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Tiffany J. Davis

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Undergraduate Research Experiences: An Opportunity for Academic and Student Affairs Collaboration

Tiffany J. Davis, Ph.D.

Participation in high-impact educational activities produces high levels of achievement of desirable educational outcomes across domains including intellectual and practical skills, personal and social responsibility, and integrative and applied learning (Kuh, 2008). The student co-curricular experience has traditionally been viewed as the ‘laboratory’ for this type of affective and psychosocial development, with student affairs professionals serving as guides and mentors. This article includes some ideas, grounded both in current literature and my professional experience, for how student affairs professionals can begin to create meaningful collaborations with academic affairs.

As the population of students entering higher education has become increasingly diverse, colleges and universities have sought ways to intentionally design and create opportunities that will engage *all* students in ways that impact development, persistence, and graduation. Thus, research on high-impact educational practices (Kuh, 2008) has garnered the attention of higher education professionals. High-impact educational practices include learning communities, writing intensive courses, undergraduate research, first year seminars and experiences, service learning, internships, diversity/global experiences, collaborative learning, common intellectual experiences, and capstone seminars and projects (Kuh, 2008). The distinguishing characteristics of high-impact activities typically include the demand for students to devote significant time and effort to educationally purposeful tasks, the demand for students to interact with faculty and peers in academically meaningful ways over an extended time, and the increase in likelihood that students experience diversity as a result of interactions with diverse peers and perspectives (Kuh, 2008). Participation in high-impact educational activities produces high levels of achievement of desirable educational outcome across domains including intellectual and practical skills, personal and social responsibility, and integrative and applied learning (Kuh, 2008). Furthermore, Kuh (2008) noted results of participation are more striking for historically underserved populations in higher education, precisely the groups gaining more access to higher education.

One particular trend has been the growth and expansion of undergraduate research programs because of the espoused benefits for all students and for the institution including student engagement, research productivity, and grant dollars awarded.

Tiffany J. Davis, Ph.D., Teaching Assistant Professor and Higher Education Master's Program Coordinator, Department of Leadership, Policy and Adult and Higher Education, North Carolina State University

In fact, schools accredited through the Southern Association of Colleges and Schools Commission on Colleges (SACS) have often prioritized student-faculty research as an aspect of their Quality Enhancement Plans (QEPs) as a part of the reaffirmation process. The growing body of literature around undergraduate research has shown students who participate in research experiences demonstrate advanced critical thinking skills, reflexive judgment, and problem-solving skills (Hu, Scheuch, Schwartz, Gayles, & Li, 2008), which are consistent with the intended learning and engagement outcomes of the QEP.

However, the field of student affairs has re-conceptualized the definition of learning since the National Association of Student Personnel Administrators (NASPA) and American College Personnel Association's (ACPA) joint statement *Learning Reconsidered* (Keeling, 2004). Student learning is "a comprehensive, holistic, transformative activity that integrates academic learning and student development, processes that have often been considered separate, and even independent of each other" (Keeling, 2004, p. 3). In fact, some research has found that psychosocial development is inextricably bound to optimal functioning within the collegiate environment, i.e. academic performance, academic motivation, and college satisfaction (Faye & Sharpe, 2008). Oftentimes, the term *personal development* is used interchangeably with *psychosocial development* to denote constructs that are outside the cognitive and intellectual domain including affective traits, values, and identity development. The student co-curricular experience has traditionally been viewed as the 'laboratory' for this type of affective and psychosocial development, with student affairs professionals serving as guides and mentors.

Thus, the question should be raised, why has undergraduate research remained primarily associated with academic affairs when there is such promise and potential for collaboration with student affairs? Perhaps the history of the profession in dichotomizing the cognitive and affective

domains of student learning is a possible explanation for the minimal collaboration and partnership. The purpose of this article is to share some ideas, grounded both in current literature and my professional experience, for how student affairs professionals can begin to create meaningful collaborations with academic affairs.

Prior to becoming a faculty member, I directed a Ronald E. McNair Post-Baccalaureate Achievement Program, more commonly known as the McNair Scholars Program. The McNair Program is a U.S. Department of Education-funded TRiO program designed for first generation, low-income students or students who are from a racial/ethnic group underrepresented at the doctoral level (e.g., African American, Latino American, or Native American). The program encourages students to pursue graduate studies by providing opportunities to engage in undergraduate research experiences and develop the skills and student/faculty mentor relationships critical to success at the doctoral level. As an administrator, I quickly realized that my position was different than that of most other directors, not only McNair programs, but also general undergraduate research programs---I was a student affairs professional, not an academic. The theoretical foundations, values, and expertise of my student affairs education and training strongly influenced how I served as the administrator of the McNair Program and contributed to the holistic development and success of the program's participants. Thus, I am convinced that undergraduate research experiences, more broadly, could benefit from the collaboration of student affairs and academic affairs professionals to create a seamless environment for students. While I will include a brief review of the rise of undergraduate research in today's colleges and universities to provide a context for its role, the focus will be on specific avenues that could be established or enhanced between student affairs functional areas and academic affairs.

The Rise of Undergraduate Research

Undergraduate research and creative inquiry as a pedagogy and institutional practice is not groundbreaking within higher education. In fact, research universities have a longstanding history of engaging undergraduates in research and scholarship (Katkin, 2003). National associations have even existed for many decades and coordinated such efforts, e.g., the Council for Undergraduate Research (CUR) was formed in 1978 and the National Science Foundation (NSF) created its Research Experiences for Undergraduates (REU) Program by the mid-1980s (Merkel, 2003). Research experiences historically situated in disparate departments, and labs across an institution have now expanded to become institutionally endorsed and campus-wide comprehensive undergraduate research programs. The literature points to the release of the Boyer Commission on Educating Undergraduates in the Research University (1998) report, *Reinventing Undergraduate Education: A Blueprint for America's Research University*, as the catalyst that stimulated interest in strengthening and broadening participation surrounding undergraduate research (Hu, Kuh, & Gayles, 2007; Katkin, 2003; Kinkead, 2003; Merkel, 2003).

The Boyer Commission Report (1998), as it is commonly referred, is the result of a collaborative work group funded by the Carnegie Foundation in 1995 to examine the state of undergraduate education at research universities. This report was “driven by the conviction that research universities are uniquely positioned to offer an undergraduate education that takes advantage of the immense resources of their research and graduate programs” (Katkin, 2003, p. 24). However, the Commission criticized research universities for its lack of integrated student learning (Boyer Commission, 1998) and failing to demonstrate significant progress or success in reinvigorating undergraduate education (Merkel, 2003). The Boyer Commission Report thus explicated ten recommendations for ways of changing undergraduate education in an effort to

engender debate about the status of undergraduate education in hopes of leading to institutional reform. One of the key recommendations was research universities should make research-based learning the standard (Boyer Commission, 1998). This recommendation implies that institutions should be engaging undergraduates in a research experience or a creative endeavor to assist in the development of skills such as collaboration, creative problem solving, critical thinking, and communication (Kinkead, 2003).

Partnerships Between Academic and Student Affairs

The broad definition of undergraduate research includes “scientific inquiry, creative inquiry, and scholarship” (Kinkead, 2003, p. 6) across a wide-ranging spectrum of academic disciplines; “an undergraduate research project might result in a musical composition, a work of art, an agricultural field experiment, or an analysis of historical documents” (p. 6). Consequently, there are myriad connections that can be made for partnership and involvement by student affairs functional units due to the diversity of our services and programs. What I offer are some areas of connection that can produce mutually beneficial collaborations for academic and student affairs departments while enhancing the undergraduate research culture and experience for students.

Multicultural Student Affairs

Even with the intentional culture that has been nurtured around undergraduate research at many institutions, participation by students of color continues to lag. Frierson and Zulli (2002) generated three sub-themes for non-participation through interviews with minority students: “lack of awareness about available research opportunities, a feeling of intimidation about approaching professors and other individuals to inquire actively about available research experiences, and the fact that the students’ lack of exposure to research lead them to have negative preconceptions about research itself” (p. 125). Campus culture centers and multicultural

affairs offices often serve as affirming spaces for students of color while promoting connection and networking between faculty, staff, and students (Patton, 2006). Therefore, multicultural affairs professionals can serve as effective gatekeepers for faculty members searching for promising undergraduates to work in research labs, engage in research teams, or be mentored through independent research experiences. Multicultural staff members can also equip students with the skills and confidence to successfully negotiate faculty-student interactions through the mentoring relationships that are typically developed between professionals and students both in one-on-one situations as well as organizational involvement through these departments. Moreover, culture centers are increasingly integrating academic initiatives, such as lecture series and workshops, which could serve as an excellent outlet for faculty members and student researchers to not only showcase their research, but also demystify the experience for undergraduate students.

Career Services

Heightened graduate school aspirations and positive impacts on future career choice are consistently touted as outcomes of participation in student-faculty research (Hu, Kuh, & Li, 2008; Kinkead, 2003). In fact, some organized undergraduate research programs, such as the McNair Scholars Program and Louis Stokes Alliance for Minority Participation (LSAMP), are specifically focused on increasing the diversity pipeline to the professoriate and other professional graduate programs. Thus, undergraduate researchers need access to resources and information that can effectively prepare them for the graduate school search in ways that leverage their research experience. Connections with career advisors who can provide guidance on graduate school planning; internship opportunities, resume critiques, and interviewing skills

would be a welcomed collaboration with faculty mentors and institutionalized research programs.

For students who may choose to enter the workplace following graduation, it would be helpful to have advisors who can help them clearly articulate the gains they have received from the undergraduate research experience, from the intellectual-cognitive to the personal-social. In fact, student affairs staff members are well-positioned to promote a holistic reflection of the research experience. Staff members should ask students to consider how it has contributed to more affective outcomes such as self-understanding and efficacy, working effectively with others, and leadership development – skills and competencies that are marketable and desirable for both the global workplace and graduate school.

As undergraduate researchers often work in silos within the university, career services professionals are encouraged to consider enacting these recommendations through intentional outreach and marketing efforts to academic disciplines, departments, and colleges. Faculty members often serve in this de facto career advisory role for individual students; however, there is promising opportunity for the vast resources, information, and expertise that career services professionals can provide to holistically support undergraduate researchers.

Residence Life and Housing

A keystone of the residential model lies in the knowledge that peer influence plays a significant role in student learning and development during the college years (Pascarella & Terenzini, 2005) and living-learning communities (LLCs) serve as exemplars for spaces where positive peer influence is realized. Students have the opportunity to live with those who share similar academic interests, in this case participation in scholarly and creative activities/research. Offering a community for students who can not only understand the time commitment,

discipline, and rigor associated with participating in undergraduate research, but who can also support the academic habits that will allow one to be successful could only strengthen the culture around undergraduate research.

Furthermore, with a history of collaboration with academic affairs, LLCs often provide students with opportunities to engage with faculty outside of the classroom and increased interactions with diverse peers (Inkelas & Weisman, 2003). It is not uncommon for university honors programs to have such communities. However, not every student who participates in research may be an honors student. Therefore, residence life and housing professionals should consider how undergraduate researchers may find support and community among like-minded peers through the creation of a themed community.

Student Leadership and Service

Offices of student leadership and service frequently serve as clearinghouses on campuses to connect all students to co-curricular organizational involvement, civic engagement projects, and leadership development opportunities. Although undergraduate research is often initiated within the arena of academic affairs, student researchers could benefit from the resources and programs offered through such offices. As campuses expand their leadership programs to include both leadership certificate programs and academic minors (Dugan & Komives, 2007), student affairs professionals should appeal to an inclusive audience that embraces students who are outside of the 'typical student leader' archetype. Leadership manifests itself in a variety of endeavors, and the undergraduate research experience is no exception. Through the research process, students develop valuable leadership skills such as teamwork, communication, multitasking, and problem-solving. Leadership resources and programming that takes into account student researchers' unique experience (both in time commitment and rigor) would

allow them to see themselves as leaders (in my professional experience, students do not always make this connection) and provide a language to allow students to better articulate their learning and development, whether on graduate school applications or job applications. Collaborative programming by faculty mentors and student affairs staff can personalize services and opportunities available to student researchers and possibly lead to other initiatives such as civic engagement initiatives.

Service-learning efforts, also a high-impact activity, have expanded at many colleges and universities. Service opportunities that connect with issues students may be researching alongside their faculty mentors (e.g., education, health, and sustainability) represent an ideal nexus between the co-curricular and curricular lives of undergraduate student researchers. The critical reflection that accompanies service-learning experiences can assist researchers in making sense of their research experience within a leadership and community-oriented framework, such as the Social Change Model of Leadership (Higher Education Research Institute [HERI], 1996). Collaboration between academic and student affairs for service-learning initiatives frequently occurs on campuses, this recommendation encourages professionals to go further by considering the topics of undergraduate student research projects in the planning and design of potential projects.

First Year Programs

Research participation is not restricted to only upper-class students. For underrepresented racial/ethnic and first-generation students particularly, undergraduate research experiences have been suggested to be effective in helping connect them to the academic community during the critical, first two years of college (Ishiyama, 2002). Therefore, orientation and welcome events offer excellent spaces for information sessions on undergraduate research opportunities and

showcasing research currently being conducted by students. Introducing undergraduate research experiences as an accessible option for student involvement earlier during the college experience might help to close the engagement gaps by piquing the interest of a broader audience of students, especially more academically-focused students from all backgrounds.

Alumni Affairs and Development

The aforementioned recommendations primarily focus on collaborations that have the potential to enhance the campus-based undergraduate student research experience; this suggestion considers undergrad research alumni. Fundraising and development efforts increasingly hinge on affinity-based giving among alumni, which is based on factors such as more student involvement and greater satisfaction with the quality of education they receive (McDearmon & Shirley, 2009). Based on a survey of nearly 1000 alumni at a single institution, Bauer and Bennett (2003) found those who had undergraduate research experience not only reported greater intellectual and personal gains, but also higher satisfaction with their overall undergraduate education when compared to those without research experience. Alumni and development officers could benefit from creating systems that track participation in undergraduate research experiences as these alumni may possess a greater propensity given their connection to the institution and a higher capacity to give, assuming the career-related outcomes that derive from increased graduate school attendance. Undergraduate research alumni may be particularly motivated to give back to the programs, colleges, and departments that supported their research involvement, this includes both academic and student affairs units.

Conclusion and Future Directions

As student affairs professionals, we have read about and reflected on our responsibility to affect student learning and development in collaboration with our academic affairs colleagues

and forge educational partnerships (Blimling and Whitt, 1996), collaborate with academic affairs (ACPA, 1996), and form powerful partnerships (American Association for Higher Education [AAHE], ACPA, & NASPAA, 1998).

Personally, in no other professional experience did I more clearly understand and work toward integrating the intellectual and affective domains for students than in my work with the McNair Program Scholars Program. Existing literature supports my experience by demonstrating that engagement in undergraduate research and creative inquiry has desired impacts on student learning and personal development (Pascarella & Terenzini, 2005).

Undergraduate research experiences stand as a promising opportunity for great collaboration and involvement between academic and student affairs and in this article, I have suggested some connections whereby academic and student affairs staff can collaborate to create, strengthen, and sustain powerful undergraduate research experiences. However, I offer these recommendations with the expectation that both academic and student affairs staff will attend to best practices in enacting these collaborations, such as shared responsibility and a focus on student learning and success (Kuh, Kinzie, Schuh, Whitt & Associates, 2010). I am confident the synergy of student affairs professionals' expertise, time, and resources will prove to be value-added for successful undergraduate research experiences that are being coordinated by our academic affairs and faculty colleagues.

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