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A Rough Model for Success in Doctoral Study

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What makes a doctoral student tick? After having had numerous delightful experiences with doctoral students, I still find the answer to that question somewhat elusive. I can recall the case of a doctoral candidate who applied for admission to a premier doctoral program. The candidate came across well in the interview, but the review board voted against financial aid (which is tantamount to denying admission for doctoral programs). The reason given was the candidate did not pass the litmus test for GMAT scores. Furthermore, that year's applicant pool was stronger—relegating this candidate to the bottom of the list. One committee member who voted for the candidate did so because he saw something during the interview process that gave him a "good feeling." Unfortunately good feelings are not good enough for bureaucratic committees. After all, standards and metrics are established to sustain quality. The outlying committee member in this case decided to be vociferous and champion the student. Grudgingly, the committee decided to give the candidate admission without aid. After one year in the program the candidate wowed everyone with top-notch grades, diligence, and quality of interaction with both faculty and peers. The student then turned out to be one of the best students in the program and has since gone on to write seminal papers and a highly productive academic career. If this committee member had failed to intervene, the institution would have lost its best student; and if the student had given up on trying for a doctorate, the field would

have been intellectually poorer. So, that brings me back to the original question. What makes a doctoral student tick?

Many times during my job, the issue of success in the doctoral program comes up. Sometimes it is at the input stage, when we evaluate applications and interview candidates. At other times it's during the process of interacting with students during coursework, comprehensive examinations, or dissertation and research projects. And sometimes it is at the output stage when we are evaluating how to better place our candidates or recruit from good programs. In general, I find that our measurement instruments are fairly blunt when it comes to evaluating candidates at the input stage. We might be able to get a general feel for competence (GMAT scores, GPA, achievements, communication skills) and make broad assessments of personality (outgoingness, conscientiousness, awareness)—but we can never really predict with tremendous confidence how successful the student is going to be in the program and later on in his/her academic career. Doctoral study is different from other levels. It requires a special kind of person who has the motivation to work hard, going beyond mere coursework, and pursue the unstructured process of knowledge creation even though it is replete with dead-end paths and frustrations. And it requires competence to absorb and integrate knowledge, apply tools, and communicate knowledge effectively. While a minimum threshold of motivation and competency is needed, there is one more ingredient—
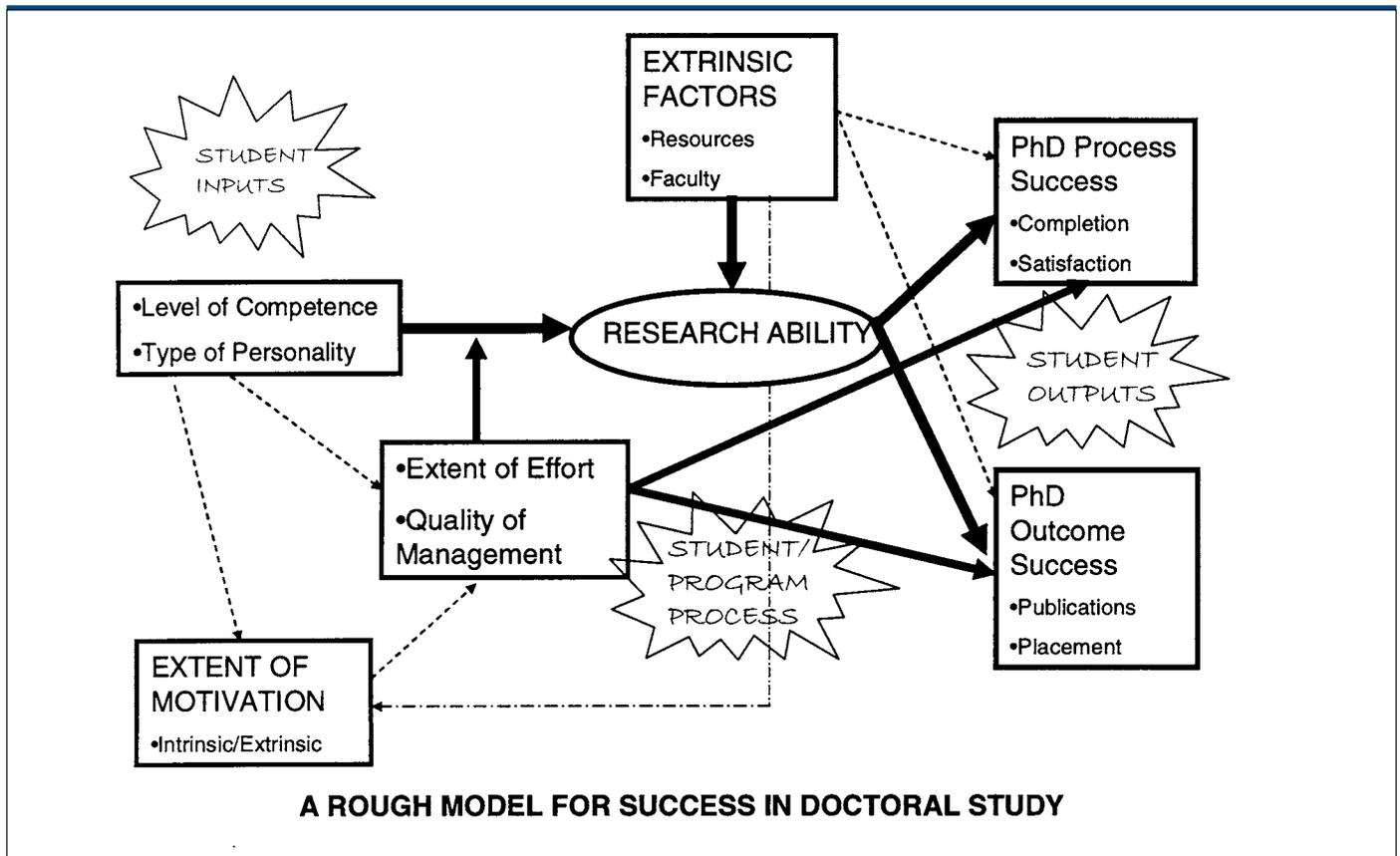
A ROUGH MODEL FOR SUCCESS IN DOCTORAL STUDY

Diagram components:

- STUDENT INPUTS
- EXTRINSIC FACTORS
  - •Resources
  - •Faculty
- PhD Process Success
  - •Completion
  - •Satisfaction
- •Level of Competence
- •Type of Personality
- RESEARCH ABILITY
- STUDENT OUTPUTS
- •Extent of Effort
- •Quality of Management
- STUDENT/ PROGRAM PROCESS
- PhD Outcome Success
  - •Publications
  - •Placement
- EXTENT OF MOTIVATION
  - •Intrinsic/Extrinsic

the ability to manage one's program. In an earlier article in *Decision Line* (10 Mistakes Students Make in Managing their Program, May 2001), I argued that students often do a poor job in managing their resources including their time, competency, projects, peers, faculty, and even their advisor.

This brings me to the issue of "success" in the doctoral program. At the simplest level, I believe that motivation and competence work synergistically and, when complemented with good management, students could be well on their way to a successful program and career. To formalize this, I propose below a rough model of success in doctoral study. I call it rough because it probably will not withstand (at least at this stage) rigorous academic scrutiny. However, I believe that it does reflect the core components of a successful student. The only caveat here, is that this model focuses on the success of research/dissertation aspects—core attributes of all doctoral programs, but more important for some than others.

At the initial stages I believe that competence and certain kinds of personalities are more likely to develop the research abilities that we try to nurture. Competence refers to knowledge and communication skills that we broadly assess through the application process. Personality traits such as "reflective observation" and "conscientiousness" are also desirable traits, but they are much harder to assess a-priori. These characteristics are related to motivation with respect to the program. Ideally, we'd like motivation to be intrinsic; that is, students involved in research for the innate excitement of creating and exchanging ideas and the possibility of the eureka moment. However, in some cases extrinsic motivations (stamp of credibility or hope of financial rewards) are the primary driver. The support infrastructure at the institution, including the faculty and other resources, could inculcate both the intrinsic (excitement about research) motivation and extrinsic (prestige of institution, finan-

cial support, infrastructure) motivation for the student.

In turn, highly motivated students manifest that attribute into efforts towards managing their work as well as their doctoral program. I see the level of effort and quality of program management as moderating the relationship between competence/personality and research ability. Competent students with the right personality will translate those attributes into research ability, but effort and management will strengthen that relationship. Research ability is also influenced by the institutional resources, particularly the faculty. Transfer of research skills through apprenticeship-like processes and student supervision can greatly enhance a student's ability to do research, particularly if the student has the desirable innate characteristics. This research ability will translate into process success, (i.e., completion of program requirements) and outcome success (i.e., publications, placement). Of course, the

outcome metrics will also be influenced by institutional resources (e.g., faculty assistance in placement). Finally, both types of success boxes are directly influenced by the student's effort and management of the program. For instance, networking and time management could directly influence placements. Needless to say, other attributes (e.g., luck, marketplace) could influence the ability to publish or find a position in a higher-level institution.

In looking at the model, we can see the main issues. At the input stage, we do a coarse assessment of competence and within this, a very coarse assessment of communication skills—usually in the form of an oral interview or admission essay. Other attributes like desirable personality aspects, motivation, and program management ability are left unassessed. However, those factors are the ones that manifest themselves during the program and are often the case of low success or even failure. To offset this issue, most institutions have a trial period (qualifier) after which doctoral students that don't make the grade can be asked to leave the program. Such students cause frustration and dissipa-

tion of tremendous energy and faculty resources. Ideally, we should try to develop more structured forms of a-priori assessments. At the minimum, questions that try to root out whether the student has certain traits for doctoral study should be assessed such as the following:

> Do you enjoy reading . . . discussion . . . debate . . . thinking about areas in the field . . . writing? How are your organizational skills . . . time management skills? How would you handle unstructured situations . . . the following scenario?

These questions are not uncommon (e.g., situation analysis) in corporate interviews, and they could prove useful for doctoral study as well. However, I suspect that these questions are not an integral part of many admission processes.

While the model is not very profound, it does offer a rough structure for examining doctoral success. Adding more granularity to each of the boxes might be useful in creating diagnostic/prescriptive tools for doctoral study or, at the minimum, stimulating more debate. These programs usually have high resource inputs including

tremendous investments of faculty time and few students. The payoffs can also be significant. A good doctoral student can be a tremendous asset to the faculty and institution, and create a positive multiplier effect when he/she becomes a top notch researcher. On the other hand, a poor choice can be a liability—consuming time and opportunities from faculty. Therefore, errors of admission (both type I and II) can be far more expensive than, say, the case of an MBA student. I think we need more vigilance. The model presented above is just a start. ∎

Placement Services Coordinator Vacancy Announced

The Decision Sciences Institute is seeking a new Placement Services Coordinator for a three-year term beginning after the 2005 Annual Meeting in November.

The Institute operates a placement services Web site at http://www.decisionsciences.org, which includes a database that provides listings of academic positions and applicants. The coordinator is responsible for the content and smooth operation of this site. This includes working with DSI staff to refine the design and layout of the site, updating instructions for its use, and responding to questions from users. Although the coordinator is not directly concerned with the technical aspects of

the Web site or the database, it would be helpful for him or her to have some knowledge of databases and Web-based information systems.

In addition to overseeing the Web site, the Placement Services Coordinator also plays a critical role in planning and running placement activities at annual meetings. Therefore, the coordinator's presence at November annual meetings is absolutely essential.

Questions about the position may be directed to the current coordinator, Gerard Campbell of Fairfield University, at (203) 254-4000, x-3118 or **gcampbell@mail. fairfield.edu**. All interested parties should submit the following to Carol Latta at the Decision

Sciences Institute, College of Business, Georgia State University, 35 Broad Street, Atlanta, GA 30303, by no later than April 1, 2005:

1. Curriculum vita

2. Statement of activities and service provided to the institute

3. Statement of interest and availability to serve a three-year term

4. Statement of qualifications and experience related to the position

5. Description of institutional commitment for the support of the coordinator's job functions for a three-year period. ∎