Case Study

Off the Launching Pad: Stimulating Proposal Development by Junior Faculty

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Abstract

With pressure mounting to increase extramural funding, new faculty become increasingly important to the overall effort, as this group has the greatest potential to add to the university’s future crop of award winners. Ominously, evidence shows that those who fail to establish effective habits of research and writing early in their careers probably never will. The challenge new faculty present to research administration can be simply put: What is the best means to get them started on their research careers? This paper describes an approach led by the grants office that uses specially designed workshops to demystify sponsored research, build collegiality among new faculty and their more experienced colleagues, and stimulate greater participation in selected grant programs.

The Challenge

For research administrators, encouraging more proposal submissions is a constant challenge, and it is largely a game of numbers: The more proposals a given faculty member writes, the more likely s/he will find success. The higher the percentage of faculty who are actively developing proposals, the greater the growth in the university’s research budget. Published data tracking the level of faculty activity in grant writing are scarce, but at many universities there is plenty of room for growth. A 1992 study of eight state colleges in New Jersey showed only 20% of the faculty were actively engaged in sponsored research that year (Monahan, 1993). At Virginia Tech, less than 50% of the combined research and teaching faculty submitted proposals in 2003, not a comforting ratio for a research university with ambitions to rise in the national rankings.

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In pursuing the goal of getting more faculty to generate more proposals, grants specialists are bound to trigger some degree of resistance, as inactive faculty definitely have their reasons for not writing grants (Miner et al., 2003). New faculty are a special challenge. Fresh out of graduate school and landing their first teaching positions, newcomers can be overwhelmed by their dual responsibilities to teach and publish. It has long been recognized that the first years of teaching are highly stressful for new faculty, and that the pressing demands of preparing new classes, advising and supervising students, all while adjusting to an entirely new environment at work and at home, are among the reasons that many put research and scholarship on a back burner (Gibson, 1992). Focused on developing new course materials and building their bibliographies, and feeling as though they've been plunged into a sink-or-swim environment, many are chagrined to learn their employer has yet a third daunting expectation: sponsored research. Even those in the science and engineering disciplines who made their way through graduate school as research assistants can often display only a dim awareness of how the money to pay their tuition and stipends was obtained. Finally, as Freedman et al. noted more than two decades ago, research and scholarly activities are harshly competitive, resulting in a faculty culture that is a “fairly grim affair, and is becoming increasingly so” (1979). The danger here is that those who fail to establish effective habits of research and writing early in their careers probably never will (Creswell, 1985).

**Building on Recognized Needs**

Strategies to activate junior faculty in grant writing can build on findings from several major studies. First, these are early career professionals whose dominant concerns are advancement and promotion, and this can be an exciting period in their work lives as they strive to carve out an area of specialization, move up professionally, and make a name (Baldwin, 1990). Second, this group recognizes its own need for training. A survey of academics asked respondents what they believed would best develop young faculty members. Seventy-nine per cent of junior faculty participating in the survey identified training as a priority need (Jarvis, 1991). Third, a considerable body of research supports the contention that collegiality is the most important single factor in faculty development. Sadly, participation in a supportive community of scholars, what the historian Page Smith has called “the pursuit of truth among friends,” appears to be in short supply on many campuses, a deficit that junior faculty have identified as a significant barrier to their development (Jarvis, 1991; Smith, 1990; Turner & Boice, 1987). Taken together, this research suggests that to be successful a coordinated program to enhance proposal development should immerse new faculty in a series of workshops that feature interactions with senior faculty role models. Why workshops, as opposed to other modes of instruction? Briefly, it has to do with a workshop's superior capabilities to provide learning opportunities in several domains at once—knowledge, skills, and attitudes. Properly designed, an interactive workshop combines the immediacy of problem-centered instruction with opportunities for reflection, analysis and discussion (UNESCO, 1985).

**Junior Faculty Workshops: Principles of Design**

In the spring of 2001, the grants office at Virginia Tech adopted the philosophy that a single new faculty workshop scheduled only occasionally or once a year is insufficient. On the theory that information intended to change mindsets and work habits has to be conveyed repeatedly, we decided to launch a sequential series of workshops scheduled throughout the year. Given the general intent to create such a series, we settled on four design principles:

**1. Celebrate success**
To combat the strong cultural impediments to grant writing, it is critical to instill more positive attitudes and create higher expectations for success. Success stories from more experienced faculty, especially those who are just a step or two ahead of the novices in their career development, can have a powerful effect.
2. Expand horizons
Narrow and biased views toward sponsored research can be expanded by emphasizing the multiple advantages of external funding. Professor Dan Inman (2000), a consistently successful grant writer at Virginia Tech, presents a persuasive case: There are several good reasons to seek funding for your work. The first is the practical one that if you are successful you greatly enhance your chances of tenure and promotion. The second reason is that you can use your funding to greatly increase your academic freedom. Having funds can allow you to recruit the best students, work with the best computers and software, travel to the most important conferences, afford page charges in the best journals, buy the best equipment, secure timely secretarial services, maximize the time you can devote to research (buy out courses) and in general have the freedom to do many more things than can be done on a typical university faculty member’s budget. You can also secure funds to pay your summer salary and hence increase your annual salary up to 33%. (Ch. 3, p. 1)

3. Clear up the mysteries
Grant writing can seem an arcane talent to many who are new to the enterprise. To demystify the process, workshops should focus on a small number of basic writing tips, most of which stress simplicity, clarity and a preference for plain English over dense academic prose. Examples of successful writing should be freely distributed, including entire copies of winning grants.

4. Focus on reviewer(s)
As the keys to the kingdom of funded research lie in the inner workings and hidden mechanisms of review panels, the human dynamics of the grant review process should be featured in every program: How do review panels operate? What are reviewers looking for? What do they like? What annoys them? Informal presentations by experienced panelists are the best means to convey useful answers to these questions.

5. Parse the directions
Since failure to do so is one of the documented reasons for early proposal rejection, workshops should stress key steps (and missteps) in proposal preparation for specific agencies.

A Sequential Series
Following an introductory session aimed at instilling positive attitudes and identifying support services (Your Research Career: Getting Started), Virginia Tech implemented skill development workshops (Writing Successful Grants, Finding Funding), then targeted specific programs and sponsors (NSF CAREER Award, Building the NIH Grant). Though the programs were designed with junior faculty in mind, registration was open, and we were pleased to note significant attendance by senior faculty. The table to the right lists the programs, their objectives, and summaries of their formats.

Enlisting Experienced Faculty
Wherever possible, we have enlisted experienced, grant-savvy faculty as featured workshop presenters and panelists. The intention is to present them as positive role models and potential mentors, willing to take time to share their insights and demystify the entire process. Thankfully, most have been quite willing to participate, and their presentations, as well as the lively Q&A sessions that follow, are invariably the highpoints of any given workshop. While we don’t say so explicitly, this is a singularly powerful way to build collegiality and strengthen the research culture of the university. For example, in designing the “Getting Started” workshop, we went to our list of “heavy hitters,” those faculty who consistently land major awards year after year. (At Virginia Tech, 20% of the faculty generate 80% of sponsored research dollars.) The format consisted of a general introduction to grant writing, then a description of services provided by the sponsored research office, followed by a senior faculty presentation entitled “Secrets of My Big Fat Research Career,” scheduled last because we knew none of us could follow that act!

In another example, we enlisted three previous winners of the NSF CAREER Award
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<thead>
<tr>
<th>Workshop Title</th>
<th>Purpose</th>
<th>Format</th>
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<tbody>
<tr>
<td>I. Setting the Stage</td>
<td>Install positive attitudes toward sponsored research; enhance awareness of support services</td>
<td>Presentations by grants specialist, sponsored research officer and senior faculty with outstanding records in sponsor awards</td>
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<td>Your Research Career: Getting Started</td>
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<tr>
<td>II. Skill Development</td>
<td>Develop basic writing skills; avoid common proposal pitfalls</td>
<td>Lecture and discussion; evaluate examples from successful and unsuccessful proposals</td>
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<td>Writing Successful Grants</td>
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<td>Finding Funding</td>
<td>Use searchable databases (Community of Science, Foundation Center) to identify potential sponsors</td>
<td>Computer lab with online terminals; instructor demonstration followed by participant practice sessions</td>
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<td>III. Program Specific</td>
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<tr>
<td>Virginia Tech ASPIRES Program</td>
<td>Clarify purpose of internal grant program, review application procedures</td>
<td>Presentations by program officers; panel discussion by recent award winners</td>
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<tr>
<td>NSF CAREER Award</td>
<td>Clarify program purpose, proposal review criteria and critical success factors</td>
<td>Review program announcements, distribute copies of successful proposals; presentations by recent award winners</td>
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<tr>
<td>IV. Agency Specific</td>
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<td>Building the NIH Grant</td>
<td>Clarify NIH mission; application guidelines and review procedures</td>
<td>Review NIH application kit, examine excerpts from successful proposals; presentations by successful NIH grantees</td>
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<td>NIH Mock Panel Review</td>
<td>Demonstrate working process of an NIH “panel”</td>
<td>Senior faculty with NIH review experience evaluate proposal abstracts submitted by participants</td>
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To discuss proposal writing strategies that led to their success, all of whom were just a year or two ahead of workshop attendees in their academic careers. The NIH Mock Panel Review was especially effective in stimulating energetic dialogue between junior and senior faculty, as several buzz groups remained after the workshop. Building on this model, we plan to introduce mock review panels for NSF and USDA during the 2003/4 academic year.

**Feedback and Outcomes**

Workshop evaluations have been uniformly positive, and average ratings on a five point scale have been running from 4.3 to 4.6, with 4 meaning “good” and 5 “outstanding.” Written comments show that presentations by senior faculty and previous grant winners are by far the most popular, and complete paper copies of successful grants, including all required forms, are widely appreciated. While data to track the actual impact of these workshops are hard to come by, we are gratified by two trends: (a) In two years, funding searches on the Community of Science database more than doubled, jumping from 26,600 in 2001 to nearly 55,000 in 2003, (b) for NSF’s CAREER Award program, proposals submitted increased from 9 in 2000 to 23 in 2002, and awards went from 4 to 7 over that same period, a majority of the authors of which attended the workshops. Since these are five year awards averaging more than $125,000 per year, they lend a substantial boost to young academic careers.

**A Matter of Timing**

When introducing the sponsored research office and the workshop schedule, forget about orientation. New faculty orientation at the start of the fall semester is the worst possible time to talk about sponsored research. Any presentation by the grants office is likely to be drowned in the deluge of information being dumped on the hapless newbies by earnest speakers pitching everything from retirement plans to football tickets. Much better time slots are the weeks...
between mid-semester and finals, or the week just prior to the start of the next term, when new faculty have enough breathing room to focus properly on the third leg of their academic careers. Program-specific workshops should be scheduled four to six months ahead of the submission deadline.

**Conclusions**

A series of sequential workshops targeted to younger faculty can be powerful tools in enhancing the university's research culture. High levels of attendance, combined with very positive written and oral feedback, are encouraging indicators that junior faculty appreciate these developmental experiences. Additionally, the active participation of senior faculty is evidence of their sincere interest in mentoring younger colleagues, even those from other disciplines. Finally, these events offer repeated opportunities for research administration to present itself in a helping role, serving as a catalyst for collegiality as well as a supplier of ongoing support services.
References


