

Preparing Graduate Students for College Teaching Careers:

**The Preparing Accomplished
College Teachers (PACT) Program
at the University of Wisconsin-Madison**

**Brian Bubenzer
& Nancy Westphal-Johnson
University of Wisconsin-Madison**

Preparing Graduate Students as Teachers

In 1998, the Boyer Commission on Educating Undergraduates issued a report warning that research I institutions were falling short in their efforts to train graduate students to teach. As the Commission put it: “Graduate education severely neglects the professional goal of the majority of students who will become college professors, that is, teaching... [Graduate students] are too often expected to know how to teach with little more than a few days or weeks of casual training, and little or no supervision throughout the year.”

The recently released Golde survey of doctoral students appears to support the Boyer Commission’s conclusion. While 65% of those surveyed reported that they were prepared by their program to conduct research, only 36% felt that their program prepared them to teach a lecture course (Golde, 2001, Table 7). As a graduate student noted in a University of Wisconsin-Madison survey of teacher training experiences, “we are trained for the research aspect of future jobs, but no guidance is given for teaching.”

According to the findings of a number of surveys, graduate students

recognize the need for and value of additional training experiences; in one survey, 75% of the respondents reported that if a three-credit optional course “Theory and Practice of University Teaching” was offered, they would want to take it (Piccinin & Fairweather, 1996, 30).

The shortcomings of teacher training for graduate students are especially a problem because, although many Ph.D.s are granted at research I institutions, most of the students earning those degrees will go on to teach at schools that emphasize teaching over research. As the Boyer Commission put it: “Most future faculty ... cannot realistically expect to find positions at the three percent of the nation’s colleges and universities that are research universities.” At smaller institutions such as two-year and liberal arts colleges where many of the new Ph.D.s will begin their teaching careers, proficiency in front of the classroom will be at least as important as expertise in the library or laboratory (Murray, 2000, 24-27). In order to help graduates secure teaching jobs and excel in them, students, faculty, and administrators are increasingly aware that graduate education must include training in a broad range of skills, including research, teaching, professional ethics, and campus citizenship. As the Mathematics Association of America’s Committee on Preparation for College Teaching put it: “Graduate Education should not be limited to specialization in narrow areas related to thesis topics or current areas of research. The student needs to be prepared to meet a wide range of professional responsibilities. Narrowness is shortsighted” (Case, 1994, 7).

The need for increased teacher training and professional development opportunities for graduate students led in 1997 to the creation of the PACT (Preparing Accomplished College Teachers) courses at the University of Wisconsin-Madison’s College of Letters and Science. The PACT Program targets L&S graduate teaching assistants in particular, and attempts to offer graduate students with a convenient opportunity to acquire teaching skills in an interdisciplinary setting, and simultaneously adds a credential to their CVs or teaching portfolios. The program was initiated with the support of the University’s Division of Continuing Studies, and it was recognized in 1998 with a North American Association of Summer Sessions Merit Award. With minimal alterations, the PACT model could be easily adapted to the needs of similar institutions.

Institutional Context

Unlike many research I universities, the University of Wisconsin-Madison does not require its TAs to take a college teaching course

(Johnson, 77-81), and while a number of Big Ten institutions, including Indiana University, Northwestern University, the University of Michigan, and the University of Minnesota, offer a centralized campus-wide teaching and learning center that conducts teacher training for graduate students, UW-Madison, in deference to its traditionally decentralized structure, has left such training in the hands of individual departments and colleges.

Eight hours of training in pedagogical issues for new teaching assistants is mandated by the University's most recent collective bargaining agreement with the Teaching Assistants' Association, the bargaining representative for graduate teaching and project assistants. The College of Letters and Science provides a day of training to about 400 teaching assistants at the beginning of the fall semester and recently added one-half day of training to the beginning of the spring semester. Many departments have had extensive training programs in place for many years and often these go far beyond the contractual requirements. In addition to these programs, a number of L&S departments routinely offer for-credit courses designed specifically to prepare their graduate students for teaching careers. However, many departments, especially those with relatively small numbers of teaching assistants, do not offer such courses, and administrators believed that the College could help provide teacher training and professional development opportunities in this area.

The PACT courses fill an important, though often neglected, niche in pedagogical training because they are designed to interest students from related fields within a broad area (e.g., humanities, social sciences, biological sciences). As such, they fall between broad-based college or university-level general training programs and the discipline-specific pedagogy courses offered at a departmental level. This "middle-ground" approach exposes each PACT course to a larger audience, and it maximizes the effect of the program's annual budget (approximately \$20,000) by reaching most of the L&S graduate students interested in pedagogy with only a handful of courses.

The summer sessions have proven to be a good fit for the PACT program. At UW-Madison, training for new teaching assistants is concentrated at the beginning of the academic year when new TAs are taking up their duties for the first time. The considerable time demands placed on TAs in their dual roles as students and teachers, however, make it a constant challenge to offer them convenient professional development opportunities during the course of the semester. For example, informal brownbag training sessions offered by the College on various days and at various times during the regular semesters have had

limited turnouts. Tight schedules may not have been the only reason for such low attendance; a lack of effective publicity, or the fact that informal training does not manifest itself on a resume or CV, may have played a role as well. But judging from responses on PACT course surveys, it is evident that a lighter work load of many graduate students in the summer affords them the time to pursue a non-required training opportunity for which they might not have time during the regular school year.

Student Survey

To assess the effectiveness of the summer sessions program, L&S administration undertook a study of former PACT students in February 1999, supported by a special allocation from the Division of Continuing Studies. The study consisted of two parts: a survey of former students in select summer session courses and interviews with several of the instructors of these classes.

The survey of former students of the PACT program was written and revised in May and June 1999, and mailed on July 16. In all, 120 students from fifteen different summer session courses received the thirty-question survey. One class was not included, because it had not been completed by the time the survey was mailed. After two weeks, fifty-five of the 120 students had responded. The survey was sent again to non-respondents, garnering an additional thirty-two responses and contributing to a final response rate of 73%.

The survey was designed to address three general areas. First, we wanted to determine how well the scheduling of the class suited the students' needs. For example, students were asked: "Given your professional and personal activities during the summer, how well did this course fit your schedule?" Any student who took the survey was by definition able to take the class, so their responses in this area have not been the only guide for scheduling summer session classes in the future, and the anticipated survey of Ph.D. alumni should be useful in the development of future schedules.

The second area of the survey questioned students about how well the content of the class fit their perceived professional development needs. The third area examined the students' preparedness for a teaching career and asked them to identify the activities that they believed best equipped them for a career in the classroom. Students were not asked about the grades they received in the course, but graduate student grades tend to be in the A to B range, and there is no reason to believe that the PACT courses are unusual in that regard.

Program Structure

Courses

Given the limited number of courses that could be offered in any one summer due to budget limitations, the College has tried to ensure that the PACT courses appeal to students from a variety of fields. To this end, the College established a new course number, L&S Interdisciplinary 701, which cross-lists each PACT course with the home department.

For the first three years of the program, there was a deliberate attempt to vary topics from one summer to the next, with preference given to topics that were not previously offered in the summer sessions program. Enrollment patterns have emerged over the course of the program, and the decision has been made to cover a few very popular areas routinely, such as Writing Across the Curriculum, and Teaching in the Biological Sciences. In addition to those standard offerings, at least two slots are left open to provide diversity in offerings with courses from smaller departments such as Women's Studies and Astronomy that might not be able to sustain minimum enrollments if offered every summer.

Funding

Each summer's roster of courses is determined by soliciting faculty proposals for specific short courses; these course proposals are prioritized at the College level and are considered apart from the department's base summer allocation for courses. Salary levels are determined by the instructor's academic year rate (or the standard College rate in the case of lecturers). In very general terms, a normal three- to four-credit course taught in a four- or eight-week session yields one-ninth of the instructor's academic year rate. Faculty and instructional academic staff in the PACT Program are paid 25% of 1/9 of their academic year salary for a one week, one credit course; typically the ceiling has been 50% of 1/9 for a two-credit course spanning two to three weeks, although the college has paid as much as 75% on rare occasions.

Scheduling

To date, the courses offered in the summer sessions program have lasted from one to three weeks. During the five years of the program, nine courses have been for one credit, nine for two credits, two for three credits, and nine courses have been offered for variable credits (either one or two credits). Credits are deliberately kept low, because it is thought that high credit courses and the increased work loads they entail would adversely affect registration from graduate students who have research and work responsibilities in the summer.

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Enrollments

To date, PACT students have come from a wide array of fields; in the first two years that PACT courses were offered, students identified themselves as having come from fifty-five different fields, and a sizable majority of those students came from L&S departments. Although some PACT courses have been open to undergraduates, the majority of the students enrolled have been L&S graduate students, as follows:

<u>Department/Course Title</u>	<u>Year</u>	<u>Enrollment</u>
Astronomy	1997	6
Botany/Effective Teaching of Biology	1997	16
French & Italian/Issues in Methods of Teaching		
French & Italian Literature and Film	1997	4
Philosophy/Philosophy of History	1997	16
Psychology/Teaching of Psychology	1997	6
Afro-American/A Comparative Approach to		
Teaching Multicultural American Literature	1998	7
Afro-American/Colloquium on Teaching	1998	2
Communication Arts/Focus on Teaching		
in the Social Sciences	1998	6
English/Teaching Writing in the Disciplines	1998	5
Music/Communicating Creativity in the Arts	1998	11
Sociology/Teaching in the Social Sciences	1998	6
Botany/Effective Teaching of Biology	1999	16
English/Practicum in Teaching Writing		
in the Disciplines	1999	9
History/Practice Teaching	1999	9
Library and Information Studies/Using the Web		
for Research and Teaching	1999	12
Botany/Effective Teaching of Biology	2000	17
Communication Arts/TAs Teaching		
with Technology	2000	14
English/Practicum in Teaching Writing		
in the Disciplines	2000	12
History/Practice Teaching	2000	5
Statistics/Effective Teaching of Modern		
Introductory Statistics	2000	9
Women's Studies/Women's Studies and Society:		
Practicum in Teaching Women's Studies	2000	7
Afro-American Studies/Teaching Multicultural		
Literature and Arts	2001	9
Botany/Effective Teaching of Biology	2001	17
History/Practice Teaching	2001	1
Letters and Science Interdisciplinary/Teaching		
Assistants Teaching with Technology	2001	5
Music/Communicating Creativity in the Arts	2001	11

Tuition Considerations

UW-Madison graduate students who earned a tuition remission in the spring semester by serving as a teaching, project, or research assistant also received a tuition remission in the summer session (they are only responsible for segregated fees; \$30.35 for a one-credit course in the summer of 2001). This full summer remission became current policy in the second year of the PACT Program (1998) and has doubtlessly made the courses more accessible to continuing graduate students. As mentioned previously, the courses are open to all graduate students and to other interested students, particularly secondary school teachers. Costs to students who did not receive tuition remission in summer 2001 for a two credit course was \$733.35 for a resident graduate student, \$2,321.35 for a non-resident graduate student, \$316.15 for a resident undergraduate or special student, and \$1,182.15 for a nonresident undergraduate or special student.

Analysis of Data

Program Duration and Timing

The survey results support a number of useful conclusions to institutions considering establishing a similar program. First, summer sessions students indicated that they appreciate professional development opportunities that are short in duration and offered for only one or two credits. For example, when students were given a choice of a one-week course that met every day, a two-week course that met every day, or an eight-week course that met once per week, 23% preferred the one-week course, 51% preferred the two-week course, and 17% favored the eight-week course. In terms of credits, students were asked to choose between one, two, and three credits. Thirty-one percent favored a one-credit course, 44% chose two credits, and 16% chose three credits. In both of these examples, the percentages do not add up to 100 because students were also given an option of answering "other." The 9% of students who responded "other" to the credit question favored a "no-credit" option. When the responses to these two questions are cross-tabulated, the overwhelmingly popular response (30%) favored a two credit/two week course. A one-week, one-credit course came in a distant second (17%). This group of students also strongly favored the summer setting for the course. Nearly one-half of the students responded "no" when asked, "Would you have taken this class if it had been offered in the semester, rather than the summer?" One student's observation was shared by many among this group: "Time is so much more structured during normal semesters; it would have been hard to fit in. I prefer the more

workshop-style atmosphere of a short summer course with small enrollment.” Another student pointed out: “It’s too busy to take a class like this in the regular school year, plus, you need to prepare teaching in the summer.”

Scope

In terms of the program’s scope, the data suggest that students appreciate the “middle ground” approach employed by the summer sessions program; an approach that stresses interdisciplinary connections in pedagogical technique. Students were asked: “In which area should UW-Madison offer more courses or other training opportunities?” They ranked three types of courses with a 1, 2, 3, or 4 (1 = very important, 4 = not at all important). The three types of courses were:

- A. general teaching philosophies that are equally useful to students regardless of their field, e.g., how to teach at a university;
- B. cross-disciplinary courses that appeal to students in related disciplines, e.g., how to teach in the physical sciences;
- C. discipline-specific courses intended to appeal to students from a specific department, e.g., how to teach an astronomy course.

In general, students favored offering more training opportunities in each of these areas, but of the three, the cross-disciplinary model was the most popular.

Student Motivation

The survey also queried students about their motivation for taking the class. They were given a list of seven choices, and asked to check all the responses that applied to them. The overwhelming majority (88%) selected: chance to develop teaching skills. The other choices, in decreasing order of popularity, were: interesting topic (78%), improve my resume/CV (34%), reputation of the instructor (29%), improve my chances to receive TA or lecturer appointment (20%), other (7%), and recommendation of advisor (6%). No matter what their motivation for taking the course, the PACT students were interested in additional professional development opportunities; when asked, “How likely would you be to take another professional development course?” 85% answered either “very likely” (47%), or “somewhat likely” (38%).

Publicity

Of the three ways PACT courses are publicized (a listing in the

regular timetable, an e-mail announcement sent to departments to be forwarded the message to their graduate students, and a flier distributed to every L&S teaching assistant and to area high schools for teachers in search of continuing education credits), the overwhelming majority of summer sessions students reported that they first learned about the class through the e-mail announcement.

Student Perception of Preparedness for Teaching

The survey results suggest that after participating in a PACT course, most students feel prepared to begin teaching after graduation, but still are eager for more training opportunities. For example, when asked “How prepared do you feel to begin a teaching career upon graduation?” 29% said “very prepared”, and 49% said “somewhat prepared.” Only 16% reported feeling either “very unprepared”, or “somewhat unprepared.” At the same time, however, when students were given a menu of skills and asked to choose the areas in which they wished they had more experience, roughly one-half of the respondents selected “preparing lectures,” “constructing syllabi,” and “selecting textbooks,” the three activities that form the foundation of classroom teaching.

Not surprisingly, the PACT students were more comfortable with grading and working in front of a class. Because most of these students were experienced TAs, they had plenty of experience with those two issues. However, because L&STAs are not in complete charge of their courses, the behind-the-scenes preparation that comes with a lecturing appointment caused most of the anxiety among these future faculty members.

The survey also suggested that, although PACT is a useful experience for graduate students who want to become professors, it is not (nor is it intended to be) a substitute for experience as a lecturer at the front of the classroom. The former PACT students were given a list of six experiences and asked, “In the course of your graduate studies, how valuable were the following in preparing you for a college career?” Students were asked to rank the experiences from a 1 (Not at all valuable) to a 5 (Extremely valuable). Respondents ranked their experiences as follows:

Work as a lecturer at UW-Madison	4.60
Work as a TA at UW-Madison	4.59
PACT course	4.11
Practicum/Seminar offered by my department during the academic year	3.63
Independent research (presentation of papers, etc.)	3.52
Regular coursework	3.27

The surveyed graduate students clearly believe that the PACT courses are more effective than their content area course work and graduate seminars in preparing them for a career in the classroom. This question also points out, however, that no course, not even one devoted exclusively to teaching technique, offers the full benefits of teaching experience in front of a class. One student expressed her fears in a survey response that alludes to this issue: "I am concerned about the lack of problem-solving skills (and the) ability to 'think on your feet.'" The skills to which this student referred are learned most quickly and effectively when the graduate student can actually get in front of a class and lecture. There is only so much one can learn about teaching before it is time to put theoretical knowledge to the practical test. PACT courses, therefore, are one element of a training process. In an ideal situation students would also have a chance to develop and present a lecture course before leaving graduate school.

Faculty Perceptions and Experiences

To examine PACT courses from the instructor's perspective, a series of interviews were conducted with teachers from the program's first two years. Without exception, the instructors, whether they were faculty members or advanced graduate students, reported that the summer setting was the single most important factor that allowed them to teach the course. Several instructors reported that the courses were particularly enjoyable because they brought together students from a variety of fields, and that the diversity of the group introduced students to a wider variety of viewpoints than they might encounter in a discipline-specific teacher training course.

Several instructors believed that pedagogical training was de-valued in their departments. An instructor in the biological sciences reported that, because of an institutional bias that favored research over teaching, advisors tended to dissuade their students from taking a teacher training course during the regular school year. "On their own time" during the summer session, students in this particular instructor's field felt freer to take elective courses such as those offered by the PACT program.

In addition to benefiting both undergrads and their TAs, feedback from instructors has shown that the courses also offer an opportunity for faculty who care deeply about teaching to share their excitement and enthusiasm with an appreciative audience. Again, the timing of the PACT program is critical to its success, because reduced teaching, advising, and committee responsibilities during the summer give the PACT instructors the breathing room they need to develop these teaching courses. The short duration of the classes has been an attractive

feature of the program for instructors as well. In interviews conducted with several of the instructors after the completion of their courses, each one identified the summer setting as a critical factor in allowing them to impart their affinity for teaching to future faculty members.

Conclusion

Based on survey results and interviews, the PACT program has been popular with graduate students, faculty, and L&S administration. Graduate students appreciate the opportunity to explore and develop the skills they will likely use throughout their professional lives, in a format that will appear on a transcript and thereby perhaps improve their marketability. The program gives faculty members the chance to develop and teach a course that shares their love for teaching, and to do so at a convenient time of the year. For college and summer sessions administration, the interdisciplinary structure of this program makes it possible to reach nearly all L&S graduate students and TAs in particular, with a much-desired professional development opportunity in only a handful of courses. At the same time, it produces better trained teaching assistants to the undergraduates who rely so heavily on them in introductory-level courses.

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