

University of Mary Washington: A Successful Departmental Model

Roy Smith

University of Mary Washington

This chapter describes a fully formed and integrated research program in an undergraduate psychology program at a liberal arts institution. The Mary Washington undergraduate research program evolved over 30 years, reaching its current stable form some dozen years ago (Bill, 1995). The program includes several courses, a symposium, and even an institutionalized *road trip* for senior participants. In addition to providing an extra-class introduction to the methods of psychology, the program unifies the department. Despite a large investment of time and resources, the department developed and sustained the program because it provides clear benefits for both faculty and undergraduate majors.

Although Mary Washington recently changed in status from a college to a university, the University of Mary Washington (UMW) Psychology Department remains an exclusively undergraduate enterprise. The size of the undergraduate liberal arts population has grown over three decades from 2,500 to 4,500, and the number of majors in psychology has kept pace, averaging 100 graduates each year over the past five years. Despite this growth, the core curriculum of the department has remained remarkably stable, allowing the steady evolution of our undergraduate research program. This stability, in turn, reflects the coherence of the department faculty and their commitment to teaching undergraduates. A core group of a half dozen or so faculty with tenures exceeding 20 years has maintained a long-standing commitment to developing our undergraduate research program. As we recruit, interview, and hire new faculty, we ask them to buy in to this model.

Structure of the UMW Undergraduate Research Program

The core of the UMW undergraduate research

program is a set of courses in methodology required of all majors. By design, our curriculum emphasizes the methods of psychology. All majors must complete four separate courses related to research methodology that comprise 15 of our 39 required hours. Approximately 30% of our majors take an additional four to six credits of a year-long team research project focused on a specific topic.

Our majors begin with an entry-level course, Psych 261 - Psychological Statistics and Research Methods. This four-credit course is comparable to the single course in statistics offered at many of our peer institutions. A pair of courses follow, which students may take in either order, or simultaneously. Psych 360 - Advanced Statistics - is a three-credit course that builds on the basic course while focusing on classic methods for analyzing the results of true and quasi-experimental studies. The other member of the pair, Psych 362 - Applied Research Methods, focuses on the logic of non-experimental research and the preparation of an APA-style manuscript. Part of this four-credit course is the planning, executing, and reporting of a semester-long research project chosen by students. After completing these three classes, our majors have a solid grounding in statistics, methodology, and manuscript preparation.

For their fourth required course, students may choose one of several subject areas – Sensation and Perception, Cognitive Psychology, Physiological Psychology, Experimental Social Psychology, or Applied Behavioral Analysis – according to their interests. This set of courses shares several features. Each four-credit course includes both a lecture section and a laboratory section. Students, usually in small groups, select a research topic appropriate to the course, designing and running a semester-long research project. As in Applied Research Methods, each team produces an APA-style manuscript reporting its literature search, chosen methodology,

analysis of results, and discussion of the project.

This set of interlocking courses assures that every major will have the information and experience needed to complete an intense research experience if she or he chooses to undertake an independent study. Psychology 491 – Independent Study – is a four to six credit course spread across two semesters. In our model, students typically work in small groups, just as they have in their previous course work. These groups of two to six students meet with an individual faculty member throughout an academic year, designing, executing, and presenting a research project.

The UMW Psychology Department is unusual in devoting such a large part of the major course work to training all majors in research methodology. But the course work is not the entirety of the research program. Mary Washington has, for some time, required all its undergraduates to take at least two courses designated *speaking intensive*. The psychology department strongly supports this requirement, and we offer specific instruction in research presentation as part of the year-long independent study course. In the same way that we prepare students with a series of opportunities for practicing research skills, we provide a series of opportunities to present the results of that research. The major mechanism is a departmental research symposium held each Spring semester.

This symposium is a department-wide event. It is the major service project of our local chapter of Psi Chi, whose members coordinate the call for papers and the organization of presentations. Working with the department's student representatives under the guidance of the chair and the advisors of the Psi Chi chapter, this group of undergraduates also moderates the sessions, organizes breaks, and invites a keynote speaker from outside the department (Liss & McBride, 2004). Groups of students from each level of our methods courses make presentations. Initially students present the results of their projects for the Applied Research Methods course. They then have an opportunity to make a second improved presentation based on the research for their subject-based research course the next year. If students choose to take an independent study course, they present a third paper based on that research. By the time they complete the major, all students will have made formal presentations of their research to their peers and the faculty of the department. Although a substantial fraction of our majors continue to graduate school, only a few end up doing research

and/or teaching for a living. Many more, even most, find themselves making public presentations, benefiting from the experiences of this undergraduate symposium.

Beyond the Department

At about the time that our department laid down the course structure for the current major, our state psychological association significantly revised its structure. The Virginia Psychological Association (VPA) changed its status from a state lobbying arm for the practice directorate of the American Psychological Association to an umbrella organization for all psychologists in the Commonwealth of Virginia. One of the Academies that emerged from this restructuring was the Virginia Academy of Academic Psychologists (VAAP), which represents psychologists teaching in the colleges and universities of the Commonwealth. Members of the Mary Washington Psychology Department were, and continue to be, heavily involved in the academy. We have taken full advantage of VAAP's signature program, an annual research symposium specifically encouraging submissions by upper level undergraduate psychology majors from across the state.

As part of their research experience, those students who undertake a year-long research project agree to present the results of their research at the Spring VPA convention. Of course some students may also make presentations at regional and national conventions, but the VPA presentation is an integral part of our research program. Our independent study teams must submit a proposal early in the Spring semester and make their presentation late in that semester. To make this possible for all students taking independent study, the department underwrites the trip to the convention site, overnight lodging, and meals during the trip. The convention serves as much more than a presentation opportunity. On average, 30 to 40 students travel together to the convention hotel where they mix with their faculty mentors and with each other, supporting each other's presentations and learning from presenters from other schools. Our students see this event as a reward for their hard work during the year, and we encourage this perception. The trip is a memorable capstone experience for this group of graduating seniors.

Lessons Learned

The undergraduate research program at Mary Washington, like those at each of the other institutions reviewed in this book, has its own peculiarities. Our program reflects the culture of the institution, the philosophies of the department members who support the program, and the unique history of the departmental effort. Nonetheless, we have learned some lessons, both practical and philosophical, over the past decades. Perhaps our lessons can be helpful to other departments that might want to begin an undergraduate research program or to upgrade their existing effort. The underlying theme of the lessons we have learned is that a good research program can not be an *add on* to the major or even a *capstone* experience. Federal funding has focused on gathering a few outstanding students from several institutions in extra-curricular programs (e.g., Page & Abramson, 2004). We believe that to extend the benefits of a strong undergraduate research program to more students, a department must commit to the integration of research into the fabric of the major. Full integration can be costly in terms of faculty time and financial resources, but we have learned that the benefits are well worth the commitment. Here, in no particular order, are four lessons we have learned.

An Integrated Program Generates Faculty Commitment

One difficulty in supporting an extensive undergraduate research program is finding ways to motivate faculty. No matter how much we want to provide students with research opportunities, we have many demands on our time and resources. Despite an intellectual commitment to our program, convincing faculty to devote the time and energy semester after semester to provide research opportunities for large numbers of undergraduates, on top of a full teaching load and other service commitments proved difficult. We needed to integrate research fully into the faculty-teaching load as well as into the student curriculum. Integration came in stages. First, we gave faculty a chance to accumulate credits for supervising student research teams. These credits were based on the number of credit hours generated, and faculty could redeem them for a reduced teaching load after banking a sufficient number. Although this system presented

an extra task for the chair who must track credits and fit the resulting course releases into the schedule, the result was what we hoped for. A varying group of faculty was willing to head research teams year after year, combining their efforts to support several dozen students in their research projects. Quite recently, with the support of the administration, we moved to crediting the direction of undergraduate research in real time. If a faculty member directs five or more students in a semester, she or he is allowed a one course reduction in teaching load for that same semester. This *pay as you go* system is so popular that some faculty are arranging the conditions of shorter leaves so that they can maintain their research teams throughout the year.

A Comprehensive Program Generates Funding and Institutional Support

Not surprisingly, supporting a symposium and taking a large group of students to a conference is costly. As a result, our entire undergraduate research program requires a significant portion of our yearly department budget. Promising these activities to our majors required that we find a way to guarantee this funding. Three successive chairs have worked over a 20-year period to generate this support. We have been successful largely because the research program is, in fact, an integral part of our curriculum and represents the logical culmination of our core curriculum in research methodology. After several years of submitting requests for special funding for our Psi Chi Symposium, the administration agreed to increase our departmental operating budget to cover the basic costs of running that event. We still petition the institution each year for travel funds to take our senior research students to the VPA convention. As a department, we agreed to make securing these funds the first priority for all departmental travel requests. We agreed that taking all our independent study students to a local convention is a higher priority than taking a few students to a regional or national convention. The commitment of our faculty has been matched consistently by the commitment of the institution.

A Comprehensive Program Unifies Faculty

When we first organized our current curriculum and set in place the pieces of our undergraduate research program, our department was considerably

smaller than it is today. Our department has grown with the institution, primarily by adding new members to the existing long-term faculty. Of course the discipline of psychology has also grown and evolved over the past decades. We have added new courses and dropped others from our offerings. We have not, however, experienced conflict over the direction of the major or even the nature of individual hirings. Perhaps this common outlook is just luck, but I suspect strongly that the constant commitment to our research program has much to do with our unity. One of the strong requirements for each new faculty member is an ability to help with the offerings that form preparation for research. When we added a course in applied research methods, we agreed in principle that any member of the department should be prepared to teach it. Commitment to our vision for undergraduate research is one of the explicit criteria for positions offered by the department. Far from being a disincentive, this requirement is a strong selling point for us. As an undergraduate department we have been unusually successful in hiring our first choice for new departmental positions.

A Strong Program Motivates and Rewards Students

We are an undergraduate department with a strong focus on teaching. Even without the sort of undergraduate research program we have developed, I imagine our undergraduate majors would be heavily involved in departmental activities and become unusually loyal alumni. Each year our alumni attending graduate school or undertaking professional careers return to tell us of the impact we have had on their development. Two things stand out from their casual reports as well as from more formal periodic exit interviews with our seniors. First, they appreciate the preparation they have received in research methodology. Their report contrasts with reports that undergraduates find their courses in methods less valuable when they fill out classroom evaluations than they do when they have experienced graduate school (Johanson & Fried, 2002). Second, they appreciate the research experiences that allowed

them to interact with their professors in settings outside the classroom. During their undergraduate coursework they are strongly motivated to perform well for the faculty who hear their presentations. If anything, they are even more strongly motivated to perform well before their peers. These informal reports are consistent with more formal assessments of the variables that support strong research training environments (Shivy, Worthington, Wallis, & Hogan, 2003). Our Psi Chi Symposium and our road trip to VPA are about the teams of students and faculty. The students look forward to these events all year – and not with dread! Because the program is graduated and cumulative, students are well prepared and have the experience of performing very well indeed. They find research to be the most rewarding thing they do as undergraduates.

References

- Bill, J. C. (1995). A mature undergraduate research program: Psychology at Mary Washington College. *Council of Undergraduate Research Quarterly*, 15, 193-196.
- Johanson, J., & Fried, C. (2002). Job training versus graduate school preparation: Are separate educational tracks warranted? *Teaching of Psychology*, 29, 241-24.
- Liss, M., & McBride, C. A. (2004). A department-wide psi chi symposium. *Eye on Psi Chi*, 8(3) 22-23.
- Page, M., & Abramson, C. (2004). The National Science Foundation Research Experiences for Undergraduates Program: Experiences and recommendations. *Teaching of Psychology*, 31, 241-247.
- Shivy, V., Worthington, E., Wallis, A., & Hogan, C. (2003). Doctoral research training environments (RTTEs): Implications for the teaching of psychology. *Teaching of Psychology*, 30, 297-302.