Doctoral Degree Completion: Conceptual Framing

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Overall Factors That Influence Persistence In Doctoral Education[*]

The following reviews literature overall on factors that influence student persistence in doctoral education as well as across five specific areas: recruitment/admissions; financial aid; mentoring and socialization; research productivity; health & wellness.

- Background variables explain only a small amount of whether students persist in doctoral programs[8]. Once one controls for perceived ability (GRE Scores) large sex and race differences in degree completion are substantially reduced and in many cases disappear[13, 24].

- When students are academically and socially integrated into the institution they are more likely to persist. Factors that affect integration are: the beliefs and attitudes of the faculty toward learning and teaching, the program structure, learning in classes, and relationships with faculty outside the classroom[12, 13, 23].

- Large cohort sizes increase the probability of attrition but have no impact on the probability of completion[4].

- The environment in the classroom is important. Faculty must engage students and invest in their research interest especially for students of color[13, 9].

- The relationship between the student, faculty/and or advisor is key to completion[9,13,15,17,18,]

- In a study of a "10-year intervention by the Mellon Foundation to improve the structure and organization of Ph.D. programs in the humanities and related social sciences", the authors found that the Graduate Education Initiative reduced attrition and increased completion[4]. The main mechanisms by which such aims were achieved were through increased financial aid and reducing cohort size. They note that even "the most generous financial aid packages are associated with considerable attrition" and encourage future research on the influence of the academic job market on completion.

A. Recruitment/Admissions

- Accessibility and encouragement from an advisor prior to formally submitting an application was key for minority students[2,3].

- Higher GRE verbal scores were associated with lower attrition[4].

- Having a prior Master's degree is a strong predictor of success in doctoral programs[4.]

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[*] Note: superscript numbers refer to the numbered reference list in the final pages of the document.

B. Financial Aid

- Financial aid or financial assistance from the graduate institution appears to increase the likelihood of graduate school enrollment and persistence[4,5,6,7].

- Completion rates and dropout rates are affected by the *types* of financial supports students receive[5,8, 9]. Students who receive fellowships or research assistantships have higher completion rates, and shorter time-to-degree than students who receive teaching assistantships or tuition waivers, or who are totally self-supporting[5,10].

- Unexpected costs associated with the doctoral degree such as data collection, printing and binding do not seem to be a cause to leave the university[11].

- The *Graduate Education Initiative* switched departmental funding from portable grants awarded to students to block grants awarded to departments. This policy change reduced attrition[4]. (see notes above)

C. Mentoring & Socialization

- The power relationship between faculty and students in higher education is assumed to be a major determinant of the relationship between them and ultimately of graduate school success and satisfaction with the graduate school experience[18].

- Mentoring relationships, formal or informal, create conditions for success. They serve to integrate students into the fabric of the department, cultivate essential professional and social networks, aid students in acquiring core research components, and pave the way for a place in the workforce[12].

- Mentoring is effective for everyone but it should be culturally and ethnically aligned with student's needs[12,13,14,15,16]. Although culturally aligned mentoring is ideal it is not always possible on some campuses or within some departments. The understanding of cultural differences by the mentor and mentee determines the effectiveness of, and satisfaction with, the relationship[12,17].

- African-American students often experience negative stereotyping in a variety of ways including tokenism, marginalization and labeling in a variety of situations—campus life, classrooms, faculty interactions and curricular content[17].

D. Research Productivity

- Graduates who publish early in their career are most likely to publish throughout their career[19].

- In a study of sociology scholars, women were less likely than men to publish in prominent journals[19].

E. Health and Wellness

- Graduate and professional students report high rates of depression, stress and substance abuse[20].

- Procrastination is common with graduate students and prevents students from completing their degree timely[21, 22].

- Self-sabotaging behaviors including over-committing, procrastination and perfectionism negatively influences completion.[22]

Administrative Strategies

A . Provide a detailed orientation program of the university and the department.

1. A two-semester orientation course where incoming students receive information about the different degree programs; courses available, paper writing and publishing, applying for grants etc.[9]. Allow students to take this course non-degree.

2. Periodic seminars or colloquia to discuss issues related to the field[9].

3. Dissertation workshops where graduate students could share their preliminary results or concerns and receive feedback[9].

B. The *Graduate Education Initiative* funded by the Andrew W. Mellon Foundation has reduced attrition, time to degree and increased completion rates. This might be a helpful program to seek more information about, though the GEI has concluded years ago[4].

C. Flinders University has developed *Generic Capability Programs* that are cognitive behavioral based. They provide students with skills that will enable them to complete the dissertation phase faster. Students learn how to better manage time, set specific times for writing and designate specific dates for turning in drafts to advisors. This has lead to successful completion rates and a reduction of stress among PhD candidates [22].

D. To prevent procrastination, study skills counseling is recommended. Advisors should evaluate students' propensity to procrastinate early on in the relationship and offer suggestions. Group sessions focusing on stress management and time management have been successful [2,4,21,22].

E. Make sure students have access to quality mentoring and advising, Schools should offer faculty the training they need in order to be successful as mentors, Academic officers should seek a diverse faculty who have knowledge of different student population. Create a graduate advisory group that meets regularly to help inform faculty of student needs[4,17].

F. The Carnegie Foundation has done a lot of work on doctoral education and the most recent book[25] has several examples of doctoral programs nationally who are trying to increase the intellectual engagement of students. One concept that seems to key to doctoral student experience is that of apprenticeship.

G. For minority students, deans and/or department leadership should make a special effort to introduce students to their advisors. Introductions to other faculty members in the department should be made as soon as possible. Create opportunities for students and faculty to connect across race, gender and SES differences Effort should be made to create opportunities GSRA versus teaching assistants[4].

H. Institutional strategies, "Wise Schooling," can be implemented to reduce stereotype threat. Such practices include optimistic faculty/student relationships, challenging rather than remedial expectations and academic work, stress on the expandability of intelligence, affirmation of intellectual belongingness, emphasis on the value of multiple perspectives and the presence of culturally and ethnically aligned role models have been encouraged and practice at all educational levels. All components of "Wise Schooling" need not be present for a positive impact.[17].

I. Typically schools have long mental health wait list for services. Mental health groups should be formed based on students needs. Needs assessment of graduate student population should be done frequently, regardless if students indicates they are struggling with any mental health issues[4,20].

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