

University of Colorado's President's Teaching and Learning Collaborative
Progress Report, Fall 2008
Carnegie Academy for the Scholarship of Teaching and Learning

Dr. Mary Ann Shea, Director
Professor Clayton Lewis, Coordinator
Suzanne Eyerman, Graduate Research Assistant

Table of Contents

Progress Report, Fall 2008.....	3
Context.....	3
Importance of Assessing Learning in Undergraduate Education	3
System-wide Features of the Collaborative	3
Development Across University Boundaries.....	4
Program Description	4
Descriptions of Progress Report Meetings	6
Change within the Collaborative	6
Formative and Summative Evaluation Questions.....	7
Evaluation Method.....	7
Relevant Findings	8
Faculty Growth in Their Educational Research.....	8
The Evolution of the Research Projects.....	8
The Effect of the PTLC on Participants' Research.....	9
Most Beneficial Aspects of the PTLC	9
A Model Collaboration: Enthusiasm for the PTLC	10
Disseminating Research Results	11
Discussion	11
Recommendations.....	11
Toward Future Directions	11
Conclusion	12

University of Colorado's President's Teaching and Learning Collaborative
Progress Report, Fall 2008
Carnegie Academy for the Scholarship of Teaching and Learning

The University of Colorado President's Teaching and Learning Collaborative (PTLC) participates in the system-wide collaboration cluster of the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL). Accordingly, we introduce this report on the second half of our second year of our three year collaboration and commitment with the Carnegie Foundation with a discussion of what we have learned about collaboration across our three campuses.

Context

The University of Colorado has three universities, the University of Colorado at Boulder, the University of Colorado at Colorado Springs, and the University of Colorado at Denver and Health Sciences Center. The latter was formed recently by merging a previously separate campus in downtown Denver with the Health Sciences center. PTLC is a system-wide program fostered by the President's Teaching Scholars Program, a system-wide program reporting to the System Vice President for Academic Affairs and Research. The Steering Committee for PTLC includes faculty from all three universities. Funding for the program comes in part from the system president's office and in part from chancellors of the three universities and was founded by the University President's Teaching Scholars Program 1989-present both the sponsor of the Collaborative and the original fundraiser.

Importance of Assessing Learning in Undergraduate Education

As public resources for support of higher education are increasingly strained, it is especially important that institutions work to maximize the value students receive from their educational experiences. A growing share of support is likely to come from alumni, and support is more likely when students feel that their alma mater has made their education a top priority. As progress in Boulder's physics education in particular has shown, improvements in teaching driven by ongoing assessment of student learning can have real impact in making more students successful. More work of this kind can increase retention, student satisfaction, and student success, leading to increased support for the University of Colorado.

The PTLC faculty researchers work on projects that aim primarily at assessing student learning at the undergraduate level. Through their research on teaching and learning, we hope to improve the undergraduate experience at the university. This may occur through changes PTLC faculty researchers make in their own teaching after conducting their research. In addition, other faculty beyond PTLC participants may work to enhance their classrooms as a result of the dissemination of PTLC research.

System-wide Features of the Collaborative

PTLC recruited faculty investigators for research projects on teaching and learning at each university through a call for proposals (see Appendix). Investigators are supported by coaches (faculty knowledgeable about the educational research process) and mentors (faculty knowledgeable about the investigator's discipline.) Investigators, coaches, mentors, and steering committee members met four times in the spring and two times in the fall to discuss

research in teaching and learning and scholarship and project progress, both issues and successes.

Development Across University Boundaries

A product of PTLC in the system has been that faculty at all three universities have the opportunity to carry out research in teaching and learning projects with collegial support. Faculty from all three universities participated in a pilot program in 2006 that led to the launch of PTLC in 2007 and established the program. It is very doubtful that the leadership available at any one of the universities would have created a teaching and learning research initiative on an individual campus because of the small number of faculty with the necessary experience and availability to create such a collaborative.

Some PTLC participants have suggested that the program present itself as much as an activity of the separate universities as a system-level program. They believe that some faculty are more likely to respond to what they see as a “home” or campus initiative. They may also be responding to former President Brown’s directive in system administration to de-emphasize system level programs. The 2008 distributed leadership model suggests both campus and system collaborations.

The collaborative promotes sharing of informational resources. In the spring of 2008, librarians from two of the universities collaborated to identify library resources about educational research for the participants. Experienced teaching and learning researchers and a researcher presented on educational theory from the university at Boulder. It is unlikely that participants from the other universities would have had access to this opportunity outside the PTLC framework.

Partly because the program is in its infancy, there have been only a few collaborations among researchers, however, developing across university boundaries. There have been a few cross-university contacts outside the group meetings but no sustained interactions have developed to date. Participants have indicated they hope to witness or be part of “cross university” collaborations in the future. Participants, however, report that they greatly enjoy descriptions of varying student learning, cultures and pedagogy from the other campuses.

Interviews and surveys document the impact of the small-group discussions among investigators, coaches, and mentors at the PTLC progress report meetings. There is no specific evidence thus far that having attendees from different universities is uniquely valuable. In theory, an educational research activity at any one university could possibly draw nearly the same range of disciplinary participation. Interest in and knowledge of the assessment of learning in higher education is thinly spread. A system-wide collaboration has drawn together a critical mass of faculty. This spring participants were asked about what benefits they gain from being a system-wide collaborative. Their responses are included in this report.

Program Description

The President’s Teaching and Learning Collaborative (PTLC) is a University of Colorado system-wide program that serves faculty at three campuses: CU-Boulder, CU-Colorado Springs, and UC Denver. The disciplines involved are:

- Applied Mathematics
- Art and Art History
- Astrophysical and Planetary Sciences
- Business

- Chemistry
- Civil, Environmental, and Architectural Engineering
- Communication
- Communication and Evaluation
- Computer Science
- Ecology and Evolutionary Biology
- Education
- Education
- Education and Human Development
- Electrical and Computer Engineering
- English
- English
- Geography
- Geography and Environmental Studies
- Integrative Physiology
- Journalism and Mass Communication
- Kramer Family Library
- Mathematical and Statistical Sciences
- Mathematics
- Mechanical Engineering
- Medicine
- Music
- Music and Entertainment Industry Studies
- Nursing
- Pharmacy
- Psychology
- Sociology
- Spanish and Portuguese
- Visual and Performing Arts
- Writing and Rhetoric

The goals of the PTLC are to promote research on assessing classroom learning and scholarly teaching in an effort to improve teaching, learning, and classroom assessment in undergraduate education and to publish research in a refereed journal (see Appendix A). The scholarship of teaching and learning is the “creation and dissemination of original work that makes a useful contribution to knowledge and practice of other teachers” (www.carnegiefoundation.org). The program director, Dr. Mary Ann Shea, and coordinator, Prof. Clayton Lewis, requested proposals in the fall of 2006. Participant-researchers accepted to the program were matched with coaches (faculty with knowledge and the practice of educational research and trained in the Carnegie coaching process) and mentors (faculty with expertise in the disciplines being examined). In the 2008 cohort not all mentors and coaches were from the faculty researchers’ campus. Thus, new networking between campuses began. Participant-researchers received modest funding for student researchers to support data collection and analysis. The funding came from two sources: the program and provosts. In addition, researchers received partial funding for travel to conferences, where they disseminate their work and contributions in educational research publicly.

Participant-researchers met with coaches and mentors and attended whole group progress report meetings on several occasions. The purposes of the meetings were:

- to attend to administrative tasks
- to share literature resources
- to report on educational research progress
- to problem solve regarding research difficulties
- to discuss relevant topics in teaching and learning
- to discuss library and Internet research resources

While the meetings, establishing personal connections, and discussing teaching and learning were the foremost resources provided by the PTLC, additional resources included:

- research articles sent via mail and discussed in meetings

- a library resource web page with links to research journals, online communities and investigations of pedagogy initiatives at other campuses
- access to mentors with disciplinary expertise and coaches with research expertise
- involvement of faculty presenters and former faculty researchers from the Collaborative

Descriptions of Progress Report Meetings

In May, the 2008 cohort met for a progress report meeting prior to the summer break. PTLC participants first met in small groups to discuss their progress on their research projects. This was followed by the introduction of Randy Bass as the guest speaker at this meeting, and he gave a presentation, followed by discussion, on the topic of “Scholarly Teaching and the Scholarship of Teaching and Learning.”

The 2008 cohort reconvened for the fall on September 16. The meeting began with a discussion of the prospective 2009 cohort. Mary Ann Shea asked attendees to tell other professors about the PTLC and encourage them to apply. Current faculty researchers asked whether they could apply to be a researcher within the collaborative for a second year. The PTLC campus faculty directors agreed that faculty researchers could reapply to the collaborative, though funding would not continue for those who reapply. Professor Deborah Thomas suggests sending information to department chairs to increase awareness of the collaborative, which could mean more applicants. The PTLC campus faculty directors agreed that a brochure will be produced for distribution. Jean Hertzberg suggests including a list of people who have participated in the PTLC. This will be part of the new brochure. After this discussion, CU-Boulder research faculty Sarah Hug gave a presentation about theories of learning and teaching. She distributed a handout and was able to answer questions from attendees. The final portion of the meeting was spent meeting in smaller groups for discussion of each researcher’s individual project.

The last meeting of the 2008 cohort took place on November 11. Mary Ann Shea opened the meeting by welcoming the group and making some announcements, including 18 new faculty researchers who will be part of the 2009 cohort. Clayton Lewis then led a discussion about teaching and learning. He recounted a story of an Faculty Teaching Excellence Program event and the ensuing discussion in which faculty members spoke of teaching as not being a priority in their department. Meeting attendees then expressed what they have learned through their PTLC participation and their views on the scholarship of teaching and learning. Faculty researchers expressed their appreciation for the guest speakers at progress report meetings. They also discussed teaching and the perception of the importance of teaching at the university. Mary Ann led a whole-group discussion of researchers’ progress on their individual projects for the second half of the meeting.

Change within the Collaborative

The intent of the PTLC and of the Carnegie Foundation to sustain this effort was to support and promote research in aspects of learning and teaching in the discipline for undergraduate education. Note that the research questions are focused primarily on teaching and learning, not on the development of research skills. The theory of change developed and nurtured in the Carnegie Foundation for the Advancement of Teaching is that through research, professors develop insight into their teaching and their students’ learning. Research in pedagogy informs teaching practice and is based on data analysis. Professors then refine their teaching, their course

curriculum, and how they assess student learning. The research adds new knowledge in a specific area of pedagogy and learning, thereby contributing to the research literature while developing a community of practice.

Formative and Summative Evaluation Questions

Evaluation research questions included the following:

1. How do professors best increase their understanding of pedagogy and how students learn via participation in the PTLC program?
 - a. How does the PTLC program help professors understand their function and roles as teachers?
 - i. How does the PTLC program help professors define their role as teachers?
 - ii. How does the PTLC program help professors view and understand learning and their students as learners?
 - b. How does the PTLC program help professors understand the art/science of teaching? How does the PTLC program help professors understand different instructional methods?
 - i. How does the PTLC program help professor participants improve their own instructional methods?
2. How do professors best increase their understanding of the concept of learning via participation in the PTLC program?
 - a. How does the PTLC program help professor participants understand their students' learning needs?
 - b. How does the PTLC program help professor participants understand different types of learning?
 - c. How does the PTLC program help professor participants understand how people learn?
3. How do professors best improve the learning of their students via participation in the PTLC program?
 - a. How does the PTLC program support professors to help improve the academic achievement of their students?

This report is organized around themes the report's authors discovered in the qualitative data with quotes drawn directly from interviews, survey, reports, and meetings in an effort to express the PTLC participants' ideas sometimes verbatim. We will illustrate that change has occurred in professors' perspectives, perceptions, and understanding through their educational research. In their own words, professors speak of how they have developed insights into their own teaching and into the assessment of student learning through their PTLC educational research projects.

Evaluation Method

Qualitative and quantitative data for this evaluation have come from interviews, surveys, and observations of participants in PTLC meetings. Participants were self-selected for both the survey and the interviews: not all chose to be interviewed. Nineteen interviews were conducted (see Appendix for interview questions). All researchers, coaches, and mentors were asked to complete a survey. Eight researchers and 13 coaches or mentors responded to the survey (see Appendix for questions). Survey responses were anonymous. Data were read repeatedly and

systematically allowing for themes to emerge. An effort was made to allow participant voices to tell the story of the Collaborative. Quotations, some edited for clarity, have been included in this report.

Relevant Findings

Faculty Growth in Their Educational Research

- Faculty researchers in the 2008 PTLC cohort are in various stages along the continuum of growth in their research on teaching and learning. Based on work by Weston and McAlpine (2001) in *New Directions for Teaching and Learning*, each faculty researcher has been placed into one of the three phases identified by the authors. Phase One describes researchers' growth in their own teaching and illustrates researchers who have extended their knowledge about their teaching and about their students' learning. Phase Two is defined by researchers' ongoing dialogue with colleagues about the topics teaching and learning. Here researchers are engaged in conversations with others and have become involved in collaborative work in teaching and learning. In Phase Three, researchers have demonstrated their increased scholarly knowledge about teaching and learning through dissemination. They have moved beyond dialogue and have made their work public through publications and presentations.
- Based on interviews with and presentations by PTLC researchers, we have determined that five of the 2008 faculty researchers have achieved phase three along the continuum as defined by Weston and McAlpine (2001). Twelve researchers are in Phase Two and are engaging in meaningful dialogues and collaborative work about teaching and learning. All researchers have moved beyond Phase One.
- This report focuses on the second of two semesters of faculty researchers' involvement with the PTLC. We hope to see continued movement along the continuum as researchers continue to participate in scholarly teaching in their discipline.

The Evolution of the Research Projects

- We asked faculty researchers whether they made changes to their projects based on their interactions with their fellow PTLC researchers or because of the counsel of their mentors or coaches. Most answered that their projects did change.
 - Many faculty researchers singled out their coach or mentor for the large impact that one person had on the research project.
 - “Deb Thomas was just incredibly supportive.” Judith Coe, UC Denver
 - “Steve Pollock had really good input” Stefanie Mollborn, CU-Boulder
 - “Alan Mickelson has been great.” Jean Hertzberg, CU-Boulder
 - Others noted that their interactions with the group as a whole
 - “Yes my interactions with the smaller Boulder group last spring did affect my project. I thought it was helpful to think through my project with that group.” Cindy White, CU-Boulder
 - “Yes, it has changed because of my interactions with people from the PTLC. It has been fine-tuned. It hasn't changed philosophically. It hasn't changed directions or anything. I still have the same objectives, but the methodology has improved.” Peter Blanken, CU-Boulder

- Some faculty researchers noted that their work with the PTLC helped them to make changes in their perspective.
 - “The PTLC absolutely pushed me to make changes. I understand pedagogy from a theoretical perspective now. It might have taken me 15 years to make the changes I have made recently. I understand student development and learning theory much better. It makes me think differently about myself as a teacher too. I think of myself less as that person on stage and more as a collaborator. It’s hard to let go of control, but I am working on doing that more.” Kendra Gale, CU-Boulder

The Effect of the PTLC on Participants’ Research

- Faculty researchers were asked to answer how their research on teaching and learning would be different or would feel different if they had worked on it without PTLC involvement. Most faculty researchers said their projects would have developed differently or that they would not have worked on them at all without their involvement in the PTLC.
 - Many researchers answered that they might not have worked on their research projects without PTLC involvement.
 - “PTLC spurred me on to get this done. I don’t really think it would have changed the project if I had done it on my own, but I am not sure I would have gotten it done on my own. It gave me deadlines.” Cathy Thompson, UC Denver
 - “The good thing about the PTLC is that the meetings and the mentor and coach push me to continue to work on this. I am not sure I would have gone into this area of research on my own.” Alejandro Cremaschi, CU-Boulder
 - “I don’t think I could have come up with any of this on my own. I think I would have been floundering without the PTLC.” Mary Klages, CU-Boulder
 - “I think it wouldn’t have happened.” Yvonne Kellar-Guenther, UC Denver
 - Others stated that PTLC helped them gain a new perspective on their research.
 - “The PTLC has also helped me to realize that the scholarship of teaching is viewed as important by various faculty members across the campuses and across many different disciplines and programs.” Mary Jane Rapport, UC Denver
 - “It absolutely turned out totally differently from how it would have turned out if I had worked on it without PTLC involvement. It transformed my thinking about my teaching. The PTLC systematized, organized, and contextualized my practice.” Judith Coe, UC Denver
 - “That article I would have tried to publish again anyway, even without my involvement with the PTLC, but I would have been missing the framework of ethnography and education.” Suzanne MacAulay, CU-Colorado Springs

Most Beneficial Aspects of the PTLC

- In interviews and in their final reports, researchers were asked about what they believed to be the “most beneficial aspects” of the PTLC program. Researchers offered a variety of

answers. Many were especially enthusiastic about the progress report meetings that were held regularly and the various ways those meetings benefited their research.

- Researchers said they gained knowledge of various resources at meetings, and they were particularly enthused about the presentations by guest speakers.
 - “The outside speakers were each wonderful and amazing.” Lynne Bemis, UC Denver
 - “The actual education research information from the various speakers has been helpful.” Jean Hertzberg, CU-Boulder
- They also said they enjoyed the collaboration and interaction that occurred during the meetings or as a result of the meetings.
 - “For me, the collaboration was the most beneficial aspect. I find the meetings inspiring and to have a group of scholars working on similar research motivated me to continue and expand. I also found the presentations by the invited speakers to be very informative, helpful, and inspirational.” John Basey, CU-Boulder
 - “I have found the program great to facilitate collaboration, support, and as a catalyst for this work. I probably would have done the research anyway, but the structure provided by the PTLC certainly helped.” Peter Blanken, CU-Boulder
 - “The meetings and the discussion have been the most beneficial and the most enjoyable.” Jane Kass-Wolff, UC Denver
- In addition, faculty researchers spoke of the supportive community PTLC offers.
 - “Having access to a community of researchers, learning about other interesting research projects, and working with a mentor and a coach.” Alejandro Cremaschi, CU-Boulder
 - “The program was very well-organized and run by people who truly cared about both the process and the outcome. This left a very positive mark on the whole enterprise. I found this to be an extremely rewarding program that hooked me into a community of scholars of teaching and learning that I didn’t know existed.” Stefanie Mollborn, CU-Boulder
 - “Very supportive atmosphere – good networking. I’ve enjoyed getting to know faculty from other CU campuses – we are all too isolated in our own worlds – I felt part of the larger whole and it was exciting to hear what others were doing.” Cathy Thompson, UC Denver

A Model Collaboration: Enthusiasm for the PTLC

- Faculty participants have been extremely vocal in their enthusiasm for the PTLC. They feel they have benefited from the program in a variety of ways.
 - “I think that any time you have a program in which people are selected and labeled as part of a program, it facilitates legitimacy and recognition that doing work on student learning is of benefit to the institution.” Cindy White, CU-Boulder
 - “For a final measure, let me suggest that our “SoTL” enterprise – the systematic examination and evaluation (reflection and assessment) of our own perspectives and actions in the learning-teaching nexus – is fundamentally critical to our personal growth, to improving our practices continuously, and to ensuring

continuing student success. From my perspective, this latter point revitalizes our purpose as “teachers,” and I very, very highly value the opportunity to interact with each and all of you.” Rod Muth, UC Denver

- “Every time I walk into a meeting, I feel huge benefits. There are people who aren’t judging you but who are sincerely interested in what you are doing.” Lynne Bemis, UC Denver
- “Although I was receptive to innovation and risk, I had no idea that teaching and learning could be such a rich investigative terrain – and ground breaking in terms of teaching and learning effectiveness.” Suzanne MacAulay, CU-Colorado Springs

Disseminating Research Results

- Participants in the Collaborative have published and presented research related to their PTLC project in a variety of settings. In addition to these publications and conference presentations, participants have disseminated information about their PTLC projects in conversations with other faculty, their departments, and others. The PTLC Index document contains this information in detail.

Discussion

Recommendations

- “I would recommend considering holding some meetings in Denver and some at each campus, as a way of increasing small-group cohesion and participation (since it’s easier to fit a local meeting into researchers’ and mentors’/coaches’ schedules).” Stefanie Mollborn, CU-Boulder
- “I needed a great deal of remediation to understand what that discipline [the Scholarship of Teaching and Learning] involves, and I wish that there was more information about that early on in the program.” Lynne Bemis, UC Denver
- “It is difficult to do a high quality research project in just one year. So maybe a two-year option may be something to think about.” John Basey, CU-Boulder
- “One suggestion would be to have some sort of a symposium, such as a half-day presentation of posters for all faculty members. It could move from campus to campus so everyone could see the posters.” Jane Kass-Wolff, UC Denver

Toward Future Directions

- The call for proposals for the 2009 PTLC cohort contains more specific information about the commitment required to be part of the PTLC. Those who have applied are committed to attending monthly meetings on Wednesday afternoons at the UC Denver Anschutz Medical Campus. The call for proposals emphasized that faculty research projects should focus on assessing student learning so there is no confusion about the intent of the Collaborative.
- Mentors and coaches have been encouraged to hold at least two “team meetings” each semester. The team is the faculty researcher, coach, and mentor. Thus, all three will be able to talk together about the researchers’ individual projects. These team meetings will be in addition to PTLC progress report meetings.
- Faculty researchers have produced far more publications and given more conference presentations than we are able to feature in this report. We have now created a separate

document, the PTLC Index, to track information about the dissemination of PTLC research projects.

- Faculty have expressed their appreciation for presentations by guest speakers at PTLC progress report meetings. In response, the PTLC will schedule a faculty speaker for each of the 2009 progress report meetings.
- Faculty researchers have appreciated receiving articles that relate to the scholarship of teaching and learning. The PTLC will continue to distribute such literature and will inform the 2009 cohort of researchers how to search for similar material as part of their research.
- Researchers are requested to make a department presentation of their research in the year of their participation in the cohort.

Conclusion

- The Carnegie Foundation for the Advancement of Teaching is under new leadership in the name of President Anthony S. Bryk. It is not known what form the Scholarship of Teaching and Learning will take from this point forward. There is a commitment, however, that the University of Colorado President's Teaching and Learning Collaborative will continue to develop and strengthen as more University of Colorado faculty participate and continue to research and publish on scholarly teaching in their disciplines.