

Differentiating the EdD and the PhD in Higher Education: A Survey of Characteristics and Trends

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ABSTRACT

Purpose: Higher education, as a field of study, is one of the few programmatic areas that offer two doctoral degrees: The Doctor of Education (EdD) and the Doctor of Philosophy (PhD). In the United States, the two degrees are often conflated. Conversations, to this point, have done more to contribute to the theoretical debate than to operationally distinguish between the two degree paths. **Method:** The current study analyzed data collected from a review of the 188 doctoral programs at 145 institutions listed with the Association for the Study of Higher Education (ASHE). **Results:** Results suggest that while there is a shift toward operational differences between the EdD and the PhD in higher education, the similarities in entrance requirements, formats, and research expectations, to list a few, suggest that the EdD and PhD still require further refinement to reach the theoretical clarity common in many conversations about the education doctorate.

KEYWORDS

higher education, differentiating PhD and EdD, Educational Doctorate, graduate education

INTRODUCTION

Several fields offer professional doctorates, including business, education, nursing, law, and psychology. These professional doctorates aim to offer a better option for developing advanced professional skills compared to their respective PhD counterparts (Jones, 2018). However, there are ongoing debates within higher education in the United States that continually affect how these degrees are understood. More specifically, the ongoing discussion pertaining to the Doctor of Education (EdD) vs. Doctor of Philosophy (PhD) degree paths requires educational practitioners and researchers alike to differentiate programs that are often unable to be completely independent of one another, especially considering the overlap in instructional facilities and faculty. Despite the ongoing discussions, the existing PhD and EdD programs in the field of higher education may have different intentions, but often share overlapping goals (De Lisi, 2013). Some differences that distinguish the EdD from the PhD in the United States typically include career focus, the role of research, admissions requirements, mode of study,

and breadth of focus (Jones, 2018), yet there remains some misperception about the differences between the two degrees.

In recent years, significant attention has been directed toward defining and clarifying the roles of the EdD and PhD in higher education in relation to one another in order to elucidate the different purposes of each degree (Aiken & Gerstl-Pepin, 2013; Boyce, 2012; Card, Chambers, & Freeman, 2016). The discussion, while persistent and ongoing, remains unresolved, and the juxtaposition of these two programs has created more questions than answers. A significant effort in clarifying these programs, the Carnegie Project on the Education Doctorate (CPED), was developed in 2010 to “reclaim the education doctorate” (Perry, Zambo, & Wunder, 2015). Since then great strides have been made to address the differences between the EdD and the PhD. The Carnegie Project on the Education Doctorate “is the first national effort that has undertaken the distinction of the two degrees through clear examination” of the purpose and goals of the two degrees (Perry & Imig, 2010, pp. 17-18). The Carnegie Project has worked with more than 125 schools



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and colleges of education to not only develop a framework for the EdD to be a professional practice degree but will continue “to test and refine its work to ensure that the Ed.D. is distinguished as the preferred degree for educational practitioners” (Perry & Imig, 2010, p. 18). While Perry (2015) recognizes the advances towards the redesign of the EdD, she notes that “the EdD as the professional-practice degree in education is far from complete” (p. 61). While significant work has been done, questions remain about differences between the degrees in terms of overall credit requirements, research requirements, and admissions requirements. Based on research of the past 30 years, the two degrees have remained largely similar in these areas (Carpenter, 1987; Baez, 2002; Nelson & Coorough, 1994; Shulman et al., 2006).

On the Historical Context of Comparing the EdD and the PhD

While professional doctorates are still relatively new in many countries, they have been long established in the United States (Lester, 2004). The EdD was formally offered at Harvard University in 1922 as a professional practitioner degree but was developed with a PhD mindset (Townsend, 2002). Further study demonstrates an earlier intention as Harvard formed its Graduate School of Education with a \$500,000 contribution from the Rockefeller Education Foundation, setting out to establish the first such endeavor in the country, stating that “It will rank with the university’s schools of medicine, law, divinity and engineering,” all of which offered their own doctoral degree programs as the MD, the JD, the ThD, and the EngD respectively (“Harvard School Endowment Fund,” 1919, p. 14). Developing the EdD using a PhD format has caused ongoing challenges in the delineation of the two degrees, as the two have been compared to one another for as long as they have been in existence. In 1931, just a decade after Harvard began offering its EdD, Freeman wrote one of the earliest documented articles that addressed problems with the lack distinction between the two programs. As a result, some have argued to re-define the EdD so that the two degrees can each focus on their individual missions (Boyce, 2012). Others have even argued for the elimination of the EdD degree (Levine, 2005). To date, a dualistic landscape has been forged and strengthened that sustains the debates between the EdD and PhD, focusing on practicality versus perception and application versus research.

The debate to distinguish the EdD from the PhD has continued for decades. Hollis (1942) called for change 75 years ago when he argued that given the need for professional preparation, the EdD degree needed to be modified to meet the needs of those seeking it. Because most students pursuing the EdD do not desire to be researchers, the EdD program that is modelled on the PhD is failing to provide students with the high-level preparation that is often found in other professional degree programs (Shulman et al., 2006). However, instead of further modifying the degree to be practitioner-focused, the degrees have remained similar so that neither has the potential to be suitable for practice nor research. According to Shulman et al. (2006), “instead of having two separate entities that effectively accomplish distinct functions, we have confounding and compromise, a blurring of boundaries, resulting in the danger that we achieve rigorous preparation neither for practice nor for research” (p. 26).

An earlier, but often overlooked, study denotes the challenge of the differentiation in the 1950s, stating in its introduction, “When

asked to differentiate between the requirements for the two degrees, people express widely varying opinions. The usual conception of a Ph.D. program is that it requires at least one year of course work above the master’s level, proficiency in one or more languages, and the preparation of a dissertation, but the Ed.D. curriculum is less defined in the popular mind” (Carter, 1956, p. 3-4). In her research, Carter studied 44 institutions that conferred both the PhD and EdD degrees in Education and she sought to define the differences based on aspects including prerequisites, course of study requirements, foreign language requirements, dissertation requirements, and so forth. Carter tellingly cites earlier studies that denote historical differences. For example, a 1930 study noted a few important differences between the EdD and the PhD at that time wherein “the most significant variations seemed to be in the elimination of the language requirement, the prerequisite that a candidate have professional experience, and the concept of a thesis as ‘an organization and application of existing knowledge’ rather than an original research project” (Carter, 1956, p. 36). Likewise, the study denotes that Walton C. John, a senior specialist in higher education at the United States Office of Education completed a study in 1934 which included a summary that noted “the Ph.D. in education stressed original research which tended to go in the direction of the historical or scientific studies” while noting that the “Ed.D. emphasized the solution of problems by well-proved methods through the accentuation of mastery of subject matters in given areas...” (p. 38).

Despite its long history, attempts to differentiate the PhD in education from the EdD are as pertinent as ever, since programs are often restructuring, merging, or realigning their goals to establish programmatic identity (Hochbein & Perry, 2013). Extensive academic research that analyzes coursework, completion requirements, and student motivations has been published regarding the differences between the two degrees; however, a consensus has yet to be established that operationally differentiates the two programs (Anderson, 1983; Carpenter, 1987; Deering, 1998). In the absence of a clear distinction, the academic higher education community has also failed to establish any consistency regarding the purposes of each degree. More specifically, a review of program handbooks associated with ASHE highlight that some programs define their EdD as a research degree, while others define it as a professional degree. Additionally, some studies have concluded that no major differences exist between the two degrees (Anderson, 1983; Baez, 2002; Nelson & Coorough, 1994; Osguthorpe & Wong, 1994). This confusion and lack of consistency has incorrectly relegated the EdD to the status of a PhD-lite (Perry, 2012).

Perhaps the most meaningful, contemporary change in the EdD was Harvard’s elimination of its EdD program in 2012. Although Harvard continues to offer the Doctor of Educational Leadership (EdD), the original EdD program was replaced with a PhD in education (Basu, 2012). Harvard administration said the former EdD program was a research-based degree rather than a practice-oriented degree, which contributed to the ever-present EdD vs. PhD debate. Harvard’s elimination of the EdD, however, does little to clarify the differences between the degrees (Perry, 2015).

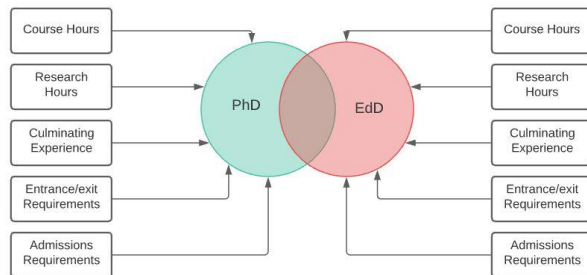
In order to approach this debate, the first step is to identify the purpose of the doctoral degree. The receipt of a PhD typically indicates that an individual is able to conduct research that contributes knowledge to the field whereas receipt of the EdD indicates that an individual is able to practice in the profession with the skills needed to grow and adapt to changing scenarios in practice

(Townsend, 1990). Research in 1985 showed that only four percent of PhD in higher education graduates become scholars in the field (Dill & Morrison, 1985), and that number is said to be even lower today (Kendzior, 2015). Given the small number of graduates entering the professoriate, there is a “mismatch between preparation and actual career paths” (Shulman et al., 2006, p. 26). While the need for two separate degrees is clear, the EdD is continually hampered by the comparison to the PhD, which leads to a number of questions such as whether a practitioner degree is needed, whether both degrees are needed, whether they both need to be redesigned, and what the degrees should look like.

Conceptual Framework

Several areas of analysis appear in the literature as they relate to the EdD and the PhD in higher education. Specifically, there are five areas that are commonly evaluated in comparing the EdD and the PhD. Those areas include: course hours to degree, research hours to degree, culminating experience requirements, entrance/exit requirements, and admissions requirements. It is in those areas where the degrees commonly overlap, thus challenging the definition of each degree independent of the other.

Figure 1. Concept Framework



Overlapping Components of the EdD and PhD that Contribute to Conflation

Surveys of higher education doctorates have been conducted repeatedly over the years in an effort to identify similarities and differences between the degrees (Anderson, 1983; Dill & Morrison, 1985; Dressel & Mayhew, 1974; Harris, 2007; Hyle & Goodchild, 2012; Osguthorpe & Wong, 1993). Results from extensive investigation have suggested that there is limited operational distinction between the EdD and the PhD in higher education. In some cases, the differences between the two degrees were and are still negligible. These results have been relatively stable over time, with similar results being reported over the last 40 years (Anderson, 1983; Courtenay, 1988; Cross & Nelson, 1986; Dill & Morrison, 1985; Deering, 1998; Dressel & Mayhew, 1974; Perry, 2015). The lack of distinction between the degrees has led some to question why the EdD exists if it cannot be distinguished from the PhD (Deering, 1998; Levine, 2005). Despite the need for these two degrees to prepare individuals for unique professional goals, studies of the degree requirements consistently reveal minimal differences in course requirements, research requirements, and entry and exit requirements (Baez, 2002; Hyle & Goodchild, 2012).

Doctoral programs can vary in the number of required credit hours, number and type of required research hours, types of required courses, admissions requirements, and culminating experience requirements. One area that has been regularly studied between the two degrees is in the required courses and overall number of credit hours. In their study of 47 programs, Hyle and Goodchild (2012) found that PhD programs required only slightly more courses than EdD programs. Keim (2007) corroborates these findings in reporting that PhD degrees required 71 hours, on average, beyond the master's degree, while EdD degrees required an average of 62.5 hours beyond the master's degree. The range of hours in Keim's study found EdD programs that required as few as 43 credit hours and PhD programs requiring as many as 93 hours. However, the number of required credit hours beyond a bachelor's or master's degree do not and should not necessarily be what distinguishes the PhD from the EdD. While a range of required credit hours is common across degrees, Martinez-Lebron (2016) found that the total credit hours was only slightly higher for PhD programs and that the total credit hours were not significantly different between them.

Another area of investigation between the degrees is in the number and type of required research courses. Dill and Morrison (1985) argued for the need to teach data collection skills appropriate for practitioners as opposed to the skills taught for researchers, thus indicating a need for different research requirements. While there has not been a significant difference in total number of required credit hours between the two degrees, the same cannot be said for number and type of required research hours. Martinez-Lebron (2016) found significant differences in research credits requirements between the two degrees, in which PhD programs averaged 12.6 credits and EdD programs averaged 7.9 credits. Unfortunately, there is no consistency in this finding, as Keim (2007) found that while PhD programs required more research courses as compared to EdD programs, the difference was not significant. Instead, Keim (2007) reported that PhD programs required an average of 4.8 research courses compared with an average of 4.5 for EdD programs, and that many of these courses were the same between degrees.

The PhD and EdD degrees have historically had similar entry and exit requirements (Hyle & Goodchild, 2012). While GPA requirements for admission are generally higher now than they were in the past, there is still a general expectation of a 3.0 to 3.5 GPA required for admission as well as a standardized entrance exam, such as the GRE (Keim 2007). In their 1986 study, Crosson and Nelson found no significant differences in admissions requirements between PhD and EdD programs. Twenty-five years later, Keim (2007) found only one difference in entrance requirements for just two EdD programs. Specifically, he found that these programs sought applicants with five to ten years of professional experience in the field, which does indicate a slight shift in the goal of the degree towards professional preparation.

Past research has shown very little distinction between the EdD and the PhD programs in higher education in almost every area of analysis. While differences between the degrees have been noted in prior research, the findings have yet to show consistency to clearly differentiate the two degrees across the field. As such, there remains overlap and contention between the purpose and requirements of the EdD and the PhD in higher education. The lack of clarity between EdD and PhD programs not only leaves the students conflicted about which degree is the best option for their future goals but gives program administrators little guidance in administering such programs.

Purpose of the Current Study

The purpose of the current study is two-fold. First, we aim to update the literature base regarding progress toward operationally differentiating the PhD and EdD degree paths in higher education. Second, we aim to establish methodological practice that relies on the consistency of an up-to-date secondary database rather than on the inconsistencies of individual researchers' sampling plans to improve comparison of findings over time. We aim to accomplish these goals by continuing the line of inquiry into operational differences in the EdD and PhD degrees in higher education, with a focus on (1) program entrance and exit requirements, (2) credit hour requirements, (3) research and methods course requirements, and (4) program format offerings. Specifically, this study aims to address the following research questions: (1) how do current PhD and EdD programs compare to prior assessments of the degrees and (2) has progress been made on prior calls to delineate EdD and PhD programs? To continue previous work, we conducted a study which looked at areas evaluated in prior studies to determine if current doctoral programs have made any advancements in distinguishing between degrees.

METHODS

Historically, investigations on the comparison of EdD and PhD programs have been based on disparate sampling plans. More specifically, samples from these studies have been relatively small (i.e., 40 to 60 cases), have utilized unclear search criteria for case inclusion, or both. While random samples of different cases from a relatively large population is commonly a good thing in the social and behavioral sciences in establishing a sampling distribution, it makes little sense to conveniently sample from a small population where all/most potential respondents (i.e., doctoral programs in higher education) are known. To improve the methodological practice of sampling that can enhance consistency from one study to the next, we advocate for and have selected to use an up-to-date, secondary dataset of programs in higher education. The Association for the Study of Higher Education (ASHE) maintains a database of higher education programs in the United States. Their database includes a list of 240 institutions with varying degrees in higher education. Given that the focus of the current study was on the comparison of EdD and PhD programs in higher education, we excluded master's-only institutions and for-profit institutions as well as degrees in Educational Leadership and Leadership. One hundred eighty-eight higher education programs at 145 institutions were included in the analysis.

Coding and Data Collection

We utilized the ASHE database to first retrieve basic information about the programs that offered an EdD or PhD in higher education and the institutions in which they were situated. Next, we developed a coding protocol that we used to record data about each of the programs from readily available materials on program websites. The data collected comprised program requirements and characteristics, such as comprehensive exam requirements, GRE or other testing requirements, culminating experience requirements, program formats, research methods requirements, and degrees offered by institution. It is important to recognize that content from online collections can be unreliable, especially in areas where information can change fluidly (i.e., changing program requirements);

however, this collection method can offer timely data and can serve as a point of comparison for previous and future website analyses of doctoral programs in higher education (Harris, 2007; Jensen, 2013).

Data Analysis

To analyze the data collected from the online search and coding phase, different statistical techniques were utilized. More specifically, descriptive statistics were utilized to describe the nature of the program components, including measures of central tendency and dispersion. T-tests were utilized to examine differences in continuous program components (i.e., required credit hours) between EdD and PhD programs. Finally, Chi-square and phi-correlations were utilized to examine the relationship between dichotomous variables (i.e., program by GRE requirement). Prior to analysis, assumptions required for the chosen statistical analysis were checked. The data either met the assumption or adjustments to the statistic (i.e., equal variances not assumed) were made.

RESULTS

Results from the analysis of program requirements and characteristics highlight important trends across the United States. The following sections report the descriptive statistics concerning program type and format, credit hour requirements, research hour requirements, and entrance and exit requirements of EdD and PhD degree programs, along with the results of inferential tests examining the differences in program requirements between PhD and EdD programs for institutions that housed both programs as well as institutions that only housed one or the other.

Program

A majority of the programs at the 145 different institutions designated as maintaining a doctoral degree in higher education offered only a PhD ($N = 56, 38.6\%$), followed by those only offering an EdD ($N = 46, 31.7\%$), and those offering both a PhD and an EdD ($N = 43, 29.7\%$). In the context of the history of the EdD and PhD in higher education, the number of institutions offering both degrees has steadily declined, while institutions offering one or the other has slowly increased. From the results of these types of analyses in publications over the last 40 years, as summarized in Table 1 and illustrated in Figure 2, it appears that institutions might be focusing more on one type of degree (i.e., the PhD or the EdD) than on trying to sustain both.

Figure 2. Percentage of Degree Type from Published Literature Between 1974 and Present

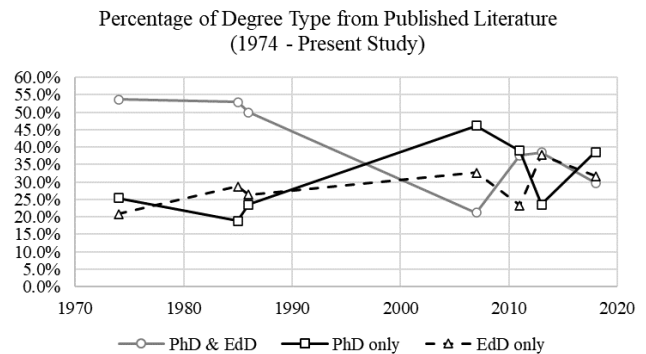


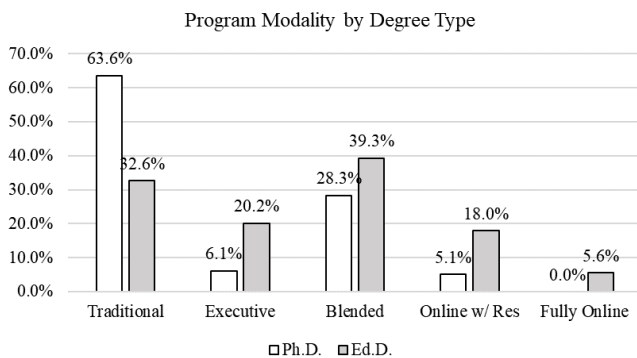
Table 1. Frequency and Proportion of Institutions Offering PhD Only, EdD Only, and Combined PhD/EdD Degrees

Sample Size	Current Study		Jensen (2013)		Valerin (2011)		Harris (2007)		Cross & Nelson (1986)		Dill & Morrison (1985)		Dressel & Mayhew (1974)	
	N = 145		N = 161		N = 77		N = 104		N = 72		N = 66		N = 67	
Degree	#	%	#	%	#	%	#	%	#	%	#	%	#	%
PdD & EdD	43	29.7	62	38.5	29	37.7	22	21.2	36	50.0	35	53.0	36	53.7
PhD only	56	38.6	38	23.6	30	39.0	48	46.2	17	23.6	12	18.9	17	25.4
EdD only	46	31.7	61	37.8	18	23.3	34	32.7	19	26.4	19	28.8	14	20.9

Format

The formats offered for the 188 programs across the 145 institutions demonstrated differing trends for the EdD and the PhD programs. As illustrated in Figure 3, PhD programs offered instruction primarily via traditional, on-campus formats ($N = 63$, 63.6%), followed by blended, hybrid formats ($N = 28$, 28.3%), executive, weekend formats ($N = 6$, 6.1%), and online with residence requirements formats ($N = 5$, 5.1%). More diversified, the EdD programs offered greater flexibility in program format, with a majority offering blended, hybrid formats ($N = 35$, 39.3%), followed by traditional, on campus formats ($N = 29$, 32.6%), executive, weekend formats ($N = 18$, 20.2%), online with residence requirements formats ($N = 16$, 18.0%), and fully online formats ($N = 5$, 5.6%). The EdD and PhD programs differed meaningfully in the formats offered. For example, nearly twice as many PhD programs were formatted as traditional programs. Conversely, over three times as many EdD programs were formatted as executive and online with residence requirement programs, compared to PhD programs. While none of the PhD programs in the sample were fully online, 5.6% of the EdD programs were.

Figure 3. Program Modality by Degree Type



Admission and Credit Hour Requirements

Admission criteria differed between the EdD and the PhD programs. Of the 61 PhD programs that reported GRE requirements, 53 (86.9%) required students to complete the GRE for admission. Of the 55 EdD programs that reported GRE requirements, 39 (70.9%) required students to complete the GRE for admission.

Additionally, the EdD and PhD programs differed in the total number of hours required to complete the degree. After completing an acceptable master's degree, PhD programs in higher education required between 42 and 90 hours of post-graduate coursework with

an average of 65.4 hours ($SD = 8.3$), followed by EdD programs which required between 39 and 81 hours of post-graduate coursework with an average of 58.3 hours ($SD = 7.8$) to complete the plan of study. Likewise, PhD programs in higher education required between 6 and 30 hours of research coursework, with an average of 15.3 hours ($SD = 3.8$), followed by EdD programs which required between 3 and 24 hours of research coursework, with an average of 11.7 hours ($SD = 3.8$).

Final Project Requirements

Characteristics of each of the programs' final degree projects overall described the PhD as the more traditional degree, in which 96 (97.9%) of the 98 programs with information, described this project as a traditional dissertation. For the EdD programs, students had greater flexibility in the final project, with 72 (83.7%) of the 86 programs with information requiring a traditional dissertation, 7 (8.1%) requiring a capstone, and 7 (8.1%) requiring a less defined final project. Of those completing a dissertation for an EdD degree, 25 (34.7%) described this project as an action oriented or applied research project. Only three of these dissertations were embedded in the curriculum.

Required Hours to Complete Degree Post Master's Degree

Institutions that housed both PhD and EdD programs required different hour requirements to complete the doctoral degree post-master's degree. PhD programs required the most hours post-master's, ranging from 48 to 81 hours, with an average requirement of 66.26 hours ($SD = 7.69$). EdD programs required a range of 44 to 81 hours, with an average requirement of 58.23 hours ($SD = 8.10$). Examining the differences between PhD and EdD programs in institutions that house both, results of a paired sample t-test, assuming equality of variances (Bartlett's $K^2 = 0.11$, $p = 0.74$), PhD programs required significantly more hours post-master's degree with an average difference of 8.02 hours ($t = 7.84$, $p < .001$, 95% CI[5.95; 10.09]).

Institutions that housed either a PhD or an EdD program, but not both, also required different hour requirements to complete the doctoral degree post-master's degree. PhD programs again required the most hours post-master's, ranging from 42 to 90 hours, with an average of 64.67 hours ($SD = 8.70$). EdD programs required a range of 39 to 78 hours, with an average requirement of 58.36 hours ($SD = 7.63$). Examining the differences between PhD and EdD programs from independent universities, results of an independent samples t-test, assuming equality of variances (Bartlett's $K^2 = 0.82$, $p = 0.37$), PhD programs required significantly more hours post-master's degree with an average difference of 6.31 hours ($t = 3.78$, $p < .001$,



95% CI[3.00; 9.62]). In comparing the results between institutions that house both an EdD and PhD program versus those programs that only house one or the other, the greatest difference between hour requirements was found amongst the institutions that house both programs.

Required Research Hours in Degree Plan

Institutions that housed both PhD and EdD programs required different research course requirements in their respective degree plans. PhD programs required the most overall research hours, ranging from 6 to 24 hours, with an average of 16.33 hours ($SD = 3.67$). EdD programs required a range of 6 to 21 hours, with an average of 11.79 hours ($SD = 3.58$). Examining the differences between PhD and EdD programs in institutions that house both, results of a paired sample t-test, assuming equality of variances (Bartlett's $K^2 = 0.03$, $p = 0.87$), PhD programs required significantly more research hours with an average difference of 4.64 hours ($t = 8.74$, $p < .001$, 95% CI[3.57; 5.72]). When disaggregating by the type of research coursework, similar differences were also found in quantitative methods coursework ($t = 2.83$, $p < .01$, 95% CI[0.32; 2.08]), but not for qualitative coursework ($t = 1.00$, NS).

Institutions that housed either a PhD or an EdD program, but not both, also required different research course requirements. PhD programs again required the most research coursework, ranging from 6 to 30 hours, with an average of 14.46 hours ($SD = 3.81$). EdD programs required a range of 3 to 24 hours, with an average of 11.60 hours ($SD = 3.58$). Examining the differences between PhD and EdD programs from independent universities, results of an independent sample t-test, assuming equality of variances (Bartlett's $K^2 = 0.24$, $p = 0.62$), PhD programs required significantly more research hours with an average difference of 2.86 hours ($t = 3.60$, $p < .001$, 95% CI[1.29; 4.44]). When disaggregating by type of research coursework, similar differences were found in quantitative methods coursework ($t = 2.69$, $p < .01$, 95% CI[0.29; 1.93]), but not for qualitative coursework ($t = 1.50$, NS).

Required GRE Scores for Admission to Program

Institutions that housed both PhD and EdD programs tended to require very similar admission requirements in terms of the GRE. Of the 24 institutions that had information about GRE requirements for both the PhD and EdD program, 83.3% ($N = 20$) required the GRE to be admitted to either the PhD or the EdD program, and 12.5% ($N = 3$) did not require the GRE to be admitted to either program. On only one occasion (4.2%) did an institution that housed both a PhD and an EdD program disagree on the requisite of a GRE score for admission. In this case, the PhD program required the GRE for admission, while the EdD program did not. Results from a χ^2 test of independence suggested that this overlap was not due to chance ($\chi^2 = 10.97$, $p < .001$), but instead both programs' requirements were nearly perfectly correlated ($r_\phi = 0.85$).

Institutions that housed either a PhD or an EdD program, but not both, demonstrated slightly different admissions requirements in terms of the GRE. Of the 64 institutions that had information about GRE requirements for their respective PhD and EdD programs, 85.3% ($N = 29$) of PhD programs required the GRE compared to 60.0% ($N = 18$) of EdD programs. Conversely, 14.7% ($N = 5$) of PhD programs did not require the GRE compared to 40% ($N = 12$) of EdD programs. Results from a χ^2 test of independence suggested that these

percentages were not due to chance ($\chi^2 = 4.01$, $p < .05$), but instead the GRE requirements were more likely to be associated with PhD programs than EdD programs ($r_\phi = 0.29$).

DISCUSSION

Dressel and Mayhew's (1974) study showed that the majority of institutions surveyed offered both the PhD and the EdD. They found that slightly more institutions offered the PhD only as compared to the EdD only. Cross and Nelson's (1986) study reflected little change in institutions offering both degrees but found that slightly more institutions offered the EdD only as compared to the PhD only. Twenty years later Harris (2007) discovered a marked difference in institutional offerings. Harris found that nearly half of the institutions surveyed offered the PhD only, while just over twenty percent offered both the PhD and the EdD. Harris's (2007) findings are similar to the findings of this study.

The shift from most institutions offering both degrees occurred sometime in the late 20th century, and current research indicates that more institutions are opting for one degree or the other, with fewer offering both, where having two degrees can cause conflict between the demands of theory versus practice. Moreover, offering both degrees can lead to similar content thus adding to the confusion between the two degrees (Perry & Imig, 2010). Most institutions today offer the PhD only, but the number of institutions offering the EdD only is relatively stable as reported in previous studies (Harris, 2007; Jensen, 2013).

Previous research has shown that the demographics and career goals of students can vary across doctoral programs. The median age of traditional PhD graduates remains much lower than the median age for EdD graduates who are typically already practicing in the field. This understanding of the demographic is clear in the program formats offered between the two degrees. While a sizeable number of EdD programs offer an executive format, almost no PhD programs offered such format. Similarly, over half of the PhD programs offer traditional format, while fewer EdD programs offer the same. These results reflect the demand for programs and the balance that those already practicing in the field may require.

While there is some debate over the quality/rigor of the EdD degree as compared to the PhD (De Lisi, 2013; Perry, 2013; Schulman et al., 2006), previous research (King, 1961) found the EdD degree tended to have more demanding admissions requirements; however, current research has found the opposite to be true. Of those surveyed, 86.9% of PhD programs require the GRE exam while only 70.9% of EdD programs require the exam. At this time, there is no explanation for the differences in admissions testing by degree.

Previous research (Carpenter, 1987; Hochbein & Perry, 2013; Lester, 2004) noted that PhD programs rarely deviated from the standard dissertation requirement, while EdD programs were more likely to offer alternatives to the formal dissertation. Current research shows this remains to be true as nearly all PhD programs reviewed required a traditional dissertation. While most EdD programs require a dissertation, the format of those dissertations varies significantly in format and content. Just over half of the EdD dissertations specify they are action-oriented, applied, executive, or thematic EdD research projects. Much like the testing requirement could be a matter of audience needs, the action research dissertations, a

primary feature of EdD final projects, also meets the needs of professionals already working in the field.

This study shows PhD and EdD higher education programs have statistically significant differences in research hour requirements where the PhD requires more hours. This was more pronounced at institutions offering both degrees where program administrators need to clearly differentiate between their two degrees. Similar to research requirements, there is a statistically significant difference in total hours by degree program. Like research hours, the difference is more pronounced at institutions offering both degrees where they need to clearly differentiate differences between their own degrees.

The final area of analysis in this study is the entrance and exit requirements. While the GRE requirements are nearly identical at institutions offering both programs, there is a significant difference at institutions where only one or the other degree is offered. In this case, EdD programs are more likely to require the GRE as compared to the PhD. This pattern appears contradictory to what might be expected. Based on the findings of this study, it is evident that institutions offering both degrees are more likely to differentiate clearly between degree requirements. However, institutions offering one degree still have work to do.

Toma (2002) contends that reinventing the EdD can both legitimize education as a field of study within the respective institution and establish specific standard practices, which already occurs within other advanced programs. As in business, law, and medicine, the enhancement and specification of an established EdD curricular structure also implies, to outside communities, that graduates have received a high level of training tailored to specific career goals (Toma, 2002). This notion was heralded by Guthrie (2009), who argued education doctorates “that still attempt to meet all markets and cram both professional and research preparation into the same curriculum shortchange institutional obligations to enrollees and stigmatize education as a field. Failure to correct the shortcoming of one degree ensures continuance of weaknesses in both” (p. 4). This contention is neither a new nor novel idea, rather, it has been posited by several researchers for decades (Brown, 1990; Deering, 1998; Schulman, et al., 2006; Toma, 2002), yet the challenges of differentiation persist.

LIMITATIONS OF STUDY AND FURTHER RESEARCH AREAS

While the study has attempted to be thorough, further studies could address some limitations. One such limitation is that a more exhaustive survey of the core or required courses could be included in future research on the differentiation of the programs. Considerations of how higher education programs have evolved in their definition of a core program may be of note in considering how the differentiation of the EdD and PhD vary for higher education. A recent study noted that there was “common agreement in the subject matter areas of organization, leadership, administration, and history,” but also stated that there was a “growing consensus among higher education doctoral programs about the position of higher education law and finance in the curricular core” (Card et al., 2016, p. 127). Another limitation could be considering the cocurricular and extra-curricular opportunities and traditions around the different programs that might provide further insight into how campuses with both programs create differences outside the organized curriculum.

Surveys of students and an examination of student organizations might better inform this area. Another limitation would be to consider the cost of attendance. While this article does discuss some variations reported in the hours required to complete the different doctoral degrees, there is still a need to consider the institutions that offer the programs. Beyond the credit hours to completion variations, are there expense differences in the credit hour costs of each institution? For institutions that offer only one program, are there comparative expenses and prestige at another institution with the other program? Finally, there is a need to consider the lasting impact of the various degrees. What similarities and differences do we see between EdD and PhD graduates’ salaries, job placements, and career satisfaction after completing the degree? These studies would further align the results of this study to further a broader, more informed understanding of the differences between the PhD and the EdD programs in higher education.

CONCLUSION

By conducting this investigation, not only have we contributed to the discussion on the current state of the doctoral degree in higher education, but we have also uncovered some methodological inconsistencies that need to be addressed if we are to further examine this progress reliably. The variability in results reported in studies over the past 40 years is more likely to be due to sampling error than real changes in programmatic offerings. Prior to the current study, research in this area has relied on returned surveys and website searches to gather information about programs that offer degrees in higher education. While these offer useful insights into degree requirements and characteristics, there is undoubtedly a high level of inconsistency in what is either returned (via survey design) or what is found (via search engines). Large organization lists, like those maintained by ASHE, provide a common, repeatable methodological foundation that future researchers can use to compare numbers reliably over time. While it is possible that the institutional list obtained from ASHE omitted some higher education programs, as institutions are added to these types of lists, they become increasingly comprehensive with clear details about how much change has occurred between studies using the same list.

The need for change has been established, and doctorate education is shifting and is continuously being revamped to answer the call for increased professional skills in a number of areas across higher education (Robinson et al., 2016). However, this update on the current state of higher education doctoral programs suggests that change is happening slowly. This update further provides an overview of what changes have occurred over the past decade and reflects where the similarities remain, thus perpetuating the debate of practicality versus perception and application versus research. The EdD must be viewed for its true value, to add to the professional skills. However, to be successful at that, EdD programs must be true practitioner-based doctoral programs and must be completely separate from the PhD.

If the goal is true differentiation, this data suggests some opportunities for departments and administrators to further define and regulate the programs as distinct forms of doctoral work in higher education. First, institutions could consider how to determine the core curriculums of each program to research and professional expectations. Partnerships could be developed with consortiums such as the Carnegie Project on the Education Doctorate as well as professional organizations related to practice areas in higher



education such as the National Association of Student Personnel Administrators (NASPA), Association of Deans and Directors of University Colleges and Undergraduate Studies, National Academic Advising Association (NACADA), the Association of International Educators (NAFSA), the American College Personnel Association (ACPA), and other such organizations to define the modern practitioner skillsets needed. Through reviewing the standards, missions, and values of such organizations, the EdD could be aligned as a practitioner's degree as opposed to the PhD focus on research and scholarly duties. Such work might allow students seeking a terminal degree to better understand and engage in the differentiation of the goals of the degrees and pursue one appropriate to their professional goals. This may also help provide structure and support for those with an EdD that face impostor syndrome or the belief that they are "an EdD in a PhD world" (Doran, 2021, p. 110). Institutional responsiveness and definition of expectations in response to professional development and career aspirations within the goals and structures of current academic standings could be a core way for these programs to be defined as research-themed and practitioner-focused if that is the understood differentiation most institutions pursue.

The EdD and PhD in higher education were designed to serve two distinct purposes, each with unique curricula and assessments. While there has been progress, especially at institutions offering both degrees, more differentiation still needs to occur. This study shows some significant differences; thus, it appears that work is being done. However, there remains a need for continued research and definition of the roles of each program, defining targeted populations for each degree, and meeting the needs of each population. Further, there needs to be more clarity toward the value of the EdD independent of the PhD, so that the EdD is valued for its purpose and not seen as a PhD-lite.

DECLARATIONS

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Authors declare no competing interests.

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