SECTION FOUR
THE CLUSTER EXPERIENCE OF FACULTY

Introduction

As elaborated earlier in this report, one of the major aims of the cluster program is to give UCLA freshmen an opportunity to meet and become familiar with the ideas and work of the campus' ladder rank faculty and other scholars. Bringing together groups of distinguished scholar-teachers in collaborative venues that aim to show freshmen how different disciplines address a common problem is a challenging venture that calls upon faculty to:

- Design and deliver a cohesive, integrated course that clearly conveys to a freshman audience the ways in which different disciplines approach a shared subject matter,

- Develop assignments and class activities that encourage students to improve certain academic skills necessary for learning in a research community, and

- Engage in a collaborative teaching process that provides the opportunity to become learners as well as teachers in a community of scholar-teachers.

To facilitate addressing the many considerations and potential challenges that these collaborative teaching ventures pose, the cluster model relies on the expertise of two groups of scholar-administrators. Within each cluster teaching team, a designated faculty coordinator is responsible for guiding the direction of the overall course. Responsibilities include providing intellectual leadership and facilitating team building as well as playing a managerial role to ensure that all aspects of the cluster course—ranging from guest lecturer arrangements to scheduling changes and field trip planning—function smoothly.

An additional small team of coordinators provides broader administrative and instructional oversight of the program. Responsibilities include identifying and recruiting faculty to design and teach cluster courses, facilitating the Senate approval process of cluster proposals, and training and mentoring graduate student instructors (GSIs) so they are prepared to supervise cluster discussion sections and teach spring seminars. The doctoral-level, discipline-based scholars who provide this programmatic leadership have significant teaching experience and are also engaged in giving cluster lectures, supervising discussion sections, and designing and offering spring seminars.

This section provides a demographic profile of UCLA's cluster faculty, along with reflections from faculty coordinators on the rewards and challenges of cluster teaching. Thoughts on the future of the cluster program are also included.

Profile

Over the last eight years, 51% of those who participated in cluster teaching were ladder faculty, ranging from a low of 44% in 2005-06 to a high of 68% in 2010-11 (Table 4.1). These aggregated proportions reflect responsibilities for fall/winter lecture and discussion sections and/or spring seminars. During this eight-year period, an average of 37% of cluster faculty who hold ladder-rank appointments were women; 12% were under-represented racial/ethnic minorities. The demographic composition of non-ladder cluster faculty, which includes academic administrators, adjunct professors, postdoctoral scholars, and others, reflected comparatively higher proportions of women (50%) and fewer under-represented racial/ethnic minorities (7%).

Ladder faculty involvement in cluster teaching is most prominent within the fall and winter lecture courses. These courses are designed to help entering freshmen develop the foundational academic skills (e.g., critical thinking, problem solving, rhetorical effectiveness, creative expression) that will enable

them to complete a substantive project of their own during the spring seminar and, more broadly, to succeed in college and beyond. Over the past eight years, ladder faculty taught an average of 62% of these courses. As the cluster program has expanded to serve more incoming freshman, additional spring seminars taught by non-ladder faculty or graduate student instructors have been added to accommodate increased enrollments. Over the past eight years, ladder faculty taught an average of 9% of the spring seminars offered. When those with non-ladder appointments are also included, the average percentage of faculty-taught spring seminars increases to 37%.

Table 4.1. Demographics of Cluster Faculty

Overall Cluster Faculty Population						
		Appointment Type	Women		Under-Represented	
	N	% Ladder	% Ladder	% Non-Ladder	% Ladder	% Non-Ladder
2003-04	51	47	25	41	17	7
2004-05	50	52	31	54	8	8
2005-06	48	44	33	59	10	0
2006-07	57	47	37	57	15	7
2007-08	55	51	39	52	14	7
2008-09	54	52	43	46	14	8
2009-10	52	54	43	42	11	8
2010-11	40	68	44	46	7	8
Average %		**51**	**37**	**50**	**12**	**7**

*Includes individuals who identify as African-American, Latino/Chicano, or Native American.

Faculty who participated in clusters during the eight-year span that is the focus of this self study represented a significant cross-section of UCLA's academic units (Table 4.2). Departments with the largest representations of ladder faculty were among the largest units on campus (History, Sociology, English). Despite its comparatively smaller size, Asian Languages and Cultures also provided significant ladder faculty contributions. The largest proportions of non-ladder cluster faculty were affiliated with three units: Educational Initiatives, Labor Research and Education, and the Institute of the Environment.

As noted previously, a number of faculty have taught in the cluster program for more than one year. Consequently, the unadjusted totals reflected in Table 2 exceed the number of "unduplicated" or distinct individuals who participated. Adjusting for those who taught more than once, 67 ladder faculty and 88 non-ladder faculty participated in clusters during this eight-year period. A complete list of these faculty members is provided in Appendix B. Sustained faculty commitment to cluster teaching since the program's inception in the 1997-98 academic year is evidenced by the fact that 79% of ladder faculty (and 74 percent of non-ladder faculty) who participated for at least one of the past eight years also taught fall/winter lecture/discussion courses and/or spring seminars prior to the 2003-04 academic year.

Faculty Coordinator Perspectives

To understand coordinators' cluster experiences, a researcher in UCLA's Division of Undergraduate Education conducted two focus group interviews. One group was comprised of faculty who were currently serving as coordinator for their respective cluster teaching teams and who, with the exception of one participant, had multiple years of cluster teaching experience. The second was with the team of coordinators who have broader administrative and instructional oversight of the program.

A total of 15 faculty coordinators participated in these two 90-120 minute conversations, both of which were audio taped and subsequently transcribed. An interview guide (see Appendix I) provided general structure for the conversations, but participants were encouraged to prioritize talking about the issues that they perceived to be most relevant as they reflected on their cluster experiences.

Table 4.2. Departmental and Unit Affiliations of Faculty in Each Program Year

Primary Departmental Affiliation: Ladder Faculty	Academic Year								
	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	Total*
History	2	2	6	5	7	8	7	5	42 (10)
Sociology	4	2	2	3	3	3	3	4	24 (6)
Asian Languages & Cultures	3	3				6	5	1	18 (8)
Political Science	2	3	1	2	2	3	2	2	17 (5)
English	3	4	3	1	1	1	1	2	16 (7)
Ecology & Evolutionary Biology	1	2	1	2	2	2	1	1	12 (5)
Civil & Environmental Engineering	1	1	1	1	1	1	1	1	8 (1)
Physics & Astronomy	1	1	1	1	1	1	1	1	8 (3)
Urban Planning	1	1	1	1	1	1	1	1	8 (1)
Theater	2	3	1						6 (3)
Atmospheric & Oceanic Sciences		1	1	1	1			1	5 (1)
Music	1	1	1	1	1				5 (1)
Musicology				1	1	1	1	1	5 (1)
Communication Studies				1	1		1	1	4 (1)
Dentistry	1	1	1	1					4 (1)
Earth & Space Sciences			1	1	1			1	4 (2)
Genetics				1	1		1	1	4 (1)
Integrative Biology & Physiology				1	1		1	1	4 (1)
Chicana and Chicano Studies	1	1			1				3 (1)
Institute of the Environment	1						1	1	3 (1)
Ethnomusicology				1	1				2 (1)
Law					1	1			2 (1)
Anthropology				1					1 (1)
Art History								1	1 (1)
Information Studies								1	1 (1)
Philosophy				1					1 (1)
Scandinavian							1		1 (1)
All Ladder Faculty	**24**	**26**	**21**	**27**	**28**	**28**	**28**	**27**	**209 (67)**
Primary Unit Affiliation: Non-Ladder Faculty	Academic Year								
	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	Total
Educational Initiatives	6	7	8	7	10	6	6	4	54 (25)
Labor Research & Education	3	2	2	4	2	2	1		16 (7)
Institute of the Environment	3	2	2	1	3	2		1	14 (9)
Pathology	1	1	1	1	1	2	1	1	9 (2)
Social Welfare	1	1	1	1	1	1	1	1	8 (1)
Writing Program	1	1	1	1	1	1	2		8 (2)
Geography				1	1	2	1	1	6 (3)
History	1	1	1	2			1		6 (4)
Sociology			1	1		1	2	1	6 (2)
Molecular, Cell, and Developmental Biology	1	2	1	1					5 (2)
Theater	1	1	1	1	1				5 (1)
Epidemiology		1	1	1	1				4 (1)
Geriatrics	1					1	1	1	4 (1)
Microbiology, Immunology, & Molecular Genetics	1	1	1	1					4 (1)
Music			1	1	1	1			4 (2)
World Arts and Cultures			2	1	1				4 (2)
Academic Advancement Program	1	1				1			3 (1)
Atmospheric & Oceanic Sciences						1	1	1	3 (1)
Center for Society & Genetics					1		1	1	3 (1)
Institute of Geophysics		1		1			1		3 (1)
Anthropology						1	1		2 (1)
Asian Languages & Cultures						1	1		2 (1)
Biological Sciences	1	1							2 (1)
Core Curriculum Program	2								2 (2)
Earth & Space Sciences	1					1			2 (1)
Ecology & Evolutionary Biology	1		1						2 (1)
European Studies			1		1				2 (1)
Genetics				1		1			2 (1)
Institute for Genomics & Proteomics			1	1					2 (1)
Law				1	1				2 (1)
Political Science				1	1				2 (1)
University Extension-Education						1	1		2 (1)
Academic Counseling								1	1 (1)
Dentistry	1								1 (1)
East Asian Studies		1							1 (1)
Housing Central Services							1		1 (1)
International Institute							1		1 (1)
All Non-Ladder Faculty	**27**	**24**	**27**	**30**	**27**	**26**	**24**	**13**	**198 (88)**
TOTAL FACULTY	**51**	**50**	**48**	**57**	**55**	**54**	**52**	**40**	**407(155)**

*The number in parenthesis represents the number of "unduplicated" faculty members who participated from each department over the past eight years of the cluster program.

Focus group participants offered insights on their motivations for participating in the program, as well as their views on cluster teaching and learning. Contextual considerations and thoughts on the program's continuing evolution were also addressed. The subsections that follow highlight the perspectives they expressed.

Motivations

In keeping with sentiments shared by faculty who recounted their perspectives and experiences for inclusion in the previous self-study report, those currently teaching cluster courses highlight common motivations to engage. The two most common attractions to cluster teaching among current coordinators are: (a) opportunities to collaborate with colleagues across academic disciplines on "big issues" and "topics you just can't handle as well on your own," and (b) the joys of teaching "enthusiastic" freshmen who are intellectually "open" to the "interdisciplinarity" and "breadth" of cluster topics.

Cross-disciplinary Collaboration

In talking with cluster coordinators, a recurrent motivational theme both for initial engagement and sustained involvement relates to the unique intellectual challenges and opportunities for professional growth that cluster teaching affords. For many, cluster participation provides a "distinctive," and much appreciated, collaborative forum for sharing existing scholarly interests, exploring emerging areas of inquiry, integrating different disciplinary perspectives, and establishing creativity-inspiring connections with colleagues. Illustrative of this dynamic, one faculty member commented:

> *I'm teaching a course that I don't think should be taught anywhere other than in the cluster program. If it were taught in [any particular department], that would limit the range of students who would take it. It's not really a fault of the subject; it's just the way courses in departments are set up here. This course simply requires a team to teach it in the way it needs to be taught.*

Agreement with this sentiment was broadly shared. Indeed, cluster team teaching serves to broaden faculty members' existing frames of reference by exposing them to new intellectual, disciplinary, and pedagogical perspectives. Reflecting on how her own and her cluster teaching partners' approaches to addressing course content have evolved over time, one coordinator remarked:

> *Within each faculty member, I'm noticing a lot more interdisciplinarity now. Each of us, within our own lectures, is bringing in…and integrating…and otherwise showing…that the other perspectives are important, and that you have a fuller understanding if you can bring several disciplinary perspectives to bear. I feel a real difference [relative to when we started teaching together].*

Not unexpectedly, cluster teaching has had sometimes unanticipated effects on other aspects of faculty coordinators' work. For example, having experienced first hand that students "like to see how things fit together between disciplines," many have found that their cluster teaching experience has made them both more inclined, and more readily able, to incorporate interdisciplinary perspectives within their other, non-cluster courses. The "understanding and appreciation of research in other fields" that faculty gain through cluster teaching also enables them to be more "nuanced" in their discussion of other areas as well as more adept at helping students "establish meaningful connections" across disciplines.

Additional benefits have accrued from observing colleagues teach and otherwise interact with students. As one coordinator explained, such experience often sparks valuable self-reflection regarding one's own pedagogical strengths and weaknesses:

> *[Participating in a cluster] has definitely improved my teaching. In part, just observing three other faculty members lecture…we don't typically have an opportunity to do that. Watching their style and seeing what works and what doesn't…you pick up ideas. My whole lecture style has*

changed. I like to say I was a good lecturer before, but I think I've picked up a lot of things that have made me better.

For another coordinator, cluster teaching prompted more intentional consideration of her pedagogical perspectives and practices:

> *[Before teaching in the cluster program], I never really articulated pedagogy. I never really thought about ways of teaching. I guess I did [in some form]…but I had never written a teaching statement, for example. Recently though, we wrote an article about the cluster and used student-centered learning [as the conceptual basis]. There were things from Education that I had never really grappled with myself, but that I thought about in writing that piece.*

Other "direct scholarship" benefits derived through cluster teaching ranged from co-authoring conference presentations and articles that highlight the cluster as a "unique way to teach my subject matter" to initiating new research collaborations with fellow faculty or graduate students.

Engaging Freshmen

Another equally compelling motivation for faculty to participate in cluster teaching is the opportunity to engage freshmen intellectually at the very outset of their undergraduate careers. Having, simultaneously, the "privilege" of introducing new college students to subject matter about which they, as faculty, are particularly passionate offers added incentive. As one focus group participant commented:

> *[Freshmen] are a very dynamic group. They come in very enthusiastic, and I teach topics that they've never had exposure to before. That's just a mind twisting, bending sort of thing to watch 200 heads turn sideways. It's fun.*

Another added:

> *It's wonderful to have freshmen who are not yet jaded…who have not yet learned to game the system…and who have not yet learned that they 'ought' to be gaming the system. They're open to all sorts of things, including the cross-disciplinary enterprise, because they haven't been located into any one area yet. It's just a wonderful experience.*

From a pedagogical standpoint, coordinators lauded the cluster program's capacity to provide a "safe haven" for freshmen to "adjust to college," "get rid of their high school mentality," and develop "critical thinking and writing skills." In keeping with these sentiments, there was widespread agreement with the comment that the clusters offer "a wonderful introduction to university life and a different way of thinking" which is "not otherwise readily available" to freshmen who take more "traditional" courses. The remarks of two faculty members captured especially well both the inherent enthusiasm associated with engaging freshmen in scholarly discourse and the cluster program's overall capacity to facilitate students' intellectual growth and development:

> *What I find most exciting is teaching the spring seminar where you have kids who have two quarters of preparation and they're now in a seminar that fits the discipline or topic they've gotten to be most interested in. What they can accomplish in the spring as a kind of research and writing and working seminar is so substantially different. That's where they shine in ways that are so far superior to the senior seminars we have in our department. They've really had all this focused preparation and then, in the seminar, they can accomplish a lot.*

> *Depending on what GE fulfillment [your cluster] offers, you're going to have different clientele [than you would in your home department]. It's a different experience than I'm used to, and it's delightful. It's fun to see [freshmen] expectations and assumptions, especially when you ask them what they'd like to major in. Then you see how that develops and ripens…even changes…over the course of the year.*

Cluster coordinators enjoy interacting with freshmen and welcome opportunities to introduce them to new ways of thinking. They also find "working in different ways with different colleagues" to be professionally and personally enriching. Not unexpectedly though, as detailed in the next subsection, these interactions can be challenging for students and faculty alike.

Cluster Teaching and Learning

Focus group participants engaged in lively discussion of their cluster teaching and learning experiences. Highlighted here are snapshots of their teaching teams' efforts to determine "what works (and what doesn't)" in helping freshmen embrace new perspectives. Insights on establishing cluster learning communities and perspectives on the role of graduate student teaching fellows are also offered.

Creative Pedagogy

Among the greatest challenges for cluster teaching teams is developing curricula that reflect a shared vision of what students are expected to learn. From there, teaching teams must determine how best to integrate material from across disciplines so that students can most readily process the "multiplicity" of new information and intellectual perspectives that are introduced. As one faculty member explained:

> *[The interdisciplinarity] makes students really nervous, especially the first quarter. They're nervous about the breadth of the material. In some ways, they have to unlearn what they've learned in high school because not only are they moving across disciplines and trying to get a handle on them, they also have very strong notions [about] particular disciplines.*

Considering the challenges associated with effectively introducing students to multiple, and sometimes competing, disciplinary perspectives, focus group participants underscored the importance of thinking creatively, maintaining "flexibility," and being "open" to making adjustments when seemingly promising approaches are reveled to be less effective than anticipated. One coordinator, for example, described how he and his colleagues re-evaluated their approach of having multiple faculty members lecture, and react to each others' lectures, during the same class period. This approach, which the teaching team found to be intellectually stimulating and that, by extension, they anticipated would also enhance student learning, ultimately required rethinking given students' readiness:

> *Reading the evaluations at the end of the year, we realized that students were probably more confused than they had been in the years when we'd separated the lectures out and they weren't hearing constant conversations and debates. In retrospect, it was probably too advanced for them and we probably didn't handle it as well as we might have because it sounded [to a lot of the students] like, "he said, she said." I think the best students got a lot out of it, but those who struggled with the material were probably completely lost and thought, 'this is crazy.' It was an important experience, but we abandoned [that approach] because the amount of work that went into it simply didn't pay off in terms of what we thought the students were getting out of it.*

Others concurred that most freshmen aren't developmentally ready to "choose" between the sometimes dramatically divergent perspectives expressed by multiple faculty co-teaching the course, all of whom are recognized experts in their respective fields. Indeed, coordinators realized relatively quickly that, for incoming freshmen, simply processing the often complex material presented during lectures is challenging enough. As one focus group participant noted:

> *Faculty and graduate students enjoy a lot of dialogue and find that intellectually very stimulating. Sometimes we assume that the undergraduates will also be as excited as we are. Actually, especially if it's a bit confrontational, it makes them very anxious. So now, [while acknowledging there are going to be] opposing views, we tend to downplay that aspect and emphasize integration and complementarity. It makes the students feel less anxious and allows them to [learn] the material without feeling like they have to choose which perspective is 'correct.'*

Reflecting on particularly effective approaches to helping students grasp "the bigger picture" and ease the inherent "nervousness" many students initially experience when asked to apply different disciplinary lenses to a particular topic, one focus group participant offered:

> *This is a big challenge. [In my cluster], we haven't solved it because [the students] are still anxious about [the expectations]. Partly though, it depends on how you structure your lectures. We basically have blocks that are identified with one of the four faculty members, but we inject all the other three into the blocks deliberately in a variety of ways…either a vignette at the end of the lecture or in other ways we bring in to remind them we're a team and that there's more than one perspective, or view, on a topic.*

Another coordinator detailed an approach that has worked especially well for her team:

> *Rather than jumping right into the material with the first lecture from one disciplinary perspective, which is what we had done in the past, we used the first lecture this year to give a series of mini lectures. We weren't tag teaming in terms of speaking off each other, but we were each giving them a preview of what they were going to be doing over the quarter…and even over the two quarters…and why it was exciting. So from that first class, they had a sense of the whole course as opposed to getting one, and then the second, and then the third, and fourth perspectives. That worked really well. In the beginning, there was some skepticism [about taking that approach] among some within our teaching team but, in the end, they've become completely sold and we're going to try and replicate that again next year.*

Considering "what works" in cluster teaching, focus group participants identified a variety of instructional strategies that, through trial and error, have revealed themselves to be particularly effective in helping students adapt to new ways of thinking. The importance of all instructional team members being "flexible" and "willing to experiment" with different approaches was also consistently stressed. Because successful cluster teaching requires faculty to "talk to everybody else in a way they wouldn't have to if they weren't teaching this sort of class," it can be more time intensive than initially imaginable to those who are new to cluster teaching. As one coordinator shared:

> *For some [faculty] I've talked to, the nice thing they anticipate about cluster teaching is that you really give four lectures a quarter instead of twenty. And that's perceived as a good thing [from a workload standpoint]. One person who is teaching with us for the first time this year said that they're working harder though on those four lectures though because the standards are higher.*

Time invested engaging collaboratively with fellow faculty members and graduate student instructors to design and, over time, refine cluster courses contributes in important ways to creating the "sense of community" that is central to the cluster program model. The next subsection highlights faculty perspectives on establishing strong cluster learning communities.

Learning Communities

Clusters are unique from most other undergraduate courses at UCLA because students typically remain part of a cluster community for a full academic year. A core goal of the cluster program is to develop among first-year students a sense that they and their instructors are part of a common intellectual community, which encompasses both in-class and out-of-class teaching and learning experiences. In association with their teaching team colleagues, coordinators are responsible for establishing facilitative learning communities.

Among focus group participants, there was widespread agreement that, in many respects, the dynamics that characterize teaching team members' relationships with each other play a significant role in establishing cohesive cluster learning communities. As one coordinator noted:

> *I think one of the biggest things you can do to build community in these classes is the tone you set as the teaching team. [As the coordinator], I work really hard to make sure our teaching team looks like a community. [Students] see that we know and like each other. We encourage faculty and students to ask questions during lecture. On field trips, they see us laughing and talking outside of class. They know we all get together and grade the exams and papers. I think it's important they see that because then they're more comfortable with us as a group. They see that we're people…and we're friends with each other…and that they can be part of that too.*

Coordinators concurred, too, that students enjoy seeing "faculty actually interact with each other," even when those exchanges highlight "alternative perspectives" and may even contain "elements of rivalry." Appreciating that appropriately managed intellectual tensions can enrich the learning experience, focus group participants also underscored the importance of creating a "cohesive" cluster teaching team where faculty personalities generally mesh well:

> *You've got to have…with all these egos in the room…people who are not overly competitive with each other. You've got to be able to work with the people who are on the team personality wise. That's very important.*

The significance of enjoying teaching, possessing good collaborative skills and, as one coordinator framed it, "being willing to abandon your authority in the classroom…not entirely…but recognizing that there are other authorities in the classroom as well" was also commonly echoed. For example:

> *It's really important to get people who like to teach, because these freshmen are right out of high school. They're used to hands on. They like to have a face they can know and talk to, and if you have someone on the team who doesn't like to teach…who feels isolated and alienated from the students…then it doesn't work very well with the students. You have to have a commitment of 'I like to teach' from everyone on the team.*

Another coordinator added:

> *It's not just that you like to teach but that you're flexible in teaching…because you can have someone who is really trying and puts together a good lecture and everything…but if they're only seeing their own perspective, then that person is always this incredibly weak link…and everyone else struggles.*

Focus group participants also highlighted the benefits, pedagogically and interpersonally, of having continuity in teaching team composition, "even for just one or two years" or "even if some have to go on and off the team" on a regular cycle given other commitments. Coordinators agreed that having "at least some repetitiveness" within the teaching team ultimately allows for better integration of key topics. For example, one coordinator who has been part of a team where the same faculty remained in tact for five years and on another where members have been constantly "revolving" commented:

> *Being able to teach with people where you've heard and understand their lectures allows for a different kind of organization and synthesis that helps the students. When you're bringing in one or two new people each time, it's a different kind of negotiation entirely.*

Those who have been part of the same cluster team over time also commented on what they have observed as "distinct changes" in team members' instructional approaches as trust within the team grows. For example:

> *We are really working more as a team now as opposed to, 'Now it's my turn to present [my disciplinary] view.' It was more antagonistic at the beginning. We had never taught together and we didn't know what the next faculty member was going to say. There was some suspicion and concern as well because ours are not disciplines that typically work together.*

Over time, in the best case scenario, you develop trust…you develop rapport. I'm noticing in myself, and perhaps in my co-teachers as well, that I'm less concerned about getting my perspective across. [My perspective] is important for them to understand, but I'm thinking more now in terms of [the students] appreciating the value of all the approaches, and the integration.

Faculty coordinators also recognized the importance of team members working together to help students make conceptual connections:

If people know each other and if they're able to, in some ways, complement each others' lectures…that assures students that there's some sort of connection to be made rather than creating stress and anxiety [in students' minds] that, 'There's something at stake here that I'm not understanding' or making students feel that there's a critical debate that needs to be fleshed out that they're not prepared to engage in.

Without question, cluster teaching engages UCLA faculty in new ways of thinking about teaching and learning and challenges them to partner with colleagues in new ways. Some coordinators described teaching team relationships as akin to a "family dynamic," with graduate student instructors (GSIs) playing integral roles. There was also widespread agreement that "strong," "highly competent" GSIs are the "backbone" of the cluster program, providing critical support within the teaching team and serving as important community-building liaisons for freshmen. As one focus group participant commented:

Community really starts in the TA sections themselves because they're small groups and they talk to each other every week for substantial periods of time. So there are 'mini' communities [formed] that then fold back into the larger group.

In keeping with the value placed on having "returning" faculty colleagues, coordinators also highlighted the value in having "at least one repeating" graduate student as part of the teaching team:

[Apart from anything else], there are lots of logistical things that experienced TAs will remember and maybe that faculty don't even know because they're things happening in the discussion section. The instant memory of what works and what doesn't in various exercises is very valuable. If I don't have someone who has an institutional memory, I'm in trouble with the new TAs.

Coordinators acknowledged that the primary "students of focus" in the cluster program are the undergraduates. However, they also concurred that a "frequently overlooked," yet "crucial," aspect of their teaching roles and responsibilities as cluster faculty is the "considerable mentoring" they do with graduate student instructors. In large part, these efforts focus on helping GSIs "get their heads around" unfamiliar subject matter and ensuring that GSIs understand "what the material is about" and "what approaches one could take" in facilitating discussion. As one coordinator explained:

The amount of time it takes for training GSIs and interacting with them…the weekly meetings and getting them started ahead of time…is really critical to making this work. They're learning to be fairly skilled in 'discipline x' and suddenly they're teaching [something very different].

Coordinators were also mindful that many cluster GSIs aspire to become faculty members. As such, the cluster teaching experience takes on added professional development significance for these would be professors. Toward that end, faculty strive to provide opportunities for GSIs to gain experience that will serve them well:

When we map out the first two quarters, we make sure that each GSI does a lecture, both so [they] feel empowered and so the students realize these are not just people handling the second tier; they're also part of the team. I think this makes the experience more enjoyable for the GSIs as well. Sometimes we sort of probe into that [approach] and think, 'Well, I could have done that myself better.' But [that sentiment] is balanced out by the fact that the GSI always finds it a good, positive learning experience. The students in that GSI's [discussion] section are also very proud;

they think the GSI did a great job. So, of course, there is going to be a little bit of roughness to it, but I think the positive outweighs any negative.

Conversations with coordinators revealed that cluster teaching and learning is an imprecise art that is constantly evolving. That said, a clear cornerstone for establishing and sustaining effectiveness are the relationships that are cultivated among cluster community members. As addressed in the next subsection, contextual factors including logistic, philosophical, and economic considerations also impact the cluster program and its participants.

Clusters in Context

Cluster program engagement challenges faculty to think in new ways about general education and to work collaboratively to create cluster learning communities that help enable freshmen to thrive academically and socially. At UCLA, of course, those pursuits necessarily occur within the context of a large, public research university and the realities of life therein. This subsection focuses on two contextual considerations highlighted by coordinators during focus group discussion. One, the cluster program's "residential life design," relates to the sheer size of the UCLA campus, and associated geographic challenges given the location of residence halls relative to the "main" campus. The other points, more fundamentally, to "research university culture."

Education on the Hill

As noted earlier, one of the cluster program's core programmatic goals is to cultivate a learning community environment, particularly in and around the student residence halls (located on "the hill"). Yearlong academic and social experiences occurring both in and out of the classroom are designed to create a community of learners among cluster faculty, GSIs, and freshmen. As illustrated by the following comments, faculty coordinators largely applauded the concept:

I think it's great that senior faculty actually come to where the students are. That's something unique about this big university because students often feel really isolated from their faculty. It's not like being at a small liberal arts college. [With the cluster program], you have senior faculty…really distinguished people in many instances…going close to where freshmen are living. I think that's fabulous.

It's kind of cool when we're up there. When we go to lunch, we always run into our students from the year before and they come and have lunch with us. I also run into students from my other [non-cluster] classes, and they're like, 'Oh, faculty eat lunch?' 'Well, yes we do and sometimes we eat lunch here with you guys.'

One coordinator, whose cluster was scheduled for two previous years on the "main academic" part of campus due to scheduling conflicts, but is now located in the residence halls, commented:

I do feel a difference this year being on the hill. It does feel more like a community. It's a gut feeling more than anything concrete. But I do definitely feel a different vibe in the lecture hall, which is positive.

Some faculty expressed concern over the logistic challenges of teaching cluster courses in the residence hall region of campus:

I think the symbolism [of teaching on the hill] counts. Not just for us, but for the students. I do think it makes the program unique. It adds to the specialness of the program, so I like that. But I also think it's a major drawback that the students have a hard time making it in 10 minutes to wherever else they have to go.

My sense is that [teaching on the hill] does make the clusters at least a little bit special for the students because we actually go to their space and they're all together there, and they're just freshmen. The big negative though is that the whole rest of the academic life happens at another place on campus and that creates a logistic problem for them getting back and forth. I hear that from them all the time.

My sense is that the clusters do not have much of an impact [in the students' minds] of being "education on the hill." I mean, they're something different. There's a sense of convenience, especially for morning classes. But sometimes [classes taught on the hill] are really less convenient for students because they have to come down to campus, then run back up for the cluster, then run back down for another class. And it's really not easy to do that quickly.

Overall, coordinators acknowledged their understanding of, and appreciation for, the intentions associated with teaching clusters "on the hill." They also agreed that, overall, "the benefits likely outweigh the limitations." Certainly, at times, geographic considerations and "bureaucratic" processes that add, for example, to inherent scheduling complexities can create frustrations for faculty and students alike. However, a more fundamental contextual hurdle for advocates of cluster teaching and learning relates to the "longstanding biases" against making significant and sustained departmental investments to general education curricula.

General Education and the Research University

Those who are invested in cluster teaching are quick to tout its wide-ranging merits. However, coordinators also expressed broad recognition that the cluster program most definitely "goes against the grain" of the research university culture, where "strong departments are key to a research university's success" and "incentives to share resources across departments are minimal," especially when it comes to general education. As one coordinator remarked:

I think UCLA and most other research universities are in serious trouble [on this front] in relation to more broad-based liberal arts institutions. They're so focused on the research mission of the university because that's where most of the prestige comes from, for faculty anyway. That's pretty hard to break.

Especially in these challenging economic times, tensions between maintaining loyalty to one's department and investing in broader educational initiatives like general education are often exacerbated. For example, to widespread agreement from their colleagues, coordinators shared these comments related to current "shortages" in covering departmental courses:

[In our department], it's very difficult to come up with teachers. We're very short. We're not replacing our retirees. Slowly, our teaching manpower is dwindling. Providing someone to teach a GE cluster at less than [what used to be] the normal compensation is a big problem. I have to approach my chair again in another couple of weeks to find out if I can do one quarter again next year…forget about the whole year.

I've had people in our cluster tell me that they have to leave because they're considered good teachers and the department wants them back.

I've had to do overloads and, despite doing that, I feel like I'm asking for a favor to be able to continue in the cluster. The biggest problem in our department is simply staffing the required courses.

One coordinator summed up the situation as follows:

As everybody knows, it's all about resources. If you're going to put more and more resources into the cross-disciplinary enterprise, you're going to have to withdraw resources from the

disciplinary enterprise and, at the moment, that's pretty tough to do. We need more incentives to make it worthwhile for departments to allow us to do our thing.

Not surprisingly, departmental "resistance" to enabling faculty participation in the clusters is often experienced most intensively by untenured ladder rank faculty who must weigh personal motivations for engaging in cluster teaching against concerns about sacrificing time needed to establish research agendas as well as suffering the potentially damaging career effects of not being perceived as a "good departmental citizen."

In many cases, coordinators felt that their own cluster participation has led them to "rethink" the purposes, and potentially powerful educational impacts, of general education instruction. As one faculty member remarked:

[In these courses], we're not trying to turn students into [disciplinary specialists], so what are we trying to do? We really have to set a goal as far as what they're supposed to get out of it. We want them to learn to question information that's coming in…to become better citizens…to be more informed about scientific issues that come up. You really have to refocus on <u>why</u> are we teaching these kids…what are the purposes of GE?

All in all, coordinators endorsed the notion that cluster involvement tends to favorably shape faculty members' impressions of general education's inherent value and its potential to impact undergraduates positively. However, coordinators concurred that general education remains a particularly "tough sell" at research universities, including UCLA, not only because of the centrality of departments within the broader institutional enterprise, but also because "many, if not most" research university faculty view general education curricula as "typically [having] very little rigor or consistency." Thus, GE's perpetual rank as the "lowest departmental priority" is solidified, and efforts to "re-educate" can take considerable time and energy.

Given this dynamic, there was widespread agreement that UCLA's cluster program fills a "vital role" with respect to the importance of general education that "did not exist" prior to the program's establishment and that "would not exist" today in the program's absence. As such, faculty coordinators voiced passionately their perspectives on key points of emphasis for ensuring the cluster program's continued success.

Looking Ahead

As the "visionary" behind the Freshman Cluster Program, UCLA's Dean and Vice Provost for Undergraduate Education, Judith Smith, received high praise from coordinators for the masterful ways in which she has shepherded the program's evolution from inception to the present. Looking ahead to the program's next chapter, which will include Vice Provost Smith's retirement after more than forty years of service to the university, focus group participants discussed the importance of sustaining efforts to create a campus culture where general education and interdisciplinary pursuits are embraced broadly.

Sustaining Cultural Change Efforts

Faculty coordinators underscored the importance of continuing to work toward creating a culture at UCLA where "general education is valued" and there is a "clear commitment" to promoting interdisciplinary teaching and learning at the undergraduate level. As one coordinator noted:

If you want students to take GE seriously, then departments and faculty have to take it seriously first.

In the eyes of coordinators, a critical next step toward that end is creating a "unified message for the campus" about the merits of both general education and interdisciplinarity, with the cluster program serving as a key mechanism to link the two. As one coordinator explained:

> *We need more support for doing this, both within our departments and within the general UCLA culture which still, despite all the talk and so forth, is not very supportive of taking an interdisciplinary approach and doing things that are good beyond the department.*

Acknowledging the important strides UCLA has made in establishing and sustaining the cluster program, but lamenting that there is not a stronger, widespread commitment within the university to cross-disciplinary teaching and learning, another commented:

> *We aren't going to make a lot of additional progress in this enterprise until there is change in the culture of the university more generally. The emphasis [currently] is put on the discipline and on training students in just exactly the discipline that their professors occupy. That has to change if we're ever going to have any serious commitment to cross-disciplinary training at the undergraduate level.*

Coordinators expressed that necessary cultural change is dependent, at least in part, on helping UCLA faculty at large expand their perspectives on how their own scholarly interests and activities intersect with those of colleagues from different disciplinary backgrounds. As one coordinator remarked:

> *Let's face it. Most of our colleagues…if you told them, 'Let's set up an interdisciplinary class'…not all of them…but most of them...wouldn't have a clue how to go about it or even what interdisciplinary course they could generate.*

Toward facilitating cultural change, coordinators also emphasized the importance of "sustained support" from the vice provost's office that is also reinforced more assertively by deans:

> *The question is getting departments to play ball and getting departments to realize, for example, that they are not controllers of their budgets. The deans are. It should be made clear to departments by the deans that [contributing to the cluster program] is part of their duty. This is part of the payback for whatever they're getting. Departments have to allow this to happen.*

To be sure, and as was well acknowledged by focus group participants, cultural change is a complex and "never quick" process that, at least on this front at UCLA, is far from complete. Nevertheless, the cluster program is thriving. Its continuing successes in socializing students to academic life and in providing instructional team members with intellectually stimulating teaching and learning opportunities prompted coordinators to share their perspectives on possibilities for expansion.

Cluster Program Expansion

From the clusters' inception, UCLA's goal was to mount and support a program capable of providing up to 40% of entering freshmen with the opportunity to enroll in a cluster. That goal has been surpassed, with the cluster program currently serving 52% of the freshman class. This proportion reflects slightly more than double the proportion of freshmen (25%) served just five years ago. Should the cluster program continue to grow? Making clear his personal perspective on the matter of expanding cluster availability, one coordinator commented:

> *If we want to expand [the cluster program], how are we going to find the people to do it? How are we going to establish a culture here where people get to know people in other fields so we can at least put together these teams? It's a daunting challenge. That's one of the areas though that I just refuse to say we can't do any more. We have to just keep pushing.*

Others concurred, endorsing the view that:

> *Even if we don't want all students enrolled in cluster courses, there should be a larger repertoire than there is. Not all of them have to be offered in the same year, but it would be good to have more in the stable.*

Members of the broader coordinating team placed particular emphasis on "establishing at least one more science cluster" which, given resource-related considerations, tend to be "the most difficult to launch and maintain." To facilitate science cluster administration, "employment of an additional academic administrator" was also viewed as critical. Other expansion interests related to ensuring broader enrollment access across freshman orientation groups. As one coordinator commented:

> *[Those who get in the clusters] are just the ones who are lucky enough to get in. There are probably very good people who could do great work in the clusters who can't get in.*

Another colleague continued:

> *We had a lot of very sad people at the beginning of this quarter because they wanted to do this and couldn't. There was just no space for them.*

Coordinators explained further that while cluster enrollment is indeed "self-selective to at least some extent," there is seemingly greater opportunity to enroll for incoming freshmen who participate in one of the early new student orientations. "The message is to sign up for a cluster once your [enrollment] pass comes along." Consequently, despite the fact that "some spots are held open" for students with later enrollment passes, there was a shared sentiment that if early orientation session students act on the encouragement they receive to enroll, most cluster courses will be nearly filled very early on, leaving comparatively little opportunity for others who may also want to enroll.

Acknowledging that "in some ways it's a separate expansion issue," some coordinators felt it would be "wonderful" to offer cluster experiences for third-year transfer students. One of these proponents explained the rationale:

> *So many students we encounter in their third or fourth year are really struggling. The clusters are a good way to train people about what UCLA is like….what the standards are…what the expectations are. Yet you have this huge contingency [of transfer students] who can't even avail themselves of this opportunity which could be of great value to them.*

Finally, cluster coordinators acknowledged that "clusters aren't for everyone," and there was widespread agreement that any efforts to expand the program must include safeguards to ensure the continued high quality of cluster teaching and learning. As the program has stretched to accommodate more students in the midst of ongoing fiscal crisis, enrollment in fall and winter lecture courses has grown from 180 to 240 students, creating an inherently "different feel" within those courses. Toward helping all entering freshmen make proactive and well-informed decisions about their educational options, coordinators also underscored the importance of communicating "early," "clearly," and "consistently" to newly admitted freshmen the longer-term benefits of cluster participation with respect to preparing them for life at UCLA and beyond.

Conclusion

Throughout conversations with coordinators, there was a palpable sense of pride associated with being part of the cluster program. There was also a clearly expressed sentiment that cluster teaching, although challenging in many respects, is highly enjoyable. As one faculty member offered, "teaching in the clusters is the most fun thing I do." Overall, focus group participants endorsed the cluster program as providing a "great" opportunity for students to learn about topics that are "central to a college education" and that "people should know about." Cluster teaching also offers a "unique combination of opportunities" that engage faculty intellectually and challenge them professionally. As such, coordinators

welcomed what they described as, “unfortunately, too rare” an opportunity to talk “across clusters” about their experiences, insights, and shared interests.