

Faculty Roles in Disciplinary Contexts and in Changing Disciplinary Cultures

This symposium is an exploration of faculty roles in disciplinary contexts and in changing disciplinary cultures. Based on interview and survey data, symposium panelists will discuss disciplinary considerations with a 1) a national look at how faculty teaching and research responsibilities vary by discipline and 2) an international perspective studying the effect of interdisciplinary work on faculty responsibilities and cultures. Snapshots from two disciplines, illustrate 3) the experience and vitality of associate-professors at a university teaching hospital; 4) the experience of full-time non-tenure-track faculty in English, a discipline with an ongoing internal divide between composition and literature. The symposium demonstrates the value of a disciplinary perspective on fostering faculty success and in higher education research.

Understanding the Effects of Faculty Work Patterns on Promoting Essentials Learning Outcomes: How Disciplinary Context Matters

Research Question: Does academic discipline moderate the effect of faculty time spent on research and scholarly activities on promoting essential learning outcomes?

- Secondary data analysis, hierarchical, OLS multiple regression
- Data source from 2008 administration of Faculty Survey of Student Engagement
- 8,708 participants across 112 baccalaureate-granting colleges and universities

Faculty Roles and Responsibilities in Interdisciplinary Contexts

Research Question: How is interdisciplinary teaching and research successfully led and managed in universities?

- Qualitative, appreciative inquiry approach, interviews
- 10 participants from 2 research universities, in the UK and Australia
- Sample across multiple fields of study and schools (colleges), all senior academics

On the Middle Rung: Understanding the Associate Professor Experience in a School of Medicine

Research Question: What detracts from or contributes to the vitality of faculty, particularly associate professors, in an academic medical center?

- Mixed methods study (survey research and focus groups)
- 37 associate professors participated in focus groups (7 focus groups were conducted)
- 691 faculty survey respondents; 171 of whom were associate professors (overall response rate=59%)
- Sample from one academic medical center

At Work in a Divided Discipline: Full-time Nontenure-Track Faculty in English

Research Question: How do disciplinary context and forces from outside the discipline affect English full-time nontenure-track (FTNT) faculty experiences?

- Qualitative, phenomenology, interviews
- 18 participants from 3 public, 4-year universities in two states
- Sample stratified in gender, education, years as faculty, teaching/administrative responsibilities
- All participants had ties in the discipline to the teaching of writing/composition

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Understanding the Effects of Faculty Work on Promoting Essential Learning Outcomes

Table 1.

Disciplinary Areas by Biglan Categories

	Hard	Soft
Pure-Life	Biology (general) Biochemistry or biophysics Botany Environmental science Microbiology or bacteriology Zoology Kinesiology	Anthropology Ethnic studies Political science (incl. gov't, int'l rel.) Psychology Sociology
Pure-Non-Life ^b	Astronomy Atmospheric science (incl. meteorology) Chemistry Earth science (incl. geology) Mathematics Physics Statistics	Art, fine and applied English (language and literature) History Language and literature (except English) Music Philosophy Theater or drama Geography
Applied-Life ^a	Medicine Dentistry Veterinarian Pharmacy Agriculture	Theology or religion Business education Elementary/middle school education Music or art education Physical education or recreation Nursing Allied health/other medical Social work Family Studies Criminal justice
Applied-Non-Life	Aero-/aeronautical engineering Civil engineering Chemical engineering Electrical or electronic engineering Industrial engineering Materials engineering Mechanical engineering General/other engineering	Journalism Accounting Business administration (general) Finance Marketing Management Architecture Urban planning Economics Communications Public administration

Note: Categorization from Nelson Laird and Garver (in press).

^aRemoved Speech from HAL category.

^bReference group HPN

Table 2. *Dependent Variables*

Essential Learning Outcomes Scales and Item Components

Intellectual Skills ($\alpha = 0.61$)

- Writing clearly and effectively
- Speaking clearly and effectively
- Thinking critically and analytically
- Learning effectively on their own

Practical Skills ($\alpha = 0.63$)

- Using computing and information technology
- Working effectively with others
- Solving complex real-world problems
- Acquiring job or work-related knowledge and skills

Individual and Social Responsibility ($\alpha = 0.82$)

- Understanding themselves
- Understanding people of other racial and ethnic backgrounds
- Developing a personal code of values and ethics
- Developing a deepened sense of spirituality

Note: Faculty are asked to what extent they structure their course so that students learn and develop in the above areas. Response sets: 1 = Very little, 2 = Some, 3 = Quite a bit, 4 = Very much.

Table 3. *Independent Control Variables*

Name	Description
<i>Faculty characteristics</i>	
Gender	0 = Male; 1 = Female
Race/ethnicity ^a	American Indian or other Native American; Asian, Asian American, or Pacific Islander; Black or African American; White (non-Hispanic) ^b , Hispanic or Latino, Other, Multiracial, Prefer not to identify
Foreign citizenship	0 = U.S. citizen; 1 = Foreign citizen
Rank and employment status ^a	Part-time lecturer/instructor; Full-time lecturer/instructor; Assistant professor; Associate professor; Full professor ^b
<i>Course characteristics</i>	
Course level	0 = Lower division; 1 = Upper division
General education status	0 = Non-general education; 1 = General education course
<i>Institutional characteristics</i>	
Carnegie classification ^a	Doctoral/Research Universities; Master's Institutions; Baccalaureate-Arts & Sciences ^b ; Baccalaureate-Diverse; Other
Institutional control	0 =Public; 1 = Private

^aCoded dichotomously (0 = not in group, 1 = in group)

^bReference group

Table 4.
The Effects of Research-Oriented Faculty and Disciplinary Areas on Promoting Essential Learning Outcomes (N = 8,707)

	<u>Intellectual Skills^a</u>		<u>Practical Skills^a</u>		<u>Individual and Social Responsibility^a</u>	
	B	SE	B	SE	B	SE
Constant	0.00	0.01	0.00	0.01	0.00	0.01
Research-oriented ^a	0.11***	0.02	0.07***	0.02	0.08***	0.02
Disciplinary area						
HPN			<i>reference</i>			
HPL	0.09*	0.05	-0.07**	0.05	0.38***	0.04
HAL	0.28**	0.10	0.32***	0.01	0.59***	0.09
HAN	-0.13*	0.05	0.56***	0.05	0.18***	0.05
SPL	0.42***	0.04	-0.35***	0.04	1.03***	0.04
SPN	0.79***	0.03	-0.34***	0.03	1.08***	0.03
SAL	0.59***	0.04	0.24***	0.04	1.47***	0.04
SAN	0.47***	0.04	0.32***	0.04	0.77***	0.03
Interactions Terms						
HPN*RSRCH			<i>reference</i>			
HPL*RSRCH	0.18*	0.10	-0.01	0.92	-0.10	0.08
HAL*RSRCH	-0.45*	0.21	-0.42*	0.21	-0.36	0.19
HAN*RSRCH	0.09	0.12	0.01	0.11	-0.05	0.11
SPL*RSCRH	-0.07	0.08	-0.18*	0.08	-0.33***	0.07
SPN*RSCRH	-0.03	0.07	-0.10	0.07	0.01	0.06
SAL*RSCRH	-0.04	0.08	-0.09	0.08	-0.02	0.07
SAN*RSCRH	-0.15***	0.07	-0.18*	0.07	-0.14*	0.07
Model 1 R-square	0.17		0.20		0.30	
Model 2 R-square	0.17		0.20		0.31	

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Note: Model 1 contained control values, research orientation, and disciplinary areas. Model 2 added the interaction terms. All dichotomous variables were mean centered prior to entry and interaction terms were products of mean centered variables.

^a Standardized prior to analyses and coded as dichotomous.

Table 5.

Mean Differences for Essential Learning Outcomes by Research Orientation and Discipline

	<i>N</i>	<u>Non-Research Oriented</u>		<u>Research-Oriented</u>		Mean Dif.	<u>Non-Research Oriented</u>	<u>Research Oriented</u>	Mean Dif.
		Mean	SD	Mean	SD		Adj. Mean	Adj. Mean	
<i>Intellectual Skills</i>									
HPL	652	-0.56	0.98	-0.28	1.07	0.28	-0.51	-0.19	0.32
HPN	1,177	-0.61	0.91	-0.49	0.95	0.12	-0.50	-0.35	0.14
HAL	120	0.09	0.92	-0.35	0.87	-0.44	0.05	-0.26	-0.31
HAN	475	-0.76	0.88	-0.49	0.96	0.26	-0.67	-0.44	0.23
SPL	1,067	-0.04	0.99	0.02	0.96	0.06	-0.04	0.04	0.07
SPN	2,471	0.28	0.90	0.37	0.88	0.10	0.31	0.42	0.11
SAL	1,120	0.16	0.94	0.27	0.96	0.11	0.11	0.22	0.11
SAN	1,626	0.08	0.99	0.06	0.96	-0.02	0.06	0.05	-0.01
<i>Practical Skills</i>									
HPL	652	-0.13	0.92	-0.07	0.91	0.06	-0.25	-0.09	0.16
HPN	1,177	-0.14	0.89	-0.08	-0.08	0.06	-0.18	-0.01	0.17
HAL	120	0.58	0.74	0.14	0.14	-0.44	0.38	0.13	-0.25
HAN	475	0.37	0.86	0.54	0.54	0.17	0.37	0.55	0.18
SPL	1,067	-0.31	0.88	-0.38	-0.38	-0.07	-0.43	-0.44	-0.01
SPN	2,471	-0.36	0.97	-0.34	-0.34	0.02	-0.47	-0.39	0.07
SAL	1,120	0.41	0.95	0.43	0.43	0.02	0.14	0.23	0.08
SAN	1,626	0.49	0.85	0.37	0.37	-0.12	0.25	0.24	-0.01
<i>Individual and Social Responsibility</i>									
HPL	652	-0.46	0.90	-0.50	0.87	-0.04	-0.53	-0.47	0.06
HPN	1,177	-0.90	0.68	-0.84	0.75	0.06	-0.97	-0.64	0.16
HAL	120	-0.05	0.82	-0.44	0.77	-0.39	-0.17	-0.36	-0.19
HAN	475	-0.83	0.68	-0.68	0.72	0.15	-0.76	-0.64	0.12
SPL	1,067	0.35	0.88	0.14	0.89	-0.21	0.26	0.10	-0.16
SPN	2,471	0.24	0.85	0.34	0.92	0.10	-0.11	0.28	0.17
SAL	1,120	0.63	0.93	0.77	0.90	0.14	0.51	0.66	0.15
SAN	1,626	0.03	0.90	-0.04	0.95	-0.07	-0.11	-0.09	0.02

Note: All dependent variables standardized before mean calculations. Adjusted mean scores computed using coefficients in Table 4.

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