THE COLLABORATIVE CHARACTERISTICS OF PROFESSIONAL DOCTORATE DEGREES: A CASE EXAMPLE OF A DOCTORATE PROGRAM IN INFORMATION SYSTEMS AND COMMUNICATIONS

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ABSTRACT

The purpose of this paper is to discuss the unique characteristics and collaborative nature of professional doctoral degrees. While there is currently a high demand for credentialed doctorates, primarily because of professional accreditation requirements (e.g. ABET-CAC or AACSB), there is a relatively low degree completion rate (nationally less than 40%). This paper discusses issues with doctoral programs in general, and how professional doctoral degrees differ. In particular, it will focus on the characteristics of one of the programs offered in the Information Systems field. This program is the doctoral program in Information Systems and Communications at a private university in the northeast. It discusses how a number of features of this program led to a successful degree completion rate that exceeds the national traditional doctoral program degree completion rate.

Keywords: Professional doctorates, Information System doctorates, IS Programs

INTRODUCTION

Completing a doctorate degree tends to be a daunting process. It requires the commitment of many resources including time and money. For most, it takes several years from the beginning to the end. Due to this time commitment, and in many cases the lack of program structure, doctorate students do not complete their degree. Some may abandon their pursuit before completion of the course work while others stop after unsuccessfully completing their research requirements.

The time commitment is an acute issue for professionals. For this reason, a newer brand of doctorate programs called “Professional Doctorates” were developed to accommodate the time constraints of such professional individuals (3). A number of doctoral programs have been restructured to accommodate the experiences and schedules of professional people.

This paper discusses the nature of such professional doctorates. It will focus on a particular doctorate program in information systems, offered at Robert Morris University (RMU) in Pittsburgh, Pennsylvania. It will argue how specific design features of this program led to both a high completion rate and an associated low attrition rate for students in this program. The paper will first discuss traditional and professional doctorates. It will then discuss common factors that are attributed to non-completion of these degrees. Following that, the paper will focus on the characteristics of the doctoral program at RMU and explain how these design characteristics led to a higher completion rate.
THE DOCTORATE DEGREE PROCESS

The requirements and process for obtaining the doctorate degree depends on the type of program enrolled in. But in general terms, most doctoral programs, although they differ in contents, still have similarity in process or the requirements necessary for completing the degree. More specifically, obtaining a doctoral degree in most cases (especially in IS programs) incorporates the following sequence:

The course work

Although some doctorate degrees go directly to a dissertation or research project, in general, most programs require doctoral students to take a specific number of courses prior to engaging into actual research work. The course work includes content courses in the subject matter of the doctoral work as well as courses that prepare the students for research and writing. The later part may include a research methods course that introduces various statistical or qualitative research methods.

Qualifier or Comprehensive Exams

The comprehensive exam is usually taken after the completion of the doctoral course work. It is the milestone moving from doctoral student to doctoral candidate. This exam is intended to measure the student’s ability to both comprehend the field content material of the doctoral program as well as to assess the student’s potential to do research.

The Research Proposal

During this stage, the students submit a proposal for their research project. The research proposal includes a general description of the project, problem definition, literature review, data collection methods, the selection of research methodology (quantitative or qualitative), etc. While some of the detail and direction of the research project may change, this proposal identifies the standards required of research projects and acts as a guiding contract to meet those standards and requirements. Students may select their committee members at this stage so as to work with them to help define, limit, and provide guidance for a successful and valid research project. Students must successfully defend their research project proposal before moving on to undertaking their research.

Completing and Defending Research

In general, this is the most unstructured step in the doctoral process. Completing the research project depends largely on the student working in coordination with the advisor and other committee members. This step is the basis for the highest non-completion rate among the students (4). Because of the “unstructured” nature of this step, the student takes on the burden of self motivation and direction to complete the project (2). With no formal structured environment to motivate and guide students in their research, numerous other life issues frequently take precedence. The research project is progressively given a lower and lower priority, and, as a result, its progress gets delayed. This accounts for why a large percentage of students never
complete their doctorate degree. At this point, a large number of doctoral students leave programs with the status of ABD (all but dissertation).

**Common Reasons for Not Completing the Doctorate Degree Program**

As indicated earlier in this paper, doctoral programs face a high degree of attrition or rate of non-completion. The following is a description of some of the factors that have been cited as reasons for non-completion among doctoral students.

**Lack of Structure or Enforcement Mechanisms**

As explained earlier, virtually all go through a sequence of courses, comprehensive and/or qualifier exams, and research project work. Yet most doctoral programs remain unstructured in specifying the sequence of steps required for completion or in enforcing a structure for completing the program.

In most doctoral programs, the name and number of required courses is specified at the beginning of the program. However, even with a documented structure and sequence of the program, this sequence and structure is difficult to enforce. In other words, students can take courses at their leisure with minimal monitoring of what courses, how many courses and in what order courses are taken. This lack of an effective enforcement mechanism by the institution frequently leads to further problems later in the program. With no regular sequence in place students then are either forced to substitute courses or prolong the time period necessary to complete milestone program requirements.

**Strong Focus on Theory**

While there is a growing mix of emphasis on theory and practice in doctoral programs, there is still a trend of doctorate programs to focus on theory (2). This theoretical focus was especially cited by professionals as a reason for non-completion. Professionals tend to study in a field that contributes to their professional career development. Strong emphasis on theory may not help professionals who have “practice” on their mind when pursuing a doctorate degree.

**Feeling of Isolation**

There is a feeling of isolation that is experienced in doctoral programs. While it manifests itself during the course work, it becomes more evident during the research project when communication is limited to the student and the advisor or the committee members involved in the research project work (3).

During the course work, although the students take similar courses and become familiar with each other, by taking courses at different times with different instructors, knowledge and content consistency cannot be guaranteed. As a result, the students will not know each other well enough to exchange notes and opinions about the course work. Some programs offer informal and formal social events to break the isolation among the students and to break down student/faculty barriers. However, on the basis of the high attrition rate that are attributed to the feeling
of isolation, it would seem that such social events are either not well attended by the students or not frequent enough to break such feelings of isolation.

**PROFESSIONAL DOCTORATES**

As the need for doctoral programs that addresses professional needs has grown, a new genre of doctoral program called the “professional doctorate” has emerged. Such doctorate degrees programs address the need of professionals who work full-time. Therefore, while the contents of these new programs are similar, the structure or delivery has been modified to make them more adaptable to professionals and their schedules. The intent and plan of professional doctorates is explained in general terms in the following definition:

“A course oriented to the informed and critical application of knowledge to problems and issues concerning the professions or professional practice”(1).

Professional doctorates are usually geared toward particular professions and are named differently to denote the profession. There are professional doctorate degrees in eduction (Ed.D.), in Medicine (M.D.), in clinical psychology (D.ClinPsy), in Business Administration (D.B.A.), in Theology (Th.D.) and others (1).

The focus and method of delivery of doctoral program differ in these professional doctorates. But there are certain characteristics that distinguish such programs. Professional doctorates focus on the following special features (3):

1- Training in research and applied science
2- The portfolio
3- Programs compromising seminars, meetings and conferences
4- Assessment which required a global judgement to be made about the scope and quality of the award.

**THE DOCTORAL PROGRAM AT RMU**

The Doctor of Science in Information Systems and Communications degree at Robert Morris University (RMU) started in 1999. The first group of students graduated from this program in May of 2002. The second group started in 2000 and completed their degrees in 2003. The goal of this “lock step” three year program as stated in the university materials is to “address the expanding needs of professionals, who manage information resources, solve information, communication, and technology related problems in businesses and other organizations, education and/or train others in fields to the application of information systems and communications” (5). By May of 2004 41 students have successfully attained their doctorate reflecting an 89% completion rate. Although this program may be similar in contents to many doctorate programs in information systems, there are, however, salient differences in the structure and the design of the program that has led to a high success rate of degree completion. The remainder of this section is going to explain the features that help reduce attrition among doctoral students.
The Structure of the Program

The program is designed to be completed within six semesters (or three years). This kind of design is not much different from other doctoral programs. Doctoral programs, in general, list the degree requirements and suggest a sequence for completion. What distinguishes this program is the structure and support mechanism this is inherent to the program design. The structural enforcement mechanisms include a “lock step” cohort approach in which all students admitted at the same time take the same courses together in the same sequence.

Initially, an administrative member of the doctoral staff registers the students for courses each semester. The students do not have a choice among courses nor do they have choices in the number of courses. The students must take the 3 specified courses each semester in order to proceed to the next semester. In order to assure that the students take what is required, a doctoral program administrative staff member registers each student. This reduces the possibility of errors. Furthermore, this facilitates the progression of students from one semester to the next, thus creating an enforcement mechanism for the specified course sequence.

Second, the course content is the same for all the students enrolled in the program. This includes the same textbooks, instructor, materials, assignments, and rigor. This policy helps to eliminate the disparity in course content and results in consistent knowledge base for each student in the cohort.

The Residency Weeks and Weekends

The doctoral program at this university is conducted during the mandatory scheduled residency period. Each of the six terms has a scheduled residency of 7 days (late August for the fall term and early January for the spring term) and 3 residency weekends each term held at 5 week intervals. The students enrolled in the program stay at a nearby hotel with reservations and accompanying logistics taken care of by the RMU staff. The hotel cost, food, and related expenses such as high speed internet connection are integrated into the yearly tuition cost.

The residencies are tightly scheduled with formal classes and one on one faculty student meetings. The schedule runs from 8:00 AM to 9:00 PM with breaks every hour and a half, time for lunch and dinner. Both class time and break time allow for both formal and informal discussion between faculty and students. Having a dedicated scheduled time for this program helps the students clarify issues regarding the course work and research in the following ways:

1- It helps with student to student communications. The students are there all day long and have the time to communicate with others regarding their course work.
2- It helps communicating with faculty also. All faculty members in the program attend the residency week/weekend also.
3- It may work as a channel to communicate with the administration in this program. The administrators of the program attend the residency week/weekend.

The Cohort Enrollment Approach
The cohort approach takes a different direction. In this approach, students start the program as one group (cohort), then take courses at the same time and move to complete the program together. Entering a program with a particular group of students, taking courses with the same students, and living with each other helps to reduce the feeling of isolation. It helps the students to get to know each other, become more tolerant, exposes them to greater diversity, and share experiences among each other. But moreover, the content of the doctoral program at RMU include additional activities that help breaking isolation among the students themselves and also among the students and faculty alike.

1- Study and Discussion: This is an early day informal session that may be held over breakfast, thus is nicknamed the “breakfast club”.
2- Community Dinner: This is a meeting/dinner that is sponsored by the program. The dinner is held at the beginning of the semester and is attended by the students from the different cohorts, the faculty and administrators of the programs.
3- Debriefings: These are sessions that are held at the end of the day. The debriefing meetings take place to discuss issues brought up during the day.

The Field Project

The field research project in this program is similar to doing a dissertation in other doctoral programs. Applied research is the focus of each field project. A field research project is developed through the following process:

1- A proposal for the field project must be submitted at the end of the second year and must be defended in front of a selected committee.
2- Following the approval of the proposal, work begins for data collection.
3- The field project must address a problem related to work and the attempts of this field project must be directed toward solving the proposed problem.
4- The student selects a committee that has at least three members. Also, the students are required to include one student from their cohort for reading and feedback.
5- The student is encouraged to select at least one member from the industry for which the project is written for to ensure the practicality of the project.

In support of the field research project are three required seminars. Each seminar is focused on the student field project research. The first seminar is held the second semester of the second year. Its focus is the proposal. The second seminar is third year first semester and it focuses on methodology and data analysis. The final seminar is the third year second semester and it focuses on writing and quality assurance. In each seminar, all the students go through a process of public presentation, defense, and review. The results of such peer evaluation and criticism is a better designed, developed, and written research project.

SUMMARY

There is growing evidence that the high attrition rate in doctoral programs is related to factors associated with the design of the program. Attrition is also related to other factors such as the feeling of isolation and lack of direction with respect to research projects. Professional doctoral
programs address the need of professionals who seek advanced specialized degrees. The doctoral program in Information Systems and Communications at Robert Morris University is an example of such a program that maintains the attributes and characteristics of traditional doctoral programs, but at the same time, addresses attrition factors. The success rate of students in this program is evidence that the design of the program potentially helps to mitigate factors that lead to high attrition among doctoral students. Table 1 below list the success rate of completion for the first three cohorts enrolled in this program.

<table>
<thead>
<tr>
<th>Cohort Name</th>
<th>Start Semester</th>
<th># Students In Cohort</th>
<th>Number Completed after 3 Years</th>
<th>Percentage Completion Rate</th>
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<tr>
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<td>Fall 1999</td>
<td>12</td>
<td>12</td>
<td>100%</td>
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<tr>
<td>Cohort 2</td>
<td>Fall 2000</td>
<td>15</td>
<td>12</td>
<td>80%</td>
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<td>Cohort 3</td>
<td>Fall 2001</td>
<td>17</td>
<td>15</td>
<td>88.2%</td>
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REFERENCES