

# The Experience of Faculty Development: Patterns of Variation and Change in Conceptions of Teaching

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## Abstract

As research demands continue to weigh heavily on junior and non-tenured faculty, the need to maintain and develop sound teaching is crucial. Yet, few studies have systematically explored how a sustained faculty development program can impact the way that faculty experience or conceive of teaching. In this study, we examine how a year-long faculty development program impacts the conceptions of teaching held by early career faculty. We interviewed 22 tenure-track faculty participants, pre-and post-program, categorizing their conceptions of teaching from the transcripts. The analysis drew on conceptual frameworks of faculty conceptions of teaching derived from phenomenographic literature. The current study identifies and explores a range of patterns of experience that emerged over the course of the program, and discusses the broader implications of these patterns for understanding faculty conceptual change.

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## Overview

- Conflicting messages about teaching & research often difficult for early career faculty to resolve (Boice, 1992; Leslie, 2002; Wright, 2005)
- Opportunities for early career faculty to reflect on and develop teaching often delayed or lost (to detriment of student learning)
- But extremely important, since teacher's conceptions of teaching correlate strongly with both students' deeper approaches to learning and to their learning outcomes (Biggs, 1987; Entwistle & Smith, 2002; Gow & Kember, 1993; Kember & Gow, 1994; Prosser & Trigwell, 1999).

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## Purpose of Study

- How do early career faculty members conceive or understand the practice of teaching in higher education?
- Can positive change in those conceptions of teaching be facilitated in a research intensive environment (where teaching is minimally rewarded?)

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## Analytic Framework: Broad Conceptions of Teaching

Type	Category	Description
I Teacher-Focused	A	Teaching as transmitting concepts of syllabus
	B	Teaching as transmitting teacher's knowledge
II Student Focused	C	Teaching as helping students acquire concepts of syllabus
	D	Teaching as helping students acquire teacher's knowledge
III Learner Focused	E	Teaching as helping student's develop conceptions
	F	Teaching as helping students change conceptions

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Prosser & Trigwell, 1999; Kember, 1997; Calkins & Light, 2007

## Conceptions of Teaching: Realizing Change

- Many faculty development programs (FDPs) focus on developing specific skills; facilitating reflection on teaching practice; developing self confidence
- Participation in a substantive FDP can have a positive impact (movement towards learner-focused teaching) on the development of faculty teaching

■ Coffee & Gibbs, 2001; Ho, Watkins & Kelly, 2001; Light, 2005; McKenzie, 2002; Trigwell, 2003

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## Methods: Program Design

### *The program seeks to:*

- promote critical inquiry & professional reflection on faculty experience of teaching
- encourage faculty to focus on variation between teacher-focused & learner-focused ways of experiencing teaching

### *Participants must:*

- Attend 6 dinner workshops; 4 workshops; 2-day retreat to delve into crucial teaching & learning issues and practices
- Develop a teaching & learning project (revise or design a course) in consultation with program staff and mentors

## Study Design

### *Participants:*

28 faculty (12 & 16) in 2 years; 1 dropped out of program; 2 had incomplete data (final n=25)

- 16 from sciences, medicine, engineering
- 9 social sciences & humanities
- 18 men, 7 women

### *Interviews*

- Semi-structured: (40-50 minutes)
- pre & post program
- Focused on participants' conceptions of teaching

## Results: Type I Conception (Teacher-Focused)

“[Teaching] is a transfer of knowledge from somebody who accumulates certain amount of knowledge to people who are recipient[s] of the knowledge” (Professor of Medicine)

- Focus on transfer of information
- Students’ prior knowledge not considered
- Students are passive recipients

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## Results: Type II Conception (Student-Focused)

*“I don’t give [students] recipes. I expect them to understand the concepts behind what they’re doing and I expect them to learn so they are able to do the experiments on their own. And you know, problem solve and design experiments later. So I guess I’m always teaching so they can function on their own as scientists. But they are expected to know, the concepts and not just how you do it, but why you do it, I guess.” (Preventative Medicine)*

- Teaching viewed as facilitative process; not a matter of transmission
- Focus of teaching on helping students discover knowledge that he as an expert already holds
- Student’s ability to understand the relationships among provided concepts is a valued component of learning & professional development

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## Results: Type III Conception (Learner-Focused)

"[T]he goal of teaching is to bring about changes in the student so that they can better understand the given area, so it's about changing the conceptual representations of the students such that they can go out and not only be able to receive, go out on their own and recover more information outside of the classroom but also generate their own questions." (Teacher of Linguistics)

- Teaching helps students develop & change their conceptions of subject matter
- Does not expect students to adopt his own worldview, but to create own perspective on subject material

## Potential Patterns of Change in Conceptions of Teaching

Category	Negative Variation Less learner-focused			No Variation			Positive Variation More learner-focused		
	X1	X2	X3	Y1	Y2	Y3	Z1	Z2	Z3
Pre Type	III	III	II	I	II	III	I	I	II
Post Type	I	II	I	I	II	III	II	III	III

## Patterns of Change in Faculty Conceptions of Teaching (pre & post participation in Program)

Category	Pattern	Number
Negative variation	X1	0
	X2	0
	X3	0
No variation	Y1	0
	Y2	5
	Y3	3
Positive variation	Z1	6
	Z2	2
	Z3	6

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## Example of Pattern of NO Variation

(Type II-Type II Student-Focused)

Pre: I would define teaching as sharing information with somebody else, a student....that they can then later use for their own benefit...It's giving someone the tools to do the work they want to do or to explore the ideas that they want to explore.

Post: I think my teaching has become a little more interactive, so that I should that whomever I am teaching to does not feel so much that I am talking to them but rather that I am trying to engage them in the lesson...I would define teaching as the communication of ideas and concepts for the learner. (Prev. Medicine)

- Still looking at teaching focus as primarily what she as teacher does.
- Although she wants to be more interactive, she doesn't express any interest in wanting them to construct own view of subject

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## Example of Positive Variation

(Pattern Z2: Type 1-Type III: Teacher-Focused to Learner Focused)

**Pre:**

[T]he reason I feel more comfortable with graduate students is the students' motivation...they want to learn, and then I know I can pass my knowledge [on to the students]...

**Post:**

For me teaching is not about standing in a lecture hall and talking; it's not about teaching students how to do things; it's really about being available to students who have problems. They come to you, and you engage in an intellectual conversation and through that you help them solve their problems and you also help them learn...I get them to focus on the most important materials, get them to understand it. I focus more on deep learning than more absorbing all the material." (Sociology)

- Teaching for her has moved from "passing on" knowledge to "helping them learn"
- Focus is on students' constructing understanding of core ideas for themselves.

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## Conclusions

- 14 participants displayed 'positive patterns of variation' (showing improvement in at least one category of variation)
- No participants remained in the lowest teacher-focused categories
- 12 participants still viewed learning as largely external to the student (helping students conform to syllabus rather than facilitating deeper understanding & conceptual change)
- Challenging to effect substantive conceptual change, but change is possible
- No discernable difference between faculty in STEM disciplines and those in other fields

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