Chapter 3
Connecting Theory to Practice:
Making Research Real for Graduate Students

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ABSTRACT

With higher education becoming more dynamic and institutions providing multiple venues for students to obtain advanced degrees, graduate programs are under increasing pressure to make explicit efforts to provide students with meaningful, practical application of research methods in order to prepare them to be successful researchers. Students must emerge from these programs with the knowledge, skills, and abilities to partake in research on their own. Yet, the current trend seems to be that students enter these programs lacking the basic skills needed to ensure success. They exhibit minimal self-efficacy and insufficient readiness to connect their coursework to application in their chosen profession. This chapter provides an overview of the skills and issues of graduate students and a discussion of how those issues affect student success in conducting independent research. The chapter concludes with recommendations for addressing those issues and an exploration of future trends.

INTRODUCTION

There is an expectation and a need stated by Wendler et al. (2012) that in order for any country – or any organization or person, for that matter – to take a place of leadership, the development of human talent must be cultivated. Labor forces need innovation and talent and a significant amount of that talent is prepared in our educational in-

stitutions. Higher education prepares scores of future productive members of various economies: information economies, financial economies, labor economies, knowledge economies at both the undergraduate and graduate level. However, if student experiences are not positive in graduate school, and if that student leaves before obtaining a degree and fully developing his or her advanced research skills, both innovation and the economy will suffer a loss.

If there is one consistent message that is sent loud and clear to K-12 students and our communities, it is the promise of a secure future – if you have a degree. As students move throughout the educational process there is continual pressure to work toward a post-high school degree. Then, as they receive their bachelor's degree, there may be even more encouragement from those around them to consider advancing to an advanced degree such as a master's degree or even a doctorate.

At some point in that progression through higher education it is expected that students will complete at least one research project, usually embedded in an introductory research methods or statistics course. At the authors' institutions, for example, students in many (but not all) disciplines are exposed to the research process in a required third-year statistics, research methods, or analysis course. These undergraduate courses introduce basic concepts and processes for conducting research yet, in our experience, the students often stop short of actually completing a project. The assignment often requires only a proposal and shallow literature review without any independent inquiry or analysis.

Faculty in graduate programs may assume that students who had this slight introduction are prepared for the rigors of scholarly research. Even required introductory graduate courses such as Introduction to Research or Statistics carry the assumption that students have some prior knowledge of this information. As is common throughout the education system, instructors at advanced levels hope that the students learned a particular set of skills at an earlier level; this hope becomes an assumption that allows the instructor to skip the basics and drive right into advanced methods. After all, why should I have to teach a graduate student how to conduct independent research? Or how to write? Or how to effectively search a library database? The students should have acquired those skills before they entered graduate school.

Yet acquiring discrete baseline skills and then being able to transfer those skills to conducting an independent research project is a significant cognitive leap, one that requires mentoring and deliberate instructional interventions to navigate successfully. Unfortunately, graduate programs do not always include enough time to develop and transfer those advanced skills. Long and Schonfeld (2014) noted that in the discipline of art history "techniques needed to conduct original research are sometimes taught in courses about theory, but in some graduate programs they do not have a major role in the curriculum" (p. 39), even though those professions often require practical research skills. Graduate students might receive an introductory course in a specific methodology, such as a discrete analysis or multiple regression, but the holistic process is missing.

Time and time again we see students who successfully completed previous coursework yet, in our classes, are unprepared to transfer those skills to a new context. They turn in their literature review and, if they cite anything at all, it might be Wikipedia or a few websites from simple, cursory online search, posted in their papers improperly formatted and simply cut and pasted from where they found the article. There is evidence that they lack simple fundamental library skills. When asked why a specific method was used in the statistical software their response is either that they found the information online or that someone simply told them that this was the test they should run, rather than having the ability to defend and explain their choice. These students have little understanding of why they needed to select that specific test or how to interpret the results. They may have aced their statistics courses and been able to apply all of the formulas, but they made no connection between choosing the method to conducting actual research. They are taking individual, often unsequenced, classes in methods and theory and are expected to walk away knowing how to conduct fully integrated research. Where is this disconnect

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