



Faculty Development for the 21st Century

By Veronica Diaz,
P. B. Garrett,
Edward R. Kinley,
John F. Moore,
Celeste M. Schwartz,
and Pat Kohrman

Much has been written about the characteristics and needs of both Net Generation students and Millennial students: their learning expectations and styles, the ideal learning spaces for these students, and the best ways to support their learning. However, just as the student population has changed and continues to change, so too are faculty members changing. Today's 21st-century faculty members share some characteristics with their students. For instance, computers were present throughout the educational experience of these faculty members, they likely had access to the Internet throughout their graduate studies, they may have taken online courses, they probably use mobile technologies, and they are generally comfortable with a wide array of electronic communication tools. 21st-century faculty members may have interacted with technology extensively by the time Web 2.0 tools began to emerge, and many use these tools in their teaching today.

Veronica Diaz is Instructional Technology Manager, Maricopa Community Colleges. P. B. Garrett is Assistant VP and Deputy CIO for Academic Technology, The George Washington University. Edward R. Kinley is Associate VP for Academic Affairs and CIO, Indiana State University. John F. Moore is Senior Director, Learning Technologies Strategy and Planning, Virginia Tech. Celeste M. Schwartz is Vice President for Information Technology, Montgomery County Community College. Pat Kohrman is Chief Information Officer, Berks Campus, The Pennsylvania State University. All are current or former members of the EDUCAUSE Advisory Committee for Teaching and Learning (ACTL).

Consider some of what has changed in higher education classrooms in the past five years: students are now proficient users of e-mail (and, in many cases, of instant messaging), many if not most faculty members use an online system to communicate with students, colleges and universities provide library resources that are accessible from off-campus locations, most faculty members and many students have high-speed home Internet service and mobile phones, many institutions require that students have e-mail accounts to be used as a primary means of communication, most classrooms and many campuses have wireless Internet access, and about one-half of classrooms have computers with projectors.¹

With significant numbers of faculty members retiring in the next decade, 21st-century faculty will continue to need support in some of the same areas as their predecessors: orienting to the institution, teaching and conducting research, navigating the tenure track, and developing professional networks. But they will need support in new areas as well: keeping up with an increasingly technological workplace, developing ways to further integrate technology into the instructional experience, and assessing student learning in a variety of instructional delivery modes. Indeed, “encouraging faculty adoption and innovation in teaching and learning with IT” was recently identified as #4 in the EDUCAUSE Top Teaching and Learning Challenges for 2009 (<http://www.educause.edu/eli/challenges>). Reaching out to, supporting, and also leveraging the talents of 21st-century faculty members will thus require colleges and universities to consider a varied menu of support options.

Support at All Levels

Broadly speaking, faculty development tends to be either a distributed service, offered at the department or college level, or a centralized service, provided by a unit such as a teaching or faculty development center. Two critical institutional or organizational characteristics affecting whether faculty development is a distributed or a central function are the size and the geographic distribution of the institution (i.e., whether the institution is a single- or

multi-campus site). As the size of the institution gets larger and/or as the institution becomes more geographically distributed, services usually become more distributed. Smaller, less geographically distributed institutions tend to deliver services centrally.

The 2007 EDUCAUSE Core Data Survey reveals the variation in faculty support across institutional type. For example, whereas 60.6 percent of doctoral/research universities employ student technology assistants to help faculty use technology, only 16.7 percent of associate’s colleges do so.² Likewise, what constitutes faculty development, how faculty development services are delivered, and when these services are provided for faculty members also vary greatly. Some faculty development initiatives focus on enhancing the instructional technology skills of participating faculty members, whereas others focus on developing traditional teaching skills. Decisions regarding the unit responsible for faculty support are often tied to a number of issues, such as the size of the institution, the focus of the faculty development efforts, and available resources. At more technology-oriented institutions, some branch of the information technology department or, possibly, the library is usually responsible for faculty development. When the development focuses on teaching and pedagogy, academic

With significant numbers of faculty members retiring in the next decade, 21st-century faculty will continue to need support in some of the same areas as their predecessors.



officers or academic units are more likely to have responsibility, and when funding is available, faculty development institutes or centers may be created, reporting to a provost or chief information officer.

Many institutions, regardless of size, have developed a menu of faculty development options, as illustrated in the following two examples. In most cases, faculty members can choose from a variety of resources, depending on their needs: for instance, structured courses, multi-semester or multi-year programs, mentoring, or online tutorials.

Faculty Development at a Large, Multi-Campus University

At Penn State University, faculty development services can best be visualized as a web or mesh. Central support for faculty development is supported by the provost’s office through a variety of initiatives and grant programs. Penn State’s World Campus (<http://www.worldcampus.psu.edu/>) provides development for faculty members who are creating and teaching online and hybrid courses. The Schreyer Institute for Teaching Excellence (<http://www.schreyerinstitute.psu.edu/>) was created with external and internal funds to provide faculty development services. The Information Technology Services department provides faculty development through its Teaching and Learning with Technology unit (<http://tlt.its.psu.edu/>). Colleges, academic departments, academic leaders, and information technology departments at the twenty campuses across the state also provide faculty development services.

In some cases, faculty development is made available to new faculty members during their first year. New faculty may be invited, required, or enticed to participate in development programs. Sometimes faculty development efforts are targeted toward graduate students in the form of a teaching certificate. These programs exist for two reasons: first, to improve the teaching skills of the graduate teaching assistants; and second, to improve the marketability of prospective faculty members. In some cases, faculty development efforts are tied to specific initiatives of the institution. For example, if the institution is embarking on an

online and/or hybrid learning effort, the faculty may be invited to participate in development programs as a reward for involvement in the initiative. Development programs may also be made available as new technologies are introduced. If a learning or information technology department makes blogs or wikis an institutional service, for example, the department may offer programs to help faculty members incorporate these technologies into their teaching repertoire. In addition, faculty development is offered as an à la carte service: faculty members can choose among a variety of offerings throughout their teaching careers.

Faculty Development at a Small, Private University

American University approaches faculty development from several angles. For instance, the Greenberg Seminars (<http://www.american.edu/cte/greenberg.htm>) are designed as a complement to graduate programs and provide a hands-on, practical introduction to professional development and classroom techniques. The seminars, designed for first-, second-, and third-year Ph.D. and MFA students, convene three to four times each semester. Also, on an ongoing basis, American University offers faculty members learning resources for support with teaching methodologies and course management systems; small grants; spaces to receive software support and laptop loaners; faculty lunches where ideas on best practices and teaching strategies are shared; and faculty training courses for those interested in teaching online.

The Five-Year Plan for Support and Development

High-quality teaching and learning support programs will include faculty development over several years.

Year 0: Graduate Student Pipeline Programs

Year 0 is the time before graduation when the soon-to-be faculty members are still in graduate school completing their doctorates. During this time, institutions can support colleges and departments by offering pedagogical programs or training institutes. Support may come in the form of an interdisciplinary teaching certificate

THE FACULTY DEVELOPMENT FIVE-YEAR PLAN

Year	Target Audience	Services and/or Areas of Support Offered
0	Graduate Students, Teaching Assistants	<ul style="list-style-type: none"> ■ Basic instructional strategies and methodologies ■ Introduction to learning technologies ■ Teaching course or certificate to complement graduate degree
1	New Faculty Members	<ul style="list-style-type: none"> ■ Mentoring with senior faculty ■ Exposure to institutional policies, culture, and expectations
2-5	Established Faculty Members	<ul style="list-style-type: none"> ■ Institutional orientation ■ Ongoing support for new instructional delivery models, technologies, and pedagogies ■ Advanced course management system support

that introduces graduate students to a variety of technology topics.

Year 0 Example: Virginia Tech

The Graduate Education Development Institute (GEDI) at Virginia Tech (<http://www.gedi.vt.edu/>) began in 2003 as a collaboration between the Graduate School and Learning Technologies. GEDI offers a three-credit course, “Pedagogical Practices in Contemporary Contexts,” primarily to graduate students who want to become faculty members. Students in this program learn in a multidisciplinary professional development environment that encourages participants to build a variety of preparatory skills and practices focused on learner-centered pedagogies. The pedagogical approach centers on the effective use of instructional technologies across disciplines of problem-based and case-based teaching, including the critically engaged use of advanced or emerging technologies. Students learn these skills and practices in the wider context of preparation for teaching, research, and service, and they may document and reflect on their development using an electronic portfolio. GEDI is one of three components of the Transformative Graduate Education (TGE) program (http://www.grads.vt.edu/graduate_school/tge/index.html).

Year 1: New Faculty Member Orientations

Most, if not all, institutions provide entering faculty members with some form of orientation designed to acquaint them with institutional mission, policies, procedures, and culture. The typical orientation program is structured to present a number of topics with a relatively modest investment of time on the part of the new faculty

member. Often these programs utilize a one- or two-day format delivered before the start of, or very early into, the first semester. Orientation programs frequently rely on non-faculty professionals from areas such as the center for teaching and learning, the registrar’s office, academic affairs, or the library. Although the value and importance of new faculty orientation is generally acknowledged, the limitations of time and the content of the traditional models often create an experience that can aptly be described as a “crash course” for delivering the “survival skills” needed to navigate the initial semester or year. On the other hand, delivering a longer, comprehensive, in-depth faculty orientation program would represent a substantial commitment of resources by the institution and a significant commitment of time by the faculty and the department.

Year 1 Example: Indiana State University

The newly redesigned faculty orientation program at Indiana State University presents a holistic experience that addresses deficiencies of the previous program. The new program was designed for better breadth of coverage, topic sequencing, attendance, compensation/reward structure, relevance and authoritative voice, multidisciplinary topics, and cohort orientation to encourage continued participation and involvement (<http://www.indstate.edu/cirt/facdev/newfacorientation.html>). Based on faculty-identified needs, a three-credit-hour course delivered over a semester (45 contact hours), with follow-on activities in subsequent semesters, was developed. This expanded form not only allowed the inclusion of a much broader set of topics but also allowed the topics



and related activities to be presented in a more logical sequence. Sequencing was important in order to provide the new faculty member with the right information at the right time, which addressed one of the major problems of the more traditional, intensive, “front-loaded” design. Since the newly expanded program increased faculty member and departmental time commitments, participating faculty were able to select between two forms of compensation: a one-course release (buyout) or \$3,000 to be placed in a faculty professional development account.

Many class sessions, especially those pertaining directly to faculty issues, were delivered by senior faculty members. Academic and administrative leaders (e.g., the provost, the associate provost, deans), as well as the president of the university board of trustees, were featured in sessions in which their knowledge and expertise was particularly relevant, raising the level of importance of the topic(s). Equally important, the use of senior faculty provided a strong orientation and perspective to the presentations and discussions and gave the new faculty members an opportunity to meet and interact with these campus leaders.

Classes were designed to include in-class and/or out-of-class assignments that resulted in tangible products that the faculty could use immediately: syllabus and teaching philosophy development, IRB certification, and assessment planning. This approach not only modeled “active learning” strategies but also assisted and supported the faculty in preparing the documents and materials that they were required to submit as part of their employment contract. The mixed-disciplinary nature of the group allowed the faculty to exchange and compare departmental characteristics related to discipline and to hear differing perspectives on issues such as teaching, research, and grants. In addition, the senior faculty members who participated in the program were solicited for other activities such as speaker series and mini-grant competitions. Finally, ongoing efforts are being made to continue the connection with the new faculty beyond the formal orientation class by offering activities and events tailored to their needs as they move into their second year and beyond.

During the first two to five years of a new faculty member’s career, the junior member and the senior faculty have experiences from which all can benefit.

Years 2–5: Faculty Mentorship, Orientation Programs, Classes

Once faculty members have become oriented, institutions have an opportunity to leverage the 21st-century faculty members’ instructional and technological skills and also to engage and begin integrating them in the academic community. One approach may be a “reverse mentoring,” in which newer, more technologically savvy faculty members assist and work collaboratively with the senior faculty. In fact, during the first two to five years of a new faculty member’s career, the junior member and the senior faculty have experiences from which all can benefit. The senior faculty can orient the junior faculty member to the institution’s traditions, cultural norms, practices, and unique history, whereas the junior faculty member can introduce the senior faculty to new pedagogical approaches, emerging technologies, instructional tools, and delivery models.

Years 2–5 Example:

George Washington University

At George Washington University, the Center for Innovative Teaching and Learning (CITL) serves as the central faculty development unit. CITL manages the “New2U” faculty development program, faculty support groups, emerging technologies support, and course management assistance (<http://citl.gwu.edu/pages/workshopdescriptions.html>).

A faculty mentoring program provides new faculty members with practical teaching tips and a review of strategies for the effective integration of instructional activities and technologies into their

teaching. Volunteer, experienced faculty mentors are paired with faculty members who are seeking to maximize their use of online teaching technologies. These faculty teams work with instructional design staff to outline an instructional innovation project and work collaboratively to design, implement, and evaluate the chosen instructional strategies or approaches. Faculty support groups are a structured approach to providing faculty with opportunities to share experiences, lessons learned, and strategies. The series includes online interactions and face-to-face sessions (presentations and open discussions) that focus on syllabus planning and design, development of learning objectives, and teaching strategies.

Graduate teaching assistant support, offered in collaboration with the Office of Graduate Student Support, includes a course that all new graduate teaching assistants complete during their first semester at George Washington. CITL offers graduate teaching assistants professional development opportunities such as “Learning to Lead” workshops, Blackboard training, and “Strategies for Engaging Students” discussions. CITL also offers a 45-minute session on various topics including e-teaching best practices, instructional technology, innovative teaching strategies, and integrating technology into teaching and learning, as well as e-workshops and live online discussions, a repository of learning objects, and other resources that pertain to various disciplines.

Recommendations

Clearly, 21st-century faculty members have unique professional development and support needs, especially in the area of teaching and learning. To support and also leverage the talents of these faculty members, many of whom are early technology adopters or innovators, institutions may want to consider the following recommendations:

- Avoid making assumptions about what faculty members need. Instead, develop and administer an annual faculty survey to compile demographics and to identify trends in faculty development needs. Such a survey can also assist in partnering individuals in mentorship programs.

- Become familiar with and establish a diverse menu of instructional technology tools. For instance, a menu may include a course management system, social networking tools, and mobile technologies. Remember that the technologies identified should also include discipline-specific tools to which new faculty may have been recently exposed in their graduate programs.
- Develop collaborative support programs. Supporting a diverse set of instructional technology options can be expensive and challenging, especially in fiscally restrictive environments. To the extent possible, explore ways to engage and enlist the aid of new faculty in collaborating with and helping to lead faculty development.
- Incorporate assessment into faculty development programs, which need to align with institutional strategic initiatives. Anticipated outcomes should be clearly defined and measured. Assessment results can become the driver for the ongoing refinement of current

faculty development programs and for the creation of new programs.

Implementing these recommendations will require an investment of both time and money. Is the investment justified? Does faculty development deliver on the promise of improved learning outcomes for students? Some institutions have been able to demonstrate improved student success when incorporating technology into teaching and learning, whereas others have struggled to determine if learning has improved. At the institutions discussed above, several common elements can be found. The successful faculty development programs at these institutions

1. offer development opportunities focused on goals related to student success: retention, access, course completion and progression;
2. incorporate flexible scheduling and various delivery options;
3. align offerings with the changing higher education landscape;
4. provide faculty members or academic units an opportunity to give input into the program design;
5. support the implementation of newly adopted technologies and support faculty members at various levels of use and experience (i.e., novice, experienced, expert);
6. blend the application of technology tools with teaching and learning methodologies and pedagogies;
7. give suggestions and examples for measuring the success of the new technologies or methodologies that are introduced in courses to encourage the scholarship of teaching and learning;
8. provide access to online resources, such as tutorials, for continued, self-paced support;
9. regularly assess offerings and make modifications based on assessment results; and
10. model best practices in assessment, active learning, new instructional delivery modes, and/or deeper learning.

Conclusion

In the 21st century, colleges and universities need to consider faculty development programs in the same way that they view academic programs for their Net Gen and Millennial students. In other words, successful faculty development programs should include mentoring, delivery in a variety of on-campus and off-campus formats (face-to-face, blended, online, self-initiated/self-paced), and anytime/anyplace programming to accommodate just-in-time needs. Faculty members are learners with needs and constraints similar to those of students. Support programs must be valuable, relevant, current, and engaging. They should also demonstrate best practices in providing a participatory, facilitated learning environment. In addition, faculty development programs should address the multiple roles and needs of the faculty member as facilitator, teacher, advisor, mentor, and researcher. Institutions should also consider that offering a dynamic faculty development program will serve not only full-time, but

also part-time faculty—relied on heavily by some institutions. Finally, faculty development can occur outside official programs: internal opportunities can include serving on and/or leading committees, writing and administering grants, and designing and facilitating official faculty development programs; external development opportunities can include attending conferences, furthering academic studies, conducting research projects, and collaborating with colleagues from other institutions.

Implementing and sustaining successful faculty development initiatives continues to be both an opportunity and a challenge, especially with the anticipated severe budget cuts that many institutions are facing. As noted earlier, the EDUCAUSE community recently identified “encouraging faculty adoption and innovation in teaching and learning with IT” as one of the top-five teaching and learning challenges of 2009. Thus it is critical that institutions continue to seek systemic ways to support teaching and learning innovation and to connect to successful

programs such as the ones mentioned in this article.³ A critical component of an innovative teaching and learning environment continues to be sustainability: the process of faculty development must begin before students enter the academic profession and must continue at all subsequent levels of the 21st-century faculty member’s career.

Notes

1. See Gail Salaway and Judith B. Caruso, with Mark R. Nelson, “The ECAR Study of Undergraduate Students and Information Technology, 2008,” *EDUCAUSE Center for Applied Research (ECAR) Research Study*, vol. 8, 2008, <<http://connect.educause.edu/Library/ECAR/TheECARStudyofUndergradua/47485>>.
2. See Brian L. Hawkins and Julia A. Rudy, *EDUCAUSE Core Data Service Fiscal Year 2007 Summary Report* (Boulder, Colo.: EDUCAUSE, 2008), table 3.5, <<http://www.educause.edu/apps/coredata/index.asp>>.
3. Other programs are discussed in “Charting the Course and Tapping the Community: The EDUCAUSE Top Teaching and Learning Challenges 2009,” published in this issue (May/June 2009) of *EDUCAUSE Review*. See also the Challenges project wiki: <<http://www.educause.edu/wiki/TLChallenges09>>.