

Institutional Environments for Diverse and Inclusive College Teaching: Exploring Disciplinary Variation

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1

Purpose and Research Questions

- We examined the ways that discipline relates to what are often viewed as institutionally situated teaching environments

Focused on 3 pedagogical and curricular aspects of teaching environments:

- the importance of **diversity in the curriculum**
- the use of **inclusive pedagogies**
- faculty members' sense of **autonomy** in their teaching

Research Questions:

- How do three aspects of faculty teaching environments vary across general academic disciplinary areas?
- To what extent do disciplinary cultures relate to three aspects of faculty teaching environments?
- To what extent does the interaction of disciplinary cultures and faculty sense of teaching autonomy relate to the importance of diversity in the curriculum and the use of inclusive pedagogies?

2

Literature and Guiding Frameworks

<p style="text-align: center; background-color: #4CAF50; color: white; padding: 5px;">Literature</p> <ul style="list-style-type: none"> Curricular Diversity Inclusive Pedagogy Faculty Teaching Autonomy Disciplinary cultures 	<p style="text-align: center; background-color: #FFC107; color: white; padding: 5px;">Guiding Frameworks</p> <ul style="list-style-type: none"> Biglan's 3 Dimensions (1973) <ul style="list-style-type: none"> Hard vs. Soft Pure vs. Applied Life vs. Nonlife College + University Teaching Environments (CUTE) (BrckLorenz et al., 2021)
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3

College + University Teaching Environment Framework

Teaching Environment

Climate for Diversity

<p>Processes + Policies</p> <ul style="list-style-type: none"> + Balance between teaching and scholarship + Balance and flexibility for work and life + Teaching values within hiring, promotion, and tenure + Commitment to diversity, equity, and inclusion + Academic freedom and course content + Pedagogy and teaching methods + Teaching autonomy 	<p>People</p> <ul style="list-style-type: none"> + Values of senior leadership, dept. chairs + Faculty community and collegiality + Instructor identity + Compositional diversity and interaction across difference + Teaching relatedness
<p>Affect</p> <ul style="list-style-type: none"> + Respect + Belonging + Stress + Motivation 	<p>Resources</p> <ul style="list-style-type: none"> + Instructional development + Access to necessary tools + Time + Teaching competence

BrckLorenz, A. (2021). College + university teaching environment framework. Center for Postsecondary Research. <https://postsecondary.iu.edu/>

4

Data

- College + University Teaching Environment (CUTE) Fall 2021 Administration
- The sample includes more than 4,000 faculty responses from 20 institutions

	N	%
Disciplinary Area		
Arts & Humanities	689	24.7
Biological Sciences, Agriculture, & Natural Resources	148	5.3
Business	271	9.7
Communications, Media, & Public Relations	84	3.0
Education	256	9.2
Engineering	105	3.8
Health Professions	435	15.6
Physical Sciences, Mathematics, & Computer Science	270	9.7
Social Sciences	362	13.0
Other disciplines	167	6.0

5

Measures

Variable	Calculation	N	Range	Mean	SD	α	ICC
Curricular Diversity	Mean of 7 Likert-scale (5 pt) items, standardized as Z-score	3,155	0-4	2.89	1.02	.951	.022
Diversity Inclusivity	Mean of 12 Likert-scale (5 pt) items, standardized as Z-score	3,161	0-4	2.97	.65	.888	.041
Teaching Autonomy	Mean of 4 Likert-scale (5 pt) items, standardized as Z-score	3,627	0-4	3.07	.66	.819	.021

- Additional control variables for faculty characteristics: gender identity, sexual orientation, race/ethnicity, academic rank, and whether they held administrative positions

7

Results

Variation in Faculty Teaching Environments Across Disciplinary Areas

F (Sig.)	Curricular Diversity (n=2,777)		Diversity Inclusivity (n=2,780)		Teaching Autonomy (n=2,782)	
	Mean	SD	Mean	SD	Mean	SD
	32.701***					
Arts & Humanities	3.17	.86	3.11	.60	3.08	.69
Bio. Sciences, Ag., & Natural Resources	2.45	.92	2.62	.68	2.99	.66
Business	2.57	1.05	2.96	.66	3.14	.64
Comm., Media, & Public Relations	3.24	.78	3.15	.57	3.17	.66
Education	3.29	.84	3.29	.57	3.20	.68
Engineering	2.21	1.18	2.63	.73	3.03	.70
Health Professions	2.93	.95	2.89	.64	3.06	.62
Other disciplines	2.00	1.13	2.61	.65	3.03	.64
Phys. Sciences, Math., & Computer Science	3.23	.77	3.07	.59	3.10	.66
Social Sciences	2.99	.91	2.96	.64	3.05	.66

Note. *p < .05, **p < .01, ***p < .001

8

Results

Relationships between Disciplinary Cultures and Teaching Environments

	Curricular Diversity			Diversity Inclusivity			Teaching Autonomy			
	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.	
Biglan Dimension										
Soft Disciplines	.02	.04		.19	.04	***	.05	.04		
Applied Disciplines	-.27	.05	***	-.07	.05		.05	.05		
Nonlife Disciplines	.16	.05	***	.16	.05	**	.01	.05		

Note. *p < .05, **p < .01, ***p < .001; Note that we used effect coding so that coefficients are not compared to an arbitrary reference group but instead to the average score of faculty in each model.

9

Results

Relationships Between Teaching Autonomy, Disciplinary Cultures, and Teaching Environments

	Curricular Diversity			Diversity Inclusivity		
	B	S.E.	Sig.	B	S.E.	Sig.
Teaching Autonomy	.22	.07	**	.40	.07	***
Biglan Dimension						
Soft Disciplines	.00	.04		.17	.04	***
Applied Disciplines	-.27	.04	***	-.08	.05	
Nonlife Discipline	.17	.05	***	.15	.05	**
Interaction term						
Autonomy x Soft Disciplines	.13	.04	**	.07	.04	
Autonomy x Applied Disciplines	-.3	.05		.02	.04	
Autonomy x Nonlife Discipline	-.10	.03	*	-.01	.05	

Note. *p < .05, **p < .01, ***p < .001; Note that we used effect coding so that coefficients are not compared to an arbitrary reference group but instead to the average score of faculty in the model.

10

- ### Limitations
- Institutions self-select to participate in CUTE
 - Data may not be fully representative of 4-year institutions, suggesting caution in generalizing
 - Use of general disciplinary areas limits understandings of individual disciplines
 - Masks the true variation across disciplines – some general areas may not have much variation across specific disciplines and others may have a lot of variation
 - Grouping or excluding small populations (e.g., faculty of another gender identity) limits a full understanding
 - Though we were not focused on faculty identities, as researchers we should always remain mindful of how we are representing faculty in quantitative research

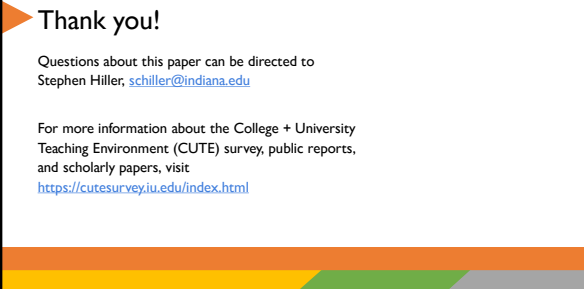
11

- ### Discussion and Implications
- Clear evidence of significant variation across general disciplinary areas
 - The general disciplinary areas likely mask greater variation given Mayhew and Grunwald (2006) suggested that departmental climates are more likely to influence faculty incorporation of diversity in the curriculum than broader, institutional environments
 - Faculty in Soft disciplines more often utilize inclusive pedagogies, aligning with past research
 - Faculty in Applied disciplines place less importance on curricular diversity, past research suggests further research would be valuable

12

- ### Discussion and Implications
- Yet, the interaction terms indicate that with greater autonomy faculty in Applied disciplines do place greater importance on curricular diversity
 - Demonstrates, as suggested by the literature, the importance and value of faculty autonomy
 - Teaching autonomy is strongly related to faculty placing importance on curricular diversity and being inclusive in their courses
 - This is a critical finding in and of itself as it suggests that forcing or pressuring instructors into being inclusive will not likely be an effective strategy
 - Research is needed to understand which strategies are effective in cultivating a greater sense of autonomy so faculty intrinsically want to be more inclusive and thus take actions in those directions
 - Important to note that intrinsic motivation can only be achieved with activities that are intrinsically interesting to people (Ryan & Deci, 2000)

13



Thank you!

Questions about this paper can be directed to
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For more information about the College + University
Teaching Environment (CUTE) survey, public reports,
and scholarly papers, visit
<https://cutesurvey.iu.edu/index.html>