

Reforming Graduate Research Methods at a Minority-Serving Institution

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In this paper, we briefly discuss our current efforts to improve research methods instruction at Texas A&M International University (TAMIU), an Hispanic-serving four-year university in South Texas, with particular focus on converting our one-course graduate research methods course into a coherent two-course sequence. We also discuss our plans for further improvement in methods instruction in the social sciences at TAMIU.

1 Background

Teaching Research Methods track sessions at past APSA Teaching and Learning Conferences have indicated a reasonably strong consensus among faculty about the necessary content of research methods courses, at least at the undergraduate level: an orientation to the scientific method, developing an understanding of measurement in the social sciences, and providing a basic overview of the theory-building and research processes that social scientists employ, usually including practical, quantitative analysis of data. Nonetheless even the best research methods courses are often problematic. We are regularly confronted by students who are indifferent (at best) or actively hostile (at worst) to the material; students are rarely called upon to employ these skills in subsequent courses (leading to low incentives to retain the material beyond the course and no reinforcement in future courses); and—perhaps most importantly—covering the gamut of “research methods” in any meaningful way is difficult in a semester-long course.

Our experiences⁴ at TAMIU have reflected these frustrations. By way of background, TAMIU has approximately 6,000 students (approximately 5,200 full-time-equivalent), most of whom are daily commuters from Laredo, nearby communities in south Texas, or the city of Nuevo Laredo and its environs in the northeast Mexican states of Coahuila, Nuevo León, and Tamaulipas. The vast majority of enrolled students are Hispanic, first-generation college students from among Texas’ least-well-funded and poorly-performing school districts; our graduate students are typically TAMIU graduates who are employed in full-time jobs in the public and private sectors. Our research methods courses in the social sciences are the product of a collaboration between faculty in political science and public administration (housed in the Department of Social Sciences) and sociology (housed in the Department of Behavioral, Applied Sciences and Criminal Justice, or BASCJ).

As of the Spring 2009 semester, we offer two methods courses: an undergraduate course required of political science, sociology, and two “social studies” majors designed for teacher certification, and a graduate course required of political science and sociology (MA) students and public

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⁴Lawrence, Manganaro, and Ynalvez are three of the four current social sciences faculty members who have taught research methods at TAMIU; an additional colleague has taught research methods in the past but is now concentrating on improving the political science program’s offerings in comparative and international politics.

administration (MPA) students. Both courses are taught combining material on research design, theory-building, and basic applied statistics, with substantial overlap between the undergraduate and graduate courses despite the graduate course having an “advanced” title.

Annual curriculum self-assessment reports⁵ of the public administration, political science, and sociology graduate programs have indicated, on the basis of comprehensive exam results and student performance in other courses, that our students conclude their masters’ degrees with only a limited understanding of fundamental issues of research in the social sciences, despite these graduate degree candidates having 2–3 semesters’ background in research methods and related statistics.⁶ For example, students answering the MPA comprehensive examination question that calls for a research design experience some difficulty with basic tasks such as identifying the concepts to be measured, how they might be operationalized, and how one might approach sampling design and/or data collection and analysis. Our undergraduate AIER reports have also indicated that research skills are an area of concern for faculty, although sociology students appear to perform fairly well compared to our (less formalized) observations of political science undergraduates.

2 A Partial Solution: Introducing a Second Graduate Course

Our first attempt at reform is the partitioning of our graduate methods course into a two-course cumulative sequence, which has been a recommendation of our self-assessment reports for several years but could not be implemented until sufficient trained faculty were available. In this separation, developed in late 2008 by the authors and scheduled for implementation beginning in the Fall 2009 semester, we have accomplished a few important goals:

1. A cumulative sequence has been developed, with sufficient time to develop themes important at the graduate level for students in all three fields.
2. The first course (PSCI/SOCI 5321, “Social Inquiry”) will focus on the philosophy of science, theory-building and the operationalization of concepts, ethical issues in human subjects research, and practical issues in research (such as conducting a literature review and written and oral presentation of findings). Time compression in the current course leads to many of these topics being given insufficient attention.
3. The second course (PSCI/SOCI 5322, “Applied Quantitative Methods”) will focus on applied quantitative methods using statistical computing software, including important non-OLS models such as logit, probit, and count models that are widely used in the literature. Our current course usually only has sufficient time to cover OLS.

⁵These reports are known locally as AIER reports; past reports can be found on-line at <http://www.tamtu.edu/adminis/ie/arts.shtml>.

⁶Our current graduate research methods course, PSCI 5301/SOCI 5302, requires our undergraduate research methods course (PSCI 3301/SOCI 3305) as a prerequisite; in addition, undergraduates majoring in political science and sociology are encouraged to take MATH 1342, Introductory Statistics, as part of their undergraduate core curriculum at TAMU. Most of our graduate students attended TAMU as undergraduates in our fields, or related fields that also require methods and/or applied statistics of undergraduate students, so we can expect this background to be common if not universal.

4. Both courses will be required of graduate students in the political science and public administration majors; sociology graduate students will be required to take the first course and the second course will be a strongly recommended elective.
5. Last, but not least, we have harmonized course numbers so both political science and sociology will use the same number for the same course content, reducing student and faculty confusion.

Our sequence also consciously anticipates being able to expand our methods offerings in the future as student demands and faculty availability permit, as noted below.

3 Future Directions

We hope to be able to add an alternative (or additional) course in qualitative research methods for students in sociology and political science in the future, provided we can hire a social scientist with the relevant training and experience and interest in developing and teaching the course. Although we do not expect that this will be a high-demand course, in part because MPA students (who make up the overwhelming majority of our graduate student population) will continue to be required to take the quantitative methods course, we believe this course will be helpful for students writing theses in fields where quantitative methods may not be as readily applicable.

Future changes to our undergraduate research methods course are also under consideration. Although it may not be possible to create a formal two-course sequence at the undergraduate level due to other faculty course demands, there are a number of alternatives that are feasible at current staffing levels:

1. Formalizing MATH 1342 (Statistics), or similar courses offered in the School of Business and by psychology faculty (in BASCJ), as a prerequisite for the undergraduate research methods course would allow us to reorient the methods course to spend more time teaching the application of statistical techniques to social scientific phenomena, rather than the “zero baseline” approach to statistics we use now. In theory, this change could be implemented almost immediately, although it is possible that we would have to “grandfather” students for a year or two who entered under older catalogs that did not specify the prerequisite. (We could also teach a statistics course “in-house” similar to that required of psychology undergraduates, although staffing would be a concern at present.)
2. Adding a weekly computer-based laboratory period to the research methods course could accomplish two helpful goals: it would allow students more time to improve their methodological skills in-class with supervision, and it would also provide graduate students with an opportunity to reinforce their methods skills as lab assistants funded with the incremental tuition and/or lab fees associated with the one-credit-hour lab. This change would require significant curriculum changes and an agreement with the administration regarding how the incremental credit-hour would be attributed to the supervising faculty member in terms of faculty effort.

3. Developing a survey research lab would allow both graduate and undergraduate students to gain more practical experience in the application of the methods we teach in our courses. While we have recently identified funding for a center that will include some faculty release time for program evaluation and needs assessment, this funding does not include the facilities (such as a dedicated lab and associated equipment) to operate a professional survey research facility, which would be helpful in supporting these efforts. Courses in survey research methods and other fieldwork-based methods would naturally follow from having such a lab on-campus. A lab (and the learning experiences associated with it) would also be attractive in meeting our departmental and institutional goals to recruit more graduate students from outside Laredo. Identifying funding and building faculty and administrative support for this initiative will probably make it a more long-term goal.

We are hopeful that at least the first of the above alternatives can be implemented in relatively short order.

Finally, in conjunction with our institutional self-assessment process and upcoming external reviews, we hope to develop better measures of student preparedness and success in learning and applying research methods.

4 Conclusions

In this paper, we provided a brief overview of our current and future plans to reform our teaching of research methods at the graduate and undergraduate levels. Although our situation may be somewhat uncommon—supporting three disciplines spread across two departments at a minority-serving institution—nonetheless the challenges we have faced at TAMIU are indubitably similar to those at other institutions with more traditional disciplinary boundaries and student populations. We invite suggestions on how to better accomplish our medium- and long-term goals for methods instruction and look forward to your feedback.