



# Strategic Intervention for Doctoral Completion

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What are the most effective admissions practices for doctoral programs?

A study of Faculty and Student Perceptions related to doctoral completion

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## BACKGROUND

If a doctoral program is going to have an acceptable completion rate, one of the key elements is to admit the right people. This seems obvious, but sometimes other situations, such as the need to maintain a certain number of students or the busy faculty schedules, get in the way of making the best admissions decisions. Additionally, some programs admit many students and then screen them out after comprehensive exams. This practice is somewhat effective for ending up with the best students in the field.

No matter the reason, admitting students who do not complete their degree is a costly enterprise for both the students and the university. Students put their lives on hold, move families, or even end careers to attend doctoral programs. Additionally, when doctoral students fail to graduate, there is little or no return on university investments of time and effort from faculty as well as private and public funds (Smallwood, 2004).

Thus, researchers believe programs should focus on getting the most return on investments during the earliest possible stage: the admissions process. More specifically, admitting only the *right* students to save time and future resources of students, faculty, and universities.

Doctoral programs have several measures available aimed at predicting whether or not an applicant will complete their doctorate. Currently, the programs use several practices, such as obtaining GRE scores, undergraduate GPA, and references, in an attempt to admit these students. Although some of these measures can moderately predict doctoral completion, we will also examine other possible methods that may more accurately determine whether or not a prospective student is ready for doctoral study

This study is part of a larger effort to study and

improve doctoral completion at three universities: North Carolina State University (NCSU), the University of Florida (UF), and the University of Georgia (UGA). This project is sponsored by the Council of Graduate Schools and funded by Pfizer and the Ford Foundation.

All project activities including this research study were built around a conceptual model (Table 1) which we believe influence doctoral completion. In this particular study, we focused on one aspect of Condition 2: The *right* applicants are admitted as doctoral students. More specifically, we investigated the methods utilized for selecting prospective students

Table 1: Necessary Conditions for Optimal Doctoral Completion

Condition #1: The right people apply for doctoral study
Condition #2: The right applicants are admitted as doctoral students
Condition #3: Students and faculty form productive working relationships
Condition #4: Students experience social support from fellow students

## PURPOSE

The purpose of this study is to investigate faculty and student perceptions of effective admissions practices.



## METHODS

### Sample

Sixty participants--thirty faculty members and thirty doctoral students from fifteen programs in seven areas participated in this study. Each program nominated two faculty members and two students to serve as respondents in this study. In nominating respondents, program administrators were asked to make their choice based on the participants' familiarity with, and knowledge of, the individual programs. Participating programs consisted mainly of the STEM (Science, Technology, Engineering, and Math) fields. However, other programs representing the humanities and social sciences were also included. The 15 programs are identified in the matrix represented in Table 2.

Table 2: Participating Programs

Programs	The University of Georgia	The University of Florida	North Carolina State University
Economics	X	X	X
History	X	X	
Sociology	X	X	X
Chemistry	X	X	X
Civil Engineering		X	X
Genetics	X		X

Two researchers from the University of Georgia conducted the interviews. We made several attempts by telephone and email to contact the participants. Of the 30 students nominated for the study, 27 students (90%) participated. Participation rate for the 30 faculty members was 28 or 93 %.

### Instrumentation

We collected the data using a semi-structured interview guide as the primary data collection tool. The questions focused on the four conditions in our conceptual model. The questionnaires were parallel, though slightly altered to fit each group. Faculty questionnaire consisted of six questions while the student's version had seven questions. Our intent was to obtain the participants' perspectives on:

tives on:

- Why some students complete doctoral studies and others do not;
- The type of program information given to students and its usefulness in helping students select the most appropriate program;
- Graduate admissions protocol and whether they (the participants) believe the process is an effective selection process;
- The relationship between doctoral students and their advisors;
- The different ways students support each other or do not support each other;
- Program practices that support doctoral completion, or practices which, if implemented, may improve conditions for doctoral completion.

We asked the interview questions in the same sequence except in those situations that warranted deviations. Each participant was interviewed by telephone. Individual interviews took an average of 30 to 35 minutes to complete. We audiotaped and later transcribed all interviews.

### Data Analysis

We collected the data over a period of two months (May 2005 through June 2005) and used qualitative content analysis to analyze the data. Comments from both faculty members and students relating to Condition 1 (see again Table 1) were extracted and compiled into a single data set. We studied the data and coded the primary themes that emerged. Emergent themes in each data set were then compared for similarities, relationships and patterns.

## FINDINGS

The three following questions guided the data analysis:

- *What information do programs consider about prospective students?*
- *Does the information help programs admit students who are ready for doctoral study?*



- *What information can prospective students provide to encourage only the right people are admitted?*

*What information do programs consider about prospective students?*

Both faculty and student participants agreed programs considered the following data during the admissions process:

- Undergraduate grades
- GRE scores
- Essays
- Reference letters
- Curriculum vita

Faculty varied in the process through which applicants were selected. Some programs allowed each faculty member to solely decide which students would be accepted into their research group, and, thus, the doctoral program. Other programs utilized a more systematic process in which an admissions committee would rank prospective students. Regardless of the method through which students were selected, many faculty members suggested it is “an imperfect process.”

*Does the information help programs admit students who are ready for doctoral study?*

Faculty and students noted the positive aspects of the current information prospective students provide. For instance, participants recognized the need for submitting academic information during the admissions process in order to ensure prospective students meet minimum requirements. Additionally, some participants believed the admissions process was most effective when *campus visits* and *communication with current graduate students* were emphasized.

However, both faculty and students agreed the information currently obtained from prospective students is academic-based and bureaucratic information. Most (N=28, 79%) students believed this information did not help them assess their readiness for a doctoral program. Additionally, some faculty acknowledged they currently do not know how to predict doctoral completion during the admissions process. As one faculty member stated, “if you go through the process of admitting people for several years and then watch how they perform when they get here,

the level of predictability is very low.”

Rather than relying solely on academic-based information, most (80% of students, 82% of faculty) of the participants believed intangible characteristics, such as *motivation, commitment, and fortitude* were what set those who completed their doctorate apart from those who did not. More specifically, students and faculty differentiated those who completed a doctorate and those who did not by a *persistent attitude* due to past life experiences. In addition to personal attributes, job and research experience was found to be most helpful from the faculty perspective.

*What information can prospective students provide to encourage only the right people are admitted?*

Since both faculty and students agreed academic ability measures did not distinguish those who complete their doctorate and those who do not, our study attempted to determine which characteristics did differentiate these two outcomes for students.

Both faculty and students believed those who complete their degree had *motivation, commitment to the program, an independent aptitude for research, and were realistic about their readiness* for the doctoral program. Additionally, students believed those who completed their degree had the unique characteristic of resiliency during beginning of a program, during which some adjustment was necessary.

It is also important to note faculty and students varied in the degree of which they thought the admissions process should be changed. For instance, several of the participating programs constantly reviewed the admissions process with the goal to more accurately select the best candidates for a doctoral program. However, other faculty members believed their program’s admissions methods were “as good as it gets,” and the process is “something of an art as much as it is a science.”

## RECOMMENDATIONS FOR PROGRAM IMPROVEMENT

1. **Faculty member should understand the utility of objective measures.** GRE scores and undergraduate GPA are currently the best standardized measures for predicting graduate GPA..



**2. However, faculty members should also utilize objective measures with caution.** Most participants believed the primary difference between doctoral completers and noncompleters were internal characteristics that are currently not being measured by these objective assessments

**3. Examine internal characteristics in addition to objective measures.** Both faculty and students agreed internal characteristics, such as motivation and commitment, were what separated those students who complete their doctorate and those who attrite. These attributes can be assessed through interviews and questionnaires.

**4. Programs should make admissions more than a bureaucratic step.** Most prospective students see the current admissions process as such, and did not utilize it to assess their readiness for a doctoral program. Communicate to prospective students that the admissions process should be viewed as a process through which they determine which doctoral program, if any, best fits their needs and skills

**5. Faculty members should work to continuously improve the admissions process through active experimentation.** Recognize that this process is amenable to change in order to more accurately enroll the best students. Do not simply accept traditional methods when there is a possibility for a better method.

## USEFUL RESOURCES

### Books & Articles

Bair, C. & Haworth, J. (1999). Doctoral student attrition and persistence: A meta-synthesis of research. Association for the Study of Higher Education. San Antonio, TX, University of Northern Iowa.

Baird, L. (1974). The practical utility of measures of college environments. *Review of Educational Research*, 44, 307-330.

Basinger, J. (1997). Graduate record exam is a poor indicator of success in psychology scientists say. *Chronicle of Higher Education*, A33.

Bowen, W. & Rudenstine, N. (1992). *In pursuit of the Ph.D.* Princeton, NJ: Princeton University Press.

Gell, S. (1996). Factors associated with completion or non-completion of doctoral dissertations: Self direction and advisor/advisee congruity. *Dissertation Abstracts International*, 56, 4292A..

Girves, J. & Wemmerus, V. (1988). Developing models of graduate student degree progress. *Journal of Higher Education*, 59, 173-89.

Golde, C. (1996). How departmental contextual factors shape doctoral student attrition. *Dissertation Abstracts International*, 57, 3415A.

Lovitts, B. (2001). *Leaving the ivory tower: The causes and consequences of departure from doctoral study*. Lanham, MD: Rowman and Littlefield, 2001.

Nerad, M. & Cerny (1996). Increasing student retention in graduate and professional programs. *New Directions for Institutional Research*, 92, 61-76. San Francisco: Jossey-Bass

Tinto, V. (1998). Colleges as communities: Taking research on student persistence seriously. *The Review of Higher Education*, 21, 167-177.



## Useful Resources (con't)

Quinn, E. (1991). Doctoral student retention and selected personal factors. *Dissertation Abstracts International*, 52, 3200A.

*Workshop on graduate student attrition*. (1997). Washington: National Science Foundation, Division of Science Resources Studies. Retrieved on August 15, 2004, from <http://www.nsf.gov/sbe/srs/nsf98322/qualit.htm>.

## Websites

Council of Graduate Schools (2004). *Ph.D. Completion Project*. Retrieved October 15, 2005 from <http://www.phdcompletion.org>.

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Parent, E. (1999). *Jump Start Intervention*. Retrieved August 12, 2004, from [http://weber.ucsd.edu/~eparent/part2/Jump-Start\\_Intervention.html](http://weber.ucsd.edu/~eparent/part2/Jump-Start_Intervention.html).

Smallwood, S. (2004). Doctor dropout. *The Chronicle of Higher Education*. Retrieved August 14, 2004, from <http://chronicle.com/free/v50/i19/19a01001.htm>.

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