Developing Centers for Innovative and Online Teaching and Learning

Custom Research Brief

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I. Research Methodology

Project Challenge

Leadership at a member institution approached the Forum with the following questions:

- What is the mission of institutions' centers for innovative teaching and learning?
- What is the scope of center activities (e.g., research and publications, technology development and implementation, faculty grants, corporate training initiatives, etc.)? What populations do centers serve (e.g., faculty, staff, students, local community)?
- How many staff members do centers employ? What are their responsibilities?
- What are centers' annual budgets? What are the sources of this funding?
- How do administrators ensure financial sustainability of centers devoted to innovative teaching and learning, particularly in a rapidly changing online education environment?
- How does center staff collect feedback from its target populations and evaluate the effectiveness of its activities?
- How do administrators ensure that the center does not replicate other existing initiatives at the institution? Are there other offices or centers at the institution with similar missions and activities?
- Do centers occupy space within existing buildings or do institutions house the center in its own facility?
- When was the facility housing the center constructed? If the facility has been renovated, what was the purpose of the renovation? Were the planned benefits realized?
- What is the total square footage of the center? How much space does the center devote to each of its initiatives, as well as staff offices?
- How does the center use space efficiently and creatively to achieve its mission? What features of the space do administrators find particularly effective?
- How would administrators of the center ideally allocate the facility's available space?

Project Sources

The Forum consulted the following sources for this report:

- Advisory Board's internal and online research libraries (www.educationadvisoryboard.com)
- National Center for Education Statistics (NCES) (http://nces.ed.gov/)
- Institution Web sites

Research Parameters

The Forum interviewed directors at centers for innovative teaching and learning that promote the use of instructional technology or assist faculty with online course development.

A Guide to Institutions Profiled in this Brief

Institution	Location	Type	Approximate Institutional Enrollment (Undergraduate/Total)	Classification
University A	Northeast	Private	18,100/32,400	Research Universities (very high research activity)
University B	Mountain West	Public	23,100/30,500	Research Universities (very high research activity)
University C	South	Private	6,700/15,400	Research Universities (very high research activity)
University D	Midwest	Public	32,500/42,700	Research Universities (very high research activity)
University E	Midwest	Public	42,900/56,900	Research Universities (very high research activity)
University F	Pacific West	Public	22,000/27,200	Research Universities (very high research activity)
University G	South	Public	50,000/58,500	Research Universities (very high research activity)

Source: NCES

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II.   Executive Overview

Key Observations

Innovative teaching and learning centers (TLCs) at profiled institutions rarely occupy their own facility. Institutions typically house centers in academic buildings or the main library. Although these facilities may have been constructed several decades ago, most centers occupy space that was created or renovated within the last eight years. In order to meet demand for their services, some centers have also found it necessary to acquire additional space within their existing facility or in other buildings across campus.

An open floor plan promotes collaboration between center staff and faculty and invites people into the space. Visitors to the center are more likely to enter the space if it presents them with ample room to work with center staff members and their peers on teaching and learning projects. Computer workstations in these spaces allow faculty to experiment with instructional technology in a supportive environment. However, a large common area raises concern about noise control. Modular walls allow centers to easily partition open space and create areas for more private discussion.

Faculty professional development and the promotion of excellent teaching is the central mission of centers at most profiled institutions. Several centers also provide support for the integration of instructional technology into the classroom. The centers at two profiled institutions offer a variety of services to students as well as faculty, including service-learning programs, tutoring programs, and support for undergraduate research. No centers at profiled institutions offer corporate training programs.

Workshops, conferences, and research are the main activities of innovative centers for teaching and learning. Many workshops train faculty in the use of instructional technologies such as e-textbooks, lecture capture for online delivery, clickers, and multimedia production. Conferences also provide an opportunity for faculty to display their applications of instructional technology to a wider audience. In addition to these activities, some centers also maintain instructional designers who assist faculty with the digitization of course material or the development an entirely new online course.

Experimental classrooms represent a creative and efficient use of center space, allowing faculty to test learning technologies and understand how they might apply these tools to their courses. Faculty can use these rooms to teach classes as well as discover innovative methods of presenting course material in a regular classroom. Experimental classrooms typically feature mobile desks, chairs, and whiteboards to facilitate student group work. Multiple projectors, videoconferencing systems, and laptops with dual operating systems are other common devices featured in these spaces.

III. Activities and Administrative Structure of Centers

Mission of Centers

Mission Statements Display Centers' Commitment to Instructional Technology

Faculty professional development and support constitutes the primary mission of most profiled institutions' innovative TLCs. These centers aim to advance excellent teaching throughout the larger institution and also provide faculty an opportunity to explore new pedagogical approaches. Five out of seven profiled centers reference instructional technology in their mission or vision statements. Yet, the two centers without this explicit reference in their mission still maintain a wealth of online resources that describe best practices for employing technology tools in the classroom. These tools include clickers, blogs, electronic grading, games for learning, and social media.

> The instructional technology centers at **University C** and **University E** optimize the use of technology in teaching, whereas other profiled centers maintain a broader faculty development mission.

Activities of Centers

Workshops, Conferences, and Research Are Centers' Primary Activities

Workshops, conferences, and research are the most common activities conducted by innovative TLCs. Faculty members represent the primary audience for these activities, although contacts report that non-instructional staff attend some of their events as well, such as the professional development institute organized by the TLC at **University B**.

Workshops

The centers at all profiled institutions organize periodic workshops open to all faculty at the institution. The duration of a workshop is typically between one and three hours. The majority of profiled institutions hold most of their workshops in the center's facility. The frequency of workshops varies by institution; **University A's** TLC will offer 30 workshops over the current semester, while the TLC at **University G** offers at least three to four workshops each week. Workshops may teach faculty how to alleviate their communication anxiety in the classroom, guide their students toward high-level argumentative writing, and design effective group assignments. Several workshops provide faculty with training in instructional technologies and online learning tools.   Center staff at all profiled institutions also consult with individual faculty members, departments, or schools on the use of instructional technology.

> The TLC at **University B** provides several services to students and faculty, including support for undergraduate research, tutoring programs, and service-learning opportunities. The TLC at **University D** also administers a service-learning program and writing tutorial services.

Sample Instructional Technology Workshops Hosted by Centers

Using Lecture Capture at *University A*

University A recently licensed *Echo360*, a digital media capture system that allows faculty to create hybrid learning experiences. This TLC session demonstrated how faculty can use the software to record instructional videos on their personal computers.

Managing Discussion Boards at *University E*	Participants in this instructional technology center session learned how a sociology instructor at the institution has made online discussion boards manageable in large face-to-face classes of around 60 students. The instructor discussed the composition of thoughtful discussion questions, approaches to structure and grade discussion forums, and the ideal level of faculty participation in an online conversation.
Flipping the Classroom at *University F*	In a "flipped" classroom, students acquire course content outside of class meeting time, often by watching online lectures or other instructional videos. The flipped model allows for active concept engagement during class time. This TLC session explored the advantages and disadvantages of the approach. Participants also received an opportunity to learn and teach in a flipped class.

Customized Faculty Training at *University C*

The instructional technology center at **University C** offers groups of five or more faculty or staff the opportunity to receive a custom training session on the instructional application of multiple technologies. Faculty or staff can request a workshop on any topic, or center staff can present one of their prepared workshops. Examples of previous custom training sessions include:

- **Visual Resources for Teaching** (e.g., teaching with *Google Maps* or *Google Earth*)
- **New Web Technologies to Enhance Productivity** (e.g., using *Google Docs* for online collaboration, managing materials with *Evernote*)
- **Digital Media for Teaching and Learning** (e.g., creating video with *Flip Video* cameras, recording lectures for online delivery)

Contacts note that a single workshop may not afford faculty enough time to fully comprehend the topic in question. The TLC at **University D** aims to administer a sequence of workshops on the same topic; contacts report that faculty are more likely to implement significant changes in their classrooms after attending a workshop series than after attending a one-time event. Similarly, the TLC at **University B** offers short courses on topics not easily addressed in the span of one workshop. A recent short course entitled "Best Practices for Online Course Design," for example, featured two one-hour meetings as well as online participation during the three weeks between sessions.

Conferences

Innovative TLCs at all profiled institutions sponsor at least one major conference each year. Annual conferences devoted to instructional technology or online education include the following:

Center Events with a Technology or Online Education Focus

Instructional Technology Showcase at *University C*	**University C's** instructional technology center sponsors an annual event celebrating innovative applications of technology in education. The 2012 edition featured 12 presentations by faculty and staff over three time slots, covering topics such as e-textbooks and how students at the institution use Facebook and Twitter in and outside of class. Attendance at the free conference totaled 308.

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Tech Camp at *University G*	**University G's** TLC periodically hosts a two-day "tech camp." The camp introduces up to 40 full-time faculty to a wide variety of instructional technologies. Faculty see various technologies demonstrated on the first day of the event (e.g., cloud applications, Adobe Connect web conferencing software, iPads). On the second day, faculty use the knowledge they acquired to develop preliminary products for their own classes with assistance from center staff.
Institute for Designing Online Courses at *University D*	**University D's** TLC prepares instructors to develop, teach, and manage an effective online course during this summer institute. Instructors learn how to set and assess student learning outcomes, design online activities that help students reach course goals, and integrate audio and video into the course. Instructors receive a combination of online and face-to-face training so they become acclimated to the same online environment their students will experience.

Research

Most centers engage in research to ensure that they remain apprised of the latest pedagogical trends and instructional technology tools. The instructional technology center at **University E** maintains an e-learning discovery team that conducts research into emerging technologies and pilots promising tools. All findings are published on the center's blog. Last year, the TLC at **University G** conducted a study comparing student and faculty use of iPads in the classroom.

Multiple centers also award grants for faculty research projects and the development of innovative teaching techniques. The TLC at **University D** sponsors grants for new and ongoing studies that will lead to a better understanding and improvement of teaching and learning at the institution. Funding levels range from $2,000, $5,000, and $12,000 per full-time faculty member or team of faculty, depending on the purpose and scope of the study. The instructional technology center at **University C** maintains a fellows grant program that awards full-time faculty or graduate students $500 per semester. The fellows implement a curricular change in a program or department through the application of instructional technology. The most recent fellowship cohort is "flipping" the classroom.

Collaboration

Centers Minimize Program Redundancy through Partnerships with Other Campus Offices

Although innovative centers for teaching and learning do not maintain formal mechanisms for preventing program overlap, they partner with other offices on campus that share some of their goals.

Most centers at profiled institutions work closely with the office of information technology or division of online education. The TLC at **University G** holds monthly collaboration meetings with the central unit for online course design and production at the institution. Staff from the two centers discuss problems faced by faculty during online course delivery. Although the mission of the TLC does not encompass technology support for online learning, staff at the center help faculty create electronic grading spreadsheets and online tests, as well as instruct them in the effective use of online discussion boards. Contacts report that faculty are often reluctant to walk into the online learning center for help because it does not possess the same welcoming, open space that the TLC does. Staff from the instructional technology center at

University C have collaborated with information technology personnel at the institution's professional schools to develop online degree programs.

Contacts also note that centers at the same institution with similar missions may serve different audiences, particularly at very large institutions. For example, **University E's** teaching and learning center offers some workshops similar to those sponsored by the instructional technology center. Yet, faculty who attend workshops hosted by the teaching and learning center may never find their way to the instructional technology center, and vice versa. If institutions maintain a center that supports the use of instructional technology and a center with a broader teaching excellence mission, the two centers should host joint events so that faculty gain awareness of each unit's unique services.

Continuing Education Partnership at *University B*

The TLC at **University B** works closely with the continuing education division to develop new online courses. Funding from the division supports 10 instructional design positions within the TLC. After continuing education program directors approach colleges and academic departments with proposals for new online courses, the instructional design team at the TLC works with faculty and materials developers to create the course content. The TLC has helped develop over 100 online courses since its founding in 2007.

Budget and Staffing

Central Administration or Provost's Office Typically Fund Centers

The table below contains the funding sources of innovative TLCs at profiled institutions, as well as budget figures for those willing to provide this information. Centers typically receive financing from the top levels of the institution's administration. Although the instructional technology center at **University C** receives funding from the institution's main library, the provost's office determines the library budget.

Centers' Annual Budget and Funding Sources

Institution	Current Annual Budget (approx.)	Funding Source(s)
University B	$1.8 million	Provost's Office; Division of Continuing Education; student success funds
University E	Between $1 million and $1.6 million	Central Administration
University G	$700,000	Provost's Office
University A	Unavailable	Central Administration
University C	Unavailable	Main Library
University D	Unavailable	Vice Provost for Undergraduate Education; Information Technology Services

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University F	Unavailable	Division of Undergraduate Education; Recharge funds for multimedia services

Contacts from the TLC at **University D** note that navigating multiple funding models can increase the administrative burden placed on center staff members. The vice provost for undergraduate education provides the TLC with an annual budget, while the IT services division typically provides *ad hoc* funds after the center proposes an initiative and demonstrates a need for the money. Although the center enjoys access to two funding sources, it can be difficult to know which unit to approach when seeking funding for programs that blur the line between technology and undergraduate education.

Centers maintain financial sustainability by demonstrating their value to the units that fund them. The instructional technology center at **University C** relies on its annual report and showcase event to show deans and administrators what services they provide, with whom they work, and the technology trends in higher education they have identified for the upcoming year. Centers attempt to publicize their events as much as possible to make their presence known across campus. Furthermore, contacts note that centers that train faculty in the use of instructional technology will become increasingly indispensable as digital content delivery continues to grow in popularity.

> Contacts from the TLC at **University A** have struggled with advertising events via email; some faculty respond asking to be removed from the email list.

Staff Size Varies According to the Scope of the Center's Mission

The number of full-time staff members employed by centers at profiled institutions ranges from one to 22. Four out of seven centers maintain between five and 12 full-time staff. The staff size of the TLC at **University B** (22) dwarfs that of other institutions because of the large contingent of personnel who conduct face-to-face and online course development. Similarly, the TLC at **University D** maintains 21 staff members, seven of whom support the center's service-learning program and writing program, initiatives outside the scope of most other centers at profiled institutions.

> **University E's** instructional technology center achieves costs savings by staffing its multimedia labs with undergraduates who receive between $9 and $11 per hour.

Center directors at profiled institutions typically possess previous teaching experience at the post-secondary level; the directors of the centers at **University A** and **University G** are full-time faculty members. Contacts at the former institution note, however, that the demands of the director position require a full-time commitment.

Staff Responsibilities

Staff members across centers at profiled institutions typically:

- **Plan and deliver workshops**
- **Conduct classroom observations**
- **Consult with faculty members on course design, instructional technology, and classroom management**
- **Review grant proposals**
- **Assess program outcomes**
- **Research emerging instructional technologies or conducting scholarship of teaching and learning**

The majority of centers at profiled institutions also support part-time undergraduate or graduate student employees. Student responsibilities include data collection, publication editing, and instructional technology support.

Evaluation of Effectiveness	*Centers Aim to Assess the Long-term Outcomes of their Initiatives*

Centers at profiled institutions typically administer standard satisfaction surveys after each workshop or conference they host. Yet, the most valuable information about the effectiveness of centers' programs comes from assessment conducted over a longer period of time:

Outcomes from Projects Launched at Annual Events

- In spring 2013, staff at the TLC at **University D** will approach faculty members who previously participated in the center's summer course design institute (for face-to-face courses), review their course syllabi, and determine whether the learning activities discussed at the institute appear in the participants' assignments.
- The TLC at **University G** tracks the results of two to three curriculum redesign projects that emerge from its annual summer faculty development conference and determine whether the projects produce any lasting change after a yearlong period.

Outcomes from Integrating Technology into the Classroom

- The instructional technology center at **University C** maintains an iPad course loan program designed to investigate the device's effect on students' educational experience over the course of a semester. Faculty who participate in the program submit reports to the center's director of assessment and planning that explain what they attempted to achieve with the device and whether course outcomes aligned with their expectations.

IV.   Center Facilities and Space Allocation

Center Location	*Centers Occupy Space within Existing Facilities on Campus*

Profiled institutions typically house their innovative TLCs in a library or existing academic building. The TLC at **University B** is the only center with its own facility, although two advising centers occupy about one-third of the building as well. The building underwent a major renovation in 2009; it now contains two classrooms for student study groups and faculty training, as well as four conference rooms. The TLC aims to renovate the building again to provide additional space for faculty meetings and student tutoring services. The TLC at **University A** is the only center without dedicated facilities space; the office of the program administrator effectively serves as the physical location of the center.

> Center staff tracked the number of people entering and leaving the multimedia lab each hour to prove that the center needed to expand beyond its original space to meet demand for its equipment and services.

Institutions that can only devote a small amount of physical space to centers may locate them in a facility that fosters the center's mission. As its consulting engagements typically occur in faculty members' offices across campus, the instructional technology center at **University C** consists of office space and a small meeting area. Yet, the lower level of the main library that houses the center is also home to a state-of-the-art teaching and learning facility. The lower level consists of classrooms with audio and video-recording capability, flat panel displays, videoconferencing equipment, and multimedia playback equipment.

> The instructional technology center at **University C** also sits across from a new multimedia project studio. Students, faculty, and staff can use the studio to create and edit audio, video, graphics, and Web pages.

Centers that provide services and equipment used by faculty and students on a daily basis may also need to expand their presence across campus. The instructional technology center at **University E** maintains two separate facilities. Its original location, on the third floor of the science and engineering library, contains office space, meeting room, a videoconferencing room, a recording booth, and a multimedia lab with 12 workstations (half Mac and half

Windows operating systems). The center opened another multimedia lab this fall in a classroom building located on the arts and sciences portion of the campus. An existing computer lab was outfitted with the latest technology, and the new location contains 15 Mac workstations.

Overview of Center Facilities

Institution	Square Footage of Center (approx.)	Location	Facility Construction Date
University B	26,000 (including 5,000 square feet in multipurpose building)	Primary location previously served as main library and music building; additional space in multipurpose building	1928 (refurbished in 2009)
University D	9,600	Second floor of main library	2012
University F	5,700 (including experimental classroom)	Third floor of instruction and research building (experimental classroom on first floor)	2005
University G	3,500	Second floor of classroom building	1999
University E*	3,200	Third floor of the science and engineering library	2004
University C	Unavailable	Lower level of main library	2008
University A	N/A	Faculty office building	N/A

*This information corresponds to the original location of University E's instructional technology center

Center Floor Plans

Open Spaces Encourage Faculty Collaboration and Traffic to the Center

Centers at four out of seven profiled institutions feature large, open spaces with tables, chairs, and computer workstations. In these spaces, faculty can talk with colleagues, work side by side with center consultants, and complete multimedia projects. Contacts report that centers consisting of a series of staff offices do not create a welcoming atmosphere for potential visitors to the space.

Although an open area fosters collaboration between fellow faculty members and between faculty and center staff, contacts stress the importance of having flexibility to create smaller spaces within a larger one. Contacts at **University G's** TLC report that much of its open space is underused. The center would ideally create a modular space where staff could move walls to accommodate one-on-one discussions without interrupting other conversations.

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Public and Private Space at *University D*

The new TLC facility in the main library at **University D** reflects the center's philosophy of free discussion of teaching and learning topics in public spaces. All TLC staff share an open office space, encouraging collaboration across all units within the center. The TLC common area features seven computer stations that support the connection of multiple laptops or tablets, so staff can easily demonstrate instructional technologies to faculty. Recognizing that faculty may need to keep discussions confidential, five small conference rooms around the facility's perimeter provide space for private consultation. Other features of the TLC include a 30-person workshop room with moveable tables, full-wall whiteboards, and projection equipment; a videoconference room; and a multimedia production room.

Experimental Spaces

Experimental Classrooms Provide Faculty with a Testing Ground for Instructional Technology

Experimental classrooms represent an efficient use of a center's available space because they can serve as a training room for faculty as well as a location for a regular course on campus.

Three centers at profiled institutions support or plan to support an experimental classroom housing a wealth of learning technologies for faculty to explore and potentially incorporate into their own courses. If the TLC at **University G** receives institutional funding for its experimental classroom proposal, the center plans to use the space as a proof-of-concept for remodeling other classrooms on campus.

Features of Experimental Classrooms at Two Profiled Institutions

Classroom   *Features*

Learning Studio at *University F*

The TLC at **University F** oversees a learning studio that contains:

- Mobile desks and chairs
- Four HD projection displays
- A videoconferencing system
- Five laptops with accompanying *Wacom* tablets (instructors and students can write on these tablets and have their words appear on the computer screen, a tool particularly effective for teaching with PowerPoint)
- Remote desktop software (instructors can monitor and display the work students have done on their own laptops)
- Mobile whiteboards

Learning Collaboration Studio at *University E*

The instructional technology center and the state library funded the creation of the learning collaboration studio at **University E**. The studio contains:

- Mobile desks and chairs
- Two projectors (the projection configuration allows students to present their own work and view the work of others simultaneously)
- A videoconferencing system (one instructor has used the system to teach a medical ethics class to students at the institution and in India)
- 30 laptops with dual operating systems
- Mobile whiteboards and whiteboard walls (these boards create a collaborative environment for group work and brainstorming sessions)

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