The Evolution of CUR Institutes: From Serving Individuals to Serving Campuses, Systems, and Consortia

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I. Introduction

In 1996, the Council on Undergraduate Research began offering weekend workshops on institutionalizing undergraduate research (UGR) to teams of faculty and administrators interested in imbedding more such research across their campuses. At these workshops, we promulgated the CUR message that research at primarily undergraduate institutions should focus on the interests of the faculty along with the needs of the students and that high-quality research and scholarship was possible on all campuses and in all disciplines.

At the heart of the workshops was an expectation that each team would generate a series of goals that would then be adapted and embraced when participants returned to their home campuses. These workshops were so successful that they spawned numerous other such weekend institutes, including those offered on grant writing, mid-career faculty, starting a research program, doing research in the humanities and social sciences, and directing UGR programs. Over the past 15 years, CUR has worked with more than 200 institutions and thousands of faculty and administrators in workshops devoted to institutionalizing UGR.

II. National Science Foundation Division of Undergraduate Education Phase II Grant

From 2003 to 2005, CUR leaders engaged in extensive conversations about the long-range goals of the organization and how its workshops and institutes supported those goals. As a result of those conversations, CUR submitted a proposal that was funded by the NSF's Course, Curriculum, and Laboratory Improvement Program (Phase II) program in 2006 for $499,066. The proposal, "A Workshop Initiative by CUR to Establish, Enhance and Institutionalize Undergraduate Research," focused on using a regional approach to expand the successful model of CUR's workshops for institutionalizing undergraduate research. These regional workshops were designed for institutions that did not have a tradition or culture of campus-wide engagement in undergraduate research.

Thirteen weekend regional workshops were offered to 104 institutions over a two-year period (2007 to 2009) with four-person teams from eight institutions attending each workshop. Facilitators assisted teams in developing an individual campus action plan with short-term and long-term goals aimed at generating a rich, vibrant UGR program embedded across the campus. Action plans were further reviewed when facilitators conducted site visits at individual campuses one year after the participants' attendance at the workshops.

III. National Science Foundation Division of Undergraduate Education Phase III Grant

CUR's NSF Phase II grant helped us better understand the national landscape associated with undergraduate research and how we might further influence it. In 2010 we submitted a Phase III proposal to the NSF Transforming Undergraduate Education in STEM program and were fortunate to be awarded $1,000,000 for our project, the "Workshop Program on Institutionalizing Undergraduate Research for State Systems and Consortia." What differentiates this grant from our previous one is that we have focused our efforts on state systems of higher education and on consortia and their member institutions as a way to further the advances we have made by leveraging the power of the systems and consortia.

Twenty-four systems or consortia applied to participate in our workshops, and from that group we had enough funding to select six. These were the Council on Public Liberal Arts Colleges, the University of Wisconsin State System, the California State University System, the City University of New York, the Great Lakes Colleges Association, and the Pennsylvania State System of Higher Education. The most important factor in these choices was the potential for change within the system or consortium and the existence of established structures that could facilitate the change process.

IV. Workshops: Design, Implementation, and Results

Campus teams begin the workshop process by generating a campus self-study that allows the team members to reflect on the current status of research on their campuses, the strengths of their programs, and the impediments to further institutionalization. Broad engagement in this activity by many throughout the system goes a long way toward the subsequent acceptance of the goals generated at the workshop.

Each workshop is structured as an intensive three-day marathon that begins on a Friday at 4:00 p.m. and runs through Sunday at 12:00 p.m. Three types of activities are woven throughout the weekend: formal plenary sessions, concurrent sessions on various topics that participants select from, and break-out sessions in which the teams work with expert facilitators to draft their UGR plans for vetting and implementation after their return to campus. There also are substantial blocks of time built in for conversations and sharing of experiences among the participants. The facilitators play a crucial role in the success of the workshops and are carefully selected for their range of experiences, involvement with CUR, understanding of the national issues, and, most importantly, their ability to facilitate the work of the teams and help them develop broad visions while generating realistic goals.

Common activities at each workshop include:

- Providing information on the status and national landscape of undergraduate research;
- Formulating ideas and a campus and system vision for undergraduate research;
- Generating measurable goals and action plans for implementation;
- Arranging for the participating institution and CUR to share follow-up experiences;
- Sharing of best practices.

The most important workshop activity involves having the teams develop mission statements, sets of short-term and long-term goals, and related strategies that can be taken back to their campuses for implementation. The culmination of the workshop is a closing session at which each team presents its plan to all the other attendees. These plans include specific implementation time lines, a list of individuals or offices responsible for attaining each goal, and means by which assessment and evaluation will be performed.

Common goals generated include: defining and inventorying campus UGR, establishing UGR offices and faculty/staff champions and advocates, creating UGR celebrations, infusing UGR into the curriculum, and providing incentives and funding for UGR activities. Many campus teams also wanted to integrate UGR into faculty workloads, find better ways to assess student and faculty outcomes, integrate UGR with already-existing campus activities, or find ways to connect UGR to community-based activities.

One key difference between this system/consortium workshop project and the earlier regional workshops was the design and implementation of follow-up activities. In our system/consortium approach, we designed a model for bringing together all of the participants from

Table 1. Challenges to Embedding UGR Throughout a Campus

Area of Concern	Specific examples
Institutional inefficiencies or road blocks	Widely varying standards (or no standards) for the conduct of UGR across disciplines.
	No campus standards for faculty mentoring of students.
	Limited institutional support for faculty seeking external research funds or for student involvement in faculty research.
	No mechanisms to promote student interest and engagement in research.
Obstacles to faculty buy-in	Heavy teaching loads and committee assignments.
	Faculty concerns that UGR would threaten a campus teaching mission.
	Faculty perceptions that mentoring undergraduates would take too much time.
	Faculty attitudes that students are not sufficiently motivated to do good research or would not be able to do productive work without more extensive training than is practical.
Student-related issues	Time constraints for students who work part-time.
	Inadequate student awareness of research opportunities.
	Students who limit their focus to career preparation.
	Many first-generation college goers who have had limited exposure to research or to how researchers think.
Resource issues	Inadequate understanding of how to obtain external funding support for UGR.
	No funds to support students who must otherwise work part time.
	Potentially available resources that have remained unused or have been used in a poorly coordinated manner.

each system/consortium for a second workshop approximately one year after the original one. The follow-up workshops were designed to provide support during a critical point in the implementation of campus plans, because our experience had taught us that many teams need to be reinvigorated at this juncture. In addition, the workshops helped ensure the long-term and sustainable institutionalization of undergraduate research within and among the system/consortium campuses.

V. NSF Grant Outcomes

For both NSF grants, Daniel Weiler of Daniel Weiler Associates served as our assessment coordinator. He was particularly helpful in demonstrating that the workshops have positive effects and are valued by participants, and also in teasing out the issues that affect UGR development and institutionalization on individual campuses, as well as throughout systems/consortia.

Campus Issues
In Table 1, we outline some of the findings from our evaluation data and show what the challenges were to embedding more UGR throughout the campuses. This data was collected at the workshops from surveys of participants, follow-up paper surveys six months after the workshops, and interviews conducted one year after the initial workshops.
Our assessments show that strategies seen as least likely to help institutionalization were those that emphasized top-down (i.e., administrator rather than faculty) leadership and that mandated change rather than obtaining buy-in.

Systems/Consortia Issues
We have also evaluated the change process through the lens of system-wide impacts by interviewing the system and consortia administrators shortly after the follow-up workshops. Our assessment process revealed several key findings:

- Workshops were seen as a valuable opportunity for the attending teams to hear from others about ways to tackle various UGR implementation issues, particularly how to be innovative with scarce resources.
- Information sharing (as advanced by the workshops) is seen as critical in uncovering local challenges that are unique to each campus.
- Progress in implementing UGR varies a great deal among the campuses in each of these systems and consortia. Some campuses are reasonably far along and have UGR embedded in their cultures; other campuses are just beginning.

Table 2 lists the challenges cited most often by system/consortium administrators as they worked to move the group forward as a whole.

VI. Conclusions and Next Steps

During the course of our Phase II and III grants, we have interacted with teams from more than 200 institutions and six systems and consortia, and we have engaged over 1,000 individuals in conversations about the goals, structure, and form of undergraduate research.

We have found that the CUR workshops have had the following broad impacts on advancing the conversation and the activities that support UGR:

- Workshops were effective at energizing participants. Almost every workshop participant indicated an intention to take action to achieve the team's UGR goals.
- Respondents also indicated, without exception, that:
  - they intended to share the information they had acquired at the workshops with other faculty and/or administrators on their campuses,
  - their team had developed a workable institutional action plan, and
  - they were clear about the steps they would need to take in order to implement the plan on their campuses.

The greatest challenge for each team is the expectation that they will lead a transformative change process once they return to campus. We spent a good deal of time discussing what goes into institutional change and the factors that determine levels of change (leadership matters more than any other factor), but it is still a very challenging process for the participants to lead and sustain these efforts. Teams have returned to their campuses, worked on shaping/reshaping their culture to embed undergraduate research activities, and have shown an amazing ability to move their campuses forward. Many of the campus goals that were generated at the workshops were fulfilled over the course of the grant/s, but there is still much work that needs to be done by each campus and system. We look forward to our further engagement with all of the participants.

Table 2. Challenges Faced by System/Consortium Administrators in Leading UGR Efforts

Getting accurate information about the status of UGR on different campuses
Configuring prospective assistance to match widely varying campus needs
Figuring out how to get widely different campuses to share a reasonably consistent vision for UGR
Maintaining a shared vision when personnel change at both the campus and system levels

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