.edu

Maria I. Iturbide

Cal Poly Humboldt, mii4@humboldt.edu

Edgar Jimenez-Madora

Cal Poly Humboldt, edj12@humboldt.edu

Shelley Magallanes

Cal Poly Humboldt, sem21@humboldt.edu

Luis Lara

Cal Poly Humboldt, lh115@humboldt.edu

See next page for additional authors

Follow this and additional works at: <https://digitalcommons.humboldt.edu/ideafest2022>

Recommended Citation

Villarreal, Brandilynn; Iturbide, Maria I.; Jimenez-Madora, Edgar; Magallanes, Shelley; Lara, Luis; and Armenta Villa, Leti, "Students' Experiences with Diversity, Equity, and Inclusion in Research Methods Courses" (2022). *IdeaFest 2022*. 76.

<https://digitalcommons.humboldt.edu/ideafest2022/76>

This Poster is brought to you for free and open access by Digital Commons @ Cal Poly Humboldt. It has been accepted for inclusion in IdeaFest 2022 by an authorized administrator of Digital Commons @ Cal Poly Humboldt. For more information, please contact kyle.morgan@humboldt.edu.

Authors

Brandilynn Villarreal, Maria I. Iturbide, Edgar Jimenez-Madora, Shelley Magallanes, Luis Lara, and Leti Armenta Villa

Students' Experiences with Diversity, Equity, and Inclusion in Research Methods Courses

Brandilynn Villarreal, Maria I. Iturbide, Edgar Jimenez-Madora, Shelley Magallanes, Luis Lara, & Leti Armenta Villa
Cal Poly Humboldt

Introduction

- Researchers have noted a historical lack of coverage of diversity, equity, and inclusion (DEI) topics in Psychology Research Methods courses (RMCs).
 - E.g., failing to use readings and examples that represent researchers and participants from diverse backgrounds, and deemphasizing or failing to cover methods that best serve people of diverse backgrounds (e.g., Roberts et al., 2020).

Hypotheses

- We hypothesize that Psychology RMCs' coverage of DEI will be positively correlated with indicators of academic integration and negatively correlated with minority stress, especially for marginalized students (i.e., students of color, transfer students, Pell Grant-eligible students).

Method

Participants & Procedure

- Students from a public university ($N = 45$) completed an online survey through Qualtrics.
 - Age ranged from 18-40 years, $M = 23.5$, $SD = 5.2$
 - 63.6% women, 18.2% men, 13.6% gender non-binary
 - 52.3% students of color (SOC)

Measures

- **DEI in RMC** (author-created): 5-item scale; 2 subscales assess DEI content ($\alpha = .70$) and DEI opportunities ($\alpha = .90$).
- **School Connectedness** (McNelly et al., 2002): 5 items assess students' feelings of school connectedness ($\alpha = .80$).
- **Academic Self-Efficacy** (adapted from Estrada et al., 2011): 6 items assess students' confidence in their ability to function as a scientist ($\alpha = .96$).
- **Science Identity** (adapted Estrada et al., 2011): 5 items assess students' sense of themselves as a scientist who undertakes research activities ($\alpha = .91$).
- **Networking** (Hanauer & Hatfull, 2015): 5 items assess students' discussion of research with others ($\alpha = .81$).
- **Scientific Community Values** (Estrada et al., 2011): 4 items assess students' perceptions of science values ($\alpha = .88$).
- **Campus Climate** (Reid, 2003): Instructor subscale: 6 items assess students' perceptions of campus climate ($\alpha = .73$).
- **Minority Stress Scale** (adapted from Borden et al., 1993): 22 items assess stress related to race/ethnicity. 3 subscales: social climate stresses ($\alpha = .93$); racism/discrimination stresses ($\alpha = .92$); and achievement stresses ($\alpha = .83$).

Results

- Bivariate correlations were run for study variables for white students and SOC (see Table 1).
- Among SOC, the following correlations between RMCs and academic integration and minority stress, respectively, were statistically significant:
 - DEI Content and (1) Campus Climate and (2) Social Climate Stresses
- Among white students, the following correlations between RMCs and academic integration were statistically significant:
 - DEI Content and (1) Science Identity, (2) Networking, and (3) Campus Climate
 - DEI Opportunities and (1) Networking and (2) Campus Climate

Table 1
Bivariate correlations for study variables ($N = 44$).

Variables	1	2	3	4	5	6	7	8	9	10	11
1. DEI Content	--	.55**	-.08	-.12	.13	-.27	.27	.43*	.51*	-.01	.19
2. DEI Opportunities	.69**	--	-.33	.15	-.10	-.23	-.15	.29	.35	-.09	-.11
3. School Connectedness	.32	.02	--	.22	.62**	-.01	.45*	.10	-.44 [†]	-.18	.14
4. Academic Self-Efficacy	.24	.16	-.07	--	.03	-.06	.06	-.16	-.47*	.01	.02
5. Science Identity	.52*	.38	.41 [†]	.13	--	.07	.63**	.49*	-.09	-.33	.18
6. Networking	.74**	.58**	.29	.15	.58**	--	.07	-.34	.18	.21	.01
7. Scientific Values	.28	.13	.21	-.24	.44	.15	--	.39 [†]	.14	-.24	.48*
8. Campus Climate	.52*	.56*	-.01	-.12	.58**	.67**	.52*	--	.01	-.40	-.09
9. Social Climate Stresses	.06	.17	.17	.18	.09	-.05	.15	-.19	--	.37	.59*
10. Racism/Disc Stresses	.11	-.23	.32	.24	.20	.08	.45	-.08	.63*	--	.31
11. Achievement Stresses	.01	.30	-.32	-.10	-.03	.16	-.04	.25	.21	.24	--

Note: bottom half of correlation matrix = white students; top half of correlation matrix = students of color; * $p < .05$; ** $p < .001$

- *Students of color and white students:* We found statistically significant differences in minority stress with students of color experiencing greater social climate stresses and racism/discrimination stresses than white students (see Table 2).

Table 2
Differences in DEI Related Outcomes based on Race/Ethnicity.

Variable	SOC		Non-SOC		F value
	M	SD	M	SD	
Social Climate Stresses	3.16	1.12	2.18	0.97	7.99**
Racism/Discrimination Stresses	3.55	1.15	2.35	1.40	6.27*

Note: * $p < .05$, ** $p < .01$.

Results

- *Transfer and non-transfer students:* Non-transfer students reported marginally greater differences in perceptions of DEI opportunities in RMCs. Transfer students reported marginally identifying with scientific values more than non-transfer students (see Table 3).

Table 3

Differences in DEI Related Outcomes based on Transfer Status.

Variable	Transfer		Non-Transfer		F value
	M	SD	M	SD	
DEI Opportunities	3.11	1.34	3.78	1.27	2.95 [†]
Scientific Values	5.26	0.73	4.85	0.85	2.94 [†]

Note: [†] $p < .10$.

- *Pell Grant-eligible and non-eligible:* Non-eligible students reported marginally identifying with scientific values more than Pell Grant-eligible students (see Table 4).

Table 4

Differences in DEI Related Outcomes based on Pell Grant Eligibility.

Variable	Eligible		Non-Eligible		F value
	M	SD	M	SD	
Scientific Values	4.84	0.90	5.31	0.61	3.92 [†]

Note: [†] $p < .10$.

Discussion

- There was some support for study hypotheses.
- DEI in RMCs were associated with greater science identities and networking in white students and perceptions of positive campus climate for all students. However, for SOC, DEI in RMCs were associated with a greater number of social climate stresses.
 - It may be that calling attention to limitations of the field of psychology may make DEI issues more salient for SOC, leading to greater experiences of stress.
- SOC reported greater minority stress than white students.
- Given the small sample and marginally significant findings, more research is needed to understand how other marginalized groups (e.g., transfer students and Pell Grant-eligible students) experience DEI in RMCs and academic integration.