The Role of Faculty Community for Educational Development and Innovation: A Case Study in Translational Sciences

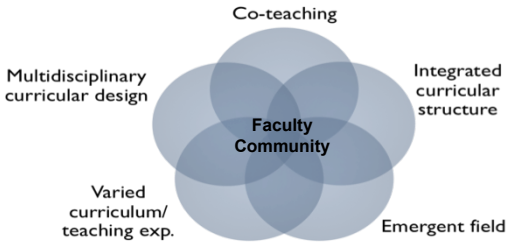
Christina M. Cestone, Ph.D., The University of Texas-Medical Branch (UTMB)

BACKGROUND

Prior research suggests that faculty communities can improve teaching and spur educational development and innovation[1-5]. Research has overlooked the influence of interprofessional faculty communities on faculty learning and change in the medical education workplace[6]. The present research sought to address this gap. The project examined the value of a faculty community for educational development in the context of a novel translational sciences (TS) curriculum implementation at an academic health center (Figure1).

A four-member clinical and biomedical faculty community formed to implement a doctoral translational sciences curriculum in partnership with a translational medical school track[7]. Peers taught in both programs and agreed to observe each other's teaching. Faculty also met for two hours weekly to discuss programmatic issues during the 2011-2012 implementation year.

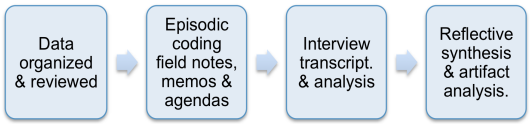
Figure 1. ***Practice Problem.***



METHOD

Data for this study were collected as part of a 15-month program evaluation. *Ethnography* is a systematic approach to studying groups through fieldwork[8-9]. I conducted 82 days of classroom teaching and meeting observation. Activities were documented in field notes and memos. Faculty and student interviews were recorded and transcribed, meeting agendas were collected (*n*=33), and community artifacts (e.g. instructional planning sheets) were collected. *Episodes* were the primary unit of analysis. Episodes were defined as the substantive work activities of the community. Results were analyzed in four phases (Figure 2), aligned with major areas of faculty development[10]. Peer debriefing, member-checking, and triangulation of data were used to establish the trustworthiness of the results.

Figure 2. ***Analysis phases.***



RESULTS

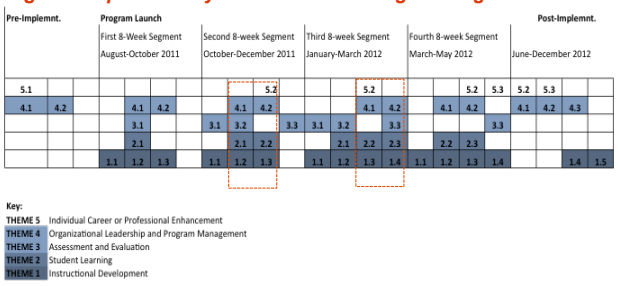
Episodic analysis revealed that the faculty community engaged in collaborative reflection and discussion in response to 17 major episodes across 5 themes (Table 1).

Table 1. ***Community Episodes.***

Episode	Episode Title	Developmental Theme
1.1	"Flying by The Seat of Our Pants": Developing New Instructional Modules.	Instructional
1.2	"It's Like a Micro Experiment": Implementing Instruction	Instructional
1.3	"Some of the Best Planned Sessions...": Instructional Evaluation	Instructional
1.4	"It's All About the Process": Experimentation and Extension of Instructional Methods	Instructional
1.5	"Can You Imagine Any Other Way?": Appropriation of Instructional Philosophies	Instructional
2.1	"How Do You Know What They Know?": Managing the Expert Blind Spot	Student Learning
2.2	Student Affairs: Mediating Interpersonal Relationships	Student Learning
2.3	"Content Knowledge Doesn't Make you a Scientist": Scientific Dialogues	Student Learning
3.1	"We Need Another Rubric": Authentic versus Standardized Assessment	Assessment and Evaluation
3.2	Determining the Grading Basis	Assessment and Evaluation
3.3	"Do They Know Enough Structure And Function?" Assessing Student Progress	Assessment and Evaluation
4.1	Talking Politics: Negotiating the Organizational Structure	Organizational and Leadership
4.2	Using the "F" Word: It's All About Funding	Organizational and Leadership
4.3	Envisioning the Future: Institutionalizing Program Practices	Organizational and Leadership
5.1	"Clicking Intellectually"	Career or Professional
5.2	"I Learned So Much Science"	Career or Professional
5.3	The Scholarship of Teaching	Career or Professional

Longitudinal analysis of episodes by program segment (Figure 3) revealed development was grounded by instructional activities. These were repeated with each new course; data suggests that educational development peaked during weeks 12-14 and 22-24.

Figure 3. ***Episodes by Theme Across Program Segments.***

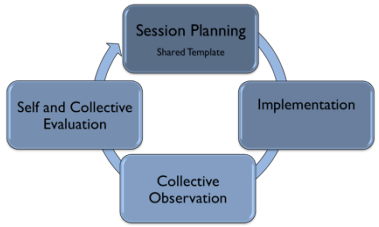


Episodes were further analyzed against Kreber's (2005)[11] Model of Reflective Practice in Teaching (Table 2). Indicators from the *Instructional Content Development* cell, *articulating what one knows about instruction, discussing instruction with colleagues,* were aligned with community episodes 1.1, 1.2, 5.1, and 5.2. Community membership primarily promoted reflection on instructional process, pedagogical content, and curricular content activities.

Table 2. ***Knowledge of Teaching by Reflection Type.***

		Reflection Type		
		Content (What?)	Process (How?)	Premise (Why?)
Knowledge Domain of Teaching	Instructional (Design of instruction; methods)	Cell 1 1.1, 1.2, 5.1, 5.2	Cell 2 1.2, 1.3, 2.3, 3.1, 3.2, 3.3	Cell 3 1.4, 1.5
	Pedagogical (Knowledge of how students learn)	Cell 4 1.2, 1.3, 2.1, 2.3, 5.3	Cell 5 1.3, 2.1, 2.3, 3.1	Cell 6 1.4
	Curricular (Goals and purpose of the program, courses)	Cell 7 1.1,1.2,1.3, 2.3, 3.3, 4.3	Cell 8 4.2	Cell 9 4.1, 4.3

Figure 4. ***Collaborative Instructional Development Process.***



CONCLUSIONS

An instructional development process emerged emphasizing collective teaching and observation, promoting collective and individual learning overtime. Standardized instructional planning templates, course software, and peer observation were important for instructional calibration and community memory. Shared goals and trust contributed to faculty satisfaction and community functioning. The model is initially time consuming, but centralized program coordination and regular participation enhanced outcomes.

Selected References

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