Assessment of a Faculty Learning Community Program: Do Faculty Members Really Change?

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In this study, participants in a faculty learning community (FLC) program were followed to see if they had really changed their epistemological beliefs and teaching methods. Of the 39 FLC participants, 87% reported a change in their epistemological beliefs and 79% reported a change in their teaching methods. Seven participants were followed in-depth to determine if their reported changes actually occurred. Observations suggest that none of the seven appeared to have changed epistemological beliefs although all changed teaching methods. More importantly, the participants adopted their new pedagogy only when the pedagogy was aligned with their beliefs.

Even though Milton Cox has been working with faculty learning communities (FLCs) since 1979 and writing about them since 1995 (Cox, 1995), FLCs are still a relatively new concept in faculty development. Although the exact number of institutions supporting FLCs is not known, only 34 institutions have registered with the Faculty Learning Communities Consortium, a national organization dedicated to promoting FLCs (Miami University, 2004). In another study, Richlin and Essington (2004) reported that 65 institutions claimed to have FLCs.

As a relatively new concept, FLCs have generated little empirical literature about their effectiveness, with most of that coming from Cox's research. Despite Cox's assertion that they are an effective means of enhancing teaching and learning (Cox, 2004; Cox & Richlin, 2004), the literature regarding FLCs

in higher education is primarily descriptive, set in the community college level, or gathered via self-report (Goldberg & Finkelstein, 2002; Stevens, 2004). We learn how FLCs have functioned but very little about the changes they, in fact, produce.

This research sought to examine the effectiveness of FLCs at one institution of higher education by validating reported change in teaching methods, and we report here on another finding: limited change in participants' teaching methods when the participants' beliefs about teaching and learning were not aligned with their chosen pedagogy. In discussing this finding, we will consider the importance of epistemological beliefs in making changes to teaching methods and in selecting FLC members.

Discussion of the Current Literature on FLCs

Several studies exist in the educational literature that address teaching improvement programs for cohorts of faculty members who function as loose networks. In these studies, participants reported greatly valuing the impact of their peers on their own teaching. Participants reported their peers provided moral support, shared information, and gave practical day-to-day help with the mechanics of teaching and scholarship (Sekerka & Chao, 2003; Skinner & Welch, 1996). Some participants reported an improvement in their teaching ability, knowledge, academic roles, and scholarship because of their learning community-like experience (Elliot, Skeff, & Stratos, 1999; Houston et al., 2004; Steinert, Nasmith, McLeod, & Conochie, 2003).

These loose faculty networks do not, however, meet the criteria for an FLC as described by Cox (2004):

A cross-disciplinary faculty and staff group of six to fifteen members (eight to twelve members is the recommended size) who engage in an active, collaborative, yearlong program with a curriculum about enhancing teaching and learning and with frequent seminars and activities that provide learning development, the scholarship of teaching, and community building. (p. 8)

With all of the studies on the effectiveness of teaching improvement programs in college classrooms, only five published pieces plus one unpublished manuscript could be found—all of them described here—that discuss the effectiveness of FLCs, as Cox defines them, in higher education. All of the evidence in these studies, however, is from self-report.

Cox's first report on FLCs discussed a program to improve the teaching and scholarship abilities of new and junior faculty members (Cox, 1995). Cox reports three sets of data for program assessment, including two surveys. Participants rated their impression of the program and its effectiveness as 7.7–8.8 out of a possible 10 points. Cox also measured the tenure rate of participants versus nonparticipants and found a significant difference ($p = 0.005$) in the number of participants who received tenure (72%) versus nonparticipants who received tenure (55%). However, one should not attribute the higher rate of tenure status directly to participation in the FLC. There is simply not enough evidence to assign causality to Cox's claim.

Cox (2004) also reported that faculty members who participated in FLCs had a higher rate of tenure, lower rate of stress, were more active civically, and were more easily able to integrate work and family life. This study is limited, however, in that it relied entirely on surveys to gather evidence and lacks any description of the population, methods, and instruments used to gather data.

Blaidsell and Cox (2004) report on an FLC for senior faculty members. Their survey showed that the participants rated the collegiality/learning from other participants, retreats and conferences, and released time as the most important impact of their experience. Again, this information was obtained by self-report.

Stevens's (2004) unpublished manuscript reported on the factors behind the success or failure of FLCs. These factors included prior work with and interest in the pedagogical focus, administrative and financial support, the group members and their backgrounds, creating and achieving goals, continued work after the initial meeting, and individual commitment and passion.

As measured by this body of literature, research on the effectiveness of FLCs is still in its infancy. Although these studies do report change, the evidence for change rests on self-report. An extension of such studies is needed to verify the reported changes and to look for deeper significance underlying the efficacy of FLCs.

Setting and Population

This study took place in a large, public, research-extensive university in the Midwest. The institution is made up of two schools and fourteen colleges, including two that resemble community colleges and one that resembles a technical college. The host institution for this study sponsors a weeklong workshop, the September Institute, that serves as the kick-off event for new FLCs and brings all participants together to learn about various aspects of teaching and learning. Approximately half of the week is given to presenta-

tions on various aspects of teaching. During the other half of the week, participants gather together in their individual learning communities to study their pedagogy of interest. The main emphasis of this portion of the week is to begin the process of becoming a community, especially since the individual learning communities need to set the agenda for their upcoming year of working together on their area of pedagogical study.

Each FLC is expected to grow its efforts during the coming academic year, and the September Institute is the week set aside to begin this process. Each learning community is asked to continue to meet at least twice quarterly following the September Institute, with the agenda for and content of these meetings determined by the FLCs themselves as long as they continue to study, plan, and implement their pedagogy.

Participants

A total of 39 full-time faculty members, representing nine colleges and nineteen departments and making up five FLCs, participated in the September Institute. Demographics of these participants can be found in Table 7.1.

In the first part of this study, all participants in the September Institute were surveyed to ascertain their perceptions of the institute. However, in order to verify reported changes and understand the role of the learning community in helping participants make changes to their teaching, a more in-depth study

TABLE 7.1
Demographics: Participants in the September Institute

Learning Community Focus	Number		
	Participants	Colleges Represented	Departments Represented
Introduction to problem-based learning (PBL)	8	5	5
Multidisciplinary course using PBL	7	2	3
Using multimedia/computer graphics	10	4	5
Student transfer and retention of knowledge	8	1	6
Improving large lecture classes	6	2	3

using qualitative methods was needed. Seven participants were chosen to participate in this in-depth study. Participants were chosen via stratified random sampling because it allowed equal representation from each learning community (Patton, 2002). The participants were stratified into the respective FLCs and two members of each FLC were chosen randomly and asked to participate in the in-depth portion of the study.

There was an unequal representation of FLCs in the in-depth portion of the study. Two members of one FLC team-taught a course and wished to participate as a team, and thus one FLC was represented by three, not two, participants. All members of one FLC declined participation despite numerous attempts to contact them; therefore, this FLC is not represented in the in-depth study.

The participants varied in sex, tenure status, academic rank, and teaching experience: five were female, three had tenure, another three were on the tenure track, and one held the rank of adjunct. The number of years at the university ranged from 3 to greater than 20, with a mean of 10. Table 7.2 summarizes the demographic information for the participants for this in-depth study.

TABLE 7.2
Demographic Information: In-Depth Study Participants

Pseudonym	Sex	College	No. Years	Rank	Discipline	FLC
Bob	M	Technical	3	NT	Architecture	PBL-Multi
Lisa	F	2 year	15	T	Biology	Transfer
Joan	F	2 year	20+	A	Criminal Justice	PBL-Intro
Elizabeth	F	2 year	13	T	Business	PBL-Intro
Carol	F	2 year	8	T	English	Transfer
Jennifer	F	2 year	4	NT	Psychology	Transfer
John	M	Technical	4	NT	Computer Science	Learning Objects

Note. College = type of college within the institution; No. Years = number of years teaching at this institution; FLC = the name of the FLC to which the participant belonged; Rank = T (has achieved tenure), NT (has not achieved tenure but is on a tenure track), A (Adjunct).

Methods and Procedure

Four types of data sources were used in this study in order to increase the trustworthiness of the data (Patton, 2002): survey, syllabi reviews, participant interviews, and classroom observations. The institutional review board for the host institution approved this study.

Survey

A cross-sectional, self-administered questionnaire, containing both open-ended and forced-choice items, was designed to gather an impression of the effectiveness of the September Institute on all aspects of academic life. All September Institute participants were invited to complete the survey. A commercially available web site was used to administer and collect the survey data.

In-Depth Study

Qualitative methods were used for the in-depth portion of the study. Participants were asked to supply syllabi and participate in one-on-one, semi-structured interviews and classroom observations.

Syllabi were examined because they must accurately reflect the course (Parkes & Harris, 2002) and therefore any changes the faculty member has made in the course from one year to another should be seen in the syllabus. Participants were asked to submit a syllabus from their courses before and after the September Institute. Syllabi were then examined to determine the number of times the target pedagogy was mentioned and the number of lines used to discuss that pedagogy (Patton, 2002).

The interviews followed a one-on-one, semi-structured format with open-ended questions (Creswell, 2003). The purpose of the interviews was to help determine if teaching and learning beliefs were being affected by the learning community experience. Questions included the reasons to participate in an FLC, if changes in teaching methodology and/or epistemological beliefs were made and why, and the impact of the FLC on making any changes.

Classroom observation was the only method to actually confirm the pedagogy's use (Fraenkel & Wallen, 2003). Each participant's classroom was observed for a minimum of 90 minutes. The interview and the classroom observation were then analyzed using both deductive and inductive analysis (Creswell, 2003; Denzin & Lincoln, 2000) using NVivo software.

Findings

Survey Results

Twenty-four of thirty-nine (62%) of the September Institute participants completed the survey, with the majority of respondents (27 of 29, or 91.7%) believing that the September Institute was moderately to highly useful in their academic careers. A majority (19 of 24, or 79.2%) reported a great to moderate amount of change in their teaching methods, and 21 of 24 (87%) reported a great to moderate change in their beliefs about teaching and learning.

Qualitative Findings

Changes in Teaching Methods

Each participant in the in-depth study actually made some type of change in teaching methodology. This change was reflected in their course documents and classroom observation. Each participant attributed this change to participation in the September Institute and/or their FLC.

Changes seen in syllabi. The percentage of changes in the syllabi ranged from 0% to 29.6%. Changes were noted in all but two syllabi; however, one of these participants, John, was able to show that he made changes via the course web site. The second participant, Joan, made no changes in her syllabus related to her pedagogy of interest.

Changes seen through classroom observation and interviews. Six of the seven participants were seen to employ their pedagogy as prescribed by their FLC, although the amount of pedagogy usage varied. For example, both Bob and Elizabeth used their pedagogy, problem-based learning (PBL), as their only teaching method, and they used it as prescribed by other PBL practitioners (Barrows & Tamblyn, 1980; Savin-Baden & Major, 2004). Others used their pedagogy along with other teaching methods. For example, John used his pedagogy, multimedia learning objects, to support his students in their studying. His pedagogy was thus not seen in the classroom but rather as a support method on the course web site. Students could access the course web site and see a video of John performing and narrating a complex computer programming task he had previously discussed and demonstrated in class. Thirteen times during a two-hour class session, Carol and Jennifer demonstrated the use of transfer techniques such as concept association, elaboration, retrieval practice, and spacing repetition within and across the lecture (deWinstanley & Bjork, 2002; Murphy & Alexander, 2002). Joan was the only participant of the seven to use her pedagogy, PBL, in a method other than what is prescribed by most practitioners of the pedagogy.

Joan adopted some of the components of PBL such as group work and group process policies. However, her class was highly structured, with Joan clearly leading the class through the lesson plan, relying on lecture and a case study as her teaching methods. Lecture served to supply the students with information, but Joan stated, "I expect them [students] to read outside of class. Lecture is just an outline to follow, it's just a start. I don't give them everything in class." Following the lecture, she used a case study to help students understand how the material related to their discipline and expected students to "show what [they've] just learned in lecture on [their] projects." Joan believed the case study was a derivative of PBL, since the case study employed group work and active learning. However, Joan supplied information via lecture prior to the students acting on the case. Her methodology was contrary to the tenets of PBL, in which the student would receive no didactic information prior to receiving the case (Barrows & Tamblyn, 1980; Savin-Baden & Major, 2004).

Despite making changes inconsistent with her pedagogy, Joan believed her students were performing at a far superior rate than students in previous classes. She noted an increase in enthusiasm, work effort, and attendance. She did not notice a change in grades from previous years; however, she attributed this lack of change to "being harder on them this year because I know what they can do. 'A' papers last year would be 'B' papers this year." She planned to keep using her new teaching and classroom management techniques in future courses.

Why was Joan so different from the others? Why didn't she adopt her pedagogy as completely as the others in this study? Did it have something to do with her beliefs as a teacher?

Participants and Their Teaching and Learning Beliefs

Eighty-seven percent of respondents to the general survey reported a change in their teaching and learning beliefs. However, the participants in the in-depth study did not relate a change in their beliefs, and none of them came to the September Institute with a firm conviction only to have it changed by their FLC experience. Most came to the September Institute with at least an idea of their epistemology, even if that epistemology was subconscious. Their beliefs about teaching and learning were not changed by their experiences with the FLC.

In most cases, the participants' epistemology was either in an infancy stage or fully formed as they entered the learning community. Elizabeth, for example, had a difficult time expressing her beliefs. She did, however, believe that students needed to be self-directed and take responsibility for their learning. She maintained that one of the roles of education was to prepare students for the working world by teaching them not only disciplinary content but also strong work habits, especially teamwork; the instructor's role was thus to guide

students and not “spoon feed them.” Her beliefs about the role of the student, education, and teacher had not changed because of her learning community experience. Even though she was not able to clearly voice them, those beliefs were consistent with PBL, her chosen pedagogy (Barrows & Tamblyn, 1980).

Bob’s September Institute and FLC experience served as an enlightening experience. He stated, “I now know how to teach and what teaching is all about.” He was slowly coming to his beliefs before the FLC experience and maintains that he might have been able to find them given enough time, with his experiences with his learning community only speeding up that process. As he stated, “It put me in my path. I might have gotten there eventually, maybe not.”

Lisa held a mixed opinion about the role of her FLC and her beliefs. She did admit wanting a change when she realized how poorly students were acting in the classroom. As she stated, “When I looked out at my students I got the glazed eye look, deer in the headlights.” She credited reading a book on course design for changes in her beliefs and methodology. However, she realized she would not have found the book without her learning community and would not have been open to the change if she hadn’t heard about her pedagogy and discussed effective teaching with her community members. Like Elizabeth, she came to the learning community experience seeking a more effective teaching technique but then left with a clearer idea of her core beliefs about the nature of teaching and learning.

Carol, Jennifer, and John are the few members who didn’t credit epistemological formation or change to their learning community experience. In the cases of Carol and Jennifer, their previous training had created their beliefs. Carol had previous education in pedagogy and Jennifer in cognitive psychology. They may not have changed their beliefs, but they did change their teaching methods. Their learning community experience helped them to find the techniques that supported their beliefs. John firmly felt his beliefs had changed, but this change was due to his ongoing doctoral studies in teaching and learning. His doctoral education was supplemented by a growing movement in his discipline, a “movement . . . toward social constructivism,” an education theory that John firmly espoused and that was reflected by his changing teaching methods.

Unlike other participants, Joan’s changes seem to have been made only in teaching methodology. When asked about these developments, or her learning community’s role in these changes, she consistently returned to the changes made in teaching methods. Even in follow-up questions that attempted to discover her beliefs, Joan only spoke about “changes made in classroom management, course/classroom policies, or teaching methods. She felt her students needed more guidance and structure than PBL, used in its pure

format, allowed. She was grateful to the learning community for giving her techniques to help with the classroom guidance and structure her students needed, but she voiced strong concern about her students' ability to succeed if she used the pedagogy to its full capacity.

Why was Joan so different from the others? Why did she not adopt her FLC's pedagogy as did the others? In the bigger picture, what impact might Joan's actions and example have on the way FLCs are formed and conducted in the future?

Discussion, Implications, and Further Studies

The intention of this study was to determine if faculty members in higher education who participated in FLCs really made changes in teaching methods and beliefs about teaching and learning as they had reported in a survey. Findings support that FLCs can be an effective method of creating faculty change, under the right conditions. One of these conditions might be the alignment of participants' beliefs about the nature of teaching and learning with the type of pedagogy studied.

This need for alignment can be argued from the case study of Joan. No evidence of the pedagogy, as described by experts in the field, was seen in her syllabus or during classroom visits. She had adopted bits and pieces of the pedagogy to better manage her classroom, such as course policies outlining how students were to conduct themselves inside the classroom, and a teaching technique that allowed students to apply the course material through a case study. These policies could, of course, just as easily be used in a non-PBL classroom.

Differences between Joan's beliefs and the belief structure implicit in her selected pedagogy might have been the reason she did not change her teaching methods so as to model her pedagogy. Joan believed that her students would be less successful without her firm guidance and course structure. She thus had a classroom format that was very organized, with a syllabus that clearly delineated course policies and procedures. Such an approach is in direct opposition to PBL, which espouses a more learning-centered epistemology and approach.

Implications and Further Studies

Perhaps in order for FLCs to be successful, the participants must share some fundamental beliefs about teaching and learning or, at least, the same beliefs as espoused by the pedagogy. Asking a faculty member who holds teacher-centered beliefs to adopt a pedagogy requiring learner-centered beliefs may be

asking too much. Might faculty members who participate in learning communities be matched to that community through their teaching and learning beliefs? It might be possible to identify teaching and learning beliefs through such instruments as Schommer's Epistemological Beliefs Questionnaire (Clarebout, Elen, Luyten, & Bamps, 2001) or Schraw, Bendixen, and Dunkle's Epistemic Beliefs Inventory (2002), or through interviewing and observing the potential community members.

Limitations

This study has several limitations. First, there is no way to completely confirm or deny that the changes could have been made without the FLC experience. There was no comparison to change in the general faculty community. Second, participants in the in-depth portion of the study came from only two colleges and did not represent the entire faculty. Third, one FLC was not represented in this study.

Conclusion

This study examined the efficacy of FLCs at one institution of higher education. FLCs do appear to be effective in producing change. Using survey research and qualitative techniques, the study showed that all participants made changes to their teaching methods. Despite the pedagogical changes, however, no change was shown in the teaching and learning beliefs of the seven participants enrolled in the qualitative portion of the study. One participant whose teaching and learning beliefs were contrary to those underlying the pedagogy made changes to her teaching methods, but these changes were not completely consistent with her pedagogy. However, students in this participant's class were judged by her to be performing at a better rate than students in previous classes.

Further work should be performed to determine if matching FLC members by teaching and learning beliefs may lead to better success of the community and may expand and quantify the changes or nonchanges in teaching and learning beliefs. Such research may further determine if persons participating in FLCs have some fundamental beliefs that differentiate them from the faculty community at large.

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References

- Barrows, H. D., & Tamblyn, R. M. (1980). *Problem-based learning: An approach to medical education*. New York, NY: Springer.
- Blaidsell, M. L., & Cox, M. D. (2004). Mid-career and senior faculty learning communities: Learning throughout faculty careers. In M. D. Cox & L. Richlin (Eds.), *New directions for teaching and learning: No. 97. Building faculty learning communities* (pp. 137–148). San Francisco, CA: Jossey-Bass.
- Clarebout, G., Elen, J., Luyten, L., & Bamps, H. (2001, March). Assessing epistemological beliefs: Schommer's questionnaire revisited. *Educational Research and Evaluation: An International Journal on Theory and Practice*, 7(1), 53–77.
- Cox, M. D. (1995). The development of new and junior faculty. In W. A. Wright & Associates, *Teaching improvement practices: Successful strategies for higher education* (pp. 283–310). Bolton, MA: Anker.
- Cox, M. D. (2004). Introduction to faculty learning communities. In M. D. Cox & L. Richlin (Eds.), *New directions for teaching and learning: No. 97. Building faculty learning communities* (pp. 5–23). San Francisco, CA: Jossey-Bass.
- Cox, M. D., & Richlin, L. (2004). Editor's notes. In M. D. Cox & L. Richlin (Eds.), *New directions for teaching and learning: No. 97. Building faculty learning communities* (pp. 1–4). San Francisco, CA: Jossey-Bass.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2000). *Handbook of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.
- deWinstanley, P. A., & Bjork, R. A. (2002). Successful lecturing: Presenting information in ways that engage effective processing. In D. F. Halpern & M. D. Hakel (Eds.), *New directions for teaching and learning: No. 89. Applying the science of learning to university teaching and beyond* (pp. 19–31). San Francisco, CA: Jossey-Bass.
- Elliot, D. L., Skeff, K. M., & Stratos, G. A. (1999). How do you get to the improvement of teaching? A longitudinal faculty development program for medical educators. *Teaching and Learning in Medicine*, 11(1), 52–57.
- Fraenkel, J. R., & Wallen, N. E. (2003). *How to design and evaluate research in education* (5th ed.). New York, NY: McGraw-Hill.
- Goldberg, B., & Finkelstein, M. (2002, Summer). Effects of a first-semester learning community on nontraditional technical students. *Innovative Higher Education*, 26(4), 235–249.

- Houston, T. K., Clark, J. M., Levine, R. B., Ferencick, G. S., Bowen, J. L., Branch, W. T., et al. (2004, December). Outcomes of a national faculty development program in teaching skills. *Innovations in Education and Clinical Practice*, 19, 1220–1227.
- Miami University. (2004). *Faculty learning communities: Participating institutions and their communities and directors*. Retrieved May 16, 2007, from the Miami University, Faculty Learning Communities web site: www.units.muohio.edu/flc/participating.shtml
- Murphy, P. K., & Alexander, P. A. (2002, Spring). What counts? The predictive powers of subject-matter knowledge, strategic processing, and interest in domain-specific performance. *Journal of Experimental Education*, 70(3), 197–214.
- Parkes, J., & Harris, M. B. (2002, Spring). The purposes of a syllabus. *College Teaching*, 50(2), 55–61.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Richlin, L., & Essington, A. (2004). Overview of faculty learning communities. In M. D. Cox & L. Richlin (Eds.), *New directions for teaching and learning: No. 97. Building faculty learning communities* (pp. 25–39). San Francisco, CA: Jossey-Bass.
- Savin-Baden, M., & Major, C. H. (2004). *Foundations of problem-based learning*. New York, NY: Open University Press.
- Schraw, G., Bendixen, L. D., & Dunkle, M. E. (2002). Development and validation of the Epistemic Belief Inventory (EBI). In B. K. Hofer & P. R. Pintrich (Eds.), *Personal epistemology: The psychology of beliefs about knowledge and knowing* (pp. 261–275). Mahwah, NJ: Lawrence Erlbaum.
- Sekerka, L. E., & Chao, J. (2003, Winter). Peer coaching as a technique to foster professional development in clinical ambulatory settings. *Journal of Continuing Education in the Health Professions*, 23(1), 30–37.
- Skinner, M. E., & Welch, F. C. (1996, Fall). Peer coaching for better teaching. *College Teaching*, 44(4), 153–156.
- Steinert, Y., Nasmith, L., McLeod, P. J., & Conochie, L. (2003, February). A teaching scholars program to develop leaders in medical education. *Academic Medicine*, 78(2), 142–149.
- Stevens, M. C. (2004). *What makes a faculty learning community effective?* Unpublished manuscript.