

Perspectives on professional doctorate education in the United States

BRIDGET N. O'CONNOR¹

New York University, USA

This paper is about professional doctorate education in the United States. It includes a discussion of Carnegie Foundation initiatives to improve doctoral education, with an overview of learning theory on which professional doctoral programs can be based. Subsequent sections identify useful practices around how to create and nurture a doctoral cohort, examples of program delivery strategies, and a wide variety of types of appropriate final projects. The argument is made that students are eager to earn the doctoral credential and valuable professional practice doctorate programs exist, but there's work to be done in the United States to ensure that professional practice degrees are much more rigorous than masters degrees and more work-based than PhDs.

Keywords: Curriculum reform, professional doctorate education, doctoral cohorts, culminating projects, the doctor of education degree

Introduction

In this paper, I briefly explore the history, foundations, and challenges of doctoral education in the United States. With an overview of learning theory on which these programs can be based, subsequent sections of this paper discuss ways curriculum developers are working to create and nurture a doctoral cohort, including examples of program delivery strategies and a wide variety of types of appropriate, useful final projects. Rigor and relevancy helps ensure that these credentials are widely accepted by the general public as appropriate terminal degrees.

Such a discussion is constructive as students are eager to earn the doctoral credential and educators are often very interested in meeting this new demand. It is clear that universities with curricula that are personal, flexible, and relevant are in the best position to prepare expert practitioners who can address issues of practice and policy in the field. Faculty in these

¹ Email: bridget.oconnor@nyu.edu

doctoral programs are experimenting with a variety of student-centered learning approaches that address the need for the development of new knowledge based on the experiences of the learner and the realities of the workplace. Unfortunately, many of us in education are still in the throes of differentiating our PhD programs from our professional doctoral programs, but the conversation is moving forward.

The consummate professional

In the United States, the professional doctorate professes to credential high-functioning individuals for areas where high level of expertise and (often) leadership abilities are assumed. The professional practice doctorate in law and medicine has a rich history here as the first JD (Doctor of Jurisprudence) was awarded by the College of William and Mary in 1793, and the first MD (Doctor of Medicine) in 1807. These degrees were awarded decades before the first PhD (Doctor of Philosophy) in 1861 (Willis et al., 2010). The JD and MD degrees were designed to raise the bar as to the qualifications needed to enter law or medicine; previously, anyone could put up his/her 'shingle' as a medical practitioner or as an advocate. It simply isn't possible to practice medicine or law without an extremely high knowledge base to begin with; but before the degree holder is considered ready to practice on his/her own, he or she must go through years of internship or apprenticeship in the workplace *after* the degree is earned as well as pass rigorous state licensing exams.

While a doctoral degree and licensing is required for entry level medical doctors and lawyers, some bachelors and masters programs in certain applied fields are considered to be entry-level qualifications. To be a teacher in New York City, for example, the holder of a bachelor's degree from an approved institution would need to be certified by his or her university. The university must be certified by the state. And the prospective teacher would then have to pass a separate city licensing examination. Likewise, an individual with a bachelor's degree in nursing, once licensed, can practice nursing at an entry level. An example of a master's degree that is considered a first professional degree and terminal degree at the same time is the Masters of

Fine Arts (MFA), a practice degree that requires applicants to provide a portfolio of work or a performance audition.

On the other hand, professional research doctorates such as the EdD and the DBA (Doctor of Business Administration) are generally not under the auspices of accrediting boards and there are no state examinations. Those studying for such degrees arrive with years of work experience *before* a rigorous investigation of practice and policies. Thus, the role of these programs is to provide experienced practitioners with opportunities to expand their knowledge base by developing and applying analytical skills and ethical understandings to workplace practices and policies (Bollag, 2007).

Degree completion data

Data are inconclusive as to the exact number of professional doctorates awarded in the United States each year as the two main organizations that collect such data, the National Council for Educational Statistics (NCES) and the National Science Foundation (NSF), use different methods of data collection and reporting and thus provide different statistics. However, they both distinguish first professional doctoral degrees from research doctorates. In the introduction to their tables, NCES (2010) defines research doctorates as

...oriented toward preparing students to make original intellectual contributions in a field of study. Doctorates require the completion of a dissertation or equivalent project and are not primarily intended for the practice of a profession (NCES: first paragraph).

In this 'Digest of Educational Statistics', NCES provides data from surveys sent to degree-granting institutions that participate in Title IV federal financing programs. Their reports include numbers of research doctorates completed as well as first professional doctorates. In 2007-2008, a total of 63,712 research doctorates were awarded; and for 2018-2019, they estimated that number to grow to 91,209. The overall number of first professional doctorates increased from 63,953 in 1976-1977 to 91,309 in 2007-2008 (NCES).

Table 1 provides data from their 2007-2008 survey, showing the number of doctoral degrees awarded in selected fields and their growth percentages. These data describe research doctorates and do not include first professional degrees. Note that ‘health professions and related clinical’ are the fastest growing fields, up 127% from 2004-2008. What is unclear from this data set is the number of non-PhD degrees awarded in these fields.

Table 1. Doctor’s degrees conferred by degree-granting institutions, by field of study: Selected years.

'04-08

Field of study	2004	2006	2008	% incr.
Agriculture and natural resources	1,173	1,194	1,272	8%
Business	1,481	1,711	2,084	41%
Computer and information sciences	909	1,416	1,698	87%
Education	7,089	7,584	8,491	20%
Health professions & related clinical	4,361	7,128	9,886	127%
Library science	47	44	64	36%
Parks, recreation, leisure, & fitness studies	222	194	228	3%
Psychology	4,827	4,921	5,296	9%
Social Sciences and history	3,811	3914	4,059	7%
TOTAL (all fields, not just those above)	48,378	56,067	63,712	32%

Source: National Center for Educational Statistics. Table 273. April, 2010
http://nces.ed.gov/programs/digest/d09/tables/dt09_273.asp accessed October 10, 2010.

On the other hand, the NSF ‘Survey of Earned Doctorates’ which is sponsored by six different federal agencies, provides data from individual degree recipients. NSF sends surveys to institutional coordinators in graduate schools who distribute the survey to those receiving research doctorates. The coordinators collect the forms, and then return them to the survey contractor. They then compile data on descriptive variables such as recipients’ sex, age, citizenship, race/ethnicity, country of citizenship, field of study, and even include data related to their debt level, time to doctorate, and postgraduate position/location. Their tables also show the number of research doctoral degrees awarded in specific fields and growth percentages.

The specific doctorates included in the “Survey of Earned Doctorates” include the EdD (Doctor of Education), the DBA (Doctor of Business Administration), the DMA (Doctor of Musical Arts) , the DPH (Doctor of Public Health), and the DNSC (Doctor of Nursing Science). Table 2 includes a sampling of the 2007-2008 data that show a total of 48,802 new research doctorates were awarded in 2007-2008, and that 37,372, or 93% of them, were PhDs. The EdD was the fastest growing non-PhD category, with 6% of all doctorates. No other professional doctorate reached as much as 1% of the total and doctor of musical arts was the second largest category with only 0.25% of the total number of doctorates. These numbers tell us that the PhD remains by far the most popular research degree.

Table 2. A sampling of degrees included in the survey of earned doctorates: 2004-08

Degree	2004	2006	2008	% change	% of PhD
TOTAL: All docs (not limited to this list)	42,118	45,615	48,802	16%	
PhD	37,372	41,528	45,341	21%	93%
EdD (Doctor of Education)	3,389	2,808	2,948	-13%	6%
DBA (Doctor of Business Administration)	192	93	69	-64%	.14%
DMA (Doctor of Musical Arts)	579	634	124	-79%	.25%
DPH (Doctor of Public Health)	100	90	17	-83%	.03%
DNSC (Doctor of Nursing Science)	63	47	27	-57%	.06%

Source: Table A-2 Degrees in the Survey of Earned Doctorates 2004-2008 NSF/NIH/USED/USDA/NEH/NASA, 2008 Survey of Earned Doctorates <http://www.nsf.gov/statistics/nsf10309/pdf/ta2a2.pdf> accessed October 10, 2010.

Evolving initiatives

Given the rise in demand for doctoral education, and aware that curricular reform is needed, the United States is making concerted efforts to study what it means to hold a doctorate and to

improve doctoral programs. Two well-known and regarded initiatives are sponsored by the Carnegie Foundation: the 'Carnegie Initiative on the Doctorate' (CID) and the 'Carnegie Foundation on the Advancement of Teaching's Project on the Education Doctorate'. These initiatives are discussed here as well as some best practices related to differentiating professional doctorates from PhDs.

The CID which began in 2001, had a goal of examining doctoral work (primarily the PhD) in six disciplines: chemistry, education, English, history, mathematics, and neuroscience (Golde, 2006). They investigated admissions and management issues including underrepresented minorities, high attrition rates, and long completion times. They also examined the expanding boundaries of disciplines and learning outcomes that don't always match the careers to which students aspire. In doing this, the CID asked sixteen highly regarded scholars to respond in essays to the questions:

1. What constitutes knowledge and understanding in the discipline?
2. What is the nature of stewardship of the discipline?
3. How ought PhD's be prepared?

These essays were compiled into a book: *Envisioning the Future of Doctoral Education: Preparing Stewards of the Discipline* (Jossey-Bass, 2006). Two prominent scholars representing Education were Virginia Richardson (University of Michigan) and David Berliner (Arizona State University). Richardson's essay is relevant to this discussion of the professional doctorate as she begins by debating whether or not education is, itself, a discipline and suggesting that it exists because of practice:

Not only does education have its own set of problems, questions, knowledge bases, and approaches to inquiry but that which is borrowed from other disciplines often becomes transformed within the study of education. If education does become accepted as a discipline, however, it exists because of and in relationship to educational practice; the purposes of

maintaining the best and allowing change to lead to improvement must always be kept in mind (Richardson: 254).

Likewise, Berliner suggested that educational psychology doctoral programs should offer not only a 'deep knowledge of a subject matter area' (Berliner: 287) but also expand scholarship to arenas including motivation and learning related to technology, the brain, and multicultural issues. In short, he advocated that the 'next generation of educational psychologists become[s] a strong and vital part of both the world of education and the world of practice and policy' (Berliner: 288). Berliner's ideas resonate here because while he concentrates on one specific field within education, he concludes that 'practice and policy' are vital to the future of the field.

These perspectives help frame the fuzzy debate about what differentiates professional doctorates such as the EdD and the DBA from their PhD counterparts. Other fields such as medicine, dentistry, physical therapy, occupational therapy, and the like, which tend to be clinical in nature usually do not have the same debate as their professional programs do not compete with their PhD programs. While similarities exist, differences are much clearer and their professional doctorates are understood by their profession and the public. In discussing PhD programs in Education, both Richardson and Berliner acknowledged the link between practice, policy, and the needs of the profession, which are markedly similar to professional doctorate goals, compounding the problem of differentiation.

To distinguish the PhD from the professional doctorate, the Carnegie Foundation for the Advancement of Teaching studied professional doctorates in six professions: medicine, law, nursing, the clergy, engineering, and education. The Project on the Education Doctorate, begun in 2007 and continuing, engaged a consortium of 25 colleges and universities with a goal to 'make it [the EdD] a stronger and more relevant degree for the advanced preparation of school practitioners and clinical faculty, academic leaders, and professional staff for the nation's schools and colleges and the learning organizations that support them'. (<http://www.carnegiefoundation.org/education-doctorate>) In short, they emphasized that EdD curricula should include issues of equity, ethics, and social justice; should emphasize applied

learning; should include work that develops partnerships with the field; should be based on problem-solving; should link theory with practice; and should emphasize the ‘generation, transformation, and use of professional knowledge and practice’ (<http://cpedinitiative.org/emerging-literature>)

Such curricular reform initiatives are needed because the clear distinction and professional acclaim for EdDs (despite their usefulness) is not universally accepted. While Harvard University and Columbia University offer only the EdD in Education (highly respected EdDs), the PhD is often considered the terminal Education degree and the EdD a second cousin in institutions where both are offered. That said, in universities where both degrees are offered, the differences between the two degree options have traditionally been almost indistinguishable.

To distinguish differences between the PhD and the professional doctorate, binaries are often cited, such as those in Table 3. These binaries are not absolute and may not apply to all programs. In a sense, this may be part of the problem: What are the differences in program design, delivery, and outcomes in fields where there is no licensing examination that can coalesce learning goals into identifiable, measurable learning outcomes?

Table 3. Differences between the professional doctorate and the PhD

Professional Doctorate	PhD
Goal: scholar/practitioner	Goal: scholar/professor
GREs, work experience required	GREs required
Student responsible for tuition	Univ. provides significant financial support
Part-time study	Full-time study
Cohort-based programs	Individualized programs
Intensive courses	Traditional courses
Short, defined duration	Various, undefined durations
Culminating project: (cooperative?) paper/project with emphasis on addressing practical problems; issues; limited generalizations	Culminating project: individual dissertation with emphasis on addressing theoretical issues; generalizations expected

The development of expertise

The knowledge level and work experiences of the student are differentiating factors between entrants for first professional doctorates and professional research doctorates. Sometimes these distinctions are characterized as differences between declarative (knowing that), procedural (knowing how), and strategic (knowing when) knowledge (Gott, 1999). Combined with characterization of the stages of skill development: novice, advanced beginner, competent, proficient, expert (Dreyfus, 1982), the challenge of developing professional doctorate programs can be articulated: to help competent/proficient learners develop strategic skills and apply those skills at an expert level.

Concepts that are useful in creating programs that use the knowledge of practice as a basis for generating new knowledge are communities of learning and expansionist learning. Etienne Wenger, building on social learning concepts, describes learning as social participation, and suggests that learners—whether they are in the workplace or an academic environment, can work together to solve problems and create new knowledge. Yujo Engestrom (2011) goes a step further in suggesting that learning is more than acquisition of knowledge or participation in learning communities. His expansionist model, whereby the instructor, the student, and those in workplace, work to develop new knowledge, implies that questions are being posed and investigated to which no one knows the answer.

The challenge for educators then becomes how to create a learning environment that moves us from considering that learning is an individual activity that is a result of teaching to an understanding that learning is a result of environments that tap the joint expertise of the learners, their faculty, and others in their workplace. This view has implications for providing a foundation for academic curricula and classroom learning environments that are social, interactive in nature, and use learner experiences, which have been described as ‘the resource of highest value in adult education ...[becoming] the adult learner’s living textbook’ (Lindeman in Mirriam et al., 2007: 161). An expansionist model is a very useful foundation for designing and delivering professional doctorate programs.

Examples of best practices

To keep professional programs from being 'PhD-lite', and to ensure that they tap and develop the expertise of the learners, significant thought needs to be given toward how to (1) create a class; (2) identify what needs to be learned; (3) design a flexible curriculum for a working professional; and (4) identify appropriate final project(s) that demonstrates scholarship, creativity, and are built into the learner's practice. The challenge is to make clear that the professional degree signifies deep inquiry into professional practice and the holder of such a credential has a terminal degree in the field. To do this, the items in Table 4 can be fleshed out as standalone characteristics that universities can use to distinguish the professional doctorate from the PhD. This approach could result in better learning experiences and degree-appropriate final projects. The following section is organized around the four challenges posed earlier.

Create a Class

The higher education market is distinct from other markets. David Kirp (2003) makes the point that higher education competes for its inputs--buyers (students) and that tuition dollars do not cover our expenses. We first measure the quality of our academic programs as to what students bring into the program such as GRE scores, years of experience in the field, and job titles that imply success in the field. We congratulate ourselves when we develop diverse cohorts—ethnically, geographically, by gender, and/or by job titles. The goal is to attract the best students (and faculty) for programs that emphasize the development of the scholar/practitioner.

While Kirp's remarks center (for the most part) on undergraduate education, they ring even more true in considering the financial models of doctoral education. Not only does tuition alone not pay the expense, in the United States, the institution is expected to support or highly subsidize its PhD students. In the sciences, most universities follow the faculty entrepreneurship model whereby faculty members support their students with externally funded grants. In other fields, financial support has come primarily from student work such as

graduate assistantships and teaching assistantships, although the trend toward full support through fellowships and grants is expanding.

Professional doctorate students, on the other hand, often pay their tuition with their own funds or with loans. With the exception of those students who receive tuition remission benefits through their workplace (such as those in health care working for hospitals that provide support), the cost of a professional doctorate tends to be the student's responsibility. That said, these students are typically employed full-time and studying part time. Funding isn't quite the same issue for a full-time PhD student.

Moreover, the use of GRE (Graduate Record Examination) scores in developing diverse, talented cohorts of professional doctorate students may not be as useful a criterion as with their (often) younger PhD counterparts. According to NYU's Jane Bear-Lehman, chair of the Department of Occupational Therapy, 'institutions that require GRE scores for PhD applicants simply extend this same admissions criteria to the professional doctorate applicant, even though the measurement of writing and math skills may not be indicators of successful degree completion' (Bear-Lehman, personal communications, 2010).

Identify what needs to be learned

The educational philosopher Paulo Freire said that the most important thing in education is for the teacher to know what the students bring into that learning environment. So it follows that one way to think about what needs to be learned is to find out what they already know to determine what can be done programmatically to help them focus on their profession's practices and policies.

In professional doctorate education, knowledge creation comes from individuals who are able to create new realities through becoming part of a community in which they are vested and accepted for their expertise. A goal is to ensure that together they can develop new meanings and ways of talking about their work and their resultant identity in the professional context.

What students need to/want to learn through doctoral education may be negotiated in a number of ways.

For example, the professional development program of studies for the Doctorate of Professional Studies (DPS) in Occupational Therapy at NYU (New York University) differs substantially from its PhD counterpart. The DPS is a uniquely relevant curriculum based on the American Occupational Therapy Association's (AOTA) five standards of continuing competence: knowledge, critical reasoning, interpersonal skills, performance skills, and ethical practice. Students use the AOTA Professional Development Tool to self-assess their learning needs and interests around these competences. According to Jim Hinojosa, a professor in the program and the DPS' designer:

Based on the self-assessment, each student identifies five potential goals for the program. These goals must add value to the academic program and cannot be curriculum requirements. Each student is assigned a committee of one tenure line and clinical professor to work with on developing the area or specialty that he or she will document advanced competence. (personal correspondence, October, 2010)

For the EdD in Higher & Postsecondary Education at NYU, curriculum requirements differ for students who have formally studied Higher Education as part of their master's degree and those who have not. All students, however, are encouraged to build on their professional expertise and to add to their skill repertoire via coursework in which they learn to use a variety of knowledge-seeking approaches (inquiry) and reasoned approaches to investigating professional practice and evaluating knowledge sources.

A related issue is whether or not to give credit for life experiences (and if so, how to evaluate those experiences) or to simply require a set of experiences as prerequisite for admission. Most universities in the United States follow the latter, establishing a minimum number of

credits to be earned, but with flexibility as to which courses, taking former education and background into account when determining the course requirements for the overall program.

Design a relevant, flexible curriculum

If the assumption is that these students have years of field experiences, the challenge is to create learning environments that take into account their knowledge base and their busy work schedules. In addition to developing challenging, experiential, engaging classroom activities such as cases and role playing, the overall curriculum should be structured to ensure that students learn with their faculty, their academic colleagues and their work colleagues.

Such an expansionist approach to curriculum is enabled through one of the more distinguishable characteristics of many professional doctoral programs: cohorts--groups of students who are admitted at the same time and by definition go through their program of study together. Students learn with and from their cohort, which becomes a community of learners that supports each other not only in classroom projects but also through candidacy and completion of final projects. While this is a (somewhat) ideal approach, cohorts are notorious for breaking up or being combined. Events in individual adult students' lives may result in their stopping out from time to time. Sometimes small numbers of students in a given cohort result in the need to merge cohorts. Addressing the demands of small cohorts and limited availability of faculty, teams of students from multiple cohorts who work together on thematic dissertations (discussed later) have reportedly reduced the faculty time dedicated to individual dissertation students in half (Marsh et al, 2004).

Some universities offer their programs strictly through intensive weekend and summer sessions. Busy professionals may have trouble making classes two or three nights a week, but with advance notice can arrange long weekends on a monthly (or so) basis. Such alternative scheduling can result in more focused time for experiential learning experiences that require peer exchanges about real issues and problems. For example, the Executive EdD program in Work-based Learning Leadership at the University of Pennsylvania, a joint program between

their Graduate School of Education and their Wharton Business School, enrolls students who are themselves operating at high levels in their firms as chief learning officers or in talent management posts from around the globe. These professionals travel to Philadelphia for a total of five total immersion, week-long blocks of classroom interactions with professors and each other. These blocks of instruction are facilitated by Penn faculty and invited lecturers from other universities and professional settings. Because of the relatively small size of the cohorts, each block includes beginning, intermediate, and advanced students. However, the blocks are modular, and students select the blocks based on their needs and program availability. Students stay in the same hotel, eat together, and work on projects together. Intensive programs such as Penn's provide opportunity for students to move together beyond knowledge sharing and absorption into knowledge creation.

Identify appropriate culminating projects

Many academic programs with both a professional doctorate and a PhD show curricula with very similar inputs, processes, and outcomes. In fact, dissertations produced by both categories of doctoral students are often incredibly similar, with some professional dissertation findings more generalizable than some PhD dissertation outcomes. But that gets at the need for a *distinct* culminating project; one that does not necessarily follow the dissertation model. Here are a few examples of innovative approaches: thematic dissertation groups, portfolios & capstones, and projects.

Thematic Dissertation Groups

Faculty members at the University of Southern California have an overarching goal: 'To guide and develop practitioner leaders in urban educational settings to enhance learning of all students' (Marsh et al, 2004: 11). To this end, their EdD in Educational Leadership emphasizes student abilities to analyze complex data and use a wide variety of methods. At a summer institute at the end of their first year of coursework, faculty present areas that they consider significant areas of study, inviting students to join thematic dissertation groups. An example offered by Marsh et al (2004) was a thematic group on violence in urban school settings,

whereby a group of K-12 Leadership students and Higher Education Leadership students shared the literature on the topic, provided feedback to each other on method and analysis, completed individual dissertations, but had the added benefit of the groups' findings being published together.

Portfolios and Capstones

Long a staple in master's degrees and in professional degrees such as occupational therapy, portfolios and capstones are excellent vehicles for doctoral candidates to reflect on and demonstrate knowledge gained and applied while studying for their degree. A digital portfolio, begun in the second semester of doctoral study, is required as the culminating project in the DPS in Occupational Therapy discussed earlier. Through the e-portfolio, students document how they have integrated knowledge and skills learned in their individualized curriculum to their specialty practice area (Hinojosa, personal communications, October 2010). The e-portfolio process is summarized through these three steps:

1. First, students complete an analysis of their current practices to determine career goals consistent with their area of specialization.
2. Second, students use their academic coursework and clinical experience to collect 'artifacts' that demonstrate advancement of knowledge, skills, and abilities gained through the integrated academic and clinical work within the program.
3. Third, students organize and catalog their artifacts. In the final course, Professional Portfolio: Advanced Practice E40.3310, students present their e-portfolio to a panel of three faculty members. Faculty review the e-portfolio based on the original, professional development plan and its consistency with the evidence-based knowledge in the field of inquiry.

Source: <http://steinhardt.nyu.edu/ot/dps> Downloaded October 14, 2010.

Reports and their Dissemination

Examples of professional doctorate outcomes that could qualify as evidence of knowledge creation, integration, and application are difficult to identify from the literature and websites. That said, outcomes could involve the development of curricula, learning/teaching materials, comprehensive program evaluation projects, policy briefs, articles, books, and the like. This planned program of work could be based on alternative inquiry models such as action or qualitative strategies including biographies, narratives, or case studies. NYU's EdD in Higher and Postsecondary Education requires that such projects be presented through a portfolio, which includes a report on the research undertaken, a personal reflection on their learning process, and the products that will be used to demonstrate that their work is ready for dissemination. Dissemination products can include any number of policy briefs, publishable articles, presentations at professional conferences, curriculum projects, and the like.

For example, one of my EdD students, who is director of graduate admissions at our Stern School of Business, is concerned that the number of female applicants is so much lower than the number of male applications. To examine this problem, she is conducting interviews with women who accepted matriculation to Stern's full-time MBA program as well as women who were accepted but who declined the offer. Her work has implications for understanding women's decision making process in general, and Stern's admission process in particular. Findings may provide useful insights for Stern, and she intends to write a publishable article based on her investigation as well as presenting findings at a professional conference.

Garnering public and professional acceptance

Data reported at the beginning of the paper showed that in the United States, 93% of all doctorates are PhDs. While the holder of a PhD has credibility in the eyes of the profession and the public, the holder of a professional doctorate is often not given similar respect. Trends in doctoral program enrollments show the greatest increases in the professional clinical doctorate, for fields in medicine and health. In 2008, only the professional doctorate in education, the EdD, was shown to be a significant piece of the PhD pie. That said, professions

across the board appear to be raising their credentialing bar, and students are eager to learn more.

The issue remains, however, that while practitioners and the professions in which they work acknowledge the added value of professional doctorates, some question how (if) the programs are distinct from their masters degree counterparts. In an editorial in a 2007 *Chronicle of Higher Education* entitled 'Credential Creep', Bollag cited an occupational therapist as saying that in the late 1980s, a bachelor's degree was all that was needed to enter the field of occupational therapy; by the 1990's, a master's degree was expected and that today, a doctorate is becoming the norm (Bollag, 2007). And Bollag (2007: A10) cited John D. Wiley, the chancellor of the University of Wisconsin provided this unforeseen rationale:

For the past 15 or 20 years, we've been under pressure to take what is basically a master's degree and call it a doctorate. ... many faculty members initially opposed the programs [professional doctorates in pharmacy and audiology], which some considered a cheapening of doctoral education. But in the end the university went ahead because it did not want to lose enrollments to institutions that were already offering them.

The last thing education needs to be accused of is creating programs for the sake of creating programs, and the case alluded to by Wiley should not be—and is not—the norm. Curriculum reform efforts such as those sponsored by the Carnegie Foundation are underway in many fields, and their recommendations are beginning to be disseminated and acted upon.

Perhaps as professional doctorates become more rigorous, they also will be more widely accepted by their professions and the general public as terminal degrees. It has been proposed, for example, that EdDs should be accredited by a 'self-regulating association of an elite group of universities pledging to establish and adhere to high admission, program, and performance standards', and that a National Academy of Educational Leadership, federally chartered and financially subsidized, and driven to high standards by a national board of prestigious laypersons, academics, and educational practitioners should be formed (Guthrie &

Marsh, 2009). Perhaps the thinking here is that if the EdD had professional licensing requirements and well-known professional organizational affiliations it would be more widely accepted as a terminal degree. When all is said and done, however, it's when quality, rigorous programs—programs that are distinct from their PhD counterparts—are developed and when students' final projects have an impact on practice and policy in the field that acclaim will be assured.

Despite these vexing issues, the consensus is that the holder of a professional doctorate, a scholar-practitioner, has unique insights into his or her field and an ability to not only understand practice, but to create mechanisms to improve practice and policy. This should speak volumes for their acceptance in all fields. Debra Stewart, president of the Council of Graduate Schools in Washington, D.C., summarized national reports on the importance of all graduate education saying:

Our country's graduate schools produce the people with the advanced knowledge and skills essential to guaranteeing the country's future economic and social prosperity. We must secure the future by producing people who can understand, use, and develop methodologies of inquiry and people who are able to synthesize complex information within their own field and across related fields; and scholars and professionals who routinely exercise critical and analytical judgment. And with those core abilities, graduate degree holders will allow us to address the complex, compelling issues of our time. (Stewart, 2010: 36).

While debate exists as to the importance of a professional doctorate beyond a master's degree, enrollment data make clear that more education is considered better than less education. Students are eager to earn a credential that provides unique credibility and results in their being called 'doctor'. Through completion of professional doctoral degrees, individuals make it clear that they are way beyond competent; they are strategic problem solvers—able to use skills in inquiry to analyze data to improve practice and policy. More important perhaps than the actual credential, the holder of a professional doctorate has expressed his or her

commitment to the field, a willingness to engage in the development of high level expertise, and the ability to translate knowledge into action.

The numbers of students earning doctoral degrees in the United States is increasing; however, in areas outside medicine and law, the PhD remains the degree of choice for most students and for the institutions that hire them. While professional degree programs are being developed, some programs tend to be one-of-a-kind and not particularly rigorous. Therefore, ongoing professional doctorate curriculum reform initiatives, such as those supported by the Carnegie Foundation, are working to ensure that doctoral preparation programs are relevant and adhere to professional standards. The debate in the United States has moved from whether or not to do this to exactly how best to do this, and the debate around professional doctorate curricula is often around issues that are unique to the needs of the practitioner-scholar. These issues include how to create a class, build curricula that build on the knowledge base of the learner, and develop thesis or final project options that are clearly differentiated from PhDs. With demand for new ways to tackle complex problems in the professions rising and the public's call for academic relevancy increasing, it is vital that we work to create outstanding professional doctorate programs that are crafted toward the study of professional practices and policies within an expansionist framework that ensures that students and faculty can work together to develop new solutions to increasingly complex problems.

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B. O'Connor

Notes on contributor

Bridget O'Connor

Bridget N. O'Connor, Ph.D. is Professor of Higher Education and Business Education at the Steinhardt School of Culture, Education, and Human Development at New York University. She is a co-editor of *The Sage Handbook of Workplace Learning* (Sage, 2011) and the coauthor of two college-level textbooks that are in third editions: *End-user Information Systems: Implementing Individual and Group Technologies* (Prentice Hall, 2002) and *Learning at Work* (HRD Press, 2007). She is a past chair of the American Educational Research Association's Special Interest Group Workplace Learning and remains on its Executive Committee. She is a reviewer for *The Journal of Education for Business*, *the National Business Education Association Yearbook*, and the *DPE Journal*. She is a Past Chairperson of the NYU Faculty Senators Council and its Senate Academic Affairs Committee. In 2006, she was a Fulbright Senior Specialist at Victoria University in Melbourne, Australia.