

Examining the Relationship between Faculty Development Opportunities and Teaching Practices

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Overview

Faculty often partake in developmental opportunities that seek to improve their pedagogical practices and the student experience. Seeing the importance in reflecting on and understanding teaching, this study uses a multi-institution data set to examine the relationship between development opportunities and faculty use of effective teaching practices and course goals.

Tenets from Faculty Learning Outcomes (FLO) Framework can be used to understand the ways in which faculty development opportunities meaningfully improve faculty practices (Hurney et al., 2016). It calls on practitioners to move beyond one-time program assessments and look at a myriad of development opportunities. We asked:

- Who are the faculty members partaking in informal and formal professional development opportunities; and,
- How does faculty participation in teaching professional development opportunities relate to their use of effective teaching strategies and selection of course goals?

Data

The data for the study comes from five years (2014–2018) of Faculty Survey of Student Engagement (FSSE) administrations; it is an instrument used to assess the instructional techniques and motivations of faculty at four-year colleges and universities (FSSE, n.d.).

- 4,457 responses
- Institution Representation
 - Baccalaureate-granting (13.5%)
 - Master's-granting (55%)
 - Doctoral-granting (31.5%)
- Faculty employment status
 - Full-time (79.9%)
 - Part-time (20.1%)

Measures

Faculty were asked several items pertaining to their participation in teaching development opportunities, effective teaching practices, and course goals, forming four scales. They were standardized before analyses.

- Faculty responded to how often they participated in activities such as visiting an office or center supporting teaching, attending a workshop, or discussing teaching with other faculty (1=Never, 2=Sometimes, 3=Often, 4=Very Often).
- Regarding their classroom practices, faculty responded to the extent they clearly explain class objectives, use examples or illustrations, and provide feedback to students on drafts (1=Very little, 2=Some, 3=Quite a bit, 4=Very much).
- Faculty expressed the extent they structure courses to emphasize writing clearly and effectively, collaboration with peers, and developing a sense of citizenship (1=Very little 2=Some, 3=Quite a bit, 4=Very much).

	N	SD	SE	Alpha	Omega
Informal Teaching Development	4456	0.84	0.01	0.64	0.65
Formal Teaching Development	4456	0.88	0.01	0.78	0.74
Effective Teaching Practices	4456	1	0.02	0.99	0.99
Course Goals	4456	1.01	0.02	0.99	0.99

Analysis & Results

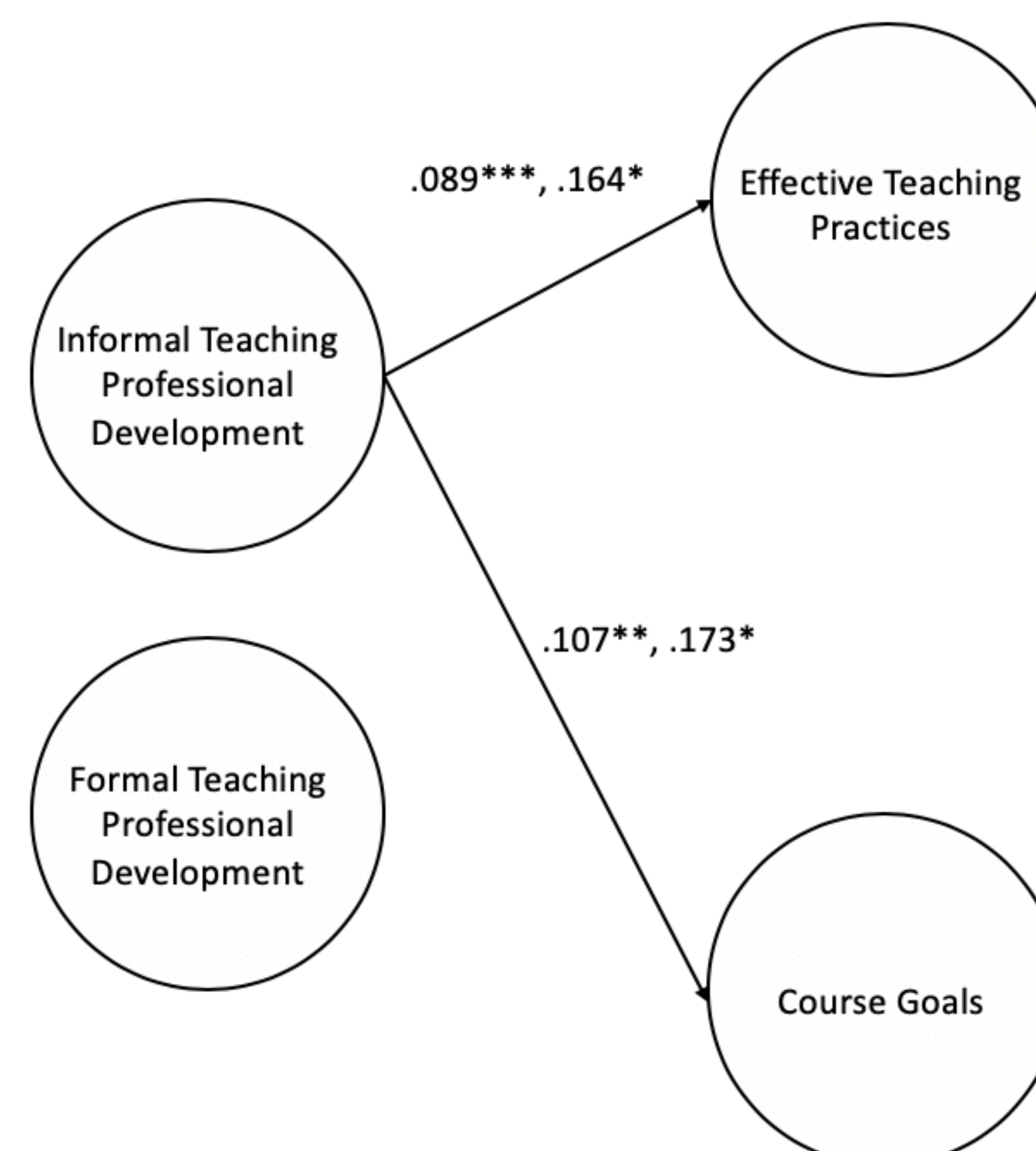
To answer the first research question, descriptive statistics, t-tests, and Cohen's d effect sizes were used to understand differences between full-time and part-time faculty.

Development Opportunity	Item	Full-time		Part-time		t	sig	d
		Mean	SD	Mean	SD			
Formal	Visited an office or center that supports faculty (Center for Teaching and Learning, Center for Teaching Excellence, etc.)	1.70	0.85	1.59	0.79	-3.41	**	0.13
	Attended a workshop or training session to enhance your teaching	2.05	0.88	1.86	0.88	-5.70	***	0.22
	Had a faculty or staff member observe your teaching and provide feedback	1.65	0.81	1.79	0.86	4.53	***	0.17
	Worked one-on-one with a faculty or staff member to help improve your teaching	1.58	0.78	1.66	0.81	2.85	**	0.1
	Worked with a group of faculty or staff to help improve your teaching	1.55	0.77	1.55	0.80	-0.10		
Informal	Discussed teaching issues with other faculty or staff	2.98	0.86	2.59	0.91	-11.88	***	0.44
	Consulted books, articles, or online resources to enhance your teaching	2.76	0.94	2.76	0.97	0.20		
	Solicited feedback from students about your teaching beyond institution-provided end-of-course evaluations	2.68	0.97	2.59	1.03	-2.49	*	0.09

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

A structural equation model was used to answer the second research question about the relationship informal and formal development opportunities and effective teaching and course goals. Then, a multigroup structural equation model tested for measurement invariance to see if the four latent constructs functioned the same for both populations.

Configural invariance demonstrates the constructs were similar (CFI > .95; TLI > .95; RMSEA < .08; χ^2 [564, N= 4,456] = 7998.2; $p < .05$). The strength of the relationships for both part and full-time faculty are in the figure. Metric and scalar invariance did not hold—these are measures that concerned individual items and means of the observed variables being consistent across groups (Hong, Malik, & Lee, 2003), but we know this is not true given previous analyses.



Note: *p<.05, **p<.01, ***p<.001; full-time, part-time

Limitations

- Institutions self-select to participate in the Faculty Survey of Student Engagement thus the findings are not representative outside of the scope of the sample used in analyses.
- Structural equation modelling relies on sound theoretical underpinnings when developing models; it is always possible there are additional observed or latent variables not measured in the study that could influence the results (Bollen, 1989).

Discussion & Implications

Findings indicate that informal practices including discussing teaching with colleagues, speaking with students beyond course evaluations about classroom practices, and reading pedagogy books appear to increase use of effective teaching practices. These findings have possible implications for faculty developers, department chairs, and provosts.

- The findings confirm and extend previous research that informal teaching professional development opportunities such as mentoring relationships are important for faculty, and cultures of mentorship should be promoted for both full and part time faculty (Files et al., 2008).
- On the other hand, informal development opportunities do lend themselves to positive outcomes thus it begs the question of how faculty can be encouraged or possibly rewarded and recognized for partaking in development that often does not help them in the tenure/promotion process.
- Future research may consider conducting multigroup structural equation analyses to see if there are differences in the constructs studied between gender or race. This is critically important as research indicated there are differences in teaching development practices that faculty use to teach when looking at demographics (Vargas, 2002).

References & Resources

- Bollen, K. A. (1989). Structural equation modelling with latent variables. New York, NY: Wiley.
- Files, J. A., Blair, J. E., Mayer, A. P., & Ko, M. G. (2008). Facilitated peer mentorship: A pilot program for academic advancement of female medical faculty. *Journal of Women's Health, 17*(6), 1009-1015.
- FSSE. (n.d.). Faculty survey of student engagement. Retrieved from <http://fsse.indiana.edu/>
- Hong, S., Malik, M. L., & Lee, M. K. (2003). Testing configural, metric, scalar, and latent mean invariance across genders in sociotropy and autonomy using a non-Western sample. *Educational and psychological measurement, 63*(4), 636-654.
- Hurney, C. A., Brantmeier, E. J., Good, M. R., Harrison, D., & Meixner, C. (2016). The faculty learning outcome assessment framework. *The Journal of Faculty Development, 30*(2), 69-77.
- Vargas, L. (2002). *Women faculty of color in the White classroom: Narratives on the pedagogical implications of teacher diversity*. New York, NY: Peter Lang.

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