On the Cutting Edge – A Successful Distance PhD Degree Program: A Case Study

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ABSTRACT
Background and Purpose: Distance education has witnessed steady growth in higher education since its beginnings. During the 1990s, growth in the number of educational programs that were time and place independent was rapid. This article is about a unique program - a Ph.D. PT degree program-- the first and only Ph.D. in Physical Therapy offered in distance education format in the United States. This report discusses the design, implementation, and experiences gained in setting a PhD program in distance format. Model Description and Evaluation: This program is an on-line/residency hybrid model where the majority of work is carried out on-line using WebCT. Midway through each 5-month semester, students come to campus for the residency component of the course. The program includes both required and elective courses, as well as a research dissertation. Students provide individual evaluations of each course. Formal outcome studies will be conducted when a sufficient number of students have graduated. Outcomes: Individual course feedback from students has been very positive, and the graduates’ work placements signal recognition from the professional community of the quality of the program. Discussion and Conclusion: As the profession moves toward the entry-level doctoral degree, this model will enhance opportunities for physical therapists to pursue a PhD degree, and one specific to the profession of physical therapy.

INTRODUCTION
Distance education delivery has experienced steady growth in higher education since its beginnings. In 1990, nearly 28% of all adult students in the United States were receiving education in some distance format, up from 18% in 1988.\(^1\) At the time, “distance education” was not necessarily computer-based. During the 1990s, growth in the number of educational programs that were time and place independent was rapid. The National Center for Educational Statistics reported 91% of public 4-year institutions and approximately 50% of all private institutions, representing 1.6 million students, were offering or planned to offer distance education programs.\(^2\)

Growth in distance education has occurred because of the advances in technology needed to deliver such courses, access to and skill in using computers by the average adult, and the time demands of modern life. While academic institutions promote the concept of life-long learning, employment demands and family responsibilities call for adults to seek forms of education other than traditional brick-and-mortar education.\(^3\) Distance education allows adults to obtain a formal education while offering the flexibility needed to accommodate demanding schedules.

This article is about a unique program -- the PhD in Physical Therapy (PT) degree program -- that is currently offered through Nova Southeastern University (NSU) in Ft. Lauderdale. It is unique because it is the first and only regionally accredited PhD in PT offered in distance education format in the United States. At a time when educational traditionalists were questioning the validity of distance format degree programs, NSU’s Physical Therapy Program was moving forward into the new millennium of educational delivery systems for physical therapists.
Unique Role of the Ph.D. PT Degree
For decades, physical therapists desiring careers in academia were limited to PhD degrees in areas other than physical therapy. Most physical therapy academicians held degrees in related areas such as anatomy, physiology, movement science, public health, or higher education (EdD degrees). As the profession moves toward the Doctor of Physical Therapy (DPT) as the entry-level degree, academicians without doctoral degrees have had to ask themselves if they are qualified to teach in a DPT program with the degree they do hold. Those who have concluded they are not qualified to teach have left academia. Consequently, almost every program has one or more open faculty positions.

With the implementation of the Ph.D. degree in Physical Therapy, physical therapists who choose to enter or stay in academia can earn a terminal academic degree within their own profession. In addition, as programs are offered in distance format, physical therapists can earn this degree at times and places convenient to them, without having to change jobs and/or move their families to another geographic area in which a brick-and-mortar program is offered. It can also offer the student the opportunity to continue working with minimal interruption.

The Concept
The concept of an advanced doctorate in Physical Therapy began at NSU in the mid-1990s as a Doctor of Science (DSc) degree program that would be campus-based. Although so conceived, this program was never initiated for a variety of internal reasons. It was not until the late 1990s, with different key players in place (a new director of the doctoral program and a new department chair), that the concept of a doctoral program was revived. However, the new concept was to offer it in distance format, with a minimal residency requirement, to reach more working physical therapists.

The first students were accepted in 1998. Prior to the first semester, questions were raised about the designation of the DSc as the terminal degree. As the program included core requirements typical of a PhD, including a heavy emphasis on research courses and the requirement of a dissertation, it met the criteria of a PhD program. Once the internal community was convinced that this should be a PhD degree, the director of the program petitioned the Southern Association of Colleges and Schools (SACS) to change the degree designation. Approval was granted and the degree designation was changed from a DSc to a PhD.

Faculty
One of the initial issues to address was that of faculty. Program management recognized the flexibility afforded by a distance format that allowed for having faculty from any area of the country as adjunct. This provided the ability to offer the best-qualified faculty and nationally recognized experts and leaders in the field to teach in the program. It also enabled the program to offer a wider scope of topics beyond the specialties of the full-time faculty.

Students
As further evidence of the need for a PhD program that is both specific to physical therapy and in distance education format, it is interesting to note that 80% of the current students of the program are faculty in other entry-level physical therapy programs. The rapid movement toward the DPT as the entry-level degree in this country is probably the major driving force resulting in the need for a program such as this one.

It is also worth mentioning that the need for a distance-based doctoral program in physical therapy extends beyond the borders of this country – several of the students are physical therapists who are practicing in other countries.

Design of the Program
Structure
The program structure consists of two 5-month semesters per year. Students come to campus in the middle of each semester for approximately two days per course. Nine credits or more per semester equals approximately one week on campus. This hybrid structure, with only 2 weeks on campus, retains the best of both traditional and on-line instruction. Not all courses, however, have a residency component. Although all of the required courses have a residency requirement, many of the elective courses do not.

Delivery Medium
All courses use WebCT® as the software for delivering the instructional material. Incoming students are required to take “Introduction to WebCT” before starting their first semester. Students receive one credit for the successful completion of this course. Requiring this course assures each student has a basic understanding of how to use WebCT. To further facilitate use of WebCT, students have access to technical support throughout the curriculum. Students' assigned e-mail addresses are entered into the class roster once they have registered. In order to access and become familiar with course material, students check into the course at the beginning of and throughout the semester to retrieve the assignments for the class. In almost every course, students are required to communicate electronically and complete one or more written assignments before coming to campus. For example, in the course titled “Courseware,” the
pre-residency assignments include completing 20 annotated bibliographies on computer-mediated learning theory, choosing and critiquing a book on the principles of multimedia design, and comparing and contrasting three different software programs on similar topics.

Residency Requirement
A fair amount of discussion occurred regarding when to schedule the residency component. Many of the other on-line doctoral programs at NSU use one of two residency formats: the institute format, which is a week-long on campus residency, and the cluster format, which is a once-a-month extended weekend residency. The faculty of the physical therapy program decided to schedule the institute or residency component for the middle of each semester. This allows students to gain enough familiarity with the course material to have meaningful discussion and class interaction while on campus. For all courses, students are expected to be prepared to contribute to the discussion on campus. It is also common for students to be required to give presentations during the on-campus time. This on-campus time sets the stage for the remainder of the semester and the final course assignments.

Comprehensive Examination
Students must successfully complete a comprehensive examination, standard to most PhD programs, at the completion of their required courses and prior to starting the dissertation process. Questions cover three of the required courses only, and the courses are chosen on a rotational basis. One of the questions on each exam is a research question. Faculty who taught the respective courses submit their questions and grade the answers.

Program or Admissions Requirements
All program applicants must successfully meet the admissions criteria. Students entering the PhD PT program with a Master’s Degree (PT or other) must complete 40 course credits plus 20 dissertation credits. Students entering the program with a Bachelor’s Degree must take 55 course credits plus 20 dissertation credits.

Course Requirements
Course topics in the PhD program are related to physical therapy within the expansive scope of health care and related issues. For example, the course titled “Ethical and Legal Issues” addresses topics such as cloning, e-medicine, genetic engineering, allocation of health care dollars based on diagnosis, and issues regarding the content and execution of living wills. Fifty-five percent (55%) of the required courses are research-related. Elective course areas include education, computer technology in education, administration, and clinical practice.

One additional unique feature of this PhD degree is that it enables distance students to take clinical courses at their geographical area. Each student who chooses to take clinical courses is required to identify a content person who is approved by the department to supervise him/her during the course. That person becomes an adjunct faculty (temporarily) for the duration of that clinical course only. In addition, there is close contact between the program director and the temporary adjunct faculty throughout the course.

Dissertation Process
Each student must successfully complete and defend a dissertation. The dissertation committee consists of three members, one of whom can be a non-NSU faculty member. The chair of the dissertation committee must be a member of the NSU physical therapy department faculty or a permanent adjunct faculty (“permanent adjunct faculty” teach every semester in the program). The uniqueness of this process is that it allows students to seek a content expert who may be an outside member, thus not limiting the student to topic areas that are within the NSU faculty’s expertise.

Challenges Faced in the Development of the Ph.D. PT Program
Acceptance by External Community
Initially, there were those within the physical therapy community who questioned whether or not a substantial, quality PhD program could be offered in distance format. The question arose not because of the curriculum, faculty, or entrance requirements, but rather because distance education was not as common and accepted as it is today. By the end of the second semester, students realized and appreciated the academic rigor of the program. Primarily through the students in the program, many of whom are recognized leaders, authors and researchers in physical therapy, the professional community began showing support for the program. By the end of the first year, many members of the external community were of the opinion that the program was justified in offering a PhD degree.

Another factor that contributed to generic skepticism about distance education is that the academic intensity varies widely between distance programs. That is, one program may offer an easy, superficial academic path to a degree, while another may demand academic rigor. There is still no uniformity today of infrastructures for distance education programs. However, from the beginning, NSU’s PhD, PT program was committed to significant breadth and depth of content for each course and to holding students to high academic standards. The quality of a program is not dictated by the fact that it is an in-house or
distance format program, but rather by the commitment of the program, its faculty, its administration, and its students to the achievement of high academic standards.

Recent studies show no significant difference in student achievement between distance and in-person delivery methods. Russell stated, "No matter how it is produced, how it is delivered, whether or not it is interactive, low tech or high tech, students learn equally well." It has been suggested, however, that on-line education forces students to be more self-motivated in taking charge of their education than traditional delivery methods, a concept that is important to all aspects of higher education.

### Acceptance by Internal Community

There was initial resistance to the development and implementation of a PhD, PT degree program in distance format even within the physical therapy department at NSU. Several of the full-time faculty on staff at the time were staunch proponents of traditional education, and had difficulty envisioning any distance education program at the PhD level. As such, at the initiation of the program, only about half of the faculty were directly involved in the program. With time, understanding, and support from the external community, including the greater NSU community, this became a non-issue.

### Summary

People choose educational programs for different reasons. Some of the factors that influence the decision regarding post-professional programs include the degree offered, pre-requisites, required courses, perceived quality of the program, geographic location, and delivery format. In the concerted effort to develop and implement the PhD, PT program in distance format, we were able to offer an innovative educational opportunity that was previously unavailable to physical therapists.

The success of the first program graduates is testimony to the success of the program and the alternative delivery methodology. Today’s lifestyle, including the cost of living and having families in which both spouses work, dictates that individuals seeking post-professional education need educational options. The Nova Southeastern University PhD in Physical Therapy, the first of its kind in the country, is one example of a successful, alternatively delivered distance-based PhD degree program.

### References