The Teagle Foundation has long dedicated its resources to improving undergraduate learning in the liberal arts. Most of its grant programs focus on helping campuses incorporate new strategies for teaching and learning into their pedagogies and curricula and improve the assessment of student learning. The April 2014 convening was centered on a series of grants issued from 2010-2013 that addressed a prior condition for faculty’s willingness and ability to assume their professional role as teachers—that is, their preparation in graduate programs for their careers as teachers. The meeting provided an opportunity for grantees and other participants to discuss practical ways to cultivate graduate students’ understanding of what it means to be members not just of a community of scholars but of a community of teachers.

**What the Research Reveals about Good Teaching**

A logical, but by no means simple, point of departure for the meeting was an exploration of what constitutes effective teaching. Charlie Blaich, Director of the Center of Inquiry at Wabash College and the Higher Education Data Sharing Consortium, and Kathleen Wise, Associate Director, Center of Inquiry at Wabash College and Director of the Teagle Assessment Scholar Program, presented the findings of their study that measured student experiences and outcomes over time to determine which pedagogical practices and conditions promote liberal education. They looked at longitudinal data generated by more than 170,000 students, visited 49 colleges and universities of all types, went to faculty meetings, observed teaching, and interviewed faculty and students. Their major finding was that there is a “crisis of mediocrity” in college teaching today.

*The Importance of Clarity and Organization in Teaching*

Although many different teaching practices and learning experiences promote student learning, the research shows that one of the most powerful factors in predicting an increase in student learning is *teaching clarity and organization*. A questionnaire administered to students described practices that constitute teaching clarity and organization, such as how often faculty interpreted abstract ideas and theories; gave helpful assignments; provided clear explanations, examples, and illustrations; and reviewed and summarized the material. Students who reported higher levels of such activities made greater gains in everything from critical thinking, political and civic involvement, and socially responsible collaborative leadership to persistence and graduation.

So how often did students, on average, experience clear and well-organized teaching? The answer: less than we would hope. The percentage of first-year students who reported that they sometimes, rarely, or never did so ranged from a quarter of those at the highest-scoring school to 77% at the lowest. On average, this disappointing response was given by slightly less than half (48%) of all first-year students, but it varied by sub-group. Sixty-three percent of African-American first-year students reported a sub-par learning experience, and more first-year students at larger institutions (58%) did so than ones at small colleges (41%). Wise noted that first-year students, who are the least socialized into the college experience and are often taught by adjunct...
faculty, may be tougher evaluators of teaching than students who have more experience in college. Ironically, first-year students also often comment that college is easier than they expected.

Explaining the Findings
What, then, explains mediocre college teaching? Faculty members interviewed for the study cited a host of reasons—ranging from “life happens” to the lack of support for adjuncts (who may, for example, be hired the day before classes begin and experience shabby conditions and poorly aimed support) to faculty fecklessness.

Some explanations offered by faculty reveal a basic misunderstanding of the nature of learning—for instance, when they regarded students as, in Dickens’ phrase, “vessels . . . ready to have imperial gallons of facts poured into them until they were full to the brim” (Hard Times). This belief is undoubtedly reinforced by faculty development sessions that consist of knowledge transfer or reading about good practices rather than having the opportunity to actually try them. Faculty who misunderstood the nature of learning were also dismissive of students’ poor evaluations of their teaching, regarding them as “just students’ perceptions.”

Some faculty saw obfuscation as a sign of expertise, regarding clarity as an anti-intellectual “dumbing down” of the material. They had difficulty connecting the epistemology and knowledge of their disciplines with that of their students. Instead, they taught students as they would have taught their faculty peers—as “experts watching experts”—rather than trying to connect to where the students were.

In students’ descriptions of how they experienced faculty, the importance of a professor’s authenticity and passion for the subject stood out. Students also cared whether their teachers cared about them. When professors demonstrated a passion for their subject, gave students prompt feedback, held themselves to the same standard as they did the students, or attempted to make disciplinary questions come alive, they were signaling, in the students’ view, a respect for students and an interest in their development and understanding of a particular discipline.

Implications for Preparing and Developing Good Teachers
These findings have a number of implications for developing future faculty. First, they suggest that faculty development initiatives should entail more “doing,” in order to cultivate a gradual improvement in the participants’ “workshop-possession” rather than “museum-possession” of pedagogical knowledge. The aim of faculty development should be to develop in participants a commitment to understanding what students know, value, and think, whatever their backgrounds. Development efforts should also encourage faculty members’ predilection for experimentation, tolerance of ambiguity, and ability to locate supportive colleagues and communities.

The commentaries of James Grossman, Executive Director of the American Historical Association and Vanessa Ryan, Assistant Professor of English and Associate Dean of the Graduate School at Brown University, as well as the participants’ contributions, deepened the discussion and raised a number of questions.
Preparing graduate students to excel as teachers requires that Ph.D. programs put as much effort into training them to teach as they do into helping them become research scholars. There are logistical obstacles to doing this, including freeing up time for graduate students to attend workshops and pursue other forms of professional development; but if teaching were to be truly integral to graduate training, it would not be seen as an add-on or distraction.

Effective preparation for teaching should draw on the strengths of teaching and learning centers, which can help graduate students across disciplines improve their skills in teaching techniques such as preparing effective lectures, improving the clarity and organization of their teaching, and assessing student learning. It should also introduce graduate students to the scholarship of teaching and learning (SoTL) in the context of their disciplines.

A discipline-specific approach is important to help graduate students translate the epistemology of their disciplines to their students and to ground the discussion in the concepts and language of the particular field, which is less alienating to many current and future faculty than the language of education. Although the jargon of one’s own discipline rarely gives offense, many faculty are hostile to the “gobbledygook” of education and associate it with the evils of administration and accreditation. To close the gap between the teaching and learning centers and the departments, universities would do well to create partnerships to combine the best of both.

Another important element of preparing graduate students for teaching positions in the real world includes exposing them to the realities of teaching at institutions that are quite unlike the research universities at which they are doing their doctoral work. This will require graduate students to understand that the students they will be teaching will be unlike themselves as students, students at research universities, or the students they wish they had.

And finally, creating a community of teachers that is as valued as the community of scholars requires fundamental institutional change. At most research universities, the tension between disciplinary specialists and dedicated teachers is intense, and a shift in institutional culture and rewards will be required to change the culture. Faculty will need to be rewarded for valuing teaching. Administrative leadership is key—leaders provide access to external resources, for example, enabling attendance at meetings from which participants can bring back stimulating ideas. Prestigious faculty will need to lead the way, teaching seminars on teaching in the disciplines and creating partnerships with teaching and learning centers.

These are not trivial challenges, and many questions remain:

- How can we get future faculty to take seriously the literature on assessment and prod them to use rigorous assessment tools?
- How can we encourage humanities students to acquire the quantitative literacy necessary for even basic assessment work?
- How can we help graduate students to develop more realistic but positive expectations about their work life to come (especially if they end up in a variety of institutions of the sort they haven’t thought about or experienced)? And how do we communicate that becoming a tenure-track faculty member is not the only legitimate pathway after the Ph.D.?
• How do we help graduate students to think about the impact of technology? The strongest terrain on which they can stand in arguing against an overestimation of the power of MOOCs, for instance, is assessment. Although typical faculty members may not be a better lecturer than those who teach the MOOCs, they are better situated to do assessment, because the essence of teaching is not the lecture—pouring knowledge into students’ heads—but feedback.

• In training future faculty, what has to be discipline-specific and what not? It is vital to work with the values and concepts of the discipline, because what graduate students learn about pedagogy has to relate to “their own work.” At the same time, many aspects of good teaching are valid across disciplines.

**Teaching, Learning, and the Ph.D.: Grantees’ Experiences**

How do these findings and observations translate into foundation-funded initiatives undertaken by different graduate programs? (Click here for descriptions of the initiatives prepared by grantees in preparation for the meeting.) Among the grantees in the Graduate Teaching in the Arts and Sciences initiative were Stanford University, Cornell University, and the University of California-Berkeley, each taking a different approach to creating a community of teachers for faculty and graduate students.

**Stanford University**

Russell Berman, Walter A. Haas Professor in the Humanities, described how Stanford assembled teams of one faculty member and two graduate students in foreign languages, English, and history. Each team was charged with developing and delivering at least one course in a collaboration of equals. Now, in the second grant year, all eight teams come together three times per quarter. They read the literature on learning, but even more importantly, they have opportunities for broader reflections on their experiences in the classroom and what they are learning about learning.

A driver for the development of this initiative was the contrast between the university-wide discussion on general education and the attention to undergraduate learning with the relative underdevelopment of reflection on the graduate student experience. Another driver was the growing recognition of the importance of preparing graduate students for teaching careers and therefore their need to how understand how learning works.

Although the “teaching vs. ‘my real work’” dichotomy that pervades research universities was alive and well, it was clear that graduate students were hungry for opportunities to learn more about teaching. At the departmental level, this led to small programs in the foreign languages, such as a tutoring program. It was also helpful that Jennifer Summit, Professor of English, built bridges to other Bay Area institutions during her year as an ACE Fellow at San Jose State University, which made the participating graduate students aware of the diversity of institutions to which their graduate students might go and the teaching opportunities they offered.

Working across a number of departments revealed that the understanding of graduate education, which is highly decentralized at Stanford, varies enormously across campus. A challenge
highlighted by the Teagle project was the difficulty in doing interdepartmental work when the experience of graduate student education varies so widely across the departments.

Although the deference that is given to departments to run their graduate programs as they wish could be mitigated, and despite all the enthusiasm for the teaching agenda, the gravitational pull of the old model should not be underestimated. There persists a strong tendency for faculty to turn graduate students into traditional TAs and for graduate students to want to teach their dissertations.

The good news is that the project has had a contagious effect and there is now more collaborative teaching going on at Stanford. The project led to an end-of-the-year faculty retreat where participants shared syllabi and talked about their teaching—which had previously been taboo. It also led to a revision of the course evaluations and a move to aggregate results to allow departments to compare their performance.

**Cornell University**

The Cornell Graduate Teaching Certificate Program was one of the many initiatives developed by the Center for Teaching Excellence (CTE), reported Richard Kiely, Director of Engaged Learning + Research (EL+R) at Cornell University. The program includes two graduate-level courses on teaching that encourages students to think about their discipline-specific identities; a multi-day graduate institute that integrates diversity, engagement, technology, research, and assessment; a working paper/poster series; and a symposium to showcase fellows’ research on teaching. Another feature of the program is an annual half-day retreat for selected directors of graduate studies, during which participants develop programming that supports graduate student professional development in high-impact teaching practices. Three cohorts of seven, nine and 11 graduate students have completed the program. Cornell used the Teagle grant to develop the program and get the Center stabilized.

At Cornell, the Center for Teaching Excellence is located in the academic area and focuses on the most advanced strategies for teaching and learning; it sees itself as a scholarly unit. The Teagle grant focused on the disciplines and on getting the Center fellows focused on the scholarship of teaching and learning. It led to a peer-reviewed paper series and enabled the continuation of the summer institute, the courses, the symposium, and the institute for the directors of graduate studies. Now the Center is aiming to scale up its efforts.

The course of such an initiative is inevitably shaped by both internal and external factors. Internally, the program has evolved as a robust collaboration between a number of units on campus, including CTE, EL+R, the Office of Academic Diversity Initiatives (OADI), the Graduate School, and the Office of the Vice Provost for Undergraduate Education, all working to support graduate student teaching and professional development. In addition, the initiative was helped along by the Graduate School’s becoming a member of a larger consortium, the Center for the Integration of Research, Teaching and Learning (CIRTL). Moreover, the initiative was assisted when an external accrediting body, Middle States, came to Cornell. As part of the accreditation process, the university—decentralized and “messy” as it is—created learning outcomes at the university, college, and departmental levels. The combination of substantial institutional collaboration across multiple units, along with external drivers, has helped foster a
significant culture shift for Cornell and an important context for advancing the graduate teaching initiative.

**The University of California-Berkeley**

Like Cornell, the University of California-Berkeley situated its project in a university unit, the Graduate Student Instructor Teaching and Resource Center of the Graduate Division. Rosemary Joyce, Richard and Rhoda Goldman Distinguished Professor in the Social Sciences, Professor of Anthropology, and Associate Dean of the Graduate Division, emphasized that the University of California-Berkeley’s attempt to incorporate the literature on learning into its graduate programs should be understood in context. A centralized graduate division admits 10,000 graduate students who, as Graduate Student Instructors (GSIs) with varying degrees of autonomy, teach 28,000 undergraduates. So Berkeley recognized that it needed some standards of training—and that students should be required to take a pedagogy course before teaching.

There has long been a Preparing Future Faculty seminar at Berkeley, as well as a seminar for faculty who work with TAs about how to do so collaboratively. The Teagle grant introduced new goals: to introduce literature on teaching from a variety of disciplines to pairs of faculty and graduate students via a semester-long series of workshops, as well as to redesign the pedagogy courses to incorporate the new knowledge on teaching and learning.

That knowledge was also incorporated into the summer institute and became an element of the teaching certificate that Berkeley offers. The university also created a special teaching award based on the use of the literature to improve teaching and began to integrate that knowledge into the four-part seminar offered in the spring. The pedagogy course syllabi now include seminar assignments that draw on the [How Students Learn Website](#), the literature on teaching and learning, micro-teaching demonstrations, etc.

As was the case with Cornell, accreditation provided some external energy for the work of the project. The university used the occasion of its Western Association of Schools and Colleges (WASC) re-accreditation to sow seeds of change. It created learning outcomes for every graduate program, expressed as competencies. The impact numbers are impressive: 140 graduate students and 2,400 undergraduate students have been affected.

The challenges in this work include scaling up by using pressure points to make change. Also, the project team would like to gauge impact more systematically to see how disciplinary courses taught by graduate students who have been trained have been affected by that training.

As Jennifer Summit, Professor of English at Stanford and panel moderator, noted in her conclusion, the process of developing the teaching capacities of graduate students is also a stealth form of faculty development, since the way to faculty hearts is through their graduate students. Additionally, this work is facilitating a generational change in graduate-student mentorship, which should have a lasting impact on current and future faculty.

The ensuing discussion highlighted the reality that instructors are not fully in control of what happens in the classroom, given the diversity of students and the fact that transmission of knowledge is not the sole purpose of teaching. Allowing a certain amount of chaos to occur in
the classroom requires not just charisma but craft. Additionally, faculty members need to cultivate a certain humility regarding their presence in the classroom, which is no longer necessarily the central locus of learning. Significant learning also occurs outside the classroom, in community engagement experiences, campus life, or living-learning environments, for example. A focus on learning requires thinking about how resources across the university—e.g., all the skilled professionals who are not faculty—can be used.

**MAKING CHANGE HAPPEN**

The discussion over two days identified some profound changes in practice and culture that would be required to create true communities of teachers through graduate preparation. As Judith Shapiro, Teagle Foundation president, put it in her concluding remarks, the solution to the “crisis of mediocrity” in teaching and learning needs to be addressed by changes in the ecology of institutions—that is, how the variety of organisms live in their shared environment, and what makes for successful adaptation. We need to find points of pressure to make the required culture change happen, but also be mindful of the fact that cultural change does not happen rapidly. In the words of Mae West: “Anything worth doing is worth doing slowly.”

These changes also require the involvement of a wide range of *dramatis personae*. In order to generate such involvement, change agents need to be careful about language. Terms such as “assessment” and “high-impact practices,” although well established in higher education discourse, trigger negative reactions and resistance in many faculty. More neutral terms such as “providing evidence of what students have learned” and “determining what teaching practices work best” might be more advisable in some contexts. And it is important for administrators and faculty to affirm common ground about their shared goals and values, as well as to exchange data and tales—for example, about what is happening to their students and adjunct faculty.

It might be useful to compare graduate education to the two major reproductive strategies: the K strategy, where a small number of offspring are produced and are intensively nurtured, and the R strategy, where a large number of offspring are produced and many are expected not to survive. Human beings pursue the K strategy. So if departments want to prepare students for careers in major research universities, they should either admit only as many students as they feel can and will pursue such a career. Or, if they admit a somewhat larger number of students, they must nurture them all in such a way that they can not only survive but flourish in a wider range of institutions and careers, or what the biological might call "ecological niches." When departments truly take seriously the tasks of preparing future faculty for their roles as teachers and preparing them for what might await them in the world, both faculty and their students will flourish.