EXCELLENCE IN DOCTORAL EDUCATION: DEFINING BEST PRACTICES

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At Western Michigan University, the Graduate Center for Research, Writing, and Proposal Development sustains both doctoral students and graduate advising faculty through the doctoral dissertation process and represents one best practices approach that promotes persistence in graduate education – an especially important benefit, given the national doctoral attrition rate of 50%. Document analysis of the records of graduated doctoral students reveals important information that correlates to students’ trajectories through the doctoral educational process and that informs programmatic initiatives aimed at retention and graduation. The data also inform institutional policies and procedures that further sustain educational pathways to the Ph.D.

In light of the 50% national attrition rate for doctoral students, a rate that has not decreased in recent years, it is important that the conversation continue. The necessity to preserve the nation’s contingents of doctoral students will have significant bearing as we embrace a more technologically complex world that must avail itself of the research, creativity, and talents of a diverse body of scholars. The dearth of scholars reflected within certain fields, STEM (science, technology, engineering, and mathematics), for example, only heightens the critical issue of doctoral attrition, and the lack of representation in terms of gender and ethnicity compounds an already serious national circumstance. Further, institutions must remain competitive in their educational offerings: those institutions which do not invest research dollars, time, and initiative into assessments of the quality of their doctoral programs, including time to degree, attrition and completion rates, as well as technical and psychosocial support mechanisms that increase opportunities for persistence, will lose students to other institutions that value and maintain such a competitive edge. The opportunity to write about and discuss the crisis in doctoral education illuminates the problem from multiple perspectives and provides rich insight; however, it is also necessary for doctoral granting institutions to conduct their own institution-specific research, discuss their successes, and engage in dialogue that opens up to collaborative interchange and partnerships through which doctoral persistence can be enhanced through best practices.

Best Practices Approaches to Attrition Research and Retention at Western Michigan University

Despite the numerous critical studies on doctoral attrition, it is apparent that much of the conversation concerns identification of various factors that contribute to attrition, without the benefit of conver-
sations that address the implementation of best practices, those interventions currently in use that ameliorate this trend. It is most important that universities strive for more transparency of data and share their research findings in an effort to reverse the untoward occurrence of high doctoral attrition. Best practices, and the research and subsequent institutional policies that guide them, require an open forum. The means through which higher education addresses this problem collaboratively will provide a solid framework that lends to reform of the doctoral educational process.

The Graduate Center for Research, Writing, and Proposal Development at Western Michigan University (WMU), Michigan’s fourth largest research university and one of only 102 public universities to hold the Doctoral/Research Universities-Extensive classification by the Carnegie Foundation for the Advancement of Teaching, represents a best practices approach to the issue of doctoral attrition. The Center, five years in existence, is a unique entity that departs theoretically and pragmatically from standard writing centers in that it offers no remediation services. Instead, it offers a complex of programs and support structures that educate students regarding the technical elements of proposal development, professional development through publication, practical strategies for writing the dissertation, communication strategies to heighten the effectiveness of the advisor/advisee relationship, preparation for dissertation proposal defense, preparation for the oral defense, as well as programs that encourage students’ psychosocial development and well being during the dissertation process. Moreover, the sustained mentorship, the focused guidance and support that it provides to all doctoral students throughout the tenure of their course of study, enhances opportunities for degree completion, and thus, embodies a highly evolved retention strategy.

Most importantly, the Center is cognizant of the necessity to address not only the needs of doctoral students, but also to identify and address the needs of graduate advising faculty as they contend with the rigors of the advising process, an unprecedented approach. Currently, at many universities in the United States, there are no formal mechanisms in place that educate or provide training for advising faculty, a fact that certainly must affect the efficacy of the advising process. As a result, the opportunities for miscommunication, misconception, and flawed expectation between advisor and advisee are rife. Two communication workshops, one for graduate students, and a mirror program for graduate advising faculty, provide extensive information on several different types of advising styles that professors may use, and also address strategies for communication that best suit each advising style. Advisors’ workshops on conducting qualitative and quantitative dissertations also address various dimensions of proposal development and include demonstrations centered in developing conceptual conversations with students. Future workshops focus on the ethics of advising, culturally diverse advising, leadership, and self-management.

Formal training and support for students and faculty are requisite if the doctoral educational process is to succeed.
Doctoral students, despite their seemingly self-assured appearances, often struggle in silence with issues of developing a proposal or writing a literature review, and new advisors, with little more than their own dissertation experience to serve as guide, frequently discover themselves as denizens in uncertain worlds. Faculty training generally takes place under the tutelage of seasoned professors who initiate new advisors into the process; however, at best, the procedures often do not expand beyond the personal experience and guidance of these mentors. This is not to dismiss that guidance and expertise—certainly the master/apprentice model has been successful for centuries; however, contemporary education requires other models that interface with evolving demands.

Addressing the needs of both doctoral students and graduate advising faculty is requisite if we are truly to improve graduate education and make inroads into a process that has, for the most part, resisted productive change. At the heart of doctoral students' struggling lie serious concerns that challenge the notion of certainty that they are indeed worthy of embarking upon doctoral study, a notion that frequently serves to undermine even the most stalwart and that holds serious implications for students from underrepresented groups who may experience yet another deeper level of angst in the face of sociocultural challenges and pressures. For new advising faculty, the demands of leading a student through the dissertation process, sans the benefit of formal training and support, can be exacting. The absence of employing this dual approach that considers both faculty and student needs accounts for many of the flaws in doctoral education.

Research and Policy Implications

The Graduate Center at WMU serves as a conduit between the Graduate College and the university at large because of its direct interactions with students and graduate advising faculty, and as a result of its research. In many respects, it sits inside of the doctoral educational process and, therefore, it occupies a unique perspective that permits for it to see across a spectrum of doctoral programs and their processes. Moreover, it discerns best practices as those exist within various departments and serves to disseminate information that may be useful to other disciplines. As a result, it has contributed to the implementation of policies and procedures that enhance doctoral education. It has transformed The Graduate College from a policy-generating body to one that conducts both formal and informal research—the findings of which are integrally related to the development of university policies and procedures that strengthen the graduate education process.

The implementation of a formal annual review of progress ("Annual Reviews of Graduate Students," 2004) for master's and doctoral level students is one example of a policy that has as its main objective a core centered in retention, and also in due process (Wiener & Hustoles, 2004). Another example is the recommendation that the dissertation committee member approval process be improved by requiring that formal approval at the college deans' level is secured prior to any committee meetings with the student: experience has shown us
that committees frequently work together without the benefit of a formal approval, which, if denied, results in the reconfiguration of the dissertation committee at a late stage in the student's doctoral education and potentially protracts time to degree.

Moreover, the Center has recommended the implementation of a *universal tracking document* that reflects important milestones in the students' doctoral educational process, including dates of all comprehensive examinations, completion of research tools, GRE scores, and program of study, among other markers. This document can be maintained in the student's annual review record and can, at a later date, be maintained in the formal academic record. As well is the recommendation for the design and implementation of a *dissertation proposal approval* form that creates a formal document recognizing the agreement between the dissertation chair and committee members, and the student that the proposal has been officially approved and that the student's research ensue. This document represents a contract that protects both the student and the committee members, and its presence encourages clear communication among the team members regarding the parameters and the logistics of the study.

Further, the Center has created discipline-specific process flow charts and corresponding narratives through which the doctoral educational process had been depicted in a visual form that represents a roadmap for the graduate student, from program inception to program completion. The charts are designed based upon a manufacturing process that has been uniquely wedded to an academic process, a singular approach. To the best of my knowledge, WMU is the only university that creates process flow charts with corresponding narratives for its doctoral programs. The charts serve not only as a retention effort—students always know their location within the course of study and if they move off track, they are rerouted back into the process—but also can be utilized in the recruitment process.

In addition, the Center sponsors its own website through which it features the doctoral process flowcharts and communicates directly with students in a series of *Notes From the Director* about various issues of concern to graduate students—from securing Human Subjects Institutional Review Board approval to attending dissertation defenses (Graduate Center for Research, Writing, and Proposal Development, 2004).

Apropos the adoption of new doctoral procedures, the College of Education at WMU has endorsed the Center's recommendation that doctoral students consider the dissertation topic early in the doctoral process and has implemented a *doctoral studies seminar* in the first year of study: the objective of the seminar is to assist students in developing a conceptual frame for the dissertation. In addition, the College is currently altering the framework of its *dissertation seminar* to make of it an outcome-based experience that results in a proposal. These efforts to enhance students' opportunities for successful completion of programs reflect best practices in doctoral education at WMU.

Last year, the Graduate Center com-
completed the initial phase of its research: an institution-specific/department-specific study that yielded “Western Michigan University Doctoral Graduate Profiles for Academic Years 1992-2003” (Di Pierro, 2004). This preliminary study, which serves as a platform for continued research, has resulted in a profile of WMU doctoral graduates that provides information regarding time to degree and the manner in which time to degree is comprised of three established phases: Phase I—date of admissions to date of last comprehensive examination; Phase II—date of last comprehensive examination to date of oral defense; Phase III—date of oral defense to date of graduation. This exposition delineates the doctoral educational process in segments and permits for the institution to see a reflection of its matriculated doctoral students as well as the patterns of its students as they move through each particular phase. In essence, the study has established normative patterns of matriculation. The study captures statistics in aggregated form, from the institutional level to each of the colleges and the departments within those colleges. Further, it not only reflects statistics from a discipline-specific perspective, but also examines gender, ethnicity, and attrition as those factors manifest within specific disciplines. Moreover, it has established a portrait of students that indicates their average age at program inception and completion, GPA upon program inception and completion, GRE scores, and time from MA/MS to Ph.D. Another critical element of the study is its attention to the issue of the number of dissertation committees configured and program extensions granted during doctoral students’ programs of study. This additional profile of committees and extensions by department, and by ethnicity and gender, provides the university with important information about students as they navigated through the doctoral process. The profile is significant when we consider the manner in which extensions impact time to degree at WMU: for example, the aggregate time to degree for the university is 5.97 years; however, for those students with two or more extensions, time to degree increased from 5.97 years to 9.51 years. Protracted time to degree assumes increasing importance when we consider the fact that the longer a student is enrolled in a program of study, the more the opportunity for attrition.

Disciplines for which the study revealed protracted time to degree as a normative manifestation of their matriculation pattern must be aware of the manner in which time that rapidly approaches the 7-year time limit designated for program completion at WMU, negatively impacts students’ ability to persist. It is not sufficient to cite protracted times to degree as being normative without also inquiring about factors that lend to protraction, and then exploring ways in which that time can be reduced while still preserving the quality and integrity of programs.

Our institution-specific study provided insight into various patterns of attrition here at WMU. For the purposes of this study, we established the following attrition patterns with the corresponding attrition rates for our institution: early stage attrition—the attrition that occurs within the first 2 years of doctoral study (58.8%); mid-stage attrition—the attrition that
occurs after the first 2 years of doctoral study (41.2%); late-stage attrition—the attrition that occurs after 3 years of doctoral study (31.8%); end-stage attrition—the attrition that occurs after 5 years or more (17.3%). Ongoing research will focus on qualitative studies that address factors intrinsically related to early, mid-stage, late-stage, and end-stage attrition. Identification of these factors assists us in implementing strategies to stanch our doctoral attrition, especially significant when we consider the numbers of underrepresented students whose national attrition rates are not known but which are estimated to be above the national average of 50% (Lovitts, 2001, p. 2).

For example, the study revealed an attrition rate of 37.9% for African Americans; however, when we peeled back that rate to make it specific for African American males, the rate increased to 50%. Hispanic Americans attrited at a rate of 23.5% for the aggregate population; however, students classified as International and Others attrited at a rate of 53%, not insignificant considering the recent decline in applications from this particular group, as well as the fact that many of the disciplines classified as STEM fields are populated primarily, at least at WMU, by students in this category (Arnone, 2004). The study further revealed that as of June 2003, the end of the data collecting period, we had graduated proportionately fewer underrepresented students in the STEM fields, a fact that certainly bears upon heightened recruitment and retention efforts. Moreover, the findings indicate that for certain disciplines the attrition rates for all students far surpass the institutional aggregate attrition rate of 40.5% and indicate the need to track attrition not only on an aggregated level, but on the departmental level as well. Analysis of the factors that lend toward these high rates is necessary and certainly prompts awareness of the value of qualitative engagement with students via exit interviews.

The findings of this study yielded conclusions and recommendations that were disseminated within the university community in a top-down procedure, from university provost to deans, chairs, and faculty. As Chris M. Golde, nationally recognized researcher in graduate school attrition suggests, institutions must find a starting point, conduct research, and let the data tell the story (Smallwood, 2004). This is exactly what we did. These findings include the following:

1. Continue to measure outputs in all departments and note trends in time to degree that may protract the process—implement purposeful change for improvement;
2. Develop culturally diverse advising models;
3. Encourage development of the dissertation topic early in the student’s doctoral education;
4. Make of the dissertation seminar a collaborative enterprise that culminates in a final product—a concept paper or a working draft of the dissertation proposal;
5. Conduct entry and exit interviews with all students—those who graduate, as well as those who do not complete;
6. Measure completion rates for comprehensive examinations—one of the first
places where students encounter difficulty in the doctoral educational process;
7. Create focused tutorials or workshops to assist in developing test-taking skills;
8. Focus on recruitment and retention of students from underrepresented groups, especially in the STEM fields;
9. Limit the length of extensions to less than, but no more than one year and closely monitor progress prior to the end of the extension period, especially at annual review;
10. Apprise students of the average length of each phase of doctoral study so that they understand the process of doctoral education and the commitment necessary for program completion;
11. Use the process flow charts and accompanying narratives as roadmaps to navigate students through the process;
12. Maintain better record keeping and aim for consolidation of documents;
13. Use the universal tracking document to help track future data;
14. Avoid letting students proceed to the oral defense until the dissertation is in near final form;
15. Use the data results from this project to improve time to degree and to identify opportunities to reduce attrition within each department;
16. Benchmark best practices within the university;
17. Develop ongoing orientations for doctoral students that coincide with each phase of doctoral study—business has long appreciated the effectiveness of providing just in time training, a more efficient method of imparting information and serving the students’ needs;
18. Coordinate activity interviews timed to each phase so that students and dissertation committee members engage in open discussions regarding the efficiency and effectiveness of their interactions;
19. Conduct exit interviews at the time of dissertation defense so that the student and committee members enter into a debriefing that provides opportunities for process improvement;
20. Provide training for graduate advising faculty;
21. Develop ongoing orientations for graduate advising faculty to familiarize them with policy changes and to provide them with an open forum through which they can address issues of concern from the faculty perspective.

Conclusion
These recommendations result in an evolving and ongoing process through which we are defining best practices, the implementation of which must be further articulated, assessed, measured, and evaluated. The slow but continual philosophical shifts in the organizational culture and the manner in which graduate education is viewed will serve as catalysts to inspire purposeful change. Moreover, the movement toward transparency of data, both internal and external, permits for an exchange of important information with colleagues and inspires a spirit of scholarly generosity, ethical responsibility, and integrity.
References


Footnotes
1For the purpose of this study, STEM fields were defined as follows: biological science, mathematics, statistics, engineering, chemistry, physics, geoscience.

2WMU is currently partnered with the University of Michigan, Michigan State University, and Wayne State University in an Alliance for Graduate Education and the Professoriate (AGEP) grant, sponsored by the National Science Foundation for the purpose of increasing enrollment among underrepresented groups in the STEM fields. WMU is also a Council of Graduate Schools (CGS) Project Partner in the CGS Ph.D. Completion Project, the objective of which is the recruitment, retention and persistence of underrepresented doctoral students, especially in the STEM fields.