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Indoctrination to Doctoral Studies: A First Year Seminar

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Over the years, I have found that doctoral students are doing a lot more leg-work before they enter the program. And this makes sense. Given the level of commitment needed, the opportunity costs, and the particular personality profile that fits the academic career, it would be foolhardy to casually apply to a doctoral program. However, this preparation is obviously from the outside-in. Students can prepare checklists, review faculty qualifications, talk to faculty, browse through program and course information, and even try to navigate some academic papers. While useful, students are often evaluating these programs based upon what they know—which is largely experienced through undergraduate and graduate degree programs that they have completed. So, while the nuanced student would work hard to get the best “feel” for what they are getting into—it is necessarily limited.

It is therefore important for doctoral programs to provide strong exposure to the key aspects of research and pedagogy. After all, these programs (we) are developing “stewards of the field” that will create and disseminate knowledge—we need to make sure that they appreciate the perspective, the processes and the challenges involved. If we do this early, perhaps students can truly understand what is involved, and we can weed out potential failures and catalyze success.

How do we do this? There are many ways, both informal and formal, that can be used to indoctrinate students to doctoral studies and beyond. I have observed some programs that have an orientation session where faculty discuss the program and expectations regarding coursework, teaching, research, comprehensive exams and dissertation. I have seen such

sessions conducted in an informal manner where students and faculty interact and get to know each other. Mentoring programs are also prevalent, where doctoral students are assigned mentors or advisors through the program. Ongoing “brown bag” sessions where faculty and students exchange research ideas have been institutionalized at some schools. While these mechanisms are important to introduce students and enable ongoing interactions, I’m not convinced that they achieve consistent impact early enough in the program. One approach that I have seen work is to have a full course indoctrination seminar early in the program, ideally in the first semester. While this may not always be possible, I still think it is beneficial to do this as early as possible.

The term “indoctrination seminar” sounds ominous and awkward and is used here to represent the spirit of what we are trying to accomplish. Many schools have a “general research methods” seminar that could be used for the same purpose. The purpose is to set the student on the path to becoming a “steward of the discipline.” It exposes students to fundamental research concepts, provides an appreciation of various methodologies, and guidance on the research career they have chosen to pursue. In sum, the indoctrination seminar mentally prepares students to undertake the various research challenges through the program. In this article, I provide an example of such a seminar—with the recognition that “mentally prepared” could be interpreted differently and accomplished through many variations of this approach. The point however, is that a general indoctrination seminar early in the program is a useful and powerful way to accelerate doctoral student development.

Figure 1 provides a possible structure for the seminar. This could be used for IS and OM students, although it can be tailored to other disciplines, too. Through such a course students will be introduced to the basic tenets of research (what is scientific research?), knowledge (what is knowledge and its major concepts?), methods (what are ways to generate knowledge?), and success (how can they succeed in doing this?). The major components of the course are in three parts. Part I includes scientific research, knowledge evolution, theory, hypotheses, constructs, variables, assumptions. Part II includes gaining familiarity with research philosophies and various methodologies, with particular emphasis on empirical research. Here, students will learn how to read and evaluate research articles. And, finally, Part III focuses on success in research. Here, students will learn about research institutions and how to succeed in a research environment. By the end of the course, doctoral students should have a sound understanding of what they are getting themselves into—including an appreciation of the excitement and the challenges of this career!

The seminar could begin with a session on “pursuing an academic career” or

a “research and pedagogical” career. The focus here would be to discuss the various pillars of such a career (like research, teaching, and service) and engage in an exercise with students regarding their expectations regarding their careers. This forces students to think substantively about where they see themselves in the future and to begin planning their program accordingly. Part I could include sessions that begin at the philosophical level and then systematically migrate down to important knowledge constructs. For instance, starting with a session on the foundation and evolution of knowledge (how has knowledge been constructed in the past?) and the definitions of science and the scientific approach (e.g., Kuhnian thinking) would set the foundation for getting into scientific processes.

The next session could focus on construction of knowledge through theory, its components, and processes of induction and deduction. Here, a good understanding of theory, constructs, hypotheses, and variables as building blocks of knowledge would be useful. In fact, this session could benefit from discussion of the many insightful papers in journals like the *Academy of Management Journal* that describe what is and is not

theory. A session that discusses carefully selected papers that present/build theory could help bring the point home regarding the basic building blocks of knowledge. A session on different research assumptions about knowledge (e.g., positivism vs. interpretivism) would be useful to prevent monistic thinking or bias regarding knowledge construction. Simple exercises involving observation of human behavior that allow students to theorize hypothesize and observe (measure) variables are useful. The key take-away from Part I is to help students understand what knowledge is and the basic components that allow us to build and change knowledge.

Part II focuses on the methods for building knowledge. While students will gain in-depth understanding of specific research approaches in their methodology courses, it is important that they appreciate the processes and considerations for conducting good research. Sessions on a variety of research methodologies could be taught by invited faculty with expertise in the method. These could be preceded by a typology of methods including empirical methods like survey, case studies, and experimental and mechanical methods like simulation and math modeling. For instance, basic tenets

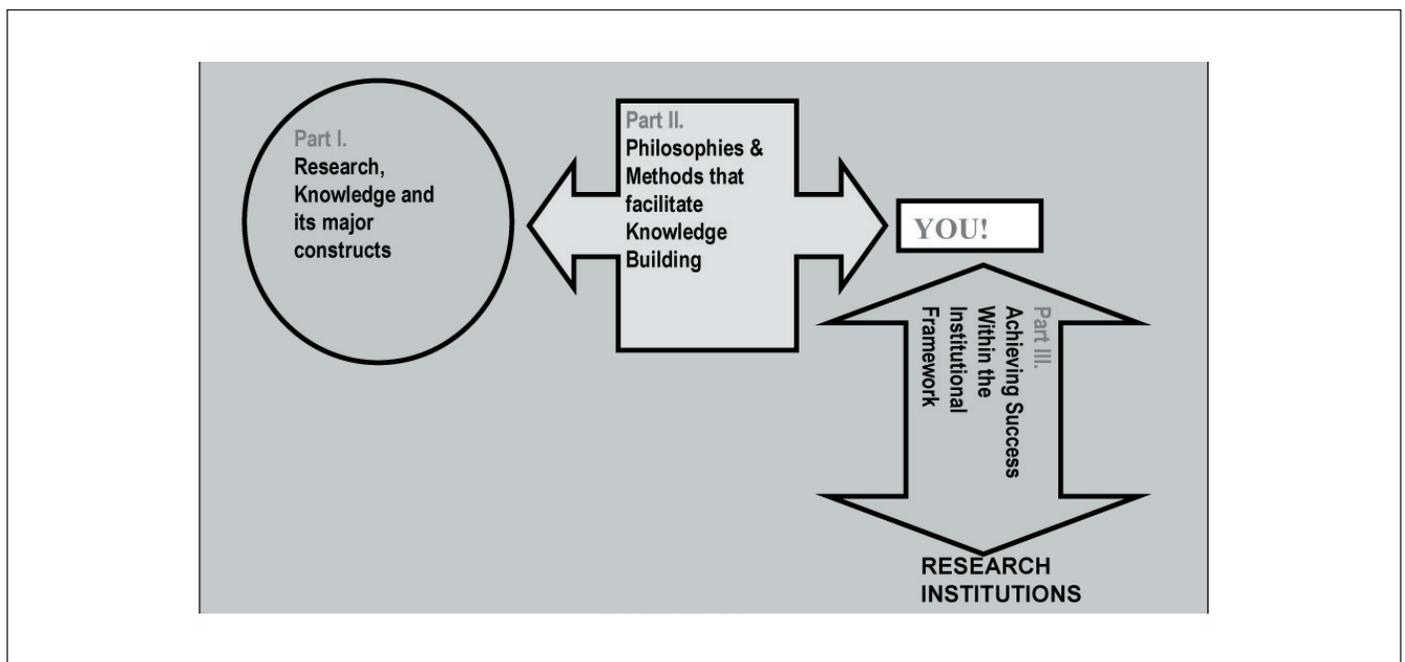


Figure 1: Possible structure for a general indoctrination seminar.

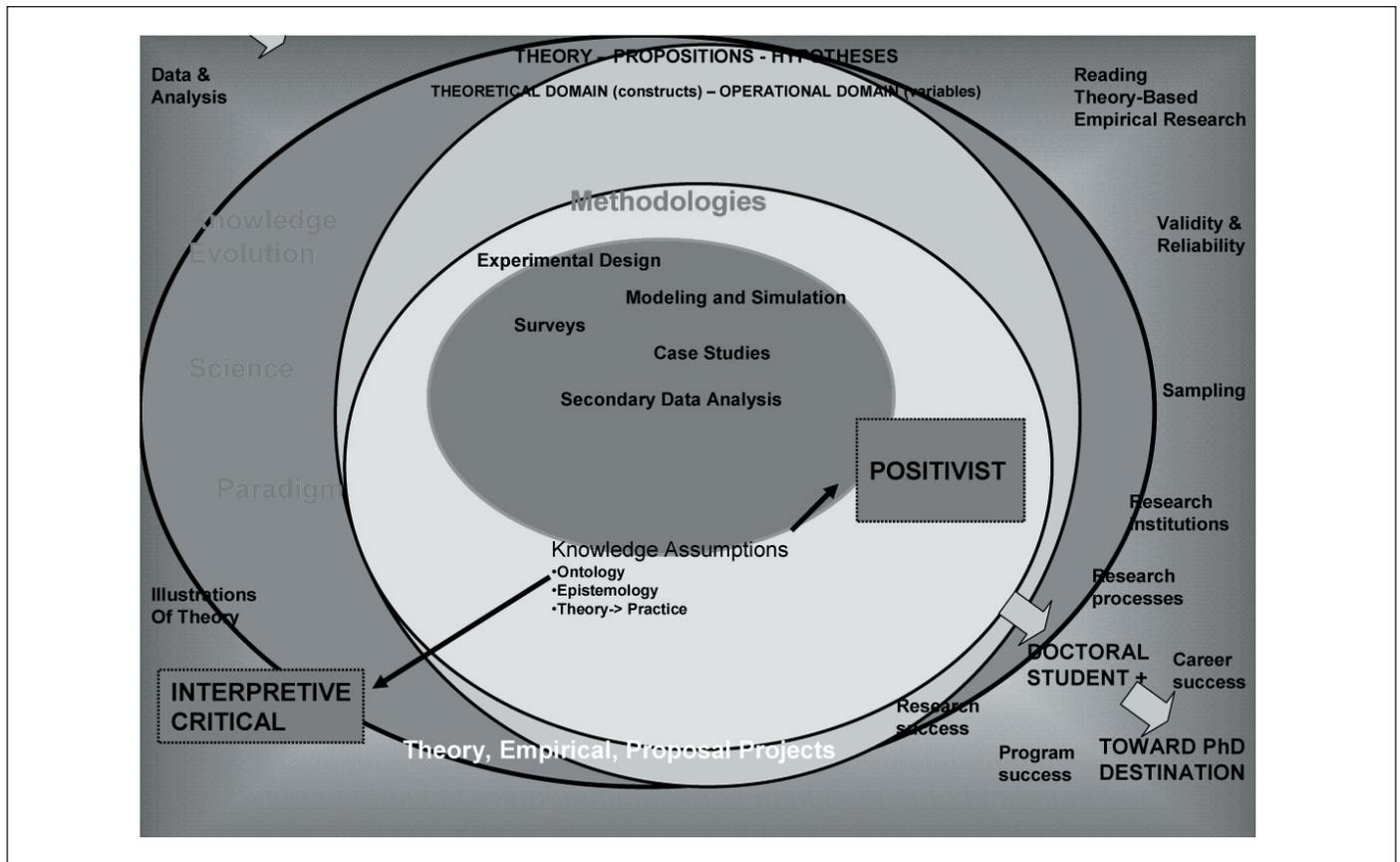


Figure 2: Possible research topics for seminar.

of experimental design (threats to validity, controls, factorial designs, etc.) could be discussed along with an exemplar paper that describes a good experimental study. Significant time should be spent on fundamentals of these methods and trade-offs between methods, rather than statistics. Besides gaining a basic understanding of the methods, students should be exposed to common concepts across methods (such as internal and external validity, reliability), pros and cons of using methods, critical success factors and exemplar work. These broader aspects are typically not gleaned in individual courses and can provide a strong understanding of how to build knowledge constructs. Of course, the methodologies and their coverage can be tailored to the disciplines represented by students in the class. Part I and II can be concluded by discussing theory and method together, perhaps by helping students appreciate (or critique) theory-based empirical papers.

Finally, Part III focuses on the student and the institutional context. Sessions here can be devoted to more practical guidance in conducting research from selecting topics to writing up research. Emphasis could also be placed on post-research phases of review and publication processes. Topics could include the research process (from conceptualization to implementation), organizing research, the workings of research institutions (e.g., journals) and evaluating research (review and publication processes). A final session on managing the doctoral program successfully as well as post program career management in academia would bring various elements of the course together.

Of course, many of the sessions could draw from rich sets of readings that can be opened up for discussion and debate. These readings could traverse disciplines – emphasizing the commonalities between areas of social science and even

scientific research. Depending on when the course is offered, a research proposal could also be required to start the student thinking formally about investigation of a research area. Figure 2 outlines possible research topics for the seminar.

In conclusion, I would argue that while there might be other institutional mechanisms that enable students to gain exposure to key aspects of research and pedagogy, these are often piece-meal and disjointed. I have also observed that many research methods courses are idiosyncratic to the instructor's expertise, highly statistically oriented, or strongly overlapping with other courses. Doctoral seminars that focus on research areas tangentially impart this knowledge-but the learning is often incomplete. An indoctrination seminar, regardless of its title, early in the program—would be invaluable in setting doctoral students' expectations and thinking regarding their purported career choice. ■