Differences between EdD and PhD Programs：

A Mixed Methods Study

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ABSTRACT

The goal of this concurrent, equal status mixed methods study was to investigate the potential differences between EdD and PhD programs in the United States with the following overarching research question: Are there differences in EdD and PhD programs in schools that have both programs? Data were collected from 34 university websites where both a PhD and an EdD degree in leadership were available through a school of education. Results indicated statistically significant differences were found between EdD and PhD programs in regard to Total Credits $t(66) = -2.05$, $p = .022$, $d = -0.5$; Research Credits, $t(50.38) = -5.38$, $p < .001$, $d = -1.32$, and Culminating Projects, $t(63) = -1.79$, $p = 0.039$, $d = -0.44$. Qualitative analyses revealed similarities and differences between the programs. This study reinforces the concept of a practitioner degree for the EdD and the research / faculty degree for PhD.

KEYWORDS

EdD program, PhD program, practitioner degree, doctoral degree

In many United States post-secondary schools of education, two doctoral degrees can be offered to students: the Doctor of Education (EdD) and the Doctor of Philosophy (PhD) (Foster et al., 2023; Osguthorpe & Wong, 1993). The EdD degree has been considered as the degree for working professionals (Capello, 2020; Flood, 2024) or, more broadly, as the "practitioner" degree for those working in administrative roles (Brown, 1990; Courtenay, 1988; Leist & Scott, 2011; Toma, 2002), while the PhD degree focuses on how to conduct research and train future faculty (Courtenay, 1988; Leist & Scott, 2011; Toma, 2002). Historically, EdD degrees were first granted in 1921 (Andersen, 1983; Perry, 2012) and preferred by students in schools of education until the 1960s and then declined in favor of the PhD (Brown, 1990). However, as of 1993, in the United States, there were a similar number of EdD programs and PhD programs (Osguthorpe & Wong, 1993).

With separate goals for the programs, many practitioners in the field of education believe that these degrees offer two unique forms of preparation and that there are distinctions between the degrees; however, the extant literature shows few differences between these doctoral programs (Andersen, 1983; Dill & Morrison, 1985; Foster et al., 2023; Guthrie, 2009). Despite the notion that the EdD is the

"PhD-lite" (Buttram & Doolittle, 2015), Foster et al. (2023) notes that the variability between the EdD and PhD degrees "were and are still negligible" and that the programs "have been relatively stable over time" (p. 20). Researchers have studied potential divergence between EdD and PhD programs based on program requirements in regard to multiple factors like the number of credit hours, the number of research courses, and the type of dissertation. In reviewing this potential divergence, prior literature that included both EdD and PhD programs was identified to understand the relationship.

Regarding total credit hours, researchers have found there were not statistically significant differences between EdD and PhD programs in the number of credit hours required of students for graduation (Andersen, 1983; Foster et al., 2023; Osguthorpe & Wong, 1993). Yet, Leist and Scott (2011) did note a "subtle" gap with PhD programs having more credit hours. Within the credit hours discussion for research courses, Brown (1990) found no statistically significant differences between the number of required research courses in EdD and PhD programs. However, other studies contradict those findings. For example, Card et al. (2016) did find a statistically significant difference between research courses in EdD

and PhD programs. Osguthorpe and Wong (1993) found that an advanced research course – in the category of "Advanced Inferential Statistics" (p. 55) - was statistically significantly different between the programs, with PhD programs having more advanced statistics courses. Additionally, Guthrie (2009) found that EdD programs had more of an "elementary research understanding" (p. 4).

Culminating projects in these programs have different descriptive names, for example, dissertation, capstone, culminating project, etc. (Brown, 1990; Osguthorpe & Wong, 1993). Dissertations, or culminating projects, were found to have negligible differences between the EdD and PhD programs (Brown, 1990; Osguthorpe & Wong, 1993). EdD programs were noted to have more flexibility (Foster et al., 2023) or were allowed to focus on a "practical problem" instead of research (Andersen, 1983, p. 56). Walker and Haley-Mize (2012) studied dissertations specifically in special education and found differences in the type of research design, with PhD programs using more experimental and correlational designs while EdD programs used more descriptive and qualitative methods.

Having discussed the logistical concerns such as credit hours, course differences, and culminating projects, it remains important to next introduce the conceptual philosophical bases of the program. Osguthorpe and Wong (1993) stated that EdD and PhD degrees have a "philosophical premise" which may differ (p. 47). Some researchers have vocalized what should be done to differentiate these programs (Carpenter, 1987; Courtenay, 1988; Dill & Morrison, 1985; Leist & Scott, 2011; Perry, 2012; Toma, 2002). Toma (2002) calls for only offering an EdD program asserting that having both the EdD and the PhD "diminishes our credibility as a discipline in the broader community of scholars by affixing a pure label on what is clearly applied education" (p. 16). The comparison is made that medical, law, and other fields have their own doctoral degree, therefore education should as well (Brown, 1990; Guthrie & Marsh, 2009; Perry, 2012; Toma, 2002). Carpenter (1987) argued to leave the landscape untouched, as the PhD is preferred by students. Courtenay (1988) argued for a two-track PhD program, arguing for the prestige of the PhD program, stating, "if it doesn't really matter what you call the degree, then why not choose the PhD?" (p. 18). Courtenay (1988) continued to say that the two-track PhD should be defined by student career goals: "one for researchers/professors and one for administration/teachers" (p. 19).

Other researchers have not argued for one primary degree, instead they believe there should be better distinctions between the programs (Dill & Morrison, 1985; Leist & Scott, 2011). Dill and Morrison (1985) listed several components (e.g., research, career, internship) on where and how the programs should differ. Organizations have also appeared to help support differentiating the degrees. For example, the Carnegie Project on the Education Doctorate (CPED) created a program with the goal "to redesign the degree to make it the highest-quality 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 organizations that support them" (Perry, 2012, p. 42). Schools involved in CPED work towards developing distinct EdD and PhD programs (Aiken & Gerstl-Pepin, 2013; Buttram & Doolittle, 2015; Perry, 2012). One university only offered the EdD, but through work with CPED, began to offer the PhD (Aiken & Gerstl-Pepin, 2013). By offering both the EdD and PhD there was the chance to "build a collaborative partnership between applied researchers (who would conduct research to inform practice) and practitioners-scholars (who would utilize research to address problems of practice)" (Aiken & Gerstl-Pepin, 2013, p. 163). The National Policy Board for Education Administration (NPBEA) also is noted as an external force that advocates for "a reduction of the number of programs [and] differentiation between the EdD and PhD degrees" (Buttram & Doolittle, 2015, p. 283). While CPED and NPBEA advocate for differentiating the degrees the distinctions and similarities between programs are not clear in the prior literature (Dill & Morrison, 1985; Foster et al., 2023).

Based on the preceding discussion of the lack of clear understanding of the differences between EdD and PhD programs and degrees, the purpose of this study is to study the potential differences between EdD and PhD programs in the United States. The current study addresses the following overarching research question: Are there significant differences in EdD and PhD programs in schools that have both programs?

CONCEPTUAL FRAMEWORK

Foster et al. (2023) present a conceptual framework that focuses on the potential differences and areas of overlap in program details for EdD and PhD programs. Their framework includes five areas of comparison between the EdD and PhD programs: "course hours to degree, research hours to degree, culminating experience requirements, entrance/exit requirements, and admissions requirements" (Foster et al., 2023, p. 20). The results from extant literature indicate that there is conflicting information on potential differences in these areas when comparing EdD and PhD programs (Andersen, 1983; Brown, 1990; Foster et al., 2023; Osguthorpe & Wong, 1993). The conceptual framework used in Foster et al. (2023) was used as a foundation in this article as it summarizes the literature's findings on potential overlaps. Based on Foster et al. (2023) framework of these articles, our framework was built on the notion of programs that share similar titles and outcomes where a student has the option of choosing an EdD or PhD from the same school. While these programs share similar resources, prior literature (Dill & Morrison, 1985) suggests there should be an observable difference between why a student would choose one degree or another if the title is the same. Using this as our framework, a methodology was developed to compare only schools in the U.S. where a shared program title could be obtained with either a PhD or an EdD.

METHODS

This study is a concurrent, partially mixed, equal status mixed methods design (Leech & Onwuegbuzie, 2009). This is a mixed methods study due to the utilization of both quantitative and qualitative data (Leech & Onwuegbuzie, 2009). The quantitative and qualitative data were obtained concurrently. The study is partially mixed which means the quantitative and qualitative data were mixed at some, but not all stages of the research process (Leech & Onwuegbuzie, 2009). And the study is considered equal status because the quantitative and qualitative data were considered to be of equal value to the study. Once the data were fully collected, the quantitative and qualitative data were mixed (Leech & Onwuegbuzie, 2009). The goal of the study is to add to the current knowledge base (Leech & Onwuegbuzie, 2010) of information regarding differences in EdD and PhD programs. The mixed methods research objective (Johnson & Christensen, 2004) is to identify and describe the programs, explaining the relationship and differences. The rationale

for using a mixed methods study is significance enhancement (Leech & Onwuegbuzie, 2010) to maximize the understanding of the results.

Based on the conceptual framework of Foster et al. (2023), the overarching research question is: Are there differences in EdD and PhD programs in schools that have both programs? The quantitative questions include: What are the average credits (total, research, content, culminating project) for each program? Are there differences in types of culminating project credits? Are there differences in the number of credits (total, research, content, culminating project) between programs? Are there differences in the word count of program descriptions between EdD and PhD programs? And the qualitative questions include: How are the EdD and PhD programs described on the websites? How do the descriptions compare to one another?

Procedure

To determine sample size, a power analysis using G*power (Faul et al., 2019) was conducted. The results indicated that a sample size of 34 schools were needed. To find the schools, a spreadsheet was downloaded from the Integrated Postsecondary Education Data System through the National Center for Education Statistics (U.S. Department of Education, n.d.). The list initially started with 1658 schools but was filtered and reduced. First, the list was filtered down to 517 schools that were categorized as having a doctoral program. To reduce the list further, 118 public institutions that have both an EdD and PhD in Education were found. The list of 118 was further narrowed by comparing the EdD and PhD programs for similar sounding programs in educational leadership. Educational leadership programs (encompassing Policy, Student Affairs, and other similar programs) were picked due to the frequency in available overlapping programs compared with other kinds of doctoral programs (such as Math Education, Special Education, or Research and Evaluation Methods). For example, if there was an "Educational Leadership EdD", there had to be an Educational Leadership PhD at the same school. This produced a list of 39 schools: from this list 34 schools were randomly selected. A few schools were excluded because their programs had closed, or their websites offered not enough information to evaluate. If one school was excluded, another was randomly selected so that the sample size would be large enough to have adequate power.

Once the schools were selected, the data were collected from the programs' websites. The variables collected are total credits, research credits, content credits, culminating project credits, internship credits, and other credits. The credits were counted for doctoral programs, and did not include credits for Master's degrees. The data were stored in an Excel file. The culminating project was broken down further into dissertation, dissertation in practice, and capstone. The other credits category was for credits that did not fit into research, content, internship or culminating projects, such as licensure credits. The program descriptions were copied to Word documents and the word count was calculated. The descriptions were also used for the qualitative analysis.

ANALYSES

To answer the question "What are the average credits (total, research, content, culminating project) for each program?" descriptives including the sample size, mean, standard deviation, and skewness were run using SPSS (version 29) on the following variables: Total Credits, Research Credits, Content Credits, Dissertation Credits, Dissertation in Practice Credits, Capstone Credits, Culminating Project Credits, Internship Credits, Other Credits, and Word Count. To answer the questions: "Are there differences in the number of credits (total, research, content, culminating project) between programs?" and "Are there differences in the word count of program descriptions between EdD and PhD programs?", t-tests were conducted using SPSS. Assumptions on normality and homogeneity of variance were checked prior to the analysis. The credit hours and number of words used for describing the programs on the websites were compared between EdD and PhD programs. Due to Dissertation in Practice and Capstone Credits being solely used in EdD programs, these two variables could not be compared across degree options. Prior to running the t-tests, assumptions were tested. Table 1 includes skewness for the variables. "Other" credits, Internship Credits, and Description Word Count had a skewness greater than 1, therefore normality was not met. Levene's test for Equality was used to test for homogeneity of variance. The Research Credit variable violated homogeneity; therefore, equal variances were not assumed. The remaining variables (Total, Content, Dissertation, and Culminating Project) did not violate homogeneity of variance.

To answer the qualitative question: "How are the EdD and PhD programs described on the websites?", a classical content analysis (Berelson, 1952) was conducted. The program descriptions were read, chunked, and coded by the researchers. The codes were then counted. To answer the question: "How do the descriptions compare to one another?," a constant comparison analysis (Corbin & Strauss, 2014) was conducted to count the codes. The researchers reviewed the descriptions and coded each sentence with an in vivo word or phrase summarizing the data (Corbin & Strauss, 2014). As coding progressed, the codes were constantly compared so codes were used for similar passages in the data. Once the codes were finalized, they were categorized, counted, and compared between the data from the two degree types. The codes were then grouped by categories suggested by Dill and Morrison (1983): Distinctive Objectives, Intended Professional Careers, Research Methods, and Thesis. The category for thesis included codes regarding culminating projects. The last category, Internships, was broadened to include Program Features, where codes like internships, assistantships, etc. were grouped together. These categories did not encompass all codes, so an additional two other categories were added: Skills Taught and Other.

RESULTS

Quantitative

To answer the question: "What are the average credits (total, research, content, culminating project) for each program?", the descriptive statistics were run through SPSS. Table 1 provides the sample size, mean, and standard deviation for each variable broken down by EdD, PhD, and total (combining both the EdD and PhD). Total credits for all programs was an average of about 70 credit hours to complete the doctoral degree. The credits broke down into research, content, internship, other, and culminating project credit hours.

PhD programs had a higher average for total credit hours ($M = 73.15$) compared to EdD programs ($M = 66.59$). As well, PhD programs had a higher average of research credits ($M = 17.09$) than

EdD programs (*M = 12.12).* Both EdD and PhD programs have content credits that combined averaged 38 credit hours. In the sample, more EdD programs had internship and other credits than did the PhD programs. Credits that were defined as other included superintendent or other administrator preparation credits, seminars for culminating projects, or "professional studies."

As for final or culminating projects, all programs had credits listed for a culminating project. Both EdD and PhD programs had dissertations with an average of about 15 credit hours. More PhD programs had dissertations than EdD programs. Although both programs had the aforementioned dissertation, only EdD programs had Capstone or Dissertations in Practice credits.

Table 1. Means, Standard Deviations, and Skewness of Credits between EdD and PhD Programs

Variable	Degree	N	M	SD	Skewness
Total Credits	EdD	34	66.59	14.00	
	PhD	34	73.15	12.40	
	Total	68	69.87	13.54	0.70
Research Credits	EdD	33	12.12	2.61	
	PhD	33	17.09	4.64	
	Total	66	14.61	4.5	0.72
Content Credits	EdD	33	36.79	12.21	
	PhD	33	39.27	11.21	
	Total	66	38.03	11.70	0.76
Other Credits	EdD	10	11.2	7.90	
	PhD	4	4	1.41	
	Total	14	9.14	7.42	1.86
Internship Credits	EdD	8	5.25	2.12	
	PhD	4	9.75	5.68	
	Total	12	6.75	4.07	2.08
Dissertation Credits	EdD	14	14.64	5.26	
	PhD	33	15.82	5.48	
	Total	47	15.47	5.39	1.00
Dissertation in Practice Credits	EdD	10	15.10	4.98	
	PhD	0			
	Total	10	15.10	4.98	0.21
Capstone Credits	EdD	7	8.86	3.58	
	PhD	0			
	Total	7	8.86	3.58	-0.69
Culminating Project Credits	EdD	32	13.44	5.25	
	PhD	33	15.82	5.48	
	Total	65	14.65	5.46	0.78
Description Word Count	EdD	34	186.91	129.12	
	PhD	34	153.18	78.43	
	Total	68	170.04	107.38	2.36

To answer the questions: "Are there differences in the number of credits (total, research, content, culminating project) between programs?" and "Are there differences in the word count of program descriptions between EdD and PhD programs?", multiple results were found. For Total Credits, a statistically significant difference was found between EdD and PhD programs: $t(66) = -2.05$, $p = .022$. There was a medium effect size of $d = -0.5$. For Research Credits, a statistically significant difference was found between EdD and PhD programs $t(50.38) = -5.38$, $p < .001$, with a large effect size $d = -1.32$. For Culminating Projects, a statistically significant difference was found between EdD and PhD programs $t(63) = -1.79$, $p = 0.039$, $d = -0.44$. Table 2 presents the means for the groups: for Total Credits, Research Credits, and Culminating Projects, PhD programs had a higher average than EdD programs.

Table 2. Differences in Research Credits, Total Credits, and Culminating Project Credits between PhD and EdD Programs

	EdD		PhD			
Variable	M	SD	M	SD	p	Cohen's d
Research Credits	12.12	2.61	17.09	4.64	< .001	-1.32
Total Credits	66.59	14.00	73.15	12.40	.022	-0.50
Culminating Project Credits	13.44	5.25	15.82	5.48	.039	-0.44

Qualitative

To answer the research question of "How are the EdD and PhD programs described on the websites?" the qualitative codes that emerged from the websites through constant comparison analysis (Corbin & Strauss, 2014) were categorized based on prior literature. The seven categories were Distinctive Objectives, Intended Professional Careers, Research Methods, Thesis / Culminating Project, Program Features, Skills Taught, and Other. There were a large number of codes (PhD *n* = 355; EdD *n* = 407). Table 3 presents the number of codes per category for PhD and EdD programs.

Table 3. Category Code Count

Category	Definition	PhD Code Count	EdD Code Count
Distinctive Objectives	Purposes and objectives of the program	69	33
Intended Professional Careers	Future careers	96	50
Research Methods	Research topics and methodologies	5	3
Thesis / Culminating Project	The final project for the program.	2	28
Program Features	Logistical aspects of the program	81	129
Skills Taught	Skills taught in the program	56	94
Other	Codes that did not fit into other categories	46	70

To answer the research question, "How do the descriptions compare to one another?," the codes were compared between EdD and PhD programs. For the code categories, the PhD programs had more codes relating to Distinctive Objectives (n = 69) and Intended

Professional Careers (*n* = 96). EdD programs had more codes relating to Thesis (*n* = 28), Program Features (*n* = 129), Skills Taught (*n* = 94), and Other (*n* = 70).

Within each of the categories, notable differences were found when counting the total count of the codes and organizing the codes by highest numbered count of the codes to the least. Figures 1 to 7 include the codes and code count for EdD and PhD for each category. Because there were so many codes for the phrases used by both types of degree programs and yet so many differences in the frequencies of use, the researchers highlighted major differences by the use of arrows in the tables. Bolded arrows indicate a difference in code counts by 5 or more. Solid, non-bolded arrows indicate a difference in code counts of less than 5. Dashed arrows indicate the same code count. If there is not an arrow, then there is not a similar code to the other program.

Figure 1. Distinctive Objectives Codes

Within the subcategory of Distinctive Objective, Figure 1 shows the cross-comparison between the PhD codes and the EdD codes. Notable differences appeared when looking at the highest two counts: Specialization area and diversity, equity and inclusion (DEI)/Social Justice for the PhD and EdD, respectively. DEI/Social Justice appeared in the PhD category as second most frequent; however, the code count was still higher than the EdD with a discrepancy of 12 appearances of DEI/Social Justice language appearing in the objective statements for the PhD programs compared to 8 for the EdD programs. Similarly, the highest appearing code for the PhD programs of Specialization Area (*n* = 14) did appear in the EdD list with a frequency count of 3. As can be observed in this entire subcategory of Distinctive Objective shows that all of the code counts for the EdD programs were less frequently stated in the program objectives listed on the website than in the PhD program statements.

Under the category of Intended Professional Careers, displayed in Figure 2 above, the program descriptions on the website listed several possible careers or career paths for both the post EdD and post PhD professional. The most notable differences were that the three highest PhD intended career codes - Research, Faculty, and Policy, respectively - all corresponded to EdD intended careers at significantly lower counts. Research for PhD had 25 mentions across the schools, compared with 4 for EdD school websites. Similarly,

Faculty (10) and Policy (9) for PhD both corresponded to only a single mention for EdD Under this category, unlike the previous category, there were careers listed on EdD program websites that appeared at a higher frequency than PhD program websites. Leadership careers were noted in the PhD programs 7 times compared with 13 times for EdD programs. Similarly, a combination of Admin Careers appeared 9 times for the EdD whereas for the PhD it was listed several times across three categories: K12 Administration (*n* = 3), Administration non-specific (*n* = 2), and Higher Education Administration (*n* = 2). At 13 mentions for the EdD compared with 25 mentions for the PhD, this category continues to have uniformly higher consolidated mentions across PhD program websites than across EdD program websites.

Figure 2. Intended Professional Careers Codes

Compared to all other sections, Figure 3, Research Methods, contains the fewest amount of code counts, as well as no distinguishable difference. Both PhD and EdD code counts were small (2 or fewer). Research methodology was not described in descriptions for either PhD or EdD programs.

Figure 3. Research Methods Codes

Research Methods			
PhD	PhD Count	EdD	EdD Count
Flexible research topics	2	Applied research	2
Contribute to literature	2		
Methodology	1	Empirical inquiry	1

Similarly to the Research Methods category, Thesis codes also appeared much less frequently across both programs. As seen below in Figure 4, for the PhD only two mentions of a research dissertation were mentioned across the websites. Compared with the PhD program descriptions, many more kinds of theses were mentioned by EdD programs. EdD programs mentioned 8 different kinds of thesis projects ranging from Action/Problem Based Dissertation (*n* = 8) to Optional Culminating Project (*n* = 1).

Figure 4. Thesis Codes

Thesis			
PhD	PhD Count	EdD	EdD Count
		Action/Problem Based Dissertation	8
		Problems of Practice	7
		Capstone	5
		Action Oriented Projects	2
		Culminating Project - Analysis	2
Research dissertation	2 ·······►	Traditional Dissertation	2
		Culminating Project - Articles	1
		Optional Culminating Project	1

Figure 5 shows the Program Features code category. Arguably the most complicated of the categories appearing in this paper, this displays features of the programs as mentioned in program description paragraphs on the websites of each school. These features encompass enticing, unique, or special features that attract students to a particular program versus another. Such codes include Modality of the program (such as Hybrid, On-Campus, or Online), Number of Credits, Options for the Degree (EdD or PhD), Class times (such as Weekend classes), Admission times (such as Rolling), and even Extra Curricular Activities. Notable differences include the amount of times Modality is mentioned for the EdD compared with the PhD Hybrid ($n = 12$) and Online ($n = 8$) appear significantly more times than the PhD with Hybrid ($n = 1$) and Online ($n = 4$) times. The most significant difference of this category, and therefore between Program Features themselves, was the mention of "Cohorts". Cohorts was mentioned 18 times across all the EdD programs, and was not mentioned even once for PhD.

Figure 5. Program Features Codes

Program Features			
PhD	PhD Count	EdD	EdD Count
		Cohorts	18
Work with Faculty	9	Hybrid	12
		Online	8
Credits	7	Credits	7
On-campus	7	Flexible Modality	7
		CPED	6
Prior experience	5	Student centered learning and care	6
Multiple/Cultural Perspectives Curr	5	Application Process	5
Internships / Assistantships	5	In Person Modality	5
Online	4	Rigorous / Challenging Program	4
Degree options (EdD / PhD)	4	Degree options (EdD / PhD)	4
		Program differences (Different from PhD)	3
Pre-requisites	3	Aligns with state competencies	3
Individualized Coursework	3	Certification and Licenses	3
Class offering Times	3	Virtual	3
		Weekend classes	3
		Work with Faculty	3
Personalized advising	2	Active Learning	2
Non-Licensure	2	Flexible Coursework	2
Full time	2	Full Time	2
Expert Faculty	2	Internships	2
Cohort	2	Pre-requisites	2
		Renowned faculty	2
		Unique Programs	2
		Variety of Coursework	2
Hybrid	1	Non-licensure	1
Types of classwork	1	Applied Assignments	1
Rolling admission	1	Rolling admission	1
Rigorous Training	1	Information in handbook	1
Residency Requirement	1	Learning activities	1
Nationally recognized Program	1	Multiple Locations	1
Licensure	1	Core Competencies	1
Integrated approach	1	Part Time	1
Virtual	1	Program decision	1
Accredited	1	Accredited	1
Flexible Modality	1	Small Class Size	1
Faculty with practical experience	1	Temporary advisor	1
Co-Curricular Activities	1	Waitlist	1
Broad Curriculum	1		
Human-centered curriculum	1		
Access to Research centers	1		

Figure 6 displays the codes associated with Skills Taught. Interestingly, this grouping contains the most uniformity among code names, with less divergence of code counts than the other categories. The top two codes in both EdD and PhD program descriptions for Skills Taught were Research Skills and Leadership Skills, however, they appeared inverse from one another in the programs. Research Skills was counted 23 times for the PhD and 19 times for the EdD Leadership Skills was counted 12 times for the PhD and 23 times for the EdD With both programs featuring the highest code count equal to one another at 23 counts, the Skills

Taught category was relatively equal. Other notable differences were the second two highest PhD codes of Policy Skills ($n = 9$) and Theory Skills ($n = 4$) appearing in the EdD column as well, albeit less frequently at 5 and 1, respectively.

Figure 6. Skills Taught Codes

Skills Taught			
PhD	PhD Count	EdD	EdD Count
Research Skills	23	Leadership Skills	23
		Skills - Research	19
Leadership Skills	12		
Policy Skills	9		
		Innovation Skills	6
		DEI Skills	6
		Organizational Management Skills	5
		Policy Skills	5
		Administration skills	5
Theory Skills	4	Financial Skills	4
		Teaching Skills	4
		Critical Thinking Skills	3
		Student Support Skills	3
Teaching Skills	2	Decision Making Skills	2
Analytical skills	2	Practitioner Skills	2
		Skills instructional / Curriculum	2
Writing Skills	1	Adaptive skills	1
Systems/Strategy Skills	1	Communication Skills	1
Problem Solving Skills	1	Enrollment management skills	1
		Skills to create high-performing schools	1
Knowledge Skills	1	Theory Skills	1

Finally, the other category was created to filter in any other mentions of codes that didn't correlate to any of the above categories. Such codes included Collaboration, Time Commitment, Faculty, Impacts, and more. One of the biggest discrepancies and observations that can be seen in this category is the frequency of the EdD counts compared with the PhD "Collaboration" was mentioned on EdD program description websites 9 times compared with the PhD at 6 times. As well, "Working Adults" was mentioned 7 times for the EdD compared with only once for the PhD.

Figure 7. Other Codes

Other			
PhD	PhD Count	EdD	EdD Count
		Collaboration	9
		Complex Times	8
		Students have background in educa	8
Future leader	7	Working adults	7
Collaboration	6		
		Time commitment	5
Time Commitment	4	Diverse leadership	4
Presentation of work	3	Alumni	3
Educational Landscape	3		
Developmental experiences	3		
Community	3		
Complex times	2	Community	2
		Credible leaders	2
		Impact of Issues on leadership	2
		Importance of leadership	2
		Leadership changing landscape	2
		Lived experiences	2
		Start / Welcome Event	2
		Terminal degree	2
Working adult	1	Contribute to the field	1
Research and teaching culture	1	Driven Students	1
Reflect on education institutions	1	Effective leadership practice	1
Lifelong learning	1	Ethical Students	1
Lead through research/teaching	1	Growth mindset	1
Faculty Funded Research	1	Lasting relationships	1
Distinguished alumni	1	Prepares commited students	1
Department of Educational Leaders	1	School of education	1
		Students have variety of backgrounds	1
Data Driven Methods	1	Project Permission	1
Critical Conversations	1		
Connect with guests	1		
Committed student	1		
Aspiration for the future	1		
Analyze Educational Systems	1		
Aligns with state competencies	1		

DISCUSSION

Through the quantitative and qualitative analyses, the results differ from previous literature around EdD and PhD program aspects. Despite prior literature being divided, there were important differences found in various aspects of the program. In answering the overarching research question, differences were found in program credits, descriptions, culminating projects, and in the skills and intended careers after the completion of the program. Findings from this study, as discussed in the following paragraphs, support the labeling of the PhD degree as the researcher/future faculty degree (Courtenay, 1988; Leist & Scott, 2011; Toma, 2002) and the EdD as the leadership degree, similar to how other researchers have designated the EdD as the "practitioner" degree (Brown, 1990; Capello, 2020; Courtenay, 1988; Leist & Scott, 2011; Toma, 2002).

Total credits and how those credits are distributed across coursework and other requirements are important to students as they determine what program to choose. This study found that PhD programs have significantly more overall credits than EdD programs with similar degree focus. Prior literature is divided regarding differences in total credits hours. Andersen (1983) reported that EdD credit hours were only slightly higher. Yet, other studies found that PhD programs have more total credits (Foster et al., 2023; Leist & Scott, 2011). Additionally, PhD credit-driven requirements were distributed differently, with focus on policy and research, theory, and research, while EdD credit-driven requirements focused more on practice. Similarly, Dill & Morrison (1985) examined objectives of programs and found that EdD programs focused on application and research literacy, while PhD programs focused on "pure" theory and original research.

Total credit hours also could impact the depth to which knowledge and skills are developed. One consideration for PhD students would be whether the additional credits and the focus of those credits would better prepare them for their ambitions and careers. Given the program research requirements and the emphasis of credits on research skills in PhD programs found in this study, prospective students may well see the need for a higher number of credit hours. Other studies have found similar results with higher research credit hours in PhD programs (Foster et al., 2023; Leist & Scott, 2011) and more focus on developing research skills (Leist and Scott, 2011).

While other types of credit hours were noted, the assumptions were not met for quantitative analysis; however, codes were found qualitatively that could influence a student's decision on a degree type. EdD programs, in general, had more codes in the Other and Program Feature categories. One code, Working adult, appeared seven times for EdD and only once for PhD. The ability to work while attending classes could be an important influence on how a student decides on what degree type to pick. Additionally, Cohorts was coded in EdD programs 18 times and only twice in PhD This is similar to prior research (Buttram & Doolittle, 2015). While Buttram and Doolittle (2015) go more in depth about the type of cohort, it may be helpful for potential applicants to know there is the support of a cohort within a program when they are choosing programs.

Toward the end of doctoral program, each requires credit hours for a culminating project. Both quantitative and qualitative results found that EdD programs had more variety in the type of culminating project. While PhD programs had credit hours for the dissertation, EdD programs listed dissertation, dissertation in practice, and capstones. However, for EdD programs with traditional dissertations, dissertation hours were not significantly different from PhD programs. The existing literature on culminating project comparisons varies. Literature prior to 2012 indicates little differences between EdD and PhD credit hours for culminating projects (Brown, 1990; Leist & Scott, 2011), yet later literature indicates differences in culminating projects, more in line with the findings in this paper. Andersen (1983) found larger differences and noted that the flexibility to study a "practical problem" was found in half of the EdD programs surveyed, while PhD programs did not allow this flexibility. Similarly, other studies also found flexibility and variety in culminating EdD projects, whereas PhD programs did not (Buttram & Doolittle, 2015; Foster et al., 2023). As more programs define EdD and PhD programs, culminating projects will be a defining difference. Allowing EdD programs to focus on action and practical problems lends further credence to the historical nature of the EdD program being referred to as the practitioner degree.

Once students have completed the degree, career options may be dependent on the type of degree earned. Research careers and faculty careers were most noted in PhD descriptions and administration/advance career were often noted in EdD descriptions. EdD programs could be marketing to students already established as practitioners in education seeking to advance their career as opposed to changing careers.

The findings in this study combine both quantitative and qualitative analyses on the type of credit hours and information in program descriptions. This can provide information to future students as they navigate the differences between EdD and PhD doctoral degrees and what it can mean for the type of classes, program features, and future careers. This study adds to the body of literature that has a variety of results surrounding the difference in doctoral education programs.

A possible limitation of this research paper is that the list of schools was initially narrowed down to only public schools, eliminating all private schools that might have been included. Furthermore, this study is based on website materials and did not include follow-up conversations. Another limitation is the information was pulled from websites at one given time so it is possible that the websites were going through updates and that the data could be outdated or incorrect.

Future research would benefit from additional analysis of types of classes and perceptions of EdD and PhD programs. The program websites provided much information regarding the credit hours, but did not elaborate further into what is taught in the classes. As such, it would be helpful to also survey administrators at schools to verify and ask follow-up questions to the information found on the websites. Since the research credits were found to differ between EdD and PhD programs, future study on the type of research courses could inform students about the research methodology they could expect in their respective programs. Additionally, surveying students and faculty on their perceptions of EdD and PhD programs can provide insight into the perceived differences in the programs. Since the literature on program differences has been divided, it would be useful to universities to understand how students and faculty feel about each degree and why they would pick one degree over the other.

Identifying where the differences are and are not between EdD and PhD programs can provide students with information so that they make informed decisions about which type of program to choose. This information is also crucial to universities as they

navigate the changing educational landscape to become more attractive to students in an economic environment where school programs have to be considered in conjunction with both current work status and future career options.

Implications for Doctoral Programs

Ultimately, after reviewing websites for analysis, the authors suggest that programs revise their websites for more engagement and explanation so students may be better equipped for picking one program or another. In preparing future websites for recruitment of doctoral students, faculty, administrators, and other decision-makers should reflect on what makes each program - EdD or PhD - unique and what makes the school unique. Consider what qualities incoming students should have, and with what qualities students will leave the program. Then, with that knowledge, examine the website to make sure that these features are clearly stated and that these features portray why a student would choose this particular program. The authors suggest schools utilize a flowchart to explain why a student would choose an EdD versus a PhD at your school. Qualities like time commitments, modality of classes, research credits, and final project are all features to consider embedding into the flowchart. Additionally, utilizing the Figures embedded into this paper (FIGS 1-7) should guide schools based on keywords/features most common across similar schools and programs.

In summary, the authors recommend the following key features for websites:

1. Clearly define your program with credit hours, modality, and concentration focus;
2. Link to course catalogs and handbooks to provide more information; and
3. Provide contact information and FAQs as resources for learning more about programs.

REFERENCES

Aiken, J. A., & Gerstl-Pepin, C. (2013). Envisioning the Edd and Phd as a partnership for change. *Planning & Changing*, *44*(3/4), 162–180.

Andersen, D. G. (1983). Differentiation of the EdD and PhD in education. *Journal of Teacher Education*, *34*(3), 55–58. https://doi.org/10.1177/002248718303400311

Berelson, B. (1952). *Content analysis in communicative research.* Free Press.

Brown, L. D. (1990). *A perspective on the Ph. D.-Ed. D. discussion in schools of education* [Conference Paper]. Annual Meeting of the American Educational Research Association, Boston, MA.

Buttram, J. L., & Doolittle, V. (2015). Redesign of EdD and PhD educational leadership programs. *International Journal of Educational Reform*, *24*(3), 282–309. https://doi.org/10.1177/105678791502400306

Capello, S. (2020). Leveraging PhD students to support EdD dissertation writing. *Impacting Education: Journal on Transforming Professional Practice*, *5*(3), 8–13.

Card, K., Chambers, C. R., & Freeman, S., Jr. (2016). Is there a core curriculum across higher education doctoral programs? *International Journal of Doctoral Studies, 11*, 127–146. http://ijds.org/Volume11/IJDSv11p127-146Card2042.pdf

Carpenter, D. S. (1987). Degrees of difference?: The PhD and the EdD *The Review of Higher Education*, *10*(3), 281–286. https://doi.org/10.1353/rhe.1987.0024

Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage.

Courtenay, B. C. (1988). Eliminating the confusion over the EdD and PhD in colleges and schools of education. *Innovative Higher Education*, *13*(1), 11–20. https://doi.org/10.1007/BF00898127

Dill, D. D., & Morrison, J. L. (1985). The EdD and the PhD research training in the field of higher education: A survey and a proposal. *Review of Higher Education, 8,* 169–186. https://doi.org/10.1353/rhe.1985.0027

Flood, L. D. (2024). Centering the Scholarly Practitioner Within the EdD: Lessons Learned. *Impacting Education: Journal on Transforming Professional Practice*, *9*(2), 31–33.

Foster, H. A., Chesnut, S., Thomas, J., & Robinson, C. (2023). Differentiating the EdD and the PhD in higher education: A survey of characteristics and trends. *Impacting Education: Journal on Transforming Professional Practice*, *8*(1), 18–26. https://doi.org/10.5195/ie.2023.288

Faul, F., Erdfelder, E., Lang, A-G., & Buchner, A. (2019). G*power (Version 3.1.9.4). Heinrich Heiner Universitat. https://www.psychologie.hhu.de/arbeitsgruppen/allgemeine-psychologie-und-arbeitspsychologie/gpower

Guthrie, J. W. (2009). The case for a modern doctor of education degree (EdD): Multipurpose education doctorates no longer appropriate. *Peabody Journal of Education*, *84*(1), 3–8. https://doi.org/10.1080/01619560802679526

Guthrie, J. W., & Marsh, D. D. (2009). Strategies for elevating the public and professional regard of the EdD *Peabody Journal of Education*, *84*(1), 100–106. https://doi.org/10.1080/01619560802679773

Johnson, R.B., & Christensen, L. B. (2004). Educational research: Quantitative, qualitative, and mixed approaches. Allyn & Bacon.

Leech, N. L., & Onwuegbuzie, A. J. (2009). A typology of mixed methods research designs. *Quality & quantity*, *43*, 265–275.

Leech, N. L., & Onwuegbuzie, A. J. (2010). Guidelines for conducting and reporting mixed research in the field of counseling and beyond. *Journal of Counseling & Development*, *88*(1), 61–69.

Leist, J., & Scott, J. (2011). Differentiation... but to what degree? The Ed. D. and Ph. D. in higher education programs. *Academic Leadership: The Online Journal*, *9*(3), 7. https://doi.org/10.58809/CENR4928

Osguthorpe, R. T., & Wong, M. J. (1993). The PhD versus the EdD: Time for a decision. *Innovative Higher Education*, *18*(1), 47–63. https://doi.org/10.1007/BF01742197

Perry, J. A. (2012). To Ed. D. or not to Ed. D.?. *Phi Delta Kappan*, *94*(1), 41–44. https://doi.org/10.1177/003172171209400108

Toma, J. D. (2002). *Legitimacy, differentiation, and the promise of the Ed. D. in higher education* [Opinion Paper] Annual Meeting of the Association for the Study of Higher Education, Sacramento, CA.

U.S. Department of Education. (n.d.). *Institute of Education Sciences*. National Center for Education Statistics. https://nces.ed.gov/ipeds/use-the-data

Walker, D. W., & Haley-Mize, S. (2012). Content analysis of PhD and EdD dissertations in special education. *Teacher Education and Special Education*, *35*(3), 202–211. https://doi.org/10.1177/0888406411431168