

Reflections on Old, New, and Renewed Centers for Teaching and Learning

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The invitation to write this article for UniCamp's teaching center initiative comes at an opportune time in my work; after a period of retrenchment Harvard College's teaching center, the Derek Bok Center for Teaching and Learning, has been declared to be in line for significant growth -- "revitalization", in the Deans' words -- with an expanded mandate regarding assessment and to be led by its first ever faculty director. So I welcome the chance to reflect on what it means to (re)start a university teaching center.

There are a multitude of questions to which an institution must find answers when creating (or revitalizing) a center for teaching and learning (commonly referred to as a "CTL") regarding structure, scope, methodology, mission, and independence; ideally these factors will combine to enhance the effectiveness of the center's work, but it can be a delicate balancing act for a complex institution with broad pedagogical-support needs. In what follows I will first delineate some specific questions to consider and what ramifications their answers might have. Then I will outline eight different North American CTL operations to examine what we might learn from those who trod this path before us. To close I'll consider how the different CTLs' structures reflect the work they are mandated to do within their institution and ponder some remaining challenges all centers must deal with.

For purposes of this discussion I'll refer to an entire institution as either "the university" or "the institution". Individual faculties I'll call schools, e.g. the "medical school", the "engineering school", etc. I'll use the terms academic and professional to refer respectively to the traditional-academic (e.g. "arts & sciences") and field-specific (e.g. education, business, etc.) schools; the latter are often but not always graduate-only programs. I'll use "college" in the American sense, referring to the undergraduate arts & sciences program; "graduate school" and "graduate student" will generally imply the academic (i.e. Ph.D.-granting) programs and their students. No slight is meant to any discipline in this terminology, it's just that local use of terms varies widely across institutions so it needs to be specified. Similarly, "faculty" will refer to the members of the faculty, and not to the schools they embody. My attention will be restricted to research-focused institutions, as "teaching colleges" have a very different local culture and set of institutional priorities.

Questions

The first set of questions is probably centered around the *scope* of the CTL's operation: basically, **who is its target audience?** Will it serve a campus-wide clientele, or be specific to the strictly-academic (e.g. "arts & sciences") part of the institution? If the latter, should it specifically deal with the teaching of undergraduates? A university-wide CTL can draw on expertise from across all professional and academic schools, but if the faculty from the various schools are not in community with each other already, a CTL is unlikely to be able to effectively bridge that gap and create pedagogy-centric cross-school communication; the faculty will simply continue to converse with the colleagues they are already in conversation with -- i.e. those who they actually consider to be their day-to-day colleagues. If there is a pre-existing sense of institutional community however, the prospect of bringing innovative pedagogies developed in one school to the others is an exciting opportunity -- for example, business and medical faculty may find each other's quite different approach to case-method teaching very instructive.

Similarly, should the Center devote its efforts to **faculty**, to **graduate students** who are teaching, or to both? If both, should it offer analogous services to both groups? (And do adjuncts and lecturers "count" as faculty?) The "all things being equal" answer would seem to be to prioritize resident faculty -- they are presumably teaching more and for longer than are GSIs, have overall responsibility for instruction in their courses, and represent a much larger institutional investment. But there are arguments both practical and political for targeting graduate students, adjuncts and lecturers -- they are newer academics and so may need more help, and it's usually much

easier for an institution to mandate training requirements for students and sessional hires than for regular faculty. In the profiles to follow one will find examples of centers which have chosen each possible path; one thing to keep in mind is that once established a CTL will quickly acquire a social identity in the institution; if that identity is of a place only for novice graduate students and poorly-rated faculty to receive remedial help in their classroom skills, it may take the length of a typical faculty member's career to change that perceived identity no matter how quickly and progressively the CTL itself is transformed.

Related target-audience questions include how much **professional-development** guidance to offer graduate students (or even faculty) through the CTL -- as teaching is a fundamental academic career skill, the line between "pedagogy for teaching now" and "public speaking for job talks", for example, can be extremely vague -- as well as whether to also consider **administrators, advisors or undergraduates** as legitimate CTL clients. Answers to these will hopefully reflect overall institutional priorities; again, several different models are given in the profiles below.

Once we know whose teaching will be supported, what should the CTL do and how should it do it? Major themes for categorizing CTLs' offerings include **programs**, i.e. workshops, seminars, training sessions etc. that are given in-house, often at pre-set times and open to all comers; **services** that meet teachers "where they are" such as 1-on-1 consultations, class observations or video recording with following debriefing, group practice teaching sessions, etc.; and **research**, which can include anything from student evaluations for institutional use to publishable in-class studies of new pedagogical practices, correlating students' learning gains with particular assessment methods, etc. (This latter sort of research often goes by the names "scholarship of teaching & learning" [SoTL] or "discipline-specific educational research" [DSER].) As will be illustrated in the examples, the question of "programs" v. "services" often seems to be determined as much by the availability of resources (efficiency) as by practical outcome (effectiveness), although program-based centers can certainly be highly effective. It will also be seen that engaging in various styles of research not only can reflect the direct mission of a given center, but also can be a strategic way to frame a CTL's institutional identity within a research-based university as a source of pedagogical wisdom as well as knowledge. As such, engaging in the wider sphere of pedagogical scholarship can be seen as supporting a CTL's local-service mission, and not necessarily as taking resources away from that mission.

Once the CTL's target audience and methodology have been specified, **staffing and governance** can be better considered. Where in the institutional hierarchy should the CTL "sit" -- as part of the Provost's office, under a Dean (possibly of Undergraduate Education), or as a stand-alone entity? Should its director have an official position in central administration, come from the faculty ranks, or be a high-level administrator? Will there be a faculty council either overseeing or advising the center's operations, or will its guidance come "from above"? Will the CTL staff be structured "vertically", with each of the center's major programs having its own professional and support staff at various levels? Or should the organization be more "horizontally" oriented, consisting of many professional staff each with their own areas of experience but being deployed flexibly as needs and opportunities arise? I'll revisit many of these questions later in light of the examples provided next.

CTL Profiles

For each CTL profile to follow I will give background information on the center's primary efforts, provide institutional context as I am aware of it, and list a few items of interest that may serve as lessons to others. But first I will briefly sketch my own center's situation to give some context, and will return to *its* lessons at the end.

The CTL profiles I present aren't meant to provide a comprehensive picture of a given center's work or services, but more as archetypical models of what's possible; my intention is just to provide a snapshot of their operation and to highlight a small number of distinctive aspects of what they do or how they're organized, to provide fodder to reflection. I chose each due to a combination of personal experience and interest. As such, I largely leave to the reader to consider how a given center's structure, programming, or mission might inform decisions for his or her own institution -- and any analytical conclusions I do state should be taken only as my own personal, and very external, view.

Harvard College

Founded in 1975 by Harvard's president Derek Bok as the Harvard-Danforth Video Laboratory, the work of what is now the Bok Center originally centered around the videotaping of faculty and graduate student teaching for later reflection in a consultation with one of the professional staff. Our list of services rivals the most comprehensive in the field (that of CRLT at Michigan, given below), and our programmatic offerings are quickly growing to match. Following on our origins as a safe and confidential place for instructors to reflect on videos of their teaching we are particularly strong in services and programs focusing on in-class teaching skills, but as Harvard has recently undertaken major curricular reforms our primary efforts of the past several years have centered around topics such as course design, innovative assignments and learning outcomes. We report to the Dean of Undergraduate Education and were renamed in honor of Bok upon his (first) retirement in 1991.

Since its inception, the Bok Center has been headed by a director who also teaches in Harvard College but is not regular faculty; the professional staff currently includes a mix of full- and part-time associate directors and a lecturer who have academic backgrounds in various disciplines. We have one faculty associate who serves in an advisory role and also joins in our work, and a support staff of four. Our work is assisted by approximately two dozen "Departmental Teaching Fellows" and another dozen Teaching Consultants, mostly graduate students who have demonstrated advanced teaching ability and who we charge with supporting teaching assistants [TAs] in the various departments -- and without whom we could not possibly provide both the broad support of TAs and the highly-individual support of faculty which are our two main historical mandates.

The Big State Schools

The closest analogues to UniCamp in the United States would be the "big State schools", large public research universities mandated with educating the state's best-qualified postsecondary students, and also with maintaining a prominent comprehensive research program. Two of the more interesting are the University of Michigan and the University of Texas, both of which are referred to as members of the "Public Ivy League".¹

University of Michigan

Background: Founded in 1962, Michigan's teaching center -- the Center for Research on Learning and Teaching -- predates the first wave of other universities creating campus teaching centers by well over a decade. Michigan is a large school by any measure -- over 6000 academic staff, 26000 undergraduates and 15000 graduate students -- and the CRLT's efforts are similarly broad. Since they provide almost every program or service typically offered by a teaching center, it's useful to list the primary ones here as a reference.

For faculty and graduate student instructors [GSIs], CRLT offers programs, publications and consultations on

- new-faculty / new-teacher orientation
- course design
- student feedback
- teaching strategies
- assessment
- mentoring
- diversity
- pedagogical uses of instructional technology and innovative learning spaces
- pedagogy seminars and a "future faculty" program specifically for GSIs

They also run a competitive faculty grant program for pedagogical research, with the largest awards decided by their faculty advisory board.

In addition to their fundamental offerings, CRLT has several interesting aspects:

- They offer professional development programs for departmental administrative staff;

- Over half of their services provided are in discipline-specific settingsⁱⁱ;
- Through the “CRLT Players”, they pioneered the use of interactive theatre in pedagogical training.

Institutional Context: CRLT’s Executive Director is also an associate vice provost of the university, so the center has a strong university-wide mandate and robust links to upper administration; my impression is that it remains fairly independent in its offerings. For example, CRLT supports but explicitly does not direct Michigan’s assessment-for-accreditation efforts, and any course- or curriculum-assessment projects are led by the relevant individual faculty members, even if the data are institutionally useful¹

All of CRLT's assessment projects have two defining characteristics:

- 1) they are led by faculty responsible for the curriculum or the courses being assessed, with CRLT providing support and expertise as necessary;*
- 2) they are action oriented, generating data of interest to faculty and faculty committees responsible for improving their courses or curricula.*

The staff includes a managing director, associate director, 8 assistant directors and consultants, 8 project-specific staff, 3 administrators and a postdoctoral researcher. In addition, the CRLT Players have their own staff and CRLT co-manages a 4-person annex on Michigan’s north campus with the engineering school based there.

Lessons: Almost 60 years into their existence, it’s difficult to take specific lessons from CRLT’s founding. But clearly over time CRLT has maintained the confidence of the university and has become a leader both on campus and in the community of university teaching centers. CRLT’s defining qualities at Michigan seem to be having a broad but still well-defined mandate; leading large campus-wide initiatives where appropriate, while assisting where leadership might compromise CRLT’s overall position in the institution. Its large staff is highly structured, with many professional members working in well-defined roles in support of specific projects and initiatives.

University of Texas

Background: In size, scope and mission Texas bears a lot of similarity with Michigan. As one of the largest universities in the country it also has a large teaching center, called the Center for Teaching and Learning [UTCTL]. UTCTL resources for teachers, many of which are delivered via its website, cover topics from course design and teaching skills to assessment and professional development, both for faculty and for graduate students. General consultations are available for faculty and GSIs on topics such as student evaluations. At Texas, each department runs its own graduate pedagogy course [called a “398T”]; UTCTL supports the 398T’s by providing one guest workshop per semester. In-house workshops include training for Course Management System [CMS] use; teaching with “clickers” or PowerPoint; various aspects of assessment and test design, classroom research, and learning outcomes; and post-398T topics for more advanced graduate students as part of its “GSI Program”. UTCTL has just launched a semester-long biweekly Graduate Teaching Scholars Certificate Program with competitive admissions.

A larger-scale initiative is the "Course Transformation Program", aiming to redesign large introductory classes “to improve students learning and advance educational excellence”.² Areas of study include learning outcomes, assessment methods and innovative technologies. The program started in 2010-11 with three science course sequences.

Institutional Context: In contrast with CRLT’s centralized and vertically-oriented structure, UTCTL is separated into three semi-independent wings: an assessment group (with 13 professional staff), instructional design (14 staff, including 4 research assistants and a postdoc) and instructional technology (9 staff). Each group has its own director, and the center overall is headed by an executive director who is also Texas’s vice provost for edu-

¹ See <http://www.crlt.umich.edu/assessment/assessmentprojects.php> for a list of projects.

² See <http://ctl.utexas.edu/programs-and-services/course-transformation-program/>

cation policy and research. Ten administrative staff are shared by the three groups. UTCTL's current research projects include "Team-Based Learning", predicting success in college, the aforementioned large-class initiative, and consideration of a new campus-wide CMS to replace BlackBoard.

Lessons: Despite the universities' similarities, the CTL at Texas has a substantially different focus than CRLT at Michigan. While both centers offer general client-focused pedagogical services for faculty and GSIs (in Texas's case, largely through the instructional-design wing), UTCTL's services are more specific both in topic and in method of delivery. In addition, the work of two of UTCTL's three wings is strongly aligned with supporting initiatives of Texas's central administration; for example, the Course Transformation Program is part of an effort by the university president to improve learning outcomes and reduce failure rates (currently 1 in 5) in gatekeeper courses.ⁱⁱⁱ UTCTL's organizational structure is reflected in the scope of its work: with a similar-sized staff to Michigan's CRLT, UTCTL's efforts are focused on far fewer but larger-scale projects; whereas CRLT's vertical structure allows it to service a broad set of teachers-as-clients (faculty, GSIs, departmental administrators), UTCTL's horizontally-oriented structure seems designed to directly service the needs of both in-service teachers and upper university leadership.

A Medium-Size State School

University of Western Ontario

While the big schools have much to teach us, it's also instructive to look at a smaller "state" school that may not have access to the same degree of resources as do places such as Michigan or Texas. One example I can bring up is the Teaching Support Centre [TSC] at the University of Western Ontario, which is about half the size of Texas in both student population and number of academic staff.

Background: Western's TSC has a typical-looking set of services for faculty, primarily including peer observation, workshops for junior faculty given by senior faculty, conversations specifically for international faculty, and a grant program for teaching innovation with awards up to \$10,000. Mini-courses include an orientation for new faculty, introduction to university-level teaching, "teaching to learn", course design, and graduate supervision. For graduate teaching assistants [TAs] they provide a teaching conference, new-teaching training, "future faculty" type workshops, peer observations, a teaching practicum course and a certificate program. TSC has authored an extensive set of guidebooks targeting various client groups.³

Institutional Context: The staff at TSC consists of a director (who also has an adjunct appointment in UWO's Faculty of Education), an associate director, a distance-education designer, one TA, five faculty associates, a information literacy librarian, a specialist in science and another in language teaching.

Lessons: Just as interesting as what TSC does is what it doesn't do: they provide a rich set of pre-scheduled orientation and pedagogy workshops for faculty and TAs, robust science and language support, and detailed guidebooks. What they don't emphasize is individual consultations -- although departments may request a consultation online if they indicate a specific desired goal -- and graduate professional development is provided by a multi-office program in the graduate school, not one based at TSC. So while TSC's staff is similar in size to the Bok Center's (for example) they focus their efforts in a very different direction: having most of their efforts go towards widely-disseminated publications and pre-scheduled, in-house workshops for wide audiences is a very efficient use of resources; the challenge then becomes making the TSC a place where instructors want to come to for their own reasons, i.e. since there is very little emphasis on individual consultations (other than arranging peer-to-peer observations), faculty must take some initiative and see use of the TSC's pre-defined offerings as being useful to their individual goals. (For this reason, the TSC's five faculty associates are crucial channels for connecting UWO's faculty at large with the teaching center.)

³ TSC's so-called "Purple Guides", available at <http://uwo.ca/tsc/purpleguides.html>

The Medium-Size Private Schools

Looking at elite private schools can provide a different set of insights: presumably less resource-constrained than the public institutions, how do selective-admission private schools in the United States prioritize pedagogical support? Other than Harvard, the two examples I'll discuss are Stanford and Northwestern University.

Northwestern University

Background: In its faculty offerings, the Searle Center for Teaching Excellence at Northwestern seems to aim for long-term relationships: their New Faculty Workshop has a year-long follow-up program, they teach monthly workshops (including on teaching with technology), and they run a competitive grant program for "new ways to help and encourage students to learn" (which is also open to graduate students and postdocs).⁴ For graduate students, Searle offers general consultations, class observations, a certificate program, and guidance on grant writing. A highlight is their "Small Group Analysis" in-depth, iterative student-feedback procedure, which was co-developed at Northwestern and Vanderbilt and which has been adopted by many other teaching centers.⁴ Searle also has an unusually high level of programmatic support for undergraduate learning, coordinating highly-structured peer tutoring, mentoring, and laboratory-experience programs for students in the sciences, inspired by local research into student success rates.

Institutional Context: The Searle Center was founded in 1992 by noted pedagogy expert Ken Bain, who also founded Vanderbilt's center in 1986 and Montclair State's in 2006; it might be seen as part of the "third wave" of teaching centers in the United States, following Michigan's in the 1960's and the Danforth-funded centers in the 1970's. Following in Bain's example, its director (Greg Light, who is also faculty) publishes pedagogical writings. Searle's staff includes associate directors for graduate student development, undergraduate programs, faculty development, and research & evaluation. There are also four coordinators and associates of specific projects and programs, three senior fellows and research associates, a center manager and three assistants. Searle increases its effective staffing by having 11 teaching consultants and 6 alumni of the teaching-certificate program who especially mentor current participants in that program.

Lessons: Perhaps more so than any other example so far, Northwestern has positioned Searle as a true academic center, operating in an independent manner and setting its own priorities while both leading and serving the university community pedagogically; for example, even when working with individual departments on custom-designed workshops, the initial contact is treated as a proposal. Searle appears to be very deliberate in what they choose to do, and is okay with specificity in that work if it matches their strengths or goals. In research they engage in many collaborative projects with Northwestern faculty. Their more general online resources, as another example, are explicitly collected from other teaching centers' offerings, rather than being developed in-house as most of their peer centers at other institutions do. While not a particularly high-profile operation, Searle is fairly high-impact in CTL community; personally I've noticed mention of them appearing frequently in online forums, etc.

Stanford University

Background: Like the Bok Center, Stanford's Center for Teaching and Learning was one of 5 founded by the Danforth Foundation in 1975; three years later its funding was taken over by Stanford itself. For faculty CTL offers a comprehensive services list along the lines of Michigan's, including emphasis on individual, custom consultations. For TAs they offer a similarly wide-ranging set of services including consultations, class observations, SGAs, videotaping of classes, topical workshops and department-specific training. Two highlights are the dozens of for-credit graduate academic courses in pedagogy offered by the Center, and a heavy commitment to oral communications (so much so that they list their offerings under the categories "Teaching, Learning, Speaking"). The latter is embodied in the Program in Oral Communication started by CTL in 1996, which has served as a model for other centers' the student-speaking efforts, including the Bok Center's.

⁴ See <http://www.northwestern.edu/searle/resources/individuals.html> for Searle's description of the SGA.

Institutional Context: Led by a director who is also Associate Vice Provost for Undergrad Education, CTL has 5 associate directors, a faculty fellow, two lecturing staff and three support staff.

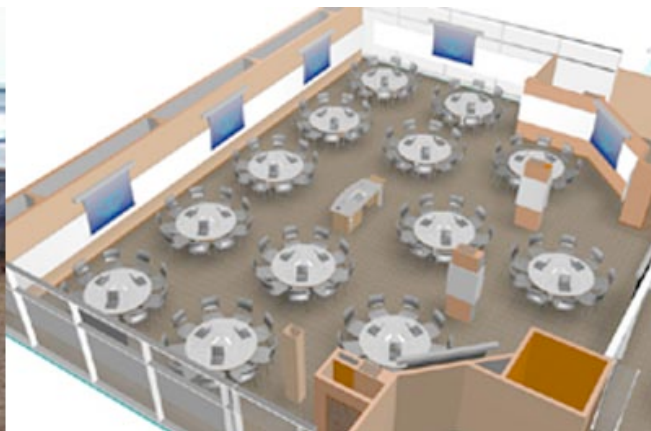
Lessons: The CTL at Stanford contrasts in many ways with Northwestern's Searle Center, with a consistent distinction being that CTL tries to "do it all" while Searle deliberately focuses its efforts. CTL's dual identities as a service-oriented center and as a course-offering academic-style department reinforce each other in ways that can strongly signify pedagogical leadership within the institution as a whole, something not all centers have achieved. The Program in Oral Communication is one example of the institutional pedagogical leadership role a teaching center can play. It's worth noting that Stanford is the first example so far (other than the Bok Center) of a center which is organizationally placed within "undergraduate education" specifically; this alone may serve as a sort of hidden specialization, allowing the center to focus on a specific target audience for its otherwise broad set of offerings.

The Medium-Size Tech Schools

Massachusetts Institute of Technology

Background: MIT is of course an exceedingly technically-oriented institution; that in 1997 its new teaching center was named the Teaching and Learning Lab [TLL] reflects a strong empirical tendency. Offerings for both faculty and TAs include workshops, seminars, and individual consultations. TLL also offers a small selection of for-credit graduate courses in collaboration with academic departments, taught by TLL staff or affiliates.

However, TLL only sees instructional support as one of its three main functions^v, the others being assessment and research. Even further, what TLL refers to as "assessment", many other teaching centers would consider "research" in its own right -- working with faculty to assess course-specific student learning gains due to teaching innovations of any sort, with TLL's help invoked through a proposal process, resulting in analyzable data and publications (both journal articles specific to the course studied as well as several topical "fact sheets" each year with more general findings on the pedagogical topic). So even though the individual faculty member owns the data, TLL can make use of what is learned in the study for its more-general offerings.



The TEAL classroom at MIT is an example of a subject of an Assessment and Evaluation study in which TLL worked with MIT faculty. [Creative Commons license; see <http://web.mit.edu/edtech/casestudies/teal.html>]

Institutional Context: TLL is another teaching center located within its institution's undergraduate education office. Its staff includes a director, two associate directors, three postdoctoral associates in various disciplines, two support staff, and 3 departmental faculty associates. Complementing the regular staff are five external consultants, and graduate and undergraduate student liaisons.

Lessons: TLL has positioned itself as a fairly independent center, but one whose purpose is squarely in service of undergraduate education in the Institute. As such it engages in broad efforts with a fairly small staff and so is quite deliberate in its planning of efficient programs. Especially interesting is how effectively TLL promotes its assessment offerings by taking proposals from faculty, thus creating the (accurate) impression that they are a valuable resource worth devoting faculty members' time and effort to pursuing -- and then, TLL uses what they learn from the assessment projects to create pedagogy materials for wider dissemination. Thus, even if service is only one of the three aspects of TLL's mission, the other two (assessment and research) ultimately also result in products that enhance their service of teaching and learning -- and by having local classroom research inform all aspects of their work, they boost awareness of evidence-based teaching in the wider MIT teaching community.

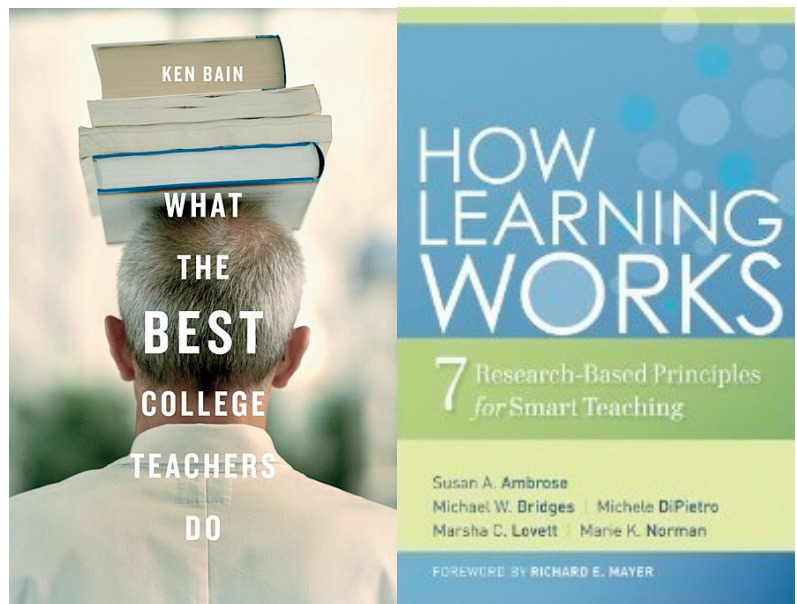
Carnegie Mellon University

Background: CMU's Eberly Center for Teaching Excellence, which dates from 1982, provides workshops and consultations for faculty and GSIs, with a strong set of online offerings including sample syllabi, assessment rubrics, a complete suite of sequential "design and teach a course" advice pages, and an innovative "solve a teaching problem"⁵ interactive tool. The Eberly Center seems to assume that the first point of entry for its clients will be its online resources. Eberly's web portal is shared with the Office of Technology for Education [OTE], and most of the web-based offerings are provided jointly under an "Enhancing Education" banner; they are not branded specifically "Eberly" or "OTE".

In its self-description, Eberly strongly emphasizes its commitment to confidentiality, going so far as the state that their staff does not write letters of recommendation (e.g. for tenure), and also stresses that use of their services is strictly voluntary. A major current student-learning research project is attempting to determine what pedagogies best help new students transition to college-level science classes.

Institutional Context: The product of a 1967 merger between an the Carnegie Institute of Technology and the Mellon Institute of Industrial Research, CMU is extremely strong in engineering, computer science and other technical fields -- and is perhaps even more computer-focused than MIT, which is also roughly the same size. Eberly's director, Susan Ambrose, is also associate vice provost for education and writes actively on pedagogy, as does much of Eberly's staff -- which consists of a senior administrator, four associate directors who are also faculty, an assistant coordinator of graduate programs. (For comparison, OTE's staff is just slightly smaller and is headed by CMU's vice provost & CIO.)

Lessons: The Eberly Center clearly embraces the technical/computational aspect of CMU's identity, providing services that align with it and not trying to do many things that aren't so aligned -- it appears to deliberately prioritize on that basis. The director and staff's activity in the larger pedagogical community is clearly a highlight, providing gravitas to a relatively small operation.



Two examples of "practical scholarship" books by current and former CTL directors: Northwestern's Ken Bain^{vi} and CMU's Susan Ambrose et al.^{vii}
[Images courtesy of Harvard University Press and the Eberly Center.]

⁵ Available for public use at <http://www.cmu.edu/teaching/solveproblem/>

Note that Carnegie Mellon isn't the only institution to combine its CTL & instructional-technology offices at some level: the University of British Columbia, for example, has recently formally combined its two units into a new Center for Teaching, Learning and Technology. Such a combination would make the most sense when the institution already has a strong culture of pedagogical-technology awareness, or else the "new and shiny" aspect of technology risks overshadowing an objective analysis of a given tool's pedagogical effectiveness (especially for institutions in which the CTL is much smaller than the instructional technology office in size or budget). Cornell University is another example of a recent reorganization, in which the institution in 2008 chose to reconstitute a Center for Teaching Excellence from three specific aspects of its former CTL: an International TA program, a broad-based set of services for faculty, and a specific set of programs (but not services) for all TAs.

Concluding Thoughts

The two big-school centers provide a striking contrast in structure and in how it reflects and supports a CTL's mission. Michigan's CRLT has a largely vertical staff configuration, with a single director, managing director, and associate director who oversee a professional staff that branches out across projects but who are largely all part of a single office (albeit with branches for the CRLT Players theatre troupe and the Engineering annex). Some of CRLT's assistant directors have a specific area of responsibility given in their title (e.g. "*Assistant Director for Evaluation*"), but most do not. In comparison, the CTL at Texas has three full directors each of whom has responsibility for a quasi-separate operation with a fairly specific mandate and set of tasks, under an executive director is a full vice provost of the university. Texas's horizontal staff structure makes a great deal of sense given how its CTL's work is in service of both individual instructors as well as upper administration; its three main units can connect easily either "upwards" to central administration or "downwards" to individual faculty and GSIs. CRLT's staff structure is also effective for its mission, which is fairly independent of upper administration but is incredibly varied in task and clientele -- and so its different levels of less-specialized staff can efficiently reach out laterally to those numerous target audiences as appropriate in a given situation. The smaller schools' centers each in their own way demonstrate there can be real value in playing to an institution's strengths and in not trying to "do it all", both in order to maximize the effectiveness of the work that is being done and to create a strong local identity that the CTL is a resource teachers can and should use.

How might this analysis inform the Bok Center's operations, or UniCamp's? For the Bok Center, it seems we have a largely horizontal, fairly non-specialized staff structure for what has traditionally been a vertically-oriented mission in which we strive to provide as many different services as possible to individual instructors and departments. My subjective impression (somewhat backed up by local assessment) is that each of our offerings is fairly high-quality, but even so the sheer breadth of what we do has likely diluted our identity in the campus community as a result, and has made it quite difficult to change that identity even though our current practices and areas of focus are quite different from those even of five years ago. (Fortunately, the Bok Center's nascent revitalization seems already to be steering us towards changes in structure and mandate that will bring the two into much better alignment.) As such, I do have one strong piece of advice for UniCamp: decide what local identity you would like your CTL to have and design its structure and mandate to reflect that identity *now*, rather than first doing only what seems easiest to implement with the assumption that you will be more able to move beyond the "low-hanging fruit" later.

One curious aspect of many CTL's staffs is that they for a large part come "from the disciplines", i.e. most professional staff members have graduate degrees in traditional academic disciplines and are not M.Ed. or Ed.D. holders. My impression is that this is for a mixture of historical and practical reasons: as mentioned above, academics can tend to be most comfortable talking with colleagues who "speak the same language", and I can count many times when a client or faculty member has disparagingly referred to "Ed-school speak". There is irony here... my colleagues at Harvard's Graduate School of Education refer to their school's walls as "dripping with Dewey", and the more pedagogical research I read the more apparent it is that Dewey was right -- it's just taken a century for the wider academic community to appreciate it.

It certainly is not unusual for new ideas to take decades or more to propagate, no matter how well-supported they are by evidence.^{viii} This might represent the biggest challenge, and the biggest opportunity, for any CTL. Research-based pedagogy has advanced greatly in the recent few decades, but in many cases university faculty aren't teaching accordingly. We now know that active-learning techniques lead to better student outcomes than does lecturing^{ix} and that the traditional practice-feedback-reflection learning cycle has a strong cognitive underpinning^x That even a small increase in time-on-task (by either the teacher or the student) can reap huge learning benefits far beyond those due to any change in technique is often forgotten, overlooked, or intentionally ignored. Many of our faculty were students in the era when information was scarce and so "expertise" often equated to "factual knowledge", but now that information is instantly available the educational premium must be placed on skills of analysis and synthesis -- the so-called "critical thinking" skills that liberal education has long been said to be about, but which our teaching and assessments in practice have not been actually designed to foster or measure. The educational value of creating communities of learning and of treating students as active or even equal partners in the learning process goes all the way back to John Dewey but it is still in need of explanation to the university teaching community at large -- and so I was greatly heartened to read about Ulisses Araujo's talk at UniCamp on active learning methods this past September, for example. For all these reasons, universities and CTLs still have a lot of work ahead of them, but it's the work that we've been wanting to do all along to change the culture of higher education so that learning can truly be about wisdom, not just about facts. I believe we may finally be at the point when it's actually starting to happen.

ⁱ Moll, R. *The Public Ivys: A Guide to America's Best Public Undergraduate Colleges and Universities*, 1986 (New York: Penguin).

ⁱⁱ CRLT 2010-2011 Annual Report <http://www.crlt.umich.edu/aboutcrlt/AnnualReport11.pdf>

ⁱⁱⁱ <http://ctl.utexas.edu/programs-and-services/course-transformation-program/courses/>

^{iv} <http://northwestern.edu/searle/resources/grants-for-innovative-teaching.html>

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