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RUNNING HEAD: Research Center

Establishing a Center to Support Faculty Research

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Abstract

This article describes the establishment in fall 2002 of a School of Education Research Center designed to support faculty in increasing productivity and quality in research. Details are provided about center goals, services, staffing, space, resources, and logistics during the first year of operation. In addition, data are shared about faculty usage of the center, the level of faculty satisfaction with center services in the first year, and initial increases in faculty productivity. The article concludes with plans for continued data collection to monitor the impact of the center, a discussion of lessons learned at this point in the center's development, and possibilities for the evolution of the center.

Establishing a Center to Support Faculty Research

Located in the heart of the city of Denver, the School of Education (SOE) at the University of Colorado at Denver (CU-Denver) offers 17 graduate-level programs that lead to 11 Master's degrees and one Ph.D. degree as well as 12 state certificates and licenses. Each semester, the SOE offers classes to about 5,000 students with about 1,500 of these enrolled in graduate degree or licensure programs. Over the last decade or so, the SOE has excelled in two of the three criteria for faculty success. In the area of service and outreach, the SOE has developed strong partnerships with K-12 schools, districts, and other agencies (Rhodes & Bellamy, 1999; Ginsberg & Rhodes, 2003). In addition to these substantial service activities, faculty have successfully developed their teaching expertise in several nationally recognized programs, especially the Initial Professional Teacher Education Program (Basile & Rhodes, 2003; Kozleski, Gamm, & Radner, 2003). Such success has contributed to the reappointment or tenure of the majority of the 49 tenure-track faculty. Even so, the research and scholarly productivity of the faculty had declined or remained flat during the past ten years (SOE Annual Review, 2002).

Rebalancing faculty attention across teaching, service, and research became a major goal for the SOE. This goal grew out of faculty concern that their research productivity had been compromised by attention to the many program innovations that had occupied the majority of faculty time and energy. The faculty wanted to reinvigorate their research lives. This motivation was heightened by the new university president's expectation that CU-Denver would become a top-ten urban research university by 2010. To assist the faculty, the SOE launched a Research Center at the beginning of the 2002-2003 academic year. The primary purpose of the center is to support research initiatives and activities of tenure-track and tenured SOE faculty as well as full-time instructors with ambitions for tenure-track positions.

Like the CU-Denver campus, many institutions have offices or departments dedicated to supporting and assisting faculty members in grant-writing and related activities. Many colleges and universities also have institution-wide faculty development programs, which offer a myriad of teaching- and research-related services to faculty (Follo, Gibson, & Eckart, 1995). Reports of formal mentoring programs and informal mentoring and support systems additionally have appeared in the literature in recent years (Boyle & Boice, 1998; Jackson & Simpson, 1994; Kinnucan-Welsch, Seery, Adams, Bowman, Joseph, & Davis, 2000).² Much has been written about such assistance for faculty development (Camblin & Steger, 2000; Goodwin, 2004; Mullen, 2000; Perma, Lerner, & Yura, 1995) and about the tensions between research expectations and teaching demands (Brown & McCartney, 1998; Gottlieb & Bruce, 1997; Leslie, 2002; Marsh & Hattie, 2002; Sharobeam & Howard, 2002). Knaub, Lee, and Meredith (1995) studied the influence of department and college environmental variables on faculty research productivity in family studies departments, documenting the importance of time, college and department “atmosphere,” and available resources to support faculty research activities. Despite such studies, explicit focus on activities specifically dedicated to increasing faculty members’ research skills and productivity has been sparse.

The CU-Denver SOE Research Center

The goals, services provided to faculty, staffing, space, and other resources required for the operation of the SOE Research Center and the logistics required for start-up are described in the following sections. The impact of the center on the SOE faculty during the first year (2002-2003) of implementation also is examined. This section concludes with a discussion of the evaluation data collected during the year and possibilities for the future of the center.

Context, Setting, and Evolution

²After extensive searches of institutional Web sites, we could not locate published reports about research centers that sought ends similar to those of the CU-Denver SOE Research Center. The Schools of Education at the University of Cincinnati and Georgia State University, however, both describe similar structures on their Web sites.

In spring 2001, the previous Dean, Tom Bellamy, commissioned a needs assessment that focused on faculty research. All tenured and tenure-track faculty were invited to participate in one of three focus groups organized by faculty rank: assistant, associate, or full professors. Of the 45 tenure-track faculty eligible, 31 (68%) participated, responding to the questions listed in Table 1. Their comments were recorded, transcribed, and summarized in a report to the faculty. By and large, faculty felt that their lives were disconnected from research by the demands of running programs, teaching classes, supporting partnerships with the K-12 community, and providing service to the campus and the SOE. Nonetheless, faculty mourned this disconnection and wanted more time to conduct research, write, and publish. Faculty in all three ranks also reported feeling that their research skills were rusty or underdeveloped for their current research interests and that no formal support was available for developing or revitalizing their research skills. Associate and full professors noted further that their research interests had evolved from their early-career topics and that they lacked experience or knowledge of appropriate data collection and analysis tools in their newer areas of interest.

[PLACE TABLE 1 ABOUT HERE]

Along with the focus-group report, distributed to the faculty prior to a meeting of the entire SOE, a proposal for establishing a Research Center also was disseminated. Based on their participation in the focus groups, the conclusions in the report, and the responsiveness of the center proposal, faculty voted unanimously to establish the center to address their needs for support and renewal of their research skills. It opened formally at the beginning of the 2002-2003 academic year.

Confirming this decision, the new Interim Dean, formerly the Associate Dean of Teacher Education, found in her interviews with faculty during summer 2001 that faculty were very worried about their productivity. Repeatedly, faculty explained that spiraling demands for strengthening and expanding programs limited their ability to block and maintain time for writing or to establish and preserve individual and team research agendas.

Goals

In response to faculty needs, the SOE Research Center was designed to bring coherence and continuity to faculty research and to create a place that highlights, nurtures, and supports research. Faculty were offered help in developing research agendas built on solid conceptual frameworks and using methods of inquiry that could stand the test of peer review in respected journals. The center staff immediately expanded the school's ability to respond to faculty research interests and connect them to research needs at local, state, and national levels. The center's mission is to help each SOE faculty member establish a strong research record in disciplined, sustained, and focused inquiry that can impact practice and professional thought nationally.

On the way to the ultimate goal of increasing research productivity and quality, center staff had a process goal—to ensure that faculty used the Research Center and, in its initial year, learned about and were satisfied with the various services that the center offered. Faculty Research Associates, in particular, focused their efforts on this goal from inception of the center in fall 2002, assuming that, if useful services were offered, an increase in faculty productivity and quality might follow. In order to measure how well the center advanced these longer-term goals, center staff conducted an annual count of publications and analyzed the quality of publications with reference to the reputation of journals, in the case of articles, and publishing companies, in the case of books.

Space, Staffing, and Other Resources

In an unusual arrangement, the University of Colorado at Denver shares an urban, downtown campus with two other higher education institutions: the Metropolitan State University of Denver, a four-year undergraduate university, and the Community College of Denver. Together, the three institutions annually enroll about 36,000 students. Not surprisingly, additional space for units like the SOE Research Center is difficult to find, especially if they do not contribute directly to student credit-hour production. As a result, while the SOE is housed in

one building on one side of a major artery in downtown Denver, the center was located in the School's center for funded programs on the other side of the street. This geographic separation had both advantages and disadvantages. While some faculty appreciated the psychological separation created by the two settings, one for programs and the other for research, other faculty felt that the time taken to trek across the street detracted from their use of the center.

When the center opened, it was directed by an associate dean in consultation with three Faculty Research Associates—all full professors. One Research Associate also was the Dean of the SOE. Another Research Associate, the senior research and evaluation methodologist on the faculty, received a salary stipend for her work in the center and spent almost every Friday during the academic year and summer providing individual consultation to faculty. The third Research Associate also came from the faculty but received a smaller professional development stipend to provide less frequent consultation and to participate in the one-hour Friday planning meetings with the Research Associate team. Neither the Dean nor the Associate Dean received remuneration for this work as their participation was considered part of their administrative responsibilities.

In addition, the center was staffed Monday through Friday from 9 to 5 by a doctoral student, who served as a full-time Research Center Coordinator, and three, twenty-hour-per-week research assistants. The SOE had previously supported research assistants assigned to faculty research teams. When the center was established, these funds were shifted to centralize research support. An initial capital expenditure covered the cost of seven, high-speed computers equipped with data collection and analysis software, including SPSS (Statistical Package for Social Sciences, 1999a, 1999b), a quantitative analysis package, NVivo (Fraser, 1999; Richards, 1999), a qualitative analysis program, along with access to Zoomerang (<http://www.zoomerang.com>), a commercial survey tool. In addition, the center funded faculty travel to professional meetings. The total investment was about \$100,000, including about \$60,000 in new funds.

Services and Functions

The Research Center offers six basic services that support faculty research. These are described below in the order of faculty usage over the first year along with a miscellaneous category of services. (See Table 2 for usage data.)

[PLACE TABLE 2 ABOUT HERE]

1. Consultation with Research Associates: To make appointments, faculty call or e-mail the Research Center Coordinator with requests. The coordinator is responsible for training and managing the work of the three master's-level research assistants. All requests for support and consultations are logged so that staff can follow-up on projects. Periodically at their Friday meetings, the Research Associates review these logs to identify assistance that users may need as well as to monitor use and identify non-users. Each semester, the coordinator contacts each non-user by phone to offer Research Center services.

On 36 Fridays from fall 2002 through summer 2003, one to four of the authors of this paper were available for hour-long appointments with faculty to discuss any aspect of their research with which they wanted assistance. On average, three faculty scheduled appointments each Friday. These consultations covered a wide range of topics, including the following:

1. managing time
2. planning research agenda
3. designing specific research studies
4. developing or locating measures or measurement procedures
5. identifying the appropriate qualitative and quantitative data analysis procedures
6. identifying appropriate journals for manuscript submission by using *Cabell's Directory of Publishing Opportunities in Education* (2002)
7. using NVivo to enter, manage, and analyze qualitative data
8. using SPSS to enter, manage, and analyze quantitative data
9. interpreting the output from quantitative and qualitative data analyses

In all cases, the Research Associates attempted to be responsive to each faculty member's identified needs.

2. *Literature searches.* To initiate a literature search, a faculty member contacts the Research Center Coordinator who completes a scope-of-work form detailing exactly what the faculty member wants. Under the coordinator's supervision, one of the center's research assistants does an initial search using electronic data bases and sends the results to the faculty member. Once the faculty member checks the initial search results and lets the coordinator and assistant know if the search meets expectations, the literature search is completed. The faculty member then can review the results, read articles as possible on the Web, and ask for a research assistant to locate others in hard copy from the library. If the search is inadequate, search procedures are refined until the outcome matches the faculty member's needs.

3. *Editing and manuscript preparation.* When the Research Center opened, we were fortunate to have as the first coordinator a doctoral student who had taught college-level English composition classes. Her enthusiasm for helping faculty with editing, her editing skill, and her deft approach to faculty became well known through word of mouth. Although she now is working on her dissertation full time, she continues to edit manuscripts for users of the center. To provide feedback to faculty, she uses Track Changes and Comments functions in Microsoft Word. Faculty report considerable satisfaction with this assistance, which also includes checks of text citations and references as well as attention to APA style requirements.

4. *Data transcription, instruction, and entry.* One of the main functions of the Research Center is to save faculty time so that conceptualization, data collection, and writing get the greatest emphasis. Helping faculty enter, code, and analyze data is one time-saving service of the center. For example, faculty bring raw interview data to the center where a research assistant transcribes it, often a time-consuming process for faculty. Research assistants also enter data into software programs such as SPSS and NVivo. In addition, faculty receive individual instruction in data collection tools, such as Zoomerang, and data analysis tools, such as SPSS,

NVivo, often following attendance at a workshop on the software. When the information needed is technical, the Research Center Coordinator or the research assistants provide assistance; when the assistance needed is more complex, an appointment is scheduled with the Research Associate best able to provide the assistance.

5. *Workshops.* Several times each semester, including summer, Research Associates or consultants conduct workshops for faculty on a variety of topics, most often focused on training with data-analysis software. Workshops also address common writing difficulties, strategies for getting published, and time management.

6. *Funding for conference presentations.* School-level travel funds, earmarked for faculty, have been moved into the Research Center's budget to support faculty presentations at conferences. In order to receive funding, however, a faculty member must both present a data-based research paper at a national conference and subsequently revise it for journal submission. Once the article is submitted for publication, travel is reimbursed along with conference travel receipts. New faculty with access to university-wide funds for travel are required to meet these same criteria to receive matching funds from the center.

7. *Miscellaneous.* In addition to the six basic services provided by the center, material resources are available through the Research Center. For instance, Cabell's (2002) directory and a small library of sample journals provide faculty ways to locate potential publication outlets for their research. Faculty also can involve Research Associates in editing or even drafting human subjects proposals. Further a Research Center Web page contains a variety of resources, including (a) links to potential grant sources, (b) a comprehensive database on research design and data analysis, (c) links to APA formatting sites, (d) links to research databases and guides for literature searches, (d) Web sites with national and state educational statistics, (f) forms for human subjects reviews, (g) user guides to NVivo and SPSS, (h) links to the 50 top educational journal Web sites, and (i) links to national educational research centers.

Impact of the Research Center on SOE Faculty

Throughout its first year of operation (2002-2003), data were collected to evaluate the center's initial process goal: ensuring that faculty learned about and used the Research Center and were satisfied with its services. The data included frequency counts of the number of center services used by faculty members; satisfaction data, collected through an electronic survey; initial productivity data; a user panel at a faculty meeting; and interviews with a sample of faculty members who had used one or more services during academic year. In order to understand why some faculty were infrequent users or non-users, interviews also were conducted with a sample of these faculty members.

Over the next several years of operation, center staff will continue to gather information about usage and satisfaction but also will increasingly turn attention to the hoped-for ultimate results—an increase in faculty productivity (Middaugh, 2001) and in the quality of faculty research. Data to date are suggestive, though, and show that publications have increased since the center opened, but clear connections or quality indicators are not yet available.

Research Center Usage and Satisfaction

In the following sections, we present data on usage and satisfaction. In separate sections, we also relate what we learned from interviews of non-users and low users and interviews of frequent users. The interviews of frequent users not only reinforce the usage and satisfaction data collected through surveys, but also suggest that the Research Center already has had an impact on faculty productivity.

Usage data. During the first academic year of operation (September 2002 through July, 2003), Research Center services were used by 89% of the faculty: 42 of the 56 faculty (49 tenured and tenure-track and 7 full-time instructors). The total number of services used by each of these 42 faculty ranged from 1 to 24, with an average of 6.00 (SD = 4.93). Table 2 shows the number and percentage of times each service was used. Most frequently, faculty consulted with Research Associates: 91 consultations occurred during the year, representing 41% of all services

used. Next in frequency were literature searches (20%); editing and manuscript preparation (15%); data transcription, instruction, and entry (13%); and workshops (8%). Miscellaneous services comprised the remaining 3% of usage.

Satisfaction data. To measure the levels of satisfaction with services provided, an electronic survey (using Zoomerang) was administered to all SOE faculty in April 2003. With a 61% return rate, the data show that over 75% of the faculty were satisfied or highly satisfied with the services provided by the Research Center.

In addition to the electronic surveys, a panel of six faculty members, representing various ranks, reported their experiences with and evaluative comments on center services at a spring faculty meeting, each focusing on a different service. Although chosen for their enthusiasm for the Research Center, the panel provided specific information about services and a high level of satisfaction with them, inspiring conversation at the faculty meeting and phone calls from several non-users to the center the following week.

Productivity data. Data on faculty productivity, collected annually, suggest that faculty needed assistance with their research. For example, in 2001, the year before the center opened, about 50 faculty had generated only 36 publications. By the end of 2002, the number of publications rose to 50, but the center only opened that fall and probably had little impact on this figure. However, in 2003 the 49 faculty produced 62 publications. Even though the trend is upward, caution must be exercised because of the considerable time that it often takes publications to reach print after submission and acceptance. So while productivity is up, it is not yet clear that this increase is due to the center's efforts. Center staff will have to monitor these trends as well as develop quality measures to determine whether the center has achieved its long-term goals.

Interviews with "non-users" and "low users." The Research Center Coordinator conducted interviews in the late spring with 5 of the 8 non-users or low users, faculty members who had used none or only a few of the center's services. (Some of the faculty interviewed had

used some services by the end of June.) When asked why they had used the center infrequently or not at all, 3 reported lack of time, 1 reported that he had been on sabbatical, and 1 said that she was revising her research and writing plans and was not quite ready to ask for assistance. All of the interviewees said that they would use the center in the future, and 3 made appointments during or shortly after their interviews.

On the basis of the presentation by the panel of users at a faculty meeting, conversations with colleagues who were users, and widely disseminated Research Center advertisements for available services, all of the non-users or low users described very specific types of assistance that they could use. Even though she had only accessed center services once, one low user said, “The Research Center is what will make me happy to stay here. It represents something we didn’t have before—a scholarly focus. Now that it’s here, I don’t want to lose it.” Thus, the goal of familiarizing faculty with center services was accomplished even with non-users and low users, suggesting that their usage of services may increase in the future.

The Future: Increasing Research Productivity and Quality

We expect, given publication cycles, that by the 2004-2005 academic year we should be able to report increases attributable to the engagement of faculty in the center. By then, we also should be able to discuss issues of publication quality. In the meantime, we are relying on faculty perceptions about how they think the center is affecting productivity. Below, we provide brief case histories of 3 faculty, all of whom were steady users of the center in its initial year. For each interviewee, we report usage and satisfaction as well as perceptions of how the center has increased productivity as a researcher.

Case #1. This Assistant Professor is on track for seeking tenure and promotion in two years. She was the highest user of Research Center services during the 2002-2003 academic year, having accessed services 24 times. These contacts included many consultations with Research Associates, as well as six literature searches, several manuscript editings, and one travel award. When asked what scholarly products she attributed to the assistance she received

in the center, she reported that consultations on research methodology helped her design several research studies. She also spoke about three manuscripts that were edited by center staff: Two had been accepted subsequently for publication in refereed journals, and one was still under review. The literature searches produced information that helped her write the three manuscripts as well as one other paper then in development. Further, she spoke of the impact of the center on her own work and on the culture of the SOE:

I've used the center from beginning to end. It's helpful to have people who are experienced and understand different methodologies available to discuss ideas. They help you change directions or keep you on a straight path. In terms of the other services, the literature searches saved me an incredible amount of time. The manuscript editing helps get papers published faster. The Research Center promotes collegiality and collaborative efforts. The Research Associates helped me and my colleagues see how we could blend the quantitative and the qualitative components of our study which brought a new perspective to our data. I can come to the Research Center regardless of where I am in the process and get help *with each piece*. There are people there for every part—very “full service.”

Case #2. This tenured Associate Professor had been at CU-Denver for 10 years. She used Research Center services eight times during the academic year—including four consultations with Research Associates, one literature search, one manuscript editing, one NVivo coding of qualitative data, and one travel award. She commented on the impact the center had for her when she said,

The research center has been extremely helpful to me in the past semester. I received marvelous assistance from you in terms of having my qualitative data typed, entered into NVivo and the keywords/codes developed. I also got the printouts of the codes that helped me organize the results. Then, I got some help with possible outlets for my work, a lit review on women in male-dominated careers, and editing of my manuscript. As a

result, I was able to submit two manuscripts in one semester—a real plus for my productivity this year. In addition, I received several consultations from [one particular Research Associate] for current and future projects. In fact, right now, I have more than I can possibly produce in the next year already developed. The research center has provided specific and technical help and the appointments have kept me on track with getting the writing done. Kudos to everyone involved!

Case #3. This untenured Assistant Professor was a fairly heavy user of Research Center services. He used its services 15 times, including seven consultations with Research Associates, two literature searches, four manuscript editings, and two workshops. He commented on the impact of the center on his research:

My productivity has increased dramatically with one manuscript accepted and four submittals thus far in 2003. I'm around people who are cranking manuscripts out. The environment promotes and congratulates/acknowledges each step of accomplishment. Qualitatively, the relationships forged at the center and the camaraderie has made my work at the center enjoyable rather than arduous.

Lessons Learned

Establishing the School of Education Research Center was one task. Making it attractive and useful to faculty is altogether a different task. While finding space and staff required some planning and careful interviewing, the real work began once we had the resources in place. In the following sections, we try to summarize “lessons learned” that might be useful to others thinking about establishing similar support for faculty research.

Marketing

Ensuring that the center could attract and serve faculty of different ranks and experiences was challenging. Senior faculty who could not find time to do research and publish required a different sort of courting than junior faculty who were eager for help. Some of our initial marketing activities produced few participants. An open house advertised widely within the

School was very lightly attended. On the other hand, workshops focusing on uses of a qualitative data analysis software package were well attended. While we worried whether faculty would resist making appointments with Research Associates through the Research Center Coordinator, an active doctoral student, we discovered that it was easier for most faculty to ask for help through the coordinator than to solicit assistance directly from a Research Associate. Faculty who came to the center early in the process found services that worked for them and became repeat customers. Early users spread the word and encouraged other faculty to participate. In addition, weekly e-mail reminders to faculty about the services and upcoming workshops sought to keep the interest level high. Most importantly, the Research Associates and the Research Coordinator made time to talk individually with faculty in the halls, before and after meetings, and in informal conversations to encourage faculty to explore the center's services. Such interactions increased the number of faculty users and the frequency of their repeated usage.

Lessons learned. Expect to explore and adjust marketing techniques to get the broadest participation among faculty. Collect data and evaluate services to aid decisions about changes.

Changes in Services

Faculty almost always initiated their use of the Research Center by requesting technical assistance with data entry and analysis. They assumed that their research design and hypotheses were clearly defined and operationalized. Instead, the Research Associates discovered that research designs often had been hastily or loosely conceptualized and, as a result, that data collected were incomplete or loosely connected to research questions. Consequently, papers often fell short of expectations and were submitted to less prestigious journals. Thus, faculty increasingly were encouraged to begin their research process by discussing and refining their design and questions with Research Associates. Over time, faculty became more comfortable with conceptual and design discussions, launching literature searches, preparing manuscripts for

editing and reference checking, and working with center staff to code transcripts after initial categories were assigned and inter-rater reliability established.

Lessons learned. Expect the nature, frequency, and type of technical assistance to change as needs are identified clearly. Be prepared to address such changes to ensure the credibility of the center.

Frequent Meetings

Because the Research Associates also were charting their way in unfamiliar territory, our commitment to one-hour meetings every Friday helped clarify and solidify our strategies, build and bolster our shared assessment of progress, and increase our confidence in our individual consulting with faculty. Further, we frequently reviewed the number and type of faculty visits as well as the way that our research assistants allocated their time. This allowed us to make formative evaluative adjustments in marketing, consultation, workshops, and support services. Such attention to process benefited our growth as consultants and improved the quality of services provided by the center.

Lessons learned. Schedule weekly meetings among Research Associates and the Research Center Coordinator. Stick to the schedule.

Robust Literature Searches

Teaching our Research Center staff to complete thorough literature reviews initially required a two- or three-tiered process. After a first pass at the journal databases, faculty were asked to review the abstracts and, based on the quality of what was retrieved, refine keywords for the search, thus helping research assistants to search more effectively for appropriate references.

Lessons learned. Doing literature searches in stages, and having faculty respond to an initial search, ensures that searches identify the resources needed.

Editing

Faculty often struggle with editing their own manuscripts, perhaps because of limited training as graduate students and little or variable feedback early in their careers. Regardless,

effective editing is complex and requires skilled staff who understand how to write for professional publications, use the academic styles like APA, and catch most grammar and spelling errors. With strong editorial support and clear feedback, some faculty reported feeling that their writing skills had improved.

Lessons learned. Draw on the skills of an excellent editor on the staff, or employ a strong editor who is readily and continuously available.

Software Workshops

Because many faculty use only the basic functions of their word processing software, they need assistance to expand their use to include advanced features and research software. For instance, we offered technical assistance with Endnote (Thomson ISI Researchsoft, 2002), NVivo, and SPSS. In spite of their increasingly user-friendly interfaces, many faculty needed instruction to develop or maintain their skills. Further, once they learned the basics or polished rusty skills, they needed software installed on their own computers to practice and become power users.

Lessons learned. Data analysis often leads to the recognition that general or indepth support is required. Patterns of need often lead to specific software training or data analysis workshops.

Spotty Workshop Attendance

While we have schoolwide expectations that every Friday is a “research day” and therefore hold all of our consultations and center meetings on Fridays, we learned that faculty are not always available on specific days. Thus, in spite of advance advertising, a few faculty always missed any workshop. No matter when a workshop is scheduled, some faculty will want to attend but be unable to do so.

Lessons learned. Technology such as Tegrity (<http://www.tegrity.com/products.php>) should be used to record the workshops offered and put them on the Web. Then, faculty can access them at their convenience to acquire the basics or refine prior learning.

Human Subjects Review

In theory, all faculty know that they should obtain human subjects approval before embarking on data collection. In reality, faculty forget to plan for or omit this step in the research process. As a result, few faculty had collected data that had been approved through the university's human subjects review process. This jeopardized their time lines for publication and caused friction, stress, and anxiety.

Lessons learned. Make sure that faculty know about and follow university review protocols during consultations rather than assuming that they have done so. Run workshops on review processes to inform faculty about basic requirements.

Grant Writing

We began the first year assuming that faculty would write more grants if they had access to timely RFPs, workshops on grant writing, and support for building budgets. Even with these supports, many faculty needed to learn how to read RFPs, shape a portion of their own research agenda to attract grantors, and build the research rationale and design as well as strong plans of operation. Although grant writing frameworks can be introduced in workshops, grant writers need individual mentoring to thrive in grant competitions.

Lesson learned. Knowing about the availability of grants is a good first step, but faculty require extensive support to be successful.

Future Directions

Our first year in operation clearly shows that focused attention on faculty research works. During the first year, the center had high levels of traffic, and many faculty completed manuscripts. Data on publications in upcoming years and trends over time will be tracked to clarify the center's impact. Starting the Research Center to support faculty research suggests that other schools or campuses seeking to increase faculty productivity systematically might profit from our experiences.

In the future, the Research Center will need to become a catalyst for the development of successful grant applications and other funding proposals that can increase resources for SOE faculty to pursue its mission: *providing leadership for learning to support diverse individuals, communities, and organizations*. We have established an Advisory Board comprised of faculty from the SOE as well as other colleges and universities to evaluate our services and help spur our creativity and determine additional services that we can offer faculty. Further, we want to engage more graduate students and involve post-docs in the Research Center to nurture and sustain increased faculty research productivity. A compelling question remains: Will early gains in productivity heighten aspirations of faculty throughout school? The next few years will tell.

References

- Basile, C., & Rhodes, L. (2003). Teacher education and accountability: Becoming performance based. *Policy and Practice in Education, 16*(1), 1-14.
- Boyle, P., & Boice, B. (1998). Systematic mentoring for new faculty teachers and graduate teaching assistants. *Innovative Higher Education, 22*, 157-179.
- Brown, R. B., & McCartney, S. (1998). The link between research and teaching: Its purpose and implications. *Innovations in Education and Training International, 35*, 117-129.
- Cabell, D. W. E., & English, D. L. (Eds.). (2002). *Cabell's dictionary of publishing opportunities in education* (6th ed.). Beaumont, TX: Cabell's.
- Camblin, L. D., & Steger, J. A. (2000). Rethinking faculty development. *Higher Education, 39*, 1-18.
- Follo, E. J., Gibson, S. L., & Eckart, J. A. (1995). Creating peer support groups to achieve tenure and promotion: One institution's successful STARS and WRITE programs. *CUPA Journal, 46*, 15-20.
- Fraser, D. (1999). *QSR NUD*IST Vivo reference guide* (2nd ed.). Melbourne, Australia: Qualitative Solutions and Research.
- Ginsberg, R., & Rhodes, L.K. (2003). University faculty in partner schools. *Journal of Teacher Education, 53*(6), pp. 150-162.
- Goodwin, L. D. (2004). A synergistic approach to faculty mentoring. *Journal of Faculty Development, 19*, 143-150.
- Gottlieb, E., & Bruce, K. (1997). The academic research-teaching nexus in eight advanced-industrialized countries. *Higher Education, 34*, 397-420.
- Jackson, W. K., & Simpson, R. D. (1994). Mentoring new faculty for teaching and research. In M. A. Wunsch (Ed.), *Mentoring revisited: Making an impact on individuals and institutions* (pp. 65-72). San Francisco: Jossey-Bass.

- Kinnucan-Welsch, K., Seery, M. E., Adams, S. M., Bowman, C. L., Joseph, L. M., & Davis, W. (2000). Write(ing)(ers') support group: Stories of facing "publish or perish." *Teacher Education Quarterly*, 27, 105-118.
- Knaub, P. K., Lee, C. L., & Meredith, W. (1995). Prolific family scholars: Environmental factors contributing to their productivity. *Journal of Family and Consumer Sciences*, 87, 3-14.
- Kozleski, E. B., Gamm, S., & Radner, B. (2003). Looking for answers in all the right places: Urban schools and universities solve the dilemma of teacher preparation together. *Journal of Special Education Administration*, 16, 41-51.
- Leslie, D. W. (2002). Resolving the debate. *Journal of Higher Education*, 73, 49-73.
- Marsh, H. W., & Hattie, J. (2002). The relation between research productivity and teaching effectiveness. *Journal of Higher Education*, 73, 603-641.
- Middaugh, M. F. (2001). *Understanding faculty productivity: Standards and benchmarks for colleges and universities*. San Francisco: Jossey-Bass.
- Mullen, C. A. (2000). New directions for mentoring: Remaking the school-university culture. *Action in Teacher Education*, 22, 112-124.
- Perma, F. M., Lerner, B. S., & Yura, M. T. (1995). Mentoring and career development among university faculty. *Journal of Education*, 177, 31-45.
- Rhodes, L. K., & Bellamy, T. (1999). Choices and consequences in the reform of teacher education. *Journal of Teacher Education*, 50, 17-26.
- Richards, L. (1999). *Using NVivo in qualitative research* (2nd ed.). Melbourne, Australia: Qualitative Solutions and Research.
- School of Education Annual Report. (2002). Denver: University of Colorado School of Education.
- Sharobeam, M. H., & Howard, K. (2002). Teaching demands versus research productivity. *Journal of College Science Teaching*, 31, 436-441.

Statistical Package for Social Sciences. (1999a). *Base 10.0 applications guide*. Chicago: Author.

Statistical Package for Social Sciences. (1999b). *Base 10.0 user's guide*. Chicago: Author.

Tegrity (2004). Retrieved October 11, 2004, from <http://www.tegrity.com/products.php>

Thomson ISI Researchsoft (2002). *Endnote* (Version 6.0) [Computer software]. Carlsbad, CA:
Author.

Zoomerang (2004). Retrieved October 11, 2004, from <http://www.zoomerang.com>

Table 1

Focus Group Questions for Faculty

Question Focus	Prompt
Personal Productivity	Think about situations and time frames in which you have been productive. What was going on that contributed to that productivity?
Personal Aspirations	What kind of a research record would be satisfying to you?
Features of Research Support	If you were an external evaluator visiting several research institutions, what features of research support would you look for?
Research Particulars	What constitute your top 10 features? How would you rank them?
SOE/UCD's Record	Are there any of these features that the SOE or UCD provides?

Table 2

Number, Percentage of Times Research Center Services Used by SOE Faculty, 2002-2003

Type of Service	n	% ^a
Consultation with Research Associates	91	41.00
Literature Search	44	19.82
Editing & Manuscript Preparation	34	15.32
Data Transcription, Instruction, & Entry	29	13.06
Workshop	18	8.11
Funding for Conference Presentation	3	1.35
Miscellaneous	3	1.35
Total	222	100

Note. The number of faculty members who used at least one service was 42. Some services were used by more than one faculty member as faculty often appeared in teams.

^a Percentage of total number of services used.