The Quality of Ph.D. and Ed.D. Educational Leadership Dissertation Methods

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Abstract

Educators and other experts have been engaged in a debate about the relative merits of the Ed.D. and the Ph.D. degree programs for educating practitioners and scholars in the field of education since Harvard awarded the first Ed.D. in 1903 (Guthrie & Marsh, 2009; Murphy, 2001; Nelson & Coorough, 1994.) Central to this controversy has been the role of dissertation completion and the form the dissertation should take. Opinions abound about the reforms to doctoral education curricula (and especially the dissertation process and product) that are necessary to improve the preparation of educational leaders for practitioner and scholarly work. However, like all attempts at quality improvement in education, the proposed reform should be supported first by empirical evidence for what is right, what is wrong, and what should be corrected. The research conducted here was designed to provide some evidence by evaluating the quality of the curricula capstone, the doctoral dissertation, for Ed.D. and Ph.D. dissertations conducted and published between 2000 and 2014. Analysis of 60 dissertations, which were systematically random sampled from the ProQuest database, revealed that the problem, purpose, research questions, data analyses, results and conclusions tended to be aligned in all of the dissertations, regardless of the degree earned, the research design, and the type of institution where the dissertations originated. Because of the small sample size, however, caution should be observed in generalizing these results. Additional inquiry is proposed to replicate these findings and to extend the research to other relevant variables, such as the quality of the literature review and the perceived worth of the dissertation process to educational leaders.

Dedication

The completion of this dissertation is dedicated to you, Evelyn Waterman, wherever you are. The list of reasons why could fill an entire book. So I am addressing only the most important one. In addition to teaching me as a young child to button my own coat and tie my own shoes, you started me out in life loving to learn. And I have lived every day of my life with learning as my central purpose, hoping to spread that love. All I can say is thank you for being my mom and my greatest inspiration.

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Chapter One

Introduction

In his 1903 manuscript, *The Ph.D. Octopus*, William James challenged the then somewhat new university practice that required a prospective faculty person to have earned a doctorate of philosophy (Ph.D.) in order to be employed by a university. The first doctorate had been awarded 40 years earlier, and at that time approximately 3,500 doctorates had been earned in the United States (Golde & Walker, 2006). James (1903) additionally posed the following.

> I beg the reader to consider some of the secondary evils which I have enumerated [such as academic snobbery, and diverting the attention of aspiring youth from direct dealings with truth to the passing of examinations]. First of all, is not our growing tendency to appoint no instructors who are not also doctors an instance of pure sham? Will any one pretend for a moment that the doctor's degree is a guarantee that its possessor will be successful as a teacher? (para. 13)

James (1903) continued with concern for the ruination of those who aspired, but failed, to obtain the degree, and ultimately with concerns for individuality and creativity, asking, "And is individuality with us also going to count for nothing unless stamped and licensed and authenticated by some title-giving machine?" (para. 23). James (1903) cautioned against this "tyrannical machine with unforeseen powers of exclusion and corruption" (p. 152).

Despite James' concerns, universities have continued to require a terminal degree for incoming assistant professors. The U.S. Department of Labor, Bureau of Labor Statistics (2014) noted that educational requirements vary with the subject taught and the

type of educational institution. Although there are some exceptions for 4-year institutions in some disciplines, like the arts, for which the terminal degree requirement is a master's degree, most disciplines require all faculty to hold (or soon hold) a doctoral degree in order to be permitted to join the university faculty (U.S. Department of Labor, Bureau of Labor Statistics, 2014). Education is one of those disciplines. Most commonly, postsecondary teachers must have a doctoral degree. However, a master's degree may be enough for some postsecondary teachers at community colleges. In technical and trade schools, work experience may be important for getting a postsecondary teaching job.

Each year in the U.S., universities offer approximately 7,000 doctoral degrees in education, "1000 in 'teaching fields' such as math education, literacy, and physical education, 800 in curriculum and instruction, 400 in the study of higher education, and 300 in educational psychology" (U.S. Department of Labor, Bureau of Labor Statistics, 2014, p. 245). Although not required by any states, public school districts often prefer doctoral credentials for the superintendent position. According to Glass and Fraceschini (2007), approximately 50% of the 1,338 superintendents they surveyed held doctorates, with higher percentages of superintendents with doctorates working in large school districts and lower percentages working in small school districts.

With the award of the first Ed.D. at Harvard University in 1922 (Harvard University Graduate School of Education [GSE], 2014b), researchers and educators have engaged in a debate somewhat similar to the one James contributed to in 1903 when he challenged the importance of obtaining a doctoral degree. Their arguments focused on the relative merit of the Ph.D. degree and its younger sibling, the Ed.D. degree, for

preparing educational leaders to function well in both university settings and public education settings (see, e.g., Guthrie & Marsh, 2009; Murphy, 2001; Nelson & Coorough, 1994). Of importance to much of this debate is a discussion of the appropriate content and format for the doctoral program curricula and more specifically the doctoral project that is the capstone of these preparation programs (Archbald, 2008, 2010; Malen & Prestine, 2005).

Background

Central to the concern about the relative merit of the preparation of educational leaders in Ph.D. and Ed.D. programs, according to Golde and Walker (2006), is the "struggle to strike a balance between the *practice* of education and *research* in education" (p. 247). In March 2012, Basu reported that Harvard University, the home of the first Ed.D. program, had moved from discussion to action, and had eliminated that program and replaced it with a Ph.D. program. Interviewed Harvard administrators said that there should be two degree paths - one to prepare leaders for practice – the other to prepare leaders to conduct research. These administrators said that the Harvard Ed.D. in educational leadership had been research-focused and so should instead have been a Ph.D. These administrators also reported that Harvard students who might plan to be practitioners would continue to have access to a recently instituted "doctor of education leadership [Ed.L.D.]… [which is] a three-year program that prepares students for leadership positions in school systems and other organizations" (Basu, 2012, para. 4). According to the Harvard University GSE website, "graduates of the three-year, multidisciplinary Doctor of Education Leadership (Ed.L.D.) Program — taught by faculty from the Harvard Graduate School of Education, the Harvard Business School,

and the Harvard Kennedy School — are uniquely prepared for system-level leadership positions" (Harvard University GSE, 2014a, n.p.).

Archbald (2008, 2010) supported a revision of the Ed.D. dissertation, to a different type of inquiry, which he defined in a 2010 article as being more relevant to the work practitioners will be doing post-graduation. Archbald supported his claim, citing National Science Foundation (2012) data from an annual survey of science and engineering doctoral graduates. Through 2009, this survey included Ed.D. graduates of professional degree programs (Hoffer et al., 2005). Almost half of the approximately 45,000 dissertations completed in 2007 were written by candidates who did not go on to positions as research faculty at universities. Archbald (2010) voiced a concern that Ed.D. candidates, who will not become academic scholars, should be prepared for the work they will be doing: "planning, problem-solving, technological innovation, motivating, and leading" (p. 100), arguing the traditional research dissertation is not providing that preparation.

Archbald is not the only educator or reformer making a claim for the need of alternative preparation for practitioners. For example, Andrews and Grogan (2005) maintained that the traditional form of Ph.D. research, which was designed to prepare candidates for scholarly pursuits, does not advance professional practice for graduates who do not pursue careers in academia. They proposed that four design principles, which have emerged from research in education, should be incorporated in programs designed to develop what they call:

inquiring and reflective professionals… [T]hese four principles are:

1) organizing programs around the problems of practice, 2) creating opportunities

for inquiry and reflection, 3) utilizing developmental approaches to performance

assessment, and 4) focusing on what educators need to value, know, and be able

to do using national and program standards. (Andrews & Grogan, 2005, p. 10)

Andrews and Grogan (2005) advocated that if a program is going to develop educational

leaders it must be based on "action learning and action research" (p. 10). The guiding

principles and ideas about action learning and action research, proposed by Andrews and

Grogan, echoed Archbald's and others' claims (see, e.g., Shulman, Golde, Conklin

Bueschel, & Garabedian, 2006; Toma, 2002) that an Ed.D. program, and the culminating

capstone project of that program, must be removed from what Andrews and Grogan

(2005) termed "the Ph.D. straight jacket" (p. 10). These guiding ideas and principles all

point to a need for change in Ed.D. programs in educational leadership.

Statement of the Problem

Although the authors mentioned have agreed that Ph.D. and Ed.D. dissertations

have not contributed to the preparation of educational leaders, they have not necessarily

agreed about what should replace the dissertation or even the degree. One example of an

alternative capstone project was proposed by Archbald (2008). He suggested that a

problem-based thesis (PBT) replace the research-based thesis for Ed.D. programs, and

distinguished the two based on the nature of the problem (pragmatic versus theoretical),

type of research questions addressed, the use of persuasion instead of proof, and

suggestions for action rather than conclusions about the original theoretical stance. After

looking in-depth at four Ed.D. programs that had reported "alternative dissertations" (p.

42). Murphy and Vriesenga (2005) similarly called for reform efforts that "create

professionally grounded culminating experiences/dissertations in Ed.D. programs preparing educational administrators" (p. 34).

Experts also have offered proposals for totally revamped doctoral programs. For example, Levine (2005) and Levine and Dean (2007) argued that the Ed.D. is not and never has been necessary for the performance of any job as a school administrator. Levine (2005) suggested a professional master's degree, comparable to the business Master of Business Administration (MBA), should replace the doctoral degree. His Master in Education Administration degree included courses in management and education – but no capstone project. In contrast, Shulman et al. (2006) supported a new doctorate for the professional practice of education, a Professional Practice Doctorate (P.P.D.). These authors admitted the P.P.D degree would probably end up looking much like the Ed.D. They were adamant that a practitioner must know how to read and interpret research as well as conduct applied research. However, no capstone project was suggested, and they did not propose an alternative.

While the authors cited in the previous paragraph are only a sample of the available literature on reform for programs that prepare educational leaders, these authors hold in common a characteristic that might be true of others who have proposed reform. They do not appear to have provided much scientific evidence to support their claims about the status of Ed.D. dissertation research and Ph.D. dissertation research. They also provided little evidence about the extent to which the dissertation research aligned with the program's stated research objectives. Archbald (2008) reviewed 200 Ed.D. dissertation titles, abstracts, and tables of contents, concluding that "overwhelmingly, theses [of all doctoral graduates in education] reflect the traditional social science

empirical research orientation" (p. 706). Other researchers have compared existing Ed.D.

and Ph.D. dissertations along a number of dimensions. Alanazy (2011), for example,

compared research methods and statistical analyses in 110 dissertations, finding that

degree had no effect on the choice of research methods. However, the statistics used in

Ph.D. dissertations tended to be more advanced than those used in Ed.D. dissertations.

Augusto (2009) interviewed three educational leadership faculty members who had

experience as doctoral dissertation advisors about the purpose of, expectations for, and

the quality of Ph.D. and Ed.D. dissertations. Augusto (2009) found little to no

differences in their descriptions of these three dissertation characteristics. Nelson and

Coorough (1994) looked at the research design, statistics, target populations, significance

of results, age of subjects, and other characteristics of approximately 1,000 Ph.D. and

1,000 Ed.D. dissertations. However, the authors did not provide in-depth evidence about

differences in the nature of the doctoral program curricula and capstone project or how,

as some have claimed, the Ed.D. dissertation is a poor imitation of what dissertation

research should be (Levine, 2005; Nelson & Coorough, 1994). Expert opinion aside,

educational reform associated with improving the preparation of leaders, like all attempts

at quality improvement in education, should be supported first by empirical evidence for

what is right, and what is wrong and should be corrected.

Purpose of the Study

The research reported in this dissertation was designed to address three main

purposes. The first purpose for conducting the dissertation research was to understand

the nature of the 21st century educational leadership dissertation conducted in the U.S.

The entire sample of 100 educational leadership dissertations was profiled according to

the type of institution, doctoral program mission and vision, dissertation topic, type of research, and the quality of the dissertation. Quality was measured by the multiple dimensions of the Dissertation Quality Rubric, which is detailed in chapter three. The second purpose was to develop an understanding of the similarities and the differences between the dissertation research conducted by Ed.D. educational leadership candidates and Ph.D. educational leadership candidates. Ed.D. and Ph.D. educational leadership dissertations were compared using the following variables: type of institution, doctoral program mission and vision, dissertation topic, type of research, and quality of the dissertation. The third purpose was to understand to what extent characteristics of the institution and characteristics of the dissertation affected differences in the quality of dissertations written by Ed.D. educational leadership candidates and dissertations written by Ph.D. educational leadership candidates.

Significance of the Study

The results of this study are of importance to faculty and administrators at universities that provide doctoral programs in educational leadership. Decisions about the dissertation experience and product impact the quality of the preparation of future leaders in school districts and universities across the country. The quality of the preparation of key educational leaders is of critical importance to the future of both the PK-12 education systems and higher education systems. The results are also important in that they can inform the decision making of potential candidates who are choosing a program and type of doctoral degree (Ed.D. or Ph.D.) to earn a doctorate. In addition to the practical applicability the findings provide university decision makers and students,

the results of this research can inform the scholarly debate about the optimal form for the dissertation process and product.

Delimitations

Lunenburg and Irby (2008) wrote that delimitations are researcher-controlled boundaries of the scope and the purpose of a study, which are meant to control for the numerous variables that could affect the outcome of a social sciences study. Delimitations imposed on the current research essentially involved three aspects of the purposive sampling that was conducted. First, the dissertations that were studied involved a doctoral degree in educational leadership from an institution located in the United States. Second, a full-text version of the dissertation was published on the ProQuest Dissertations and Theses Full Text: The Humanities and Social Sciences Collection database. This focus was meant to eliminate any issues associated with the varying requirements and accreditation policies in other countries and the varying characteristics across the many sub-disciplines in graduate education programs. Finally, the dissertation publication date was intentionally limited to between 2000 and 2014. The 14-year time span was deemed adequate to accommodate the collection of 100 dissertations focused on educational leadership and was timely with a focus on 21st - century preparation of educational leaders.

Assumptions

Assumptions necessary to the conduct of this study were focused primarily on the data collection. The researcher assumed that the systematically sampled dissertations were representative of all of the dissertations written about educational leadership within the decade or so before the data collection in the winter of 2014. The researcher also

assumed that an objective third person's downloading of the dissertation, removal of the title page and preliminary pages prior to the analysis, and blind coding of key variables (e.g., degree type) provided the desired anonymity with regard to the author, institution, and degree type for each dissertation.

Research Questions

According to Lunenburg and Irby (2008), research questions are important to a study in that they act as "a directional beam for the study" (p. 126). Although specific formats exist for both quantitative questions and qualitative questions, until recently, no specific format has been suggested for mixed methods research questions (Creswell, 2009). Creswell and Plano Clark (2011) maintained that concurrent mixed methods studies should include at least one question which is addressed using data from both methodologies. Tashakkori and Creswell (2007) called these mixed methods questions "hybrid" or "integrated" questions (p. 208). Three core research questions guided the design and conduct of the current study.

RQ1. What type of institution, doctoral program research objective, mission and vision, dissertation topic, research design, and level of quality, as measured using the Dissertation Quality Rubric, characterize both Ed.D. educational leadership dissertations and Ph.D. educational leadership dissertations?

The first research question was addressed by analysis of both the quantitative and qualitative data collected from all of the Ed.D. dissertations and the Ph.D. dissertations, and so was a hybrid question.

RQ2. To what extent are there similarities and differences in the type of institution, doctoral program research objective, mission and vision, dissertation topic,

research design, and dissertation quality, as measured using the Dissertation Quality

Rubric, between Ed.D. educational leadership dissertations and Ph.D. educational

leadership dissertations?

RQ3. To what extent do the similarities and differences in the type of institution,

doctoral program research objective, mission and vision, and dissertation topic, between

Ed.D. educational leadership dissertations and Ph.D. educational leadership dissertations,

mediate the findings with regard to dissertation quality, as measured using the

Dissertation Quality Rubric?

Questions two and three also are both hybrid questions, because addressing them

involved mixing the quantitative and qualitative analyses of the data. Similarities and

differences for all variables were compared between Ph.D. and Ed.D dissertations along

with an evaluation of the effect of the type of institution, doctoral program research

objective, mission and vision, dissertation topic, and research design on the similarities

and differences, between Ph.D. dissertations and Ed.D. dissertations, in the quality of the

dissertations, as measured using the Dissertation Quality Rubric.

Definition of Terms

This section contains definitions for some of the terms used. These are meant to

facilitate the reader's understanding of the research when unusual terms or terms with

special meanings are used. A documented source for each definition is also included.

Action research. According to Martella, Nelson, Morgan, and Merchand-

Martella (2013), action research is the purest form of applied research. This research

takes place in real life settings, is often implemented by school personnel, and the results

and conclusions are for the most part situation specific.

Applied research. Similar to action research, applied research is conducted in real-life settings. However, the research is based on previous theoretical development and empirical findings. Therefore, the conclusions can be generalized to other settings (Martella et al., 2013).

Basic research. Unlike applied research and action research, basic research is conducted for its own sake, to provide evidence for a new theory or to refine an existing theory. Although basic research does not appear to be practically useful, it "provides the foundation for applied researchers in future endeavors (Martella et al., 2013, p. 26)

Carnegie Classification. Carnegie has replaced the previous classification system (Jaschik, 2006) and in 2015 reported classifications of universities that award doctoral degrees into seven categories (Indiana University School of Education Center for Postsecondary Research, 2015b, n.p.). The definitions for all post-secondary institution classifications are included in Appendix A. According to the explanation, the logic behind the classification is

> based on the level of graduate degrees awarded (master's degrees, and doctoral degrees categorized as either research/scholarship, professional practice, or other doctorate), the number of fields represented by the degrees awarded, and the mix or concentration of degrees by broad disciplinary domain. The classification has two parts: one for institutions that award at least one research/scholarship doctoral degrees (hereinafter referred to as research doctoral degrees), and one postbaccalaureate degree-granting institutions that either offer only master's degrees or that also offer professional practice or other doctoral degrees (based on the record of degree conferrals, not program offerings). Within each group, we

then classify institutions with respect to the breadth of graduate offerings and the concentration of degrees in certain fields or combinations of fields.

For two categories of institutions offering research doctorates, we distinguish institutions offering medical education (defined as human or veterinary medical education, including allopathic medicine, osteopathic medicine, dentistry, and veterinary medicine). Institutions in other categories may also offer medical education, but the numbers were not large enough to justify subcategories, and we judged it preferable to differentiate with respect to the other graduate fields, rather than with respect to the presence or absence of medical education. (Indiana University School of Education Center for Postsecondary Research, 2015b, n.p.)

For-profit institution. These schools are operated by companies who answer to investors and stockholders. They are private institutions; but they exist to earn money for the company (National Association for College Admission Counseling, 2015).

Mission. According to the Great Schools Partnership (2014), a mission or mission statement is a "public declaration that schools or other educational organizations use to describe their founding purpose and major organizational commitments – i.e., what they do and why they do it" (n.p.).

Mixed methods research design. This design focuses on collecting, analyzing, and mixing quantitative and qualitative data. The "central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone" (Creswell & Plano Clark, 2011, p. 5).

Non-profit private institutions. In the U.S., private colleges are funded through tuition, fees, and private donations. They tend to be much smaller than public universities and are independent of external control (Peterson's, 2014).

Non-profit public institutions. These schools receive funding from a variety of sources such as the government, tuition fees, and donations. Perhaps more importantly, the money that these schools earn often goes directly back into the schools themselves. U.S. public institutions are founded by, funded by, and overseen by the state in which they are located (Peterson's, 2014).

Qualitative research design. These designs involve the collection and analysis of textual data and images through open-ended questions and observation. This approach focuses on exploring and understanding a phenomenon from the perspectives of the participants (Creswell, 2014).

Quantitative research design. The collection and analysis of data for quantitative designs involve the examination of relationships between variables and differences among subgroups in order to answer research questions and test hypotheses. Objective data is collected and analyzed to test or refine theories (Creswell, 2014).

Replication. Makel and Plucker (2014) used the term "direct replication" to specify a researcher's attempt to verify or corroborate earlier findings using the same methods use in the earlier research. These authors differentiated direct replication from conceptual replication, in which different methods are used to test an underlying hypothesis. For the purposes of this study, dissertations were analyzed for direct replication only.

Replication with extension. In a study involving replication and extension, an earlier study is replicated, and an additional investigation into the relationships among variables or differences between subgroups is added (Bonett, 2012).

Vision. A statement of an organization's vision is a "public declaration that schools or other educational organizations use to describe their high-level goals for the future – what they hope to achieve if they successfully fulfill their organizational purpose or mission" (Great Schools Partnership, 2014, n.p.).

Organization of the Study

Chapter one was an introduction to the study including the background, problem, purpose, and significance addressed by the research. Also described in chapter one were the focusing limitations, underlying assumptions, research questions, definitions, and an overview of the methods. Chapter two, which is a review of the relevant literature, follows. The methods used to conduct the research are detailed in chapter three. The results of the quantitative and qualitative analyses are presented in chapter four. The final chapter, five, includes a summary of the study, a comparison of this study's results with the literature from chapter two, and conclusions based on the results of the analyses.

Chapter Two

Review of the Literature

In an edited volume on the future of doctoral education, Golde (2006) commented that the only real purpose of doctoral education is to prepare scholars, those who will "generate new knowledge, critically conserve valuable and useful ideas, and responsibly transform those understandings through writing, teaching, and application…[these scholars are] stewards of the discipline" (p. 5). Although most probably would not challenge these lofty goals, disagreements exist among experts in the field of education about a number of the factors associated with achieving those goals. Provided in this chapter are insights into the history of doctoral education, in particular, the doctoral education of educational leaders. The various perspectives on what that doctoral education should encompass are examined, and more specifically what the capstone project, the doctoral dissertation, should and does provide to the doctoral education of educational leaders. Finally, the current status of the research that explores the characteristics and the quality of the Ph.D. dissertation and the Ed.D. dissertation, along with research that has involved a comparison of the two, is discussed.

Brief History of the Doctoral Degree in Education

In the United States, the first doctoral degree was awarded in 1861 at Yale University (Walker et al., 2008) and the first doctoral degree in education was announced at Teachers College in 1893 (Dill & Morrison, 1985). This doctorate of philosophy in education (Ph.D.), by definition at the time, distinguished a small group of experts who were "judged able to make first-rate contributions to original research… and who [each] were deemed something of an expert on a small technical issue in a discipline" (Baez,

2002, p. 49). Experts in the field considered these doctoral graduates to be proficient researchers, but as few as 20% of them actually pursued research (Baez, 2002; Brubacher & Rudy, 1997).

By 1960, approximately 10,000 doctoral degrees were awarded annually, and as of the beginning of the 21st century, more than 1.36 million doctorates had been awarded in the U.S. Between 1920 and 1999, of the doctorates awarded, 256,014 of the degrees were in the field of education (Thurgood, Golladay, & Hill, 2006). In addition, between 1962 and 1999 the field of education produced more doctorates than any other, and education claimed as many as between 20% and 23% of the U.S. doctorates in the 1970s and the 1980s (Thurgood et al., 2006). In 2006, Richardson stated that of the approximately 7,000 doctorates in the field of education annually, 2,100 (30%) had been in educational administration and leadership.

Unlike a number of other disciplines, the field of education has always dealt with a dual purpose dilemma in its education of educational leaders. In 1994, Nelson and Coorough, talking about this dichotomy, described the professional training of administrators as discrete from the preparation of independent researchers. Golde and Walker (2006) described the dilemma as a "balance between the *practice* of education and *research* in education" (p. 247). Likewise, Richardson (2006) recognized the dilemma saying that education can be viewed either as "an enterprise that consists of various systems of education and, therefore, primarily an activity" (p. 252) or "as a field of study and, therefore, a contemplative search for theory and science" (p. 252). In 2008, Archbald distinguished between a focus on problem solving and a focus that advances research. Somewhat similarly, Young, Crow, Murphy, and Ogawa (2009) described the

dichotomy as a difference between the practice arm and the academic arm of the profession.

Regardless of how the dichotomy is labeled and described, this differentiation between the doctoral preparation of educational leaders who become teachers and administrators and those who become scholars and researchers in the field, led in 1920 to Harvard offering a doctorate in educational leadership, which the university designated the Ed.D. (Richardson & Walsh, 1978). This new degree was meant to provide teachers and administrators with a practitioner's doctoral degree. According to Richardson and Walsh (1978), the new degree was also conceived to assuage Harvard faculty concerns that Ph.D.s were being awarded by what they called "professional schools" (p. 1), whose faculty were lacking in scholarly knowledge and who allowed for the study of questionable topics as well as the use of questionable research methods. The new doctoral degree, the Ed.D., which was actually first awarded in 1922, essentially was meant to "train [educational] leaders" (Zambo, Zambo, Buss, Perry, & Williams, 2014, p. 124) and was viewed as a practitioner's certificate (Mayhew & Ford, 1974). During the next 20 years, graduate schools around the country, including Berkeley and Stanford, embraced the idea of this new degree, and a number of the schools offered both the Ph.D. and the Ed.D. (Perry, 2012).

In 2009, Harvard again led the way toward changing educational leader preparation with a new doctoral degree in education, the doctor of educational leadership (Ed.L.D.). According to the university, the Ed.L.D. is a "three-year, practice-oriented degree aimed at preparing a small cohort of leaders who can effect major changes in K-12 education" ("Rethinking Public Education", 2009, para. 1). An additional change, a

modification of the existing Ed.D., was announced in 2012 by the Harvard Graduate

School of Education (HGSE). The university's Ed.D. was "reborn as an interfaculty

Ph.D. … [that] would enhance HGSE's ability to provide a powerful curriculum

grounded in the social sciences, arts, humanities, data analysis, and experience in

educational practices and policy" ("Elevating Education", 2014, para. 5). According to

Basu (2012), Harvard's reformulation of the Ed.D. into a Ph.D. would likely refuel the

debate about the most effective preparation of educational leaders and the relative merit

of and proper format and content of doctoral programs that offered the two degrees.

Expectations and Observations about Preparation of Educational Leaders

Even though they were each said to serve separate and distinct purposes, from

early on, the Ph.D. and Ed.D. have been individually and together subjected to critiques

and comparisons regarding the quality of the education each provides for educational

leaders as well as the role of research and the quality of the research conducted toward

earning each degree. Research has provided evidence about the quality of the education

provided by each type of program and compared the quality between the two degrees.

Additional research has also been conducted to investigate the doctoral research

conducted for dissertations that are required in partial fulfillment of each degree and to

compare the research conducted for each. This section includes a discussion of the

various perspectives about the graduate preparation of educational leaders, the relative

merit of Ph.D. and Ed.D. programs, and suggestions for changes that could improve the

programs and better educate leaders in the future. These discussions are followed by a

description of research that has been conducted around the quality of the Ph.D. and the

Ed.D. doctoral degree in education, and more specifically the dissertation research that was conducted by candidates as they have pursued those degrees.

Content and structure of educational leader preparation programs. In an American Educational Research Association (AERA) symposium presentation, Brown (1990) referenced Clifford and Guthry's (1988) argument that the doctorate of philosophy should be rejected, and the Ed.D. should remain the only education doctorate. Clifford and Guthry (1988) argued that schools of education have "become ensnared improvidently in the academic and political cultures of their [primarily research] institutions and have neglected their professional allegiances" (p. 3). The result of this ensnarement, according to Clifford and Guthry, left these programs struggling with meeting their science-based colleagues' scholarly expectations for research, yet also not providing the applied knowledge necessary for their graduates to be successful in the field. The solution then was obvious to these authors. The professional degree, the Ed.D., should be the standard degree for educational leaders.

Brown (1990) disagreed with Clifford and Guthry's (1988) conclusion, arguing that three factors would make educational programs offering a single doctorate for educators, and especially the Ed.D., improbable. These factors included an increasing demand in the field for new doctorates, the popularity of both degrees (and, in particular the Ph.D.'s popularity with students and faculty), and the expanding knowledge base in education. Brown supported his argument about the popularity of both degrees with the results of survey research conducted by Schneider, Brown, Denny, Mathis, and Schmidt (1984, 1985), who, as is noted in the section on research conducted to compare the Ph.D. and the Ed.D. in more detail, found that there were not really many differences in student

and faculty perceptions of program structure or context, or student and faculty

satisfaction with the degree programs. Brown (1990), however, also noted that regardless

of the findings that the two degrees are not highly differentiated, and that whatever the

employment demand, he "suspect[ed] in the arena of professional practice few are turned

down because the degree they hold is a Ph.D. But the converse might not be true" (p.

20). Brown supported his argument for an expanding knowledge base by noting the

advances in technology as well as the new and varied quantitative and qualitative

research methodologies being much more varied. He concluded that he would not

recommend giving up on either degree, and especially not the Ph.D., as a way to further

either academic or professional progress.

Levine (2005) wrote a report about the education of school leaders, focusing

primarily on the preparation of principals and superintendents. The report was the

culmination of a study that he conducted as part of The Education Schools Project, an

extended program of research that is described in more detail in the next section. Levine

(2005) "examine[d] the programs themselves and their capacity to educate principals and

superintendents in the skills and knowledge necessary to lead today's schools and school

systems" (p. 12). Levine offered a 9-point template for assessing doctoral programs (see

Appendix B). Levine (2005) specified that one of the points, the purpose, had to be

> explicit, focusing on the education of practicing school leaders; the goals reflect
>
> the needs of today's leaders, schools, and children; and the definition of success is
>
> tied to student learning in the schools administered by the graduates of the
>
> program. (p. 13)

According to Levine (2005), from the early 1900s, the very beginning of the education

doctorate, there were differences in opinions among graduate school administrators about

the purpose and so the correct focus and composition of a doctoral program's school

leader preparation. For example, Levine reported that Russell, the dean of Teachers

College, argued for a part-time practitioner-based curriculum of practical topics, which

would be attended by school administrators with experience. In contrast, the dean at

Harvard, Holmes, reportedly argued for the need of a 2-year full-time academic

curriculum that would be attended by inexperienced young students. These

disagreements remained unresolved and evolved into a lack of consensus on "whom

programs should enroll, what they should prepare their students to do, what they should

teach, whom they should hire to teach, what degrees they should offer, and how

educational administration relates to teaching and research" (Levine, 2005, p. 16).

More than a century after the introduction of the education doctorate and almost a

century after the first Ed.D. program was offered, the argument has continued with a

slightly different focus. For example, in a symposium at the 2004 annual meeting of the

AERA, Shulman contended that it was important for programs to differentiate the

purpose of the Ph.D. and the Ed.D. degrees. Young (2006) cited Shulman's symposium

presentation as a launching mechanism for conversations among scholars within the

University Council for Educational Administration (UCEA) about not only the purpose

of each of the programs, but also the content that should be included, the faculty who

should teach, the knowledge that should form the curriculum, the kinds of research

methods candidates should understand, the practical experiences that should be required,

the nature of the capstone, and other factors that could differentiate the degrees. The

detailed model of a curriculum that Young (2006) proposed for each degree was based on a distinction between the purpose or objective of each, which she quoted from Everson (2006), who stated that the Ph.D. is preparation for scholarship and the Ed.D. is preparation for practice. Young offered a table that included specifications for core courses, research courses, internships, and dissertation content and core courses (see Table C1 in Appendix C). The Ed.D. model includes applied knowledge or practical coursework, an internship, and action research in the K-12 setting; while the Ph.D. model includes additional research courses and dissertation preparation courses. Young (2006) cautioned that her models were not UCEA program templates; but that they were offered as "substantive dialogue starters" (p. 9) meant to start to move preparation of educational leaders in a positive direction.

A regular feature in the *UCEA Review*, which is called "Point/Counterpoint," brought two opposing viewpoints to the journal's readers in the Summer 2006 issue. Authors Bredeson and Guthrie took on the topic of educating scholars and practitioners either together or separately. Arguing for an integrated curriculum for preparing scholars and practitioners together, Bredeson (2006) acknowledged the necessity for offering programs that address the distinctly different skill sets necessary for the preparation of each. Bredeson (2006) noted that the integrated approach "requires flexibility to address individual specialization needs while not sacrificing the substantive dialogue between scholar/researchers and educational practitioners that comes in commonly shared seminars and learning activities where there is a significant overlap in professional knowledge" (p. 19). Bredeson concluded that overcoming the difficulties associated with integrated programs is worthwhile because the benefits include the potential for scholars

and practitioners to exchange leadership expertise; and this integrated approach eliminates the separation of theory from policy.

Using an analogy of expecting physicians to be able to conduct well-designed high-quality research, Guthrie (2006) countered the idea of integrated programs with the argument that the level of research expected of educational scholars in the 21st century, and so the amount of preparation necessary for them to successfully conduct that research, makes it impossible to integrate practitioners into the same program as scholars. Likewise, Guthrie contended that with increased accountability and focus on learning in a rapidly changing technological environment, the demands of successfully leading a modern school system require a wide-ranging knowledge set for educational leaders. Integrating the curriculum necessary to the preparation of scholars into a program that must provide the necessary level of preparation for practitioners then is likewise impossible. Guthrie concluded that offering two differentiated, highly effective preparation programs would provide the only sensible solution.

In contrast to the conversations about the two degree programs, Richardson (2006) did not even acknowledge or address the Ed.D. degree in her chapter about doctoral education for educators in Golde and Walker's (2006) edited volume, *Envisioning the Future of Doctoral Research: Preparing Stewards of the Discipline*. But she recognized the necessity for preparation of a steward of both scholarly activity and professional practice. Richardson claimed that education is both a field of study and an enterprise, and therefore, doctoral programs (toward a Ph.D. degree) should prepare a steward who is responsible both for the field of study (i.e., the scholarly researcher) and for the enterprise (i.e., the educational administrator). According to Richardson (2006),

as a steward of the field of study, educators with Ph.D.s should "generate new knowledge, understand the intellectual history of the field, use the best ideas and practices in current work, and represent that knowledge to others both within and outside the field" (p. 254); while as a steward of the enterprise, these graduates should "have duties related to communicating and engaging in decisions concerning the practice of education… so that decisions are made within strong analytical and moral frameworks" (p. 254). Richardson (2006) maintained that toward the goal of stewardship, the purpose of the doctoral program is to provide students with access to formal knowledge of their field and how that knowledge fits in the broader context of other fields of knowledge. In addition, the program must also facilitate students' access to practical knowledge, what she calls "knowing how" (Richardson, 2006, p. 257), and that this facilitation must not be an afterthought but must be a well-coordinated focus of the program. The final aspect of knowledge acquisition that Richardson contended that programs must address is awareness of unwarranted beliefs and misunderstandings educators bring with them because of a situation that is somewhat unique to education in that nearly all educators have been students. The roles the unwarranted beliefs and misunderstandings bring to the doctoral students' life are not positive. Students must be vigilant about not being influenced by these potential biases and must also be aware of their roles in the thinking and decision making of others. Therefore, Richardson (2006) also stated that Ph.D. programs must "help students not only examine their own beliefs but also understand how to help others recognize and possibly change theirs" (p. 258).

In 2007, The Carnegie Foundation for the Advancement of Teaching along with the Council of Academic Deans of Research Education Institutions initiated the Carnegie

Project for the Education Doctorate (CPED) with the "ambitious goal to redesign doctoral preparation for professional practitioners" (CPED Initiative, 2014, n.p.). CPED began with a consortium of 25 member institutions, who in the first phase of the project (2007-2009) drafted operational definitions, a set of principles, and models for change that institutions could use toward achieving that goal (see Appendix D). The members of the CPED consortium stated a vision

> to transform the EdD (referred to as a Professional Practice Doctorate within the Consortium) into the degree of choice for preparing the next generation of practitioner experts and school (K-12) college leaders in Education, especially those who will generate new knowledge and scholarship about educational practice (or related policies) and will have responsibility for stewarding the Education profession. (CPED Consortium, 2009, n.p.)

This vision integrated the preparation for professional and academic education leaders in the Ed.D. program. Of particular interest is the consortium's definition of a scholarly practitioner as the product of the preparation. Scholarly practitioners, according to the consortium members,

> blend practical wisdom with professional skills and knowledge to name, frame, and solve problems of practice. They use practical research and applied theories as tools for change because they understand the importance of equity and social justice. They disseminate their work in multiple ways, and they have an obligation to resolve problems of practice by collaborating with key stakeholders, including the university, the educational institution, the community, and individuals. (CPED Consortium, 2009, n.p.)

Also of interest is the definition of the dissertation the CPED Initiative (2014) specified. "The Dissertation in Practice is a scholarly endeavor that impacts a complex problem of practice" (n.p.). Both the definition of the program graduate and the dissertation the graduate would have completed, in name and definition, illustrate the complete integration of the preparation of both a scholar and a practitioner as part of the focus of the redesign of Ed.D. programs.

As was noted previously in this chapter, early disagreements emerged about the content and format of doctoral programs for educators who might become scholars or practitioners. These disagreements were at least partially responsible for the addition of the first Ed.D. program at Harvard (Golde & Walker, 2006). As universities across the country added the new degree, a number of the conversations around the best education of educational leaders shifted focus to comparisons between the two-degree programs. The authors cited previously were not the first or the only educators to attempt to propose answers about those concerns. Examples of some of the concerns, critiques, and comparisons of the two-degree programs are included in the following subsection, followed by the results of the research into the two programs. Concerns about the quality of dissertations and research that has been conducted around those concerns are then reported.

Comparing the quality of the Ph.D. and Ed.D. programs. When doctoral programs that culminate in an Ed.D. are compared to programs that result in the graduate earning a Ph.D., sometimes the Ed.D. is seen as misdirected or of lesser quality and value. For example, Nelson and Coorough (1994) noted that the Ed.D. was often offered

within the school of education rather than a university's graduate school because it was
not viewed as credible.

>Three major factors precluded the unreserved acceptance of [the Ed.D. program]
>education by university graduate schools: (a) Teacher preparation was viewed as
>training, (b) professional study was considered unacceptable within the graduate
>school, and (c) the field of education lacked a clearly defined body of knowledge
>worthy of graduate pursuit. (Nelson & Coorough, 1994, para. 3)

These authors agreed with others that there was a theoretical distinction between the two
degrees. The Ph.D. was oriented toward research scholars while the Ed.D. was designed
to provide preparation for educational practitioners. However, despite their concerns,
Nelson and Coorough (1994) cited Mayhew and Ford (1974) that the Ed.D. degree was
conceived to be "equal in rigor but different in substance" (p. 163) from the Ph.D., and
observed that in actual practice the distinction between the programs and the type of
dissertation has never been well-defined.

Research on the Ph.D. and Ed.D. preparation of educational leaders. A
relatively large body of research has focused on the preparation of educational leaders.
Qualitative research, involving the Delphi method, interviews, and case studies, has been
conducted to understand better the programs dedicated to this preparation and to provide
insight into similarities and differences in various programs. Likewise, quantitative
research mostly involving surveys has been reported that has provided the education
community with a better understanding of leadership preparation. This section includes a
discussion of both types of research as the methods relate to particular relevant topics.
As much as possible discussions about topics are organized chronologically.

The earliest research found was conducted by Woody (1947), who looked at similarities and differences between Ph.D. and Ed.D. programs for the following variables: residence requirements, time factors, extent and nature of the coursework, degree objectives, and employment patterns of graduates. Woody summarized his findings saying comparisons using these variables revealed that programs offering the two degrees were much more similar than they were different. Research in the 1960s and 1970s followed, and similar conclusions were made when these variables were analyzed, and the two degree types were compared.

For example, in 1971, Robertson and Sistler reported the results of what they called a replication of the second phase of a two-phase study that was conducted a decade earlier for the American Association of Colleges for Teacher Education (AACTE). Moore, Russel, and Fergusen (1960) had surveyed the 92 U.S. universities and colleges offering doctoral programs in education to examine and potentially implement "needs, possible weaknesses, and tentative improvements" (p. 1) of the institutions. The two-phase AACTE study surveyed doctoral graduates in phase one and institutions in phase two. Because they could not find the original survey from the earlier research, Robertson and Sistler (1971) reconstructed it by analyzing the items as they were reported in tables in the Moore et al. (1960) article. Robertson and Sistler (1971) developed a survey, convened a panel to examine each of their survey items for clarity and specificity, piloted their new survey, and then revised and reformatted the survey. Robertson and Sistler sent their revised and reformatted survey to a sample of 145 universities, which included the original 92 from the study reported in 1960 by Moore et al. Robert and Sistler's (1971) return rate was 92% (136 surveys), of which 113 surveys were usable; but 124 of the

responding institutions actually offered doctoral programs. These authors reported the number of the participating public and private universities who offered the Ph.D. only, the Ed.D. only, both, and other (see Table 1). The largest proportion of both public and private universities offered both when they were surveyed in 1971.

Table 1

Private and Public Institutions Who Offer One Degree or Both

Degree	Private		Public	
	N	%	*N*	%
Ph.D.	9	23.1	13	17.6
Ed.D.	7	17.9	16	21.6
Both	22	56.4	45	60.8
Other	1	2.6	0	0.0
Total	39	100.0	74	100.0

Note. Adapted from *An Inquiry into Conditions Affecting Pursuit of the Doctoral Degree in the Field of Education,* by N. Robertson and J. Sistler, 1971, p. 5, Bloomington, IN: Phi Delta Kappa Commission on Higher Education.

Robertson and Sistler (1971), to some extent paralleling Woody's (1947) variable selection, offered statistics on a number of additional variables: including admission requirements, the area of concentration, curriculum requirements, the maximum time to degree, and type of qualifying exam. Robertson and Sistler (1971) also examined what they labelled the "terminal research project" (p. 53) because, as they noted, what constitutes a formal dissertation among almost all of both Ph.D. and Ed.D. programs, who reported they required one, was labelled variously a dissertation, thesis, field study, or applied research. Each of these was defined differently across programs. Other factors that varied included whether the research proposal was written under supervision

(96.4% reported yes), whether the research was an outgrowth of the instructional program (42.5% reported yes), and whether the final exam was based on dissertation content (90.3% reported yes). Although this study was described as a replication of the original 1960 survey of institutions conducted by Moore et al. (1960) for AACTE, Robertson and Sistler (1971) did not offer a comparison of the results from the earlier survey with their own results.

Richardson and Walsh (1978) updated the information about Ph.D. and Ed.D. degree programs when they surveyed 38 universities, of which 12 (31.6%) offered the Ed.D. only, 8 (21.0%) offered the Ph.D. only, and 18 (47.4%) offered both degrees, which makes this sample a bit different from that reported by Roberson and Sistler (1971) in terms of the percentage offering one program only. Despite this difference in general, across all survey responses, the results reported by Richardson and Walsh (1978) were similar to earlier findings with regard to the similarities in admission requirements, residency requirements, and a formal dissertation. These authors did not find differences between the two degree programs. But when they looked only at 15 of the institutions who offered both degrees, and the similarities of the programs were also analyzed (see Table 2), some differences between the programs were reported. Almost half of the programs reported differences in statistics and research requirements, and the type of dissertation between the Ed.D. and the Ph.D. degree program.

Table 2

Differences in Program Features when Both Degrees are Offered

	Difference Between the Programs?	
Program Feature	Yes %	No %
Purpose: Prepare Researchers or Practitioners	40	60
Statistics Requirements	47	53
Research Competence	47	53
Internship Requirements	33	67
Residency Requirements	26	74
Type of Dissertation	47	53
Examination	20	80
Admission Requirements	26	74

Note. Adapted from *Differences and Similarities in the Practices of Iinstitutions offering the Ph.D. and the Ed.D. Programs in Higher Education,* by R. C. Richardson and R. T. Walsh, 1971, p. 9. (ED198748)

In 1983, Anderson conducted a comparative study of Ed.D. and Ph.D. degrees, in which he surveyed 167 institutions, of which 86 offered both degrees, 43 offered the Ed.D. only, and 31 offered only the Ph.D. Again the sample proportions were somewhat different, but the largest proportion offered both degrees. As did Woody (1947), Moore et al. (1960), and Robertson and Sistler (1971), Anderson (1983) looked at institution variables such as admission and residency requirements, curriculum hours requirements, the maximum time for completion, and employment patterns of graduates. In addition to these variables, Anderson (1983) also looked for differences in the type of dissertation project accepted by the two degree programs, and found that approximately half of the Ed.D. programs accepted a survey or a "practical problem" (p. 56) while 19% of the Ph.D. programs allowed this applied type of research to be substituted for basic research.

Schneider, Brown, Denny, Mathis, and Schmidt (1984) submitted preliminary findings of a national study of deans' perceptions of the quality of doctoral degrees offered in graduate schools to *Phi Delta Kappan.* Schneider et al. (1984) noted that the deans agreed that "the Ph.D. is the research degree, and the Ed.D. is the professional degree" (p. 618). However, in agreement with other opinions and findings discussed in this chapter, the authors reported that one-third of the same administrators who agreed they are separate degrees also admitted that they saw no real difference between the programs. Some said there was no difference in the quality of the dissertations, and one dean said the comparison was a dead issue.

Schneider et al. (1985) presented the final report of this research to the Ford Foundation. In that report, they added the opinions of students and alumni, who to a great extent echoed the views of the department deans that there really was no distinction between the degrees when the structure or context of the program was evaluated. In addition, faculty and students from both degree programs were quite positive about and satisfied with their programs. One exception to this conclusion about the agreement between students and faculty involved their perceptions of the "occupational goals that are emphasized" (Schneider et al., 1985, p. 13). As can be seen in Table 3, a larger percentage of faculty, regardless of degree type, perceived all the various occupational goals to have been strongly emphasized than did Ed.D. or Ph.D. students. The percentage of students from the two degree programs, who rated each of the occupational goals as strongly emphasized, is much more similar than either is to the faculty percentages.

Table 3

Ratings of Occupational Goals as Having a Strong Emphasis in a Program

	Students %		Faculty %
Occupational Goals	Ph.D.	Ed.D.	Combined
Professors – research emphasis	49.9	27.9	91.7
Professors – teaching emphasis	37.0	38.7	87.7
Public School Personnel	30.0	50.5	74.7
Government Service	4.6	1.3	59.3
Clinical or Social Service	8.3	3.4	48.2

Note. Adapted from *A Pperspective on the PhD-EdD Discussion in Schools of Education*, by L. Brown, 1990, pp. 13-14. Boston, MA: AERA.

Noting previous findings that the two degrees were to a large extent indistinguishable, Dill and Morrison (1985) sent surveys to the 81 graduate program chairs from programs listed in the *1977-1978 Higher Education Directory* by the ERIC Clearinghouse on Higher Education. Of the 77 chairs who responded, 35 reported that both the Ph.D. and Ed.D. were offered, 12 reported the Ph.D. only, 19 reported the Ed.D. only, and 8 reported neither doctoral degree was offered. Dill and Morrison (1983) content analyzed information about the research objectives of the doctoral degree programs and found three general categories of objectives:

> (a) to develop students' ability to do original, "pure," or "theoretical" research, with correspondingly rigorous standards for developing this competency, usually in more than one disciplinary area; (b) to develop the skills necessary to do a dissertation, particularly an applied dissertation with competency usually limited to one method of research; and (c) to develop the ability to read and interpret research in a professional leadership role. (p. 171)

Dill and Morrison dubbed these objectives, pure research, applied research, and literacy

respectively (see Table 4). In the institutions where both degrees were offered, the

distribution of the three research objectives differed depending on how similar the two

degree programs were. Pure research was emphasized most often for Ph.D. degrees and

applied research and literacy were emphasized most often for the Ed.D. when the two

degrees were differentiated. When they were not differentiated, Dill and Morrison (1985)

presented only the Ed.D. results, and literacy was emphasized the most. In institutions

where only the Ph.D. was offered, pure research was emphasized the most; while in

institutions offering only the Ed.D. the three objectives were emphasized equally.

Table 4

Research Objective by Institution Degree Program Format

			Doctoral Degree Offered		
			Both Ph.D. & Ed.D. ($n = 35$)		
			Diff ($n = 21$)		No Diff ($n = 14$)
Objective	Ph.D. Only ($n = 12$)	Ed.D. Only ($n = 19$)	Ph.D.	Ed.D.	Ed.D.
A. Pure	75.0	47.4	80.0	22.9	50.0
B. Applied	16.6	47.4	22.9	71.4	50.0
C. Literacy	41.7	47.4	40.0	62.9	71.4

Note. Diff = institution distinguishes between the Ph.D. and Ed.D.; No Diff = institution does not distinguish between Ph.D. and Ed.D. Adapted from "EdD and PhD Research Training in the Field of Higher Education: A Survey and a Proposal", by D. D. Dill and J. L. Morrison, 1985, *The Review of Higher Education, 8*(2), p. 172.

Also interested in differences between Ed.D. and Ph.D. programs, Osguthorpe

and Wong (1991) surveyed U.S. institutions who offered doctoral degrees in education.

Along with the survey data, these researchers gathered information from *Peterson's*

Guide to Graduate Programs in Business, Education, Health, and Law from 1979 and

1989 and catalogs from the 664 institutions who received the survey invitation. Their

results with regard to the degree awarded (Ph.D. only, Ed.D. only, or both) were very

similar to Anderson's (1983). In 1989, approximately half (45%) offered both, 33%

awarded Ph.D.s, and 22% awarded Ed.D.s. Almost all (98%) of the institutions offering

both degrees or either degree required written comprehensive exams, dissertations, and

oral defenses. When surveyed about research and statistical competencies (i.e., conduct

literature searches, basic and advanced naturalistic methods, single subject designs,

advanced experimental designs, basic and advanced inferential statistics, advanced

inferential statistics, product-program evaluation, and educational measurement), there

were no differences in required competencies between programs based on degree type

except for in advanced inferential statistics, $\chi^2 = 8.10$, $df = 1$, $p = .01$. For this

competency, a larger percentage of Ph.D. programs (89%) required advanced inferential

statistics than did Ed.D. programs (71%).

As was noted previously in this chapter, in 2007, the Carnegie Foundation for the

Advancement of Teaching along with the Council of Academic Deans of Research

Education Institutions initiated Phase I of the Carnegie Project for the Education

Doctorate (CPED) (Grasso, Barry, & Valentine, 2007). This phase involved setting up a

consortium membership and establishing consortium definitions, mission and vision, and

principles (CPED Initiative, 2014). During Phase II (2010-2013), the consortium

conducted a number of mixed methods and case studies. One example of the research

was a 2011 survey of CPED members to find out about the program demographics.

Among other statistics reported, it is of note that 75% of the participating institutions

reported that a Ph.D. was also offered. On average, 26.65 students entered these programs each year, with as few as 6 and as many as 163 in some programs. The number of credit hours required varied between 42 and 108, with a mean of 60.04. The student/faculty instruction ratio was reported as 14.7:1 and the student/advisor ratio was reported as 7.1:1. All programs reported a set of core courses (CPED Initiative, 2014). A 2013 member survey about the dissertation in practice characteristics revealed that 54% of the dissertations involved action research and 51% were completed by single authors (CPED Initiative, 2014). Responses to dissertation committee member questions indicated that 58% of the member institutions required a tenured or tenure-track professor to chair the committee. Other committee members included tenured/tenure-track faculty, non-tenured faculty, clinical faculty, and practitioners with an average committee size of 3.5 (CPED Initiative, 2014). Although the survey was described by CPED as an investigation into the characteristics of the dissertation of practice, very little detailed evidence about the details of the dissertation (e.g., methods, ethical issues, quality of the dissertations) was presented. The same was true of most of the research described previously. Described in the next section are studies that involved a comparison of the similarities and differences between Ed.D. and Ph.D. dissertations.

Evaluation of dissertations. Boote and Beile (2005) argued that grounding research in the results and conclusions coming from previous research is essential to the conduct of quality research in any field. And in a field like education, which they described as messy, multi-faceted, and fragmented, where even the definition of the problem is often not shared, the common ground offered by a good literature review is of particular importance to the understanding of what is already known. While maintaining

this necessity for well-conducted literature reviews to be true, Boote and Beile (2005) observed that there had been very little conversation around or research into the dissertation literature review. Therefore, Boote and Beile (2005), interested in the lack of importance education doctoral programs appeared to have attached to the quality of literature reviews, analyzed 12 literature reviews from dissertations completed in 2000 at three public (state-funded) institutions. Based on Hart's (1999) suggestions for a framework for analyzing literature reviews, these researchers developed a rubric as a basis for their evaluation of the quality of the literature reviews in the dissertations. The standards delineated in the rubric are Coverage, Synthesis, Methodology, Significance, and Rhetoric (see Appendix E for the 12 criteria used to assess the sampled dissertations using the five standards). In a subsequent article, Boote and Beile (2005) reported the results from that study along with their evaluation of the usefulness of these five standards for evaluating literature reviews. In general Boote and Beile (2005) found that, with a few exceptions, the literature reviews scored low on their criteria. These findings led them to believe that students either were not well-trained or that low emphasis was placed on the importance of understanding and writing about the theory and research in any body of literature.

Of interest to a discussion of the relative merits of Ed.D. and Ph.D. dissertations is the argument that dissertations from the two degree programs are conducted for different purposes. "An Ed.D. dissertation should be more concerned with the practical implications of research, whereas a Ph.D. dissertation should be more concerned with its scholarly importance" (Boote & Beile, 2005, p. 10). Despite this distinction in purpose, these authors held that dissertations conducted in both types of programs should be

analyzed using exactly the same standards. The authors justified their earlier decision to use the same criteria for their analysis of both Ed.D. and Ph.D. dissertations, saying

> Although there is much debate about the role and purpose of each degree, we take the position that anyone earning a doctorate in education ought to know the literature in his or her area of specialization[-]indeed, it is quite unclear to us what, exactly earning a doctorate might signify if one does not know the literature in one's field. (Boote & Beile, 2005, p. 10)

Therefore, they did not make a distinction and so used the five standards listed above for analyzing dissertations for both degree types in their 2004 study. Boote and Beile (2005) concluded that the results of using their standards and criteria to evaluate dissertations led them to believe that doctoral programs needed to emphasize the literature review more and to provide to their students comprehensive integrated instruction on finding, selecting, and writing about research in any given field. These authors asserted that without the addition of that emphasis and instruction, more than the quality of the dissertation literature review could be at stake. Not understanding the status of a research literature could leave graduates unprepared to become experts in their fields and could leave future research in the field of education disjointed and fragmented.

Powell (2006) sampled dissertations that received the Association for the Study of Higher Education (ASHE) Dissertation of the Year Award between 1979 and 2004 and surveyed their authors in order to collect and analyze information related to personal characteristics of the award recipients, characteristics of the dissertations, the quality of the authors' doctoral experiences and advisor relationships, and their careers after graduation. Although Powell's focus was solely on educational leadership dissertations,

85% of the dissertation degrees were labeled Administration and Policy Analysis, Curriculum and Instruction Adult Education, Higher Education, Higher Education Administration, and Higher Education Policy. The other 15% of the degrees were labeled French; Measurement, Evaluation and Statistical Analysis in Higher Education; and Public Policy. The dissertation characteristics that Powell (2006) evaluated were (a) the scholarly contributions the award winning dissertations have made to the study of higher education, and (b) the factors that describe dissertations. Powell also used Gall, Gall and Borg's (2003) format and criteria (see Appendix F) for the evaluation of research to further assess the dissertations.

Among the characteristics of the dissertations that she evaluated, Powell (2006) looked at the topic of the dissertations. These varied among organizational theory, higher education finance and policy, literacy, and faculty and faculty work product. Powell also looked at the length of the dissertations, finding that the largest percentage (50.0%) were between 200 and 399 pages. When looking at the research design, Powell found that the largest percentage of the sample (40.0%) involved a qualitative research design (see Table 5). The various data analysis methods for the qualitative dissertations included content, ethnographic, historical, and interpretive analyses; and pattern matching. The quantitative dissertations involved factor analysis, simple and multiple regression, analysis of variance, correlations, cluster analysis, *t*-tests, and chi-square tests (Powell, 2006).

Table 5

Cross-tabulation of the Number (and Percentage) of Dissertations in each Length

Category by Research Design

Length	Research Method				
	Quant.	Qual.	Both	Historical	Total
Under 200	1 (5.0)	0 (0.0)	2 (10.0)	0 (0.0)	3 (15.0)
200 to 399	4 (20.0)	4 (20.0)	2 (10.0)	0 (0.0)	10 (50.0)
400 to 699	0 (0.0)	2 (10.0)	1 (5.0)	1 (5.0)	4 (20.0)
700+	0 (0.0)	2 (10.0)	1 (5.0)	0 (0.0)	3 (15.0)
Total	5 (25.0)	8 (40.0)	6 (30.0)	1 (5.0)	20 (100.0)

Note. Adapted from *Descriptive Analysis of the Association for the Study of Higher Education Dissertation of the Year Award Winning Dissertations and Recipients, 1979 – 2004,* by M. Powell, 2006, p. 84. ProQuest Document ID: 305295757.

For the content analyses of the dissertations based on Gall et al. (2003) criteria, Powell used a subsample of six dissertations. Powell presented a description of each of the sampled dissertations for each of the Gall et al. (2003) criteria sections, but offered no real evaluation of the quality of the dissertations individually or as a group. In her conclusions, however, Powell (2006) noted that the award-winning dissertations were not perfect, but that as Gall et al. (2003) had maintained, prior to producing research, one should "master the entire research process" (p. 113). Graduate programs should include preparation that would aid students in this mastery.

Capraro and Thompson (2008) evaluated the research methods requirements of doctoral programs that offered degrees in education. These researchers argued that

preparation in research methods is important and timely because knowing about a researchers' training is essential to understanding the quality and usefulness of the research they later will be able to conduct and publish. The quality of the training also affects the capabilities of journal editors and reviewers who choose the research that is shared with a journal's readership. Capraro and Thompson (2008) focused on 21 major research institutions (e.g., Cornell University and Stanford University), in which between 2 and 24 doctoral programs were offered during 2005-2006. The researchers counted the number (and percentage) of these programs that required preparation for quantitative research and the number (and percentage) that required preparation for qualitative research. Of the 21 institutions housing 251 education doctoral programs (of which 199 were Ph.D. programs), seven housed programs that required quantitative research preparation and four housed programs that required qualitative research preparation. Quantitative research preparation was required in at least 50% of the programs at all of the 21 universities but two while qualitative research preparation was required in at least 50% of the programs at 11 of the 21 universities included in the sample.

In partial fulfillment of a Master of Education degree, Alanazy (2011) examined dissertations published between 2008 and 2010 to analyze the "research methods and statistical analysis techniques [used] in doctoral dissertations conducted in the field of education" (p. 3). The author also compared Ph.D. and Ed.D dissertations, noting that earlier research by Nelson and Coorough (1994) had provided evidence that a small percentage of dissertations toward either degree involved "advanced statistics" (p. 2), and found that degree type (Ph.D. and Ed.D.) had affected the research design and statistics

used. The methods for the Ph.D. dissertations involved more advanced statistical analyses.

Summary

Provided in this chapter was insight into the history of doctoral degree programs in education and opinions about similarities and differences between Ed.D. programs and Ph.D. programs and the dissertations conducted in both. Research associated with doctoral degree programs in education and dissertations completed in these programs was also included. Next, chapter three consists of a description of the methods used in the conduct of the current dissertation.

Chapter Three

Methods

The first purpose of this mixed methods study was to explore the characteristics

of 21st-century dissertations. Similarities and differences in the institution characteristics

and dissertation characteristics associated with dissertations in educational leadership

originating from Ph.D. and Ed.D. programs were investigated. Additionally, the effects

of institution characteristics and dissertation characteristics on the quality of the

dissertations were evaluated. Chapter three includes details of the methods used for

conducting this research. First, the research design is explained, and the population,

sample, and sampling are described. Instrumentation follows with a detailed explanation

of the format and content of the research instruments, how the instruments were used to

measure the variables of interest, and the validity and reliability of the measurement tools

associated with the conduct of this research. Data collection, coding, and analysis are

described and the chapter concludes with a statement of the study limitations.

Research Design

The research design for this study was mixed methods using a concurrent,

explanatory, and exploratory approach. This design was selected because, as Creswell

and Plano Clark (2011) noted, it was "the [method] that 'work[ed] best to address [the]

study's problem and questions" (Chapter 3, para. 1). As Creswell and Plano Clark (2011)

further explained, when choosing the mixed method approach that works best, the

researcher must consider all of the following: the priority for each method (quantitative

and qualitative), the level of interaction between the two methods, and the timing. No

priority, or relative importance, was placed on the two methods used for the current

study. The quantitative and qualitative results were considered to be equally important to addressing the study's problem and questions. As noted in chapter one, the research questions are mixed questions; therefore, there was a high level of interaction between the methods in the data collection, data analyses, and the report of the results. Concurrent timing was chosen because the design involved the quantitative and qualitative methods that were implemented to address the three research questions. Because of the high level of integration of the two methods, the study is both explanatory (the qualitative results help to explain the quantitative results) and exploratory (the quantitative results are used to inform the interpretation of the more qualitative results) (Creswell & Plano Clark, 2011). This combination of methods worked best for the three research questions to be effectively addressed. Qualitative variables included doctoral program research objective, mission and vision, and dissertation topic. Quantitative variables included the type of institution, research design, degree type, and the 16 dimensions of quality.

Population and Sample

Two populations were of interest for this study. The first population consisted of educational leadership dissertations written by graduates who earned a Ph.D. degree between 2000 and 2014 in the U.S. The second population consisted of educational leadership dissertations, written by graduates who earned an Ed.D. degree from a U.S. institution between 2000 and 2014. The research sample consisted of 50 doctoral dissertations from each of the populations as described in the following section.

Sampling Procedures

All members of the study samples, the 100 dissertations, met the purposive sampling criteria of having been completed in partial fulfillment of a Ph.D. or Ed.D.

degree in educational leadership from a U.S. institution between 2000 and 2014, and being published on the ProQuest Dissertations and Theses Full Text: The Humanities and Social Sciences Collection (ProQuest) database. After the database filters narrowed the potential dissertations in the sampling frame using the search keywords *educational leadership,* a range of publication dates between 2000 and 2014, and a degree of Ph.D. for the first population, and the search keywords *educational leadership*, a range of publication dates between 2000 and 2014, and a degree of Ed.D. for the second population, the actual sampling method used to obtain "participants" for this research was systematic random sampling.

Doctoral dissertations were sampled from the two frames that were retrieved in ProQuest starting with a random number between 1 and 10, which was generated in Excel for each frame. This number corresponded to the ProQuest numbering of the retrieved documents. The randomly generated number 10 for the Ph.D. dissertations was used to designate the 10th dissertation in the frame as the first to be sampled. Every 5th Ph.D. dissertation in the ProQuest results list was selected to be included in the sample of Ph.D. dissertations. If a document was deemed unusable and was discarded, the first dissertation listed after the discarded dissertation was then selected to be included in the sample of Ph.D. dissertations. For example, any dissertation conducted at a non-U.S. institution was skipped, and the one listed immediately below it was sampled. The randomly generated number 6 for the Ed.D. dissertations was used to designate the 6th dissertation in the frame as the first to be sampled. Every 5th Ed.D. dissertation in the ProQuest results list was selected to be included in the sample of Ed.D. dissertations. Any unusable dissertation was discarded and the one immediately following it was

sampled. Any dissertation conducted at a non-U.S. institution was skipped and the one listed immediately below it was sampled. The sample size was 100 dissertations, 50 dissertations for each sample. The researcher hired a research assistant to sample the dissertations and provided a data collection and degree coding protocol that is described in detail in the data collection section.

Variable Measurement

To address the research questions for this study, appropriate measurement for each of the variables was necessary. This section includes a detailed description of that measurement for each variable. The first variable, the dissertation identification number, was intrinsic to the merging of the Excel worksheets: the Dissertation Characteristics, and the Dissertation Quality Rubric. The dissertation identification numbers $1 - 50$ were assigned in the order the Ph.D. dissertations were downloaded; likewise, the dissertation identification numbers $1 - 50$ were assigned as the Ed.D. dissertations were downloaded. Degree type, the second variable, was a categorical variable that characterized each dissertation as fulfilling either a Ph.D. in Educational Leadership or an Ed.D. in Educational Leadership. The initial recording of this variable involved the coding assigned to the research assistant. After all analyses had been completed, the assistant provided the researcher with the actual degree type to use in the writing of the chapter five conclusions. A column was reserved in the worksheet for that information.

The third variable, dissertation topic, which was qualitative in nature, was obtained from the problem and purpose sections of the dissertation. The details of the dissertation topic were recorded as specifically as possible by copying the description from the dissertation into the rubric.

Research design, the fourth variable, which was categorical in nature, was measured along three dimensions. The first measurement dimension, method, involved categorizing each dissertation as qualitative, quantitative, or mixed methods. This measurement was taken from the methods section. The second measurement dimension of research design nature categorized each research design as either basic or applied research. The goal of basic researchers is to discover and describe fundamental phenomena and focus on theoretical issues. Basic research is conducted for the most part to develop new theories or to refine existing theories. In contrast, applied research is conducted to answer real world questions and solve real-world problems. Basic research often serves as a foundation from which applied research is developed and conducted (Martella et al., 2013; McBride, 2013). The classification of each dissertation into these two categories was based on statements in the problem and purpose sections of the dissertation. The third measurement of research design was replication status, which classified each dissertation as a replication, replication with extension, or unique contribution. This information was also gleaned from the purpose and problem sections of the dissertations. As was noted previously, the measurement of these four variables was recorded in the Dissertation Characteristics worksheet of the Dissertation Variables workbook.

To facilitate worksheet merging, which is described in the data coding section, the second worksheet, labeled the Dissertation Quality Rubric, also contained the dissertation identification number described previously. A second variable recorded in this worksheet was the alignment of problem and purpose. The dissertation was classified in one of two categories: aligned and not aligned. A third variable, the alignment of purpose and

research questions, was a similar categorical measurement of aligned or not aligned. The three variables, alignment of research questions with data collection and analyses, alignment of analyses and results, and alignment of results and conclusions, also involved categorization of the dissertations as aligned or not aligned. When alignment was analyzed and one or the other of the chapter components could not be found, or the alignment between the two could not be determined, a third code, undetermined, was used to categorize the dissertation.

Adherence to the U.S. Government, National Institutes of Health Office of Extramural Research (NIH) principles is measured along three dimensions, as specified by NIH (2008): respect for persons, beneficence, and justice. Respect for persons was measured categorically as the presence or absence of the explicit statement of participants' right to informed consent, which NIH (2008) defined as giving prospective research participants the information necessary "to determine whether or not they want to participate in research. There should be no pressure to participate and ample time to decide. Respect for persons demands that participants enter into the research voluntarily and with adequate information" (n.p.). The three categories used in this measurement were stated, not stated, and not applicable. According to NIH (2008), applying the principle of beneficence requires that researchers "determine when potential benefits outweigh considerations of risks and vice versa" (n.p.). Although it is not likely that an educational leadership dissertation would involve a violation of this principle, measurement here included three categories: risks considered, risks not considered, and not applicable. The final principle, justice, may be an issue when researchers are making decisions about participants for research and "requires investigators to question whether

groups are considered for inclusion simply because of their availability, their compromised position, or their vulnerability - rather than for reasons directly related to the problem being studied" (NIH, 2008, n.p.). Dissertations were categorized as appropriate sample, inappropriate sample, and not applicable.

According to Steneck (2007), the U.S. Department of Health and Human Services, Office of Research Integrity (ORI) advanced four shared values as common to the responsible conduct of research, despite all other differences in the definition of responsible action across disciplines: honesty, accuracy, efficiency, and objectivity. ORI defined honesty as communicating information as truthfully as possible, accuracy as precise reporting of findings, efficiency as using resources wisely, and objectivity as avoiding potential biases and allowing facts to speak for themselves. Measurement for the current study was categorical in nature and involved extracting information from the methods, results, and conclusions sections of the dissertations. Based on this information the dissertations were evaluated as to whether or not they involved honest communication, accurate reporting, efficient use of resources, and objectivity.

Reference quality was measured as a categorical variable with two categories: acceptable and not acceptable. Sources that were considered acceptable included articles published in refereed journals, scholarly texts, and dissertations. Unacceptable citations were obtained from magazines, newspapers, and dot com internet sites. The dissertation's reference quality was categorized as not acceptable if more than 10% of the citations were from unacceptable sources. Document format quality was measured as a categorical variable with two categories (acceptable and not acceptable) based on paragraph and chapter organization; sentence structure, grammar, and punctuation; and

adherence to APA style guidelines in the text and the references (American Psychological Association, 2008).

As was noted earlier, the final variables, institution type and doctoral program research objective, mission and vision, were recorded on a separate worksheet. Institution type was measured as two categorical variables. The first institution type consisted of three categories: private non-profit, public non-profit, and for-profit. Each dissertation was classified into one of these three categories. The second type, the Carnegie classification based on the number of and the content breadth of the graduate degrees offered by the institution, as well as whether a doctoral degree was offered, categorizes the institutions into a number of categories, some irrelevant to this research (see Appendix A). For the purpose of this study, the institutions associated with the dissertations in the sample were labeled as having an education doctorate only (labeled Research Doctoral: Single program - Education in the definitions) or other (which included the other six Carnegie classifications) (Indiana University School of Education Center for Postsecondary Research, 2015b). The doctoral program's research objective, and mission and vision were copied from each institution's website and saved for content analysis.

Data Collection Procedures

Data collection began with the application for permission to conduct exempt research from the Baker University Institutional Review Board on February 6, 2015. A permission letter was received from the committee on February 20, 2015. The application and permission documents are attached in Appendix G.

Dissertations were accessed and downloaded for the collection of the qualitative and quantitative data related to the dissertation and institution variables. The process for selecting the 100 dissertations was overviewed previously in the Sampling Procedures section. As described there, a research assistant downloaded the dissertations as PDF files from ProQuest onto a computer. The researcher wrote a data collection and degree coding protocol for the assistant to use (see Appendix H). According to the protocol, Adobe Reader XI software was then used to convert each PDF document to a Microsoft Word document for the analyses. Both the quantitative and qualitative analyses were facilitated by this conversion because of the increased flexibility of the Word format, and so the increased accessibility of the contents of the dissertation.

To make it possible for the researcher to complete the first phase of data analysis without knowing the author, institution, or degree type for each dissertation, the research assistant was instructed to separate the cover page and all of the preliminary pages from the chapters, references, etc. contained in the main content of each dissertation. The assistant then was to code each dissertation's preliminary pages with an alphanumeric code. The letters the assistant chose indicated whether the document was from a Ph.D. or Ed.D. dissertation, and whether it was the preliminary pages or the main content portion of the dissertation. A number indicated the rank order of the selection of each dissertation for each degree type. An example coding for the third Ed.D. dissertation preliminary pages is RB3, with the main content of the third Ed.D. dissertation coded RC3. Likewise, an example potential coding for the fourth Ph.D. dissertation preliminary pages is ST4, with the main content coded SW4. The assistant kept a record of all codes assigned to the dissertations.

Researcher Bias

The document separation and degree coding to keep the researcher from knowing the author, institution, and degree type were important to eliminate the possibility of any bias in the analysis of the documents. Content analyses and quality ratings are especially at risk of being influenced by the personal biases of data analysts because "the research can never be totally separated from the researcher's personal views and characterizations" (Creswell & Plano Clark, 2011, p. 210). Therefore, the researcher is expected to be aware of the potential effects and to address them explicitly in all phases of the conduct of the research (Gibbs, 2007). During most of the analyses keeping the researcher (who would be conducting all of the data analyses for the current study) *blind* to the author, institution, and degree type associated with each dissertation was important to avoiding those potential biases.

To avoid potential biases, instead of following the protocol devised for this purpose, the research assistant described in the data collection section wrote a software algorithm, called a hashing robot, which removed the preliminary pages from each dissertation, assigned a password protected random number to the preliminary pages of each dissertation (e.g., 0b387d5ea6d9a466f40afa1fe030ea13.pdf), saved those pages to a file folder, labelled the main content of each dissertation with an alphanumeric name (e.g., A-01.pdf), and saved the main content to a file folder. After the first and second phases of the analyses had been completed, the research assistant used a password to reunite the two parts of each dissertation in order to facilitate the final analyses of the institution variables and to access the degree type.

Data Coding

An Excel workbook, Dissertation Variables, was developed for the storage and initial analysis of all of the quantitative and the qualitative data from each dissertation. A table containing all of the codes for the variables and an explanation of the assignment of those codes is attached in Appendix I. The first worksheet, Dissertation Characteristics, contained information from each coded dissertation about the following variables: dissertation identification code and number, dissertation topic, and research design. The second worksheet in the Dissertation Variables file contained the Dissertation Quality Rubric. The following variables were recorded in this rubric: dissertation identification number, alignment of problem and purpose, research question quality, alignment of purpose and research questions, alignment of research questions, analyses, and results, alignment of results and conclusions, adherence to National Institute of Health (NIH) principles for the appropriate protection of human research subjects (NIH, 2008), adherence to the Office of Research Integrity (ORI) values (Steneck, 2007), reference quality, and document format. The Dissertation Characteristics worksheet and the Dissertation Quality Rubric worksheet were both formatted with a row for each dissertation, and the dissertation characteristics and qualities were listed in the columns. A screenshot in Figure 1 illustrates a portion of the Dissertation Characteristics worksheet and a screenshot presents a portion of the Dissertation Quality Rubric.

Figure 1. Excel worksheets used to record the dissertation characteristics information and. A portion of the quality rubric is presented. The following columns are missing from the quality rubric: AdhereB, AdhereJ, Honesty, Accuracy, Efficiency, Objectivity, RefQ, FormatQ.

After the completion of all other analyses a third worksheet, Institution Characteristics, was constructed in the Dissertation Variables workbook. This worksheet was used to record the final two variables for the research. These variables were contained in the preliminary pages document saved separately by the research assistant from the dissertation chapters document during the sampling described previously and in the protocol in Appendix H. In this worksheet, the dissertation identification number was recorded, along with the institution type and the institution name. The institution name was used to find the institution on the internet and to access the final two variables, the doctoral program research objective, and the mission and vision for each dissertation.

Validity. Content **v**alidity was established for both the quantitative and qualitative instrumentation through the use of a panel of faculty from doctoral programs that

graduate Ph.D. in Educational Leadership students and Ed.D. in Educational Leadership students. These experts reviewed the format and content of the dissertation workbook used to collect and record the quantitative data and to extract, code, and record the qualitative information from the dissertations. Of particular concern was the content measured using the Dissertation Quality Rubric. The expert panel suggested modifications for improvement of each of the instruments to assure that each provided sound, dependable measurement of the variables and that all relevant variables were addressed. Suggested modifications were made.

Reliability. Scale reliability associated with test and survey scales was not an issue for the measurement conducted for the current study. Because of the subjective nature of a number of the analyses, however, inter-rater reliability was a potential issue. To provide evidence for inter-rater reliability, the researcher and an assistant independently conducted an analysis of four variables (problem and purpose alignment, purpose and research question alignment, alignment of research questions with data collection and analysis, research question and results alignment). Ten dissertations were selected using two systematic samples (A8, B8, C8, D8, E8, F8, and A9, B9, C9, D9) and analyzed. The results of the analyses were compared for agreement between the ratings of the researcher and the assistant. Reliability was estimated using the following formula: number of coding agreements, divided by the number of coding agreements plus the number of coding disagreements (Bangert & Baumberger, 2005). The first calculation of reliability revealed that in 31 out of 40 ratings (77.5%), the two raters agreed. A conversation resolved six inconsistencies and recalculation revealed one

inconsistency that was missed, leaving 36 out of 40 agreements in the ratings (90.0%),

which was accepted as sufficient for the purposes of this study.

Data Analysis

Three research questions guided the design and conduct of the current study. This

section contains a description of the methods of analysis that were utilized to address

each research question.

RQ1. What type of institution, doctoral program research objective, mission and

vision, dissertation topic, research design, and level of quality, as measured using the

Dissertation Quality Rubric, characterize both Ed.D. educational leadership dissertations

and Ph.D. educational leadership dissertations?

The first research question was addressed by analysis of both the quantitative and

qualitative data collected from the Ed.D. dissertations and the Ph.D. dissertations, and so

was a hybrid question. Analysis of the quantitative, categorical data for the variables

type of institution, type of research conducted, research design (method, nature, and

status), dissertation quality (alignment of problem and purpose, research question quality,

alignment of purpose and research questions, alignment of research questions, analyses,

and results, alignment of results and conclusions, adherence to NIH principles, adherence

to ORI values, reference quality, and document format quality) involved entering

excerpts from the dissertations into OneNote for storage and analysis, the construction of

frequency tables, and the conduct of multiple chi-square tests of equal percentages.

Analysis of the qualitative data for dissertation topic and the doctoral program research

objective, mission and vision involved inputting excerpts from the dissertations and the

institution website into OneNote for storage and analysis. The excerpts were content

analyzed and coded for research objective, and mission and vision. The research topic excerpts were content analyzed and summarized. .

RQ2. To what extent are there similarities and differences in the type of institution, doctoral program research objective, mission and vision, dissertation topic, research design, and dissertation quality, as measured using the Dissertation Quality Rubric, between Ed.D. educational leadership dissertations and Ph.D. educational leadership dissertations?

The second research question was addressed by analysis of both the quantitative and qualitative data collected from the Ed.D. dissertations and the Ph.D. dissertations, and so was a hybrid question. The quantitative categorical data for the variables type of institution, doctoral program research objective, mission and vision, dissertation topic, research design (method, nature, and replication status), and dissertation quality (alignment of problem and purpose, research question quality, alignment of purpose and research questions, alignment of research questions with data collection, data analyses, and results, alignment of results and conclusions, adherence to NIH principles, adherence to ORI values, reference quality, and document format) were disaggregated by coded degree. Cross-tabulation tables were constructed and multiple chi-square tests of independence were conducted to analyze for differences based on degree. The qualitative data for dissertation topic and the doctoral program research objective, mission and vision were also disaggregated by degree. The results of the content analyses and coding were compared between Ed.D. and Ph.D. dissertations.

RQ3. To what extent do the similarities and differences in the type of institution, doctoral program research objective, mission and vision, and dissertation topic, between

Ed.D. educational leadership dissertations and Ph.D. educational leadership dissertations, mediate the findings with regard to dissertation quality, as measured using the Dissertation Quality Rubric?

The third research question was addressed by analysis of both the quantitative and qualitative data collected from the Ed.D. dissertations and the Ph.D. dissertations, and so was a hybrid question. Data for each of the quantitative categorical variables measured using the Dissertation Quality Rubric (alignment of problem and purpose, research question quality, alignment of purpose and research questions, alignment of research questions with data collection, analyses, and results, alignment of results and conclusions, adherence to NIH principles, adherence to ORI values, reference quality, and document format quality) were disaggregated by type of institution (private non-profit, public non-profit, for profit). Cross-tabulation tables were constructed, and multiple chi-square tests of independence were conducted to evaluate the effect of institution type on the quality Ph.D. and Ed.D. dissertations. Data for the quantitative categorical variables measured using the Dissertation Quality Rubric (alignment of problem and purpose, research question quality, alignment of purpose and research questions, alignment of research questions with data collection, analyses, and results, alignment of results and conclusions, adherence to NIH principles, adherence to ORI values, reference quality, and document format quality) were also disaggregated by the mission and vision variables, preparation focus (practitioner, scholar, practitioner-scholar), and research emphasis (research emphasized, research not emphasized) and by the topic variable, education setting (PK-12, higher education, other). Cross-tabulation tables were constructed and multiple chi-

square tests of independence were conducted to evaluate the effect of these variables on the quality of Ph.D. and Ed.D. dissertations.

Limitations

Limitations to findings associated with analyses of all of the dissertations downloaded for this study include any additional factors that might have affected the quality of a dissertation, including the advising the doctoral candidate received, and the candidate's understanding of the problem and research conducted, data analysis capabilities, and writing skills. Although attempts through coding were made to keep all information about the characteristics of the dissertation (including author, institution, and degree type) unknown during the analyses, limitations to the qualitative methods and results in particular, as noted in a previous section of this chapter, involve primarily the potential biases associated with the subjective nature of some of those analyses.

Summary

Chapter three included a summary of the methodology used to complete the research for this dissertation. The topics included the research design, the population and sample, and the sampling procedures. Additionally, the instrumentation, the data collection, the data analyses conducted, and the limitations of the study were explained. The next chapter contains a report of the results of the qualitative and quantitative data analyses.

Chapter Four

Results

The results of the analyses that were conducted to address the three research questions posed for this dissertation are presented in this chapter. Each research question is listed along with a description of the analysis and a presentation of the results. The quantitative calculations and the qualitative analyses were conducted at the same time and the results are presented together for the study variables for each research question: type of institution, mission and vision, dissertation topic, research design, and level of dissertation quality. While attempts to gather information on research objectives from websites were abandoned, information about the organizations' research objectives was revealed in the analysis of the missions and visions and is included in the analysis and results.

The results of the analyses of the level of quality of the first 60 dissertations revealed very few examples of poor quality. Due to the consistent quality across all of the variables analyzed, continuing with the next 40 sampled dissertations was deemed unnecessary. Therefore, the results of the quantitative and qualitative analyses of the first 60 (30 Ed.D. and 30 Ph.D.) of the 100 systematically sampled dissertations that were downloaded from ProQuest are organized by research question and described in this chapter.

RQ1. What type of institution, doctoral program research objective, mission and vision, dissertation topic, research design, and level of quality, as measured using the Dissertation Quality Rubric, characterize both Ed.D. educational leadership dissertations and Ph.D. educational leadership dissertations?

The first research question was addressed by analysis of both the quantitative and qualitative data collected from the Ed.D. dissertations and the Ph.D. dissertations, and so was a hybrid question. Analysis of the quantitative categorical data for the variables type of institution, type of research conducted, research design (method, nature, and status), dissertation quality (alignment of problem and purpose, research question quality, alignment of purpose and research questions, alignment of research questions, analyses, and results, alignment of results and conclusions, adherence to NIH principles, adherence to ORI values, reference quality, and document format quality) involved the construction of frequency tables, and the conduct of multiple chi-square tests of equal percentages. Analysis of the qualitative data for dissertation topic, and the doctoral program mission and vision involved analyzing and coding excerpts from the dissertations and from the institution website.

As was described in chapter three, the institution where each dissertation originated was categorized using two variables: Status (private non-profit, public non-profit, and for-profit), and Carnegie classification (Research Doctoral: Single program - Education in the definitions, or other, which included the other six Carnegie classifications for graduate institutions). See Table 6 for the frequencies and percentages associated with the institution variable, status. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 19.60$, $df = 2$, $p < .01$. Dissertations in the sample tended to originate in public universities more than is expected by chance.

Table 6

Observed Counts and Percentages for Institution Status

University Status	Observed Count	Percentage	Cumulative Percentage
For-profit	10	16.7	16.7
Private	14	23.3	40.0
Public	36	60.0	100.0
Total	60	100.0	

Note. Expected Count = 20.

See Table 7 for the frequencies and percentages associated with the institution variable, Carnegie classification. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 45.07$, $df = 1$, $p < .01$. Dissertations in the sample originated in universities that were classified as other more than is expected by chance. The 56 universities classified as other offered doctorates in multiple disciplines in addition to a doctorate in the field of education.

Table 7

Observed Counts and Percentages for Carnegie Classification of Institutions

Classification	Observed	Percentage	Cumulative Percentage
Education Doctorate Only	4	6.7	6.7
Other	56	93.3	100.0
Total	60	100.0	

Note. Expected Count = 30.

The research method chosen for each dissertation was distributed across three categories: mixed, qualitative, and quantitative. See Table 8 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal

percentages indicated the observed frequencies were not significantly different from those expected by chance, $\chi^2 = 3.70$, $df = 2$, $p = .16$. No one of the three methods was used more often that is expected by chance.

Table 8

Observed Counts and Percentages for Type of Method

Assessment	Observed Count	Percentage	Cumulative Percentage
Mixed	16	26.7	26.7
Qualitative	27	45.0	71.7
Quantitative	17	28.3	100.0
Total	60	100.0	

Note. Expected Count = 20.

The nature of the research chosen for each dissertation was distributed across three categories: applied, basic, and undetermined. See Table 9 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 114.10$, $df = 2$, $p < .01$. Applied research was conducted more often than is expected by chance.

Table 9

Observed Counts and Percentages for Nature of the Research

Assessment	Observed Count	Percentage	Cumulative Percentage
Applied	59	98.3	98.3
Basic	0	0.0	98.3
Undetermined	1	1.7	100.0
Total	60	100.0	

Note. Expected Count = 20.

The status of the research for each dissertation was distributed across three categories: unique, replication, and replication with extension. See Table 10 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 107.90$, $df = 2$, $p < .01$. Unique research was reported more often than is expected by chance.

Table 10

Observed Counts and Percentages for the Research Status

Assessment	Observed Count	Percentage	Cumulative Percentage
Replication	3	5.0	5.0
Unique	57	95.0	100.0
Replication w/Ext	0	0.0	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the alignment of the problem statement and the purpose of the research, was distributed across three categories: aligned, not aligned, and undetermined. See Table 11 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 77.20$, $df = 2$, $p < .01$. The problem and purpose were assessed as aligned more often than is expected by chance.

Table 11

Observed Counts and Percentages for Problem and Purpose Alignment

Assessment	Observed Count	Percentage	Cumulative Percentage
Aligned	52	86.7	86.7
Not Aligned	6	10.0	96.7
Undetermined	2	3.3	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the appropriateness of the

research questions to the research design, was distributed across three categories:

acceptable, not acceptable, and undetermined. See Table 12 for the frequencies and

percentages associated with this variable. The results of the chi-square test of equal

percentages indicated the observed frequencies were significantly different from those

expected by chance, $\chi^2 = 70.00$, $df = 2$, $p < .01$. The research questions were assessed as

acceptable to the research design more often than is expected by chance.

Table 12

Observed Counts and Percentages for Research Question Quality

Assessment	Observed Count	Percentage	Cumulative Percentage
Acceptable	50	83.3	83.3
Not Acceptable	10	16.7	100.0
Undetermined	0	0.0	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the alignment of the purpose of

the research and the research questions, was distributed across three categories: aligned,

not aligned, and undetermined. See Table 13 for the frequencies and percentages

associated with this variable. The results of the chi-square test of equal percentages

indicated the observed frequencies were significantly different from those expected by

chance, $\chi^2 = 60.40$, $df = 2$, $p < .01$. The purpose and research questions were assessed as

aligned more often than is expected by chance.

Table 13

Observed Counts and Percentages for Purpose and Research Questions Alignment

Assessment	Observed Count	Percentage	Cumulative Percentage
Aligned	48	80.0	80.0
Not Aligned	10	16.7	96.7
Undetermined	2	3.3	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the alignment of the research

questions with the data collection and analysis, was distributed across three categories:

aligned, not aligned, and undetermined. See Table 14 for the frequencies and percentages

associated with this variable. The results of the chi-square test of equal percentages

indicated the observed frequencies were significantly different from those expected by

chance, $\chi^2 = 46.80$, $df = 2$, $p < .01$. The research questions and the data collection and

analysis were assessed as aligned more often than is expected by chance.

Table 14

Observed Counts and Percentages for Research Questions and Data Collection/ Analysis

Alignment

Assessment	Observed Count	Percentage	Cumulative Percentage
Aligned	44	73.3	73.3
Not Aligned	14	23.3	96.6
Undetermined	2	3.3	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the alignment of the research

questions with the results, was distributed across three categories: aligned, not aligned,

and undetermined. See Table 15 for the frequencies and percentages associated with this

variable. The results of the chi-square test of equal percentages indicated the observed

frequencies were significantly different from those expected by chance, $\chi^2 = 32.50$, *df* =

2, *p* < .01. The research questions and the results were assessed as aligned more often

than is expected by chance.

Table 15

Observed Counts and Percentages for Research Questions and Results Alignment

Assessment	Observed Count	Percentage	Cumulative Percentage
Aligned	40	66.7	66.7
Not Aligned	15	25.0	91.7
Undetermined	5	8.3	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the alignment of the analysis

with the results, was distributed across three categories: aligned, not aligned, and

undetermined. See Table 16 for the frequencies and percentages associated with this

variable. The results of the chi-square test of equal percentages indicated the observed

frequencies were significantly different from those expected by chance, $\chi^2 = 63.30$, $df =$

2, $p < .01$. The analysis and the results were assessed as aligned more often than is

expected by chance.

Table 16

Observed Counts and Percentages for Analysis and Results Alignment

Assessment	Observed Count	Percentage	Cumulative Percentage
Aligned	49	81.7	81.7
Not Aligned	7	11.7	93.4
Undetermined	4	6.6	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the alignment of the results and

the conclusions, was distributed across three categories: aligned, not aligned, and

undetermined. See Table 17 for the frequencies and percentages associated with this

variable. The results of the chi-square test of equal percentages indicated the observed

frequencies were significantly different from those expected by chance, $\chi^2 = 40.90$, $df =$

2, $p < .01$. The results and the conclusions were assessed as aligned more often than is

expected by chance.

Table 17

Observed Counts and Percentages for Results and Conclusions Alignment

Assessment	Observed Count	Percentage	Cumulative Percentage
Aligned	43	71.7	71.7
Not Aligned	12	20.0	91.7
Undetermined	5	8.3	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the adherence to the respect for persons principle, was distributed across three categories: adhered to, not adhered to, and undetermined. See Table 18 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 43.30$, $df = 2$, $p < .01$. The respect for persons principle was adhered to more often than is expected by chance.

Table 18

Observed Counts and Percentages for Adherence to the Respect for Persons Principle

Assessment	Observed Count	Percentage	Cumulative Percentage
Adhered To	44	73.3	73.3
Not Adhered to	9	15.0	88.3
Undetermined	7	11.7	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the adherence to the beneficence principle, was distributed across three categories: adhered to, not adhered to, and undetermined. See Table 19 for the frequencies and percentages associated with this

variable. The results of the chi-square test of equal percentages indicated the observed

frequencies were significantly different from those expected by chance, $\chi^2 = 22.90$, $df =$

2, $p < .01$. The beneficence principle was adhered to more often than is expected by

chance.

Table 19

Observed Counts and Percentages for Adherence to the Beneficence Principle

Assessment	Observed Count	Percentage	Cumulative Percentage
Adhered To	37	61.7	61.7
Not Adhered to	15	25.0	86.7
Undetermined	8	13.3	100.0
Total	60	100.0	

Note. Expected Count = 20.

The quality of each dissertation, as measured by the adherence to the justice

principle, was distributed across three categories: adhered to, not adhered to, and

undetermined. See Table 20 for the frequencies and percentages associated with this

variable. The results of the chi-square test of equal percentages indicated the observed

frequencies were significantly different from those expected by chance, $\chi^2 = 82.30$, $df =$

2, $p < .01$. The justice principle was adhered to more often than is expected by chance.

Table 20

Observed Counts and Percentages for Adherence to the Justice Principle

Assessment	Observed Count	Percentage	Cumulative Percentage
Adhered To	53	88.3	88.3
Not Adhered to	6	10.0	98.3
Undetermined	1	1.7	100.0
Total	60	100.0	

Note. Expected Count = 20.

Honesty, accuracy, efficiency, and objectivity, as stipulated by the Office of

Research Integrity as shared values of researchers, were not assessed and so no analysis

was conducted. Finding and analyzing evidence for adherence to these values was not

feasible. Collection and evaluation data that provide operationalization of these

constructs must take another form than that specified for this study.

The quality of the dissertations, as assessed by the scholarly nature of the books,

articles, reports, and other documents that were used as resources provided 100%

support. All of the dissertations ($N = 60$) included scholarly sources in the reference lists.

In terms of the quality of the grammar, writing and format of the dissertations there were

three categories assessed: acceptable, not acceptable, and undetermined. See Table 21

for the frequencies and percentages associated with this variable. The results of the chi-

square test of equal percentages indicated the observed frequencies were significantly

different from those expected by chance, $\chi^2 = 74.10$, $df = 2$, $p < .01$. The grammar,

writing, and format were assessed as acceptable more often than is expected by chance.

Table 21

Observed Counts and Percentages for Acceptable Grammar, Writing, and Format

Assessment	Observed Count	Percentage	Cumulative Percentage
Acceptable	51	85.0	85.0
Not Acceptable	9	15.0	100.0
Undetermined	0	0.0	
Total	60	100.0	

Note. Expected Count = 20.

Qualitative evaluation of the institution mission and vision involved a content

analysis of the 60 missions and visions that were collected for the institutions. In six of

the cases the mission could not be determined for the department or school and so the

university mission was used. The second phase analysis, which had involved finding the mission statements, revealed that five dissertations originated in a department other than an education department or school. The mission and vision of those departments, as well as the mission and visions from the universities, are included in the results with explanations of whether these issues affected the results.

The coding associated with the content analysis of the missions and visions revealed that a focus or lack of focus on 10 variables could be used to compare and contrast the institutions where the dissertations originated: preparation of scholars, practitioners, or both; theoretical or practical knowledge; reform/transformation/change; emphasis on research; diversity; social responsibility/justice; religiosity; innovation; equity; and community. No differences based on the issue of the dissertation originating in an education department where the mission was not found or the dissertation originating in a department other than that focused on education were observed.

The research addresses some of the issues of dissertation quality associated with an institution's emphasis on the preparation of scholars and practitioners, and whether an institution is research-focused. Also, expert opinion about these two variables was discussed in the literature review. Therefore, the results of the analysis of preparation and research emphasis are reported. The mission and vision of each institution, as measured by the focus on preparation of scholars or practitioners, was distributed across four categories: practitioner, scholar, practitioner-scholar, and undetermined. See Table 22 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly

different from those expected by chance, $\chi^2 = 24.0$, $df = 3$, $p < .01$. The missions focused on the preparation of practitioners more than is expected by chance.

Table 22

Observed Counts and Percentages for Preparation Focus in the Mission

Preparation	Observed Count	Percentage	Cumulative Percentage
Practitioner	29	48.3	48.3
Scholar	3	5.0	53.3
Practitioner-scholar	17	28.3	81.6
Undetermined	11	18.4	100.0
Total	60	100.0	

Note. Expected Count = 15.

As was noted in the introduction to this chapter, although university research objective was a variable of interest when this study was designed, during the data collection from the institution websites, the researchers' inability to locate formally stated research objectives became obvious. However, whether institutions emphasized research in their mission and vision statements was available and so was evaluated. Research emphasis in the mission and vision was distributed across two categories: research emphasized, and research not emphasized. See Table 23 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal percentages indicated the observed frequencies were not significantly different from those expected by chance, $\chi^2 = 2.40$, $df = 1$, $p = .12$. The institutions failed to emphasize research in the mission and vision statements more than is expected by chance.

Table 23

Observed Counts and Percentages for Research Emphasis in the Mission

Emphasis	Observed Count	Percentage	Cumulative Percentage
Research	24	40.0	40.0
Not Research	36	60.0	100.0
Total	60	100.0	

Note. Expected Count = 30.

Qualitative analysis of the dissertation topics was accomplished through content analysis of portions of the problem statements, purpose statements, and research questions, which were collected from each dissertation during the first phase of the data collection. A brief summary for each dissertation topic along with the degree earned is attached in Table J1 in Appendix J. Dissertation topics varied widely in the sample. Technology in the classroom was addressed in terms of its usefulness, as well as instructor comfort with it. Principals', superintendents', and higher education leaders' perspectives about educational leadership were examined along a variety of issues: women in leadership in the U.S. and China; collaboration with families and communities; diversity issues affecting Black adolescents, and immigrant English as a second language student and refugee student success; technology use by students and educators; Registered Nurses (RNs) experiences earning Bachelor of Science in Nursing (B.S.N.) degrees; and others. Research topic did not appear to be noticeably different for dissertations conducted in departments or schools other than those focused exclusively on education. For example, the dissertation on the perceptions of nurses with RN degrees who pursued B.S.N. degrees studied nurses' reactions and career experiences associated with the additional education. This is a higher education topic that could be researched in

any number of fields. A second example is a dissertation evaluating the use of technology in the classroom, which originated in an information technology school. The topics in Table J1 in Appendix J are tagged to distinguish the five other departments or schools.

Whether the dissertation was focused on a problem in an elementary and secondary, a higher education, or another educational setting was the only research topic variable that was categorized and reported later in this section. Educational setting was distributed across three categories: PK-12, higher education, and other. See Table 24 for the frequencies and percentages associated with this variable. The results of the chi-square test of equal percentages indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 31.60$, $df = 2$, $p < .01$. The PK-12 education setting was the focus of the dissertations in the sampled dissertations more than is expected by chance.

Table 24

Observed Counts and Percentages for Educational Setting of the Topic

Setting	Observed Count	Percentage	Cumulative Percentage
PK-12	40	66.7	66.7
Higher Education	14	23.3	90.0
Other	6	10.0	100.0
Total	60	100.0	

Note. Expected Count = 20.

Of the 60 dissertations, approximately one-third each involved mixed, qualitative, and quantitative designs, and all but one involved applied research. These dissertations originated in public, private-for profit, and private-not-for-profit institutions that were more predominantly public; and all but four offered more doctoral degrees than just an

education doctorate (Ed.D. or Ph.D.). The results of the quantitative analyses that addressed RQ1 provide strong evidence for the quality of the sampled dissertations, as evidenced by the variables measured and analyzed in this study. Adherence to the three ethical principles associated with the treatment of study participants was also strongly supported. The results of the qualitative analyses of the institutions' missions and the dissertation topics revealed a wide variety of both. Institutions indicated in their mission statements that they were preparing practitioners and practitioner scholars; an emphasis on research was stated in fewer than half of the mission statements; and a large proportion of the dissertations were conducted in PK-12 educational settings with approximately a third conducted in higher education or other contexts.

RQ2. To what extent are there similarities and differences in the type of institution, doctoral program research objective, mission and vision, dissertation topic, research design, and dissertation quality, as measured using the Dissertation Quality Rubric, between Ed.D. educational leadership dissertations and Ph.D. educational leadership dissertations?

The second research question was addressed by analysis of both the quantitative and qualitative data collected from the Ed.D. dissertations and the Ph.D. dissertations, and so was a hybrid question. The quantitative categorical data for the institution name, institution status, and Carnegie classification tabulated by degree type are listed in Table K1 in Appendix K. The quantitative categorical data for the variables type of institution (as measured by status and Carnegie classification), type of research design (method, nature, and replication status), and dissertation quality (alignment of problem and purpose, research question quality, alignment of purpose and research questions,

alignment of research questions with data collection, data analyses, and results, alignment

of results and conclusions, adherence to NIH principles, reference quality, and document

format) were disaggregated by Degree Type (Ed.D., Ph.D.) and the results are presented

in this chapter.   As was noted in the results for RQ1 (i.e., the institutions' research

objective and adherence to the ORI values of honesty accuracy, efficiency, and

objectivity) were not analyzed because of difficulties with operationalizing those

variables. Cross-tabulations by degree type are included below for each variable, along

with the results of a chi-square test of equal percentages conducted to address RQ2 for

each variable using the Ed.D. data and to address RQ2 for each variable using the Ph.D.

data. The observed frequencies in each table are compared to equally occurring expected

frequencies. The results of the tests are described and interpreted.

The institution variable, status, categorized the dissertations as originating in

public, private-for-profit, or private-not-for-profit schools. The cross-tabulation with

degree is presented in Table 25. The results of the chi-square test of equal percentages

for the Ed.D. dissertations indicated the observed frequencies were not significantly

different from those expected by chance, $\chi^2 = 3.20$, $df = 2$, $p = .20$. Ed.D. dissertations

did not originate more than expected by chance in any of the three types of institutions.

The results of the chi-square test of equal percentages for the Ph.D. dissertations

indicated the observed frequencies were significantly different from those expected by

chance, $\chi^2 = 21.60$, $df = 2$, $p < .01$. Ph.D. dissertations originated in public universities

more than is expected by chance.

Table 25

Cross-tabulation of University Status by Degree

	Degree		
University Status	Ed.D.	Ph.D.	Total
For-profit	6	4	10
Private	10	4	14
Public	14	22	36
Total	30	30	60

Note. Expected Count = 10.

The institution variable, Carnegie classification, categorized the dissertations as originating in universities with an education doctorate only or other (one of the six other graduate institution categories). The results of the cross-tabulation with degree are presented in Table 26. The results of the chi-square test of equal percentages for the Ed.D. dissertations indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 19.20$, $df = 1$, $p < .01$. Ed.D. dissertations originated more than expected by chance in institutions categorized as other. The results of the chi-square test of equal percentages for the Ph.D. dissertations indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 26.13$, $df = 1$, $p < .01$. Ph.D. dissertations originated in institutions categorized as other more than is expected by chance.

Table 26

Cross-tabulation of University Carnegie Classification by Degree

	Degree		
Classification	Ed.D.	Ph.D.	Total
Education Doctorate Only	3	1	4
Other	27	29	56
Total	30	30	60

Note. Expected Count = 15.

The research method chosen for each dissertation was distributed across the three categories: mixed, qualitative, and quantitative. See Table 27 for the frequencies for this variable cross-tabulated with degree. The results of the chi-square test of equal percentages for the Ed.D. dissertations indicated the observed frequencies were not significantly different from those expected by chance, $\chi^2 = 2.40$, $df = 2$, $p = .30$. No one of the three methods was used more often in the Ed.D. dissertations. The results of the chi-square test of equal percentages for the Ph.D. dissertations indicated the observed frequencies were not significantly different from those expected by chance, $\chi^2 = 1.40$, $df = 2$, $p = .50$. No one of the three methods was used more often in the Ph.D. dissertations.

Table 27

Cross-tabulation of Type of Method by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
Mixed	8	8	16
Qualitative	14	13	27
Quantitative	8	9	17
Total	30	30	60

Note. Expected Count = 10.

The nature of the research chosen for each dissertation was distributed across three categories: applied, basic, and undetermined. See Table 28 for the frequencies for this variable cross-tabulated with degree. The results of the chi-square test of equal percentages for the Ed.D. dissertations indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 90.00$, $df = 2$, $p < .01$. Applied research was conducted more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages for the Ph.D. dissertations indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 84.20$, $df = 2$, $p < .01$. Applied research was conducted more often than is expected by chance in the Ph.D. dissertations.

Table 28

Cross-tabulation of Nature of Research by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
Applied	30	29	59
Basic	0	0	0
Undetermined	0	1	1
Total	30	30	60

Note. Expected Count = 10.

The status of the research for each dissertation was distributed across three categories: unique, replication, and replication with extension. See Table 29 for the frequencies for this variable cross-tabulated with degree. The results of the chi-square test of equal percentages for the Ed.D. dissertations indicated the observed frequencies were significantly different from those expected by chance, $\chi^2 = 54.20$, $df = 2$, $p < .01$. Unique research was conducted more often than is expected by chance in the Ed.D.

dissertations. The results of the chi-square test of equal percentages for the Ph.D.

dissertations indicated the observed frequencies were significantly different from those

expected by chance, $\chi^2 = 48.80$, $df = 2$, $p < .01$. Unique research was conducted more

often than is expected by chance in the Ph.D. dissertations.

Table 29

Cross-tabulation of Research Status by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
Unique	29	28	57
Replication	1	2	3
Replication w/Ext	0	0	0
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the alignment of the problem

statement and the purpose of the research, was distributed across three categories:

aligned, not aligned, and undetermined. See Table 30 for the frequencies associated with

this variable cross-tabulated with degree. The results of the chi-square test of equal

percentages indicated the observed frequencies in the Ed.D. dissertations were

significantly different from those expected by chance, $\chi^2 = 35.00$, $df = 2$, $p < .01$. The

problem and purpose were assessed as aligned more often than is expected by chance in

the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated

the observed frequencies in the Ph.D. dissertations were significantly different from those

expected by chance, $\chi^2 = 43.40$, $df = 2$, $p < .01$. The problem and purpose were assessed

as aligned more often than is expected by chance in the Ph.D. dissertations.

Table 30

Cross-tabulation of Problem and Purpose Alignment by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
Aligned	25	27	52
Not Aligned	5	1	6
Undetermined	0	2	2
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the appropriateness of the research questions to the research design, was distributed across three categories: acceptable, not acceptable, and undetermined. See Table 31 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 23.40$, $df = 2$, $p < .01$. The research questions were assessed as acceptable to the research design more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 48.80$, $df = 2$, $p < .01$. The research questions were assessed as acceptable to the research design more often than is expected by chance in the Ph.D. dissertations.

Table 31

Cross-tabulation of Research Question Quality by Degree

| | Degree | | |
Assessment	Ed.D.	Ph.D.	Total
Acceptable	22	28	50
Not Acceptable	7	2	9
Undetermined	1	0	1
Total	20	20	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the alignment of the purpose of the research and the research questions, was distributed across three categories: aligned, not aligned, and undetermined. See Table 32 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 23.40$, $df = 2$, $p < .01$. The purpose and research questions were assessed as aligned more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 38.60$, $df = 2$, $p < .01$. The purpose and research questions were assessed as aligned more often than is expected by chance in the Ph.D. dissertations.

Table 32

Cross-tabulation of Purpose and Research Questions Alignment by Degree

| | Degree | | |
Assessment	Ed.D.	Ph.D.	Total
Aligned	22	26	52
Not Aligned	7	3	10
Undetermined	1	1	2
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the alignment of the research

questions and the data collection and analysis, was distributed across three categories:

aligned, not aligned, and undetermined. See Table 33 for the frequencies associated with

this variable cross-tabulated with degree. The results of the chi-square test of equal

percentages indicated the observed frequencies in the Ed.D. dissertations were

significantly different from those expected by chance, $\chi^2 = 11.40$, $df = 2$, $p < .01$. The

research questions and the data collection and analyses were assessed as aligned more

often than is expected by chance in the Ed.D. dissertations. The results of the chi-square

test of equal percentages indicated the observed frequencies in the Ph.D. dissertations

were significantly different from those expected by chance, $\chi^2 = 43.80$, $df = 2$, $p < .01$.

The research questions and the data collection and analyses were assessed as aligned

more often than is expected by chance in the Ph.D. dissertations

Table 33

Cross-tabulation of Research Questions Data Collection/Analysis Alignment by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
Aligned	17	27	44
Not Aligned	11	3	14
Undetermined	2	0	2
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the alignment of the research questions and the results, was distributed across three categories: aligned, not aligned, and undetermined. See Table 34 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 7.80$, $df = 2$, $p < .01$. The research questions and the results were assessed as aligned more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 33.80$, $df = 2$, $p < .01$. The research questions and the results were assessed as aligned more often than is expected by chance in the Ph.D. dissertations.

Table 34

Cross-tabulation of Research Questions and Results Alignment by Degree

| | Degree | | |
Assessment	Ed.D.	Ph.D.	Total
Aligned	15	25	40
Not Aligned	3	2	5
Undetermined	12	3	15
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the alignment of the analyses and the results, was distributed across three categories: aligned, not aligned, and undetermined. See Table 35 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 22.40$, $df = 2$, $p < .01$. The analyses and the results were assessed as aligned more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 43.40$, $df = 2$, $p < .01$. The analyses and the results were assessed as aligned more often than is expected by chance in the Ph.D. dissertations.

Table 35

Cross-tabulation of Analyses and Results Alignment by Degree

| | Degree | | |
Assessment	Ed.D.	Ph.D.	Total
Aligned	22	27	49
Not Aligned	6	1	7
Undetermined	2	2	4
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the alignment of the results and the conclusions, was distributed across three categories: aligned, not aligned, and undetermined. See Table 36 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 11.40$, $df = 2$, $p < .01$. The results and conclusions were assessed as aligned more often than is expected by chance in the Ed D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 33.80$, $df = 2$, $p < .01$. The results and the conclusions were assessed as aligned more often than is expected by chance in the Ph.D. dissertations.

Table 36

Cross-tabulation of Results and Conclusions Alignment by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
Aligned	18	25	43
Not Aligned	9	3	12
Undetermined	3	2	5
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the adherence to the respect for persons principle, was distributed across three categories: adhered to, not adhered to, and undetermined. See Table 37 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 12.20$, $df = 2$, $p < .01$. The respect for persons principle was assessed as being adhered to more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 33.80$, $df = 2$, $p < .01$. The respect for persons principle was assessed as being adhered to more often than is expected by chance in the Ph.D. dissertations.

Table 37

Cross-tabulation of Adherence to the Respect for Persons Principle by Degree

| | Degree | | |
Assessment	Ed.D.	Ph.D.	Total
Adhered to	19	25	44
Not Adhered to	6	3	9
Undetermined	5	2	7
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the adherence to the beneficence principle, was distributed across three categories: adhered to, not adhered to, and undetermined. See Table 38 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 9.60$, $df = 2$, $p < .01$. The beneficence principle was assessed as being adhered to more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 14.60$, $df = 2$, $p < .01$. The beneficence principle was assessed as being adhered to more often than is expected by chance in the Ph.D. dissertations.

Table 38

Cross-tabulation of Adherence to the Beneficence Principle by Degree

| | Degree | | |
Assessment	Ed.D.	Ph.D.	Total
Adhered to	18	19	37
Not Adhered to	6	9	15
Undetermined	6	2	8
Total	30	30	60

Note. Expected Count = 10.

The quality of each dissertation, as measured by the adherence to the justice principle, was distributed across three categories: adhered to, not adhered to, and undetermined. See Table 39 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 38.60$, $df = 2$, $p < .01$. The justice principle was assessed as being adhered to more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 43.80$, $df = 2$, $p < .01$. The justice principle was assessed as being adhered to more often than is expected by chance in the Ph.D. dissertations.

Table 39

Cross-tabulation of Adherence to the Justice Principle by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
Adhered to	26	27	53
Not Adhered to	3	3	6
Undetermined	1	0	1
Total	30	30	60

Note. Expected Count = 10.

The quality of the dissertations, as assessed by the scholarly nature of the books, articles, reports, and other documents that were used as resources provided 100% support. All of the Ed.D. dissertations ($n = 30$) and all of the Ph.D. dissertations ($n = 30$) used scholarly sources in the reference lists. In terms of the quality of the grammar, writing, and format of the dissertations there were three categories assessed: acceptable, not acceptable, and undetermined. See Table 40 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 39.20$, $df = 2$, $p < .01$. The quality of the grammar, writing, and format were assessed as acceptable more often than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 35.00$, $df = 2$, $p < .01$. The quality of the grammar, writing, and format were assessed as acceptable more often than is expected by chance in the Ph.D. dissertations.

Table 40

Cross-tabulation of Acceptable Grammar, Writing, and Format by Degree

| | Degree | | |
Assessment	Ed.D.	Ph.D.	Total
Acceptable	26	25	51
Not Acceptable	4	5	9
Undetermined	0	0	0
Total	30	30	60

Note. Expected Count = 10.

Of the 30 Ed.D. and the 30 Ph.D. dissertations, approximately one-third each were mixed, qualitative, and quantitative. The results of the quantitative analyses that addressed RQ2 for both the Ed.D. dissertations and the Ph.D. dissertations provide strong evidence for the quality of dissertations conducted between 2000 and 2014, as evidenced by the variables measured and analyzed in this study. Adherence to the three ethical principles associated with the treatment of study participants was also supported in dissertations conducted toward both Ed.D. and Ph.D. degrees. As was noted previously, qualitative analyses of the institution mission and vision involved a content analysis of the 60 missions and visions that were collected for the institutions. In four cases the mission and visions were not found for the education school or department and in five cases the dissertation actually originated in a department other than an education department or school. The university and the other department missions and vision were analyzed with those from education schools and departments. After the content analysis of all of the missions and visions, the universities were disaggregated by degree type and the results of the analyses are presented below for Ed.D. dissertations and for Ph.D. dissertations.

The mission and vision of institutions, as measured by the focus on preparation of scholars or practitioners, was distributed across four categories: practitioner, scholar, practitioner-scholar, and undetermined. See Table 41 for the frequencies associated with this variable cross-tabulated with degree. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 20.40$, $df = 3$, $p < .01$. The missions focused on the preparation of practitioners more than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were not significantly different from those expected by chance, $\chi^2 = 6.00$, $df = 3$, $p = .11$. The missions did not focus on any preparation more than is expected by chance in the Ph.D. dissertations.

Table 41

Cross-tabulation of Preparation Focus in the Mission by Degree

| | Degree | | |
Preparation	Ed.D.	Ph.D.	Total
Practitioner	17	12	29
Scholar	0	3	3
Practitioner-scholar	8	9	17
Undetermined	5	6	11
Total	30	30	60

Note. Expected Count = 7.5.

Research emphasis in the mission and vision was distributed across two categories: research emphasized, and research not emphasized. See Table 42 for the frequencies associated with this variable cross-tabulated with degree. The results of the

chi-square test of equal percentages indicated the observed frequencies in the Ed.D.

dissertations were not significantly different from those expected by chance, $\chi^2 = 3.33$,

$df = 1$, $p = .07$. The missions did not emphasize research more than is expected by

chance in the Ed.D. dissertations.. The results of the chi-square test of equal percentages

indicated the observed frequencies in the Ph.D. dissertations were not significantly

different from those expected by chance, $\chi^2 = .13$, $df = 1$, $p = .72$. The missions did not

emphasize research more than is expected by chance in the Ph.D. dissertations.

Table 42

Cross-tabulation of Research Emphasis in the Mission by Degree

	Degree		
Emphasis	Ed.D.	Ph.D.	Total
Research	10	14	24
Not Research	20	16	36
Total	30	30	60

Note. Expected Count = 15.

As was noted above, qualitative analysis of the dissertation topic was

accomplished through content analysis of portions of the problem and purpose statements

or the research questions, which were collected from each dissertation during the first

phase of the data collection. A summary statement for each dissertation topic is listed in

Appendix J along with the degree type. As was noted previously the topics of the

dissertations in this sample varied substantially. Degree type did not appear to

differentiate among the topics. Educational setting, PK-12, higher education, and other,

was analyzed. See Table 43 for the frequencies associated with this variable cross-

tabulated with degree. The results of the chi-square test of equal percentages indicated

the observed frequencies in the Ed.D. dissertations were significantly different from those expected by chance, $\chi^2 = 18.20$, $df = 2$, $p < .01$. The topics involved a PK-12 educational setting more than is expected by chance in the Ed.D. dissertations. The results of the chi-square test of equal percentages indicated the observed frequencies in the Ph.D. dissertations were significantly different from those expected by chance, $\chi^2 = 14.60$, $df = 2$, $p < .01$. The topics involved a PK-12 educational setting more than is expected by chance in the Ph.D. dissertations.

Table 43

Cross-tabulation of Educational Setting of the Topic by Degree

	Degree		
Assessment	Ed.D.	Ph.D.	Total
PK-12	21	19	40
Higher Ed.	5	9	14
Other	4	2	6
Total	30	30	60

Note. Expected Count = 10.

Of the 30 Ed.D. and 30 Ph.D. dissertations, approximately one-third each were mixed, qualitative, and quantitative, and all but one Ph.D. dissertation, in which the nature of the research was undetermined, involved applied research. These dissertations originated in public, private-for profit, and private-not for profit institutions that were more predominantly public, and all but four offered more doctoral degrees than just an education doctorate. Of those four, three of the institutions offered the Ed.D. degree in education, and one offered a Ph.D. in education. The results of the quantitative analyses that addressed RQ2 provided strong evidence for the quality of these dissertations conducted between 2000 and 2014, as evidenced by the variables measured and analyzed

in this study, regardless of the degree earned. Adherence to the three ethical principles associated with the treatment of study participants was also strongly supported regardless of the degree earned. The results of the qualitative analyses of the institution's mission and the dissertation topic revealed a wide variety of both. Institutions offering both Ed.D. degrees and Ph.D. degrees indicated in their mission statements that they were preparing practitioners and practitioner scholars. An emphasis on research was stated in approximately half of the mission statements of institutions offering both degrees, and a large proportion of the dissertation.

Content comparisons of the mission and visions that originated in the five non-education departments or schools or in the university at large revealed no notable differences in the mission and vision of institutions associated with either the Ed,D. or Ph.D. dissertations. The mission for North Central University, a self-labelled Pentecostal school, which was focused on ministry and fulfilling biblical models of leadership, might appear to have a different focus than one would expect for a school or department of education. However, according to the education department's mission at Columbia International University, the goal is to equip "Christian educators to think, teach, and lead biblically in educational settings" and the mission of Yeshiva University's school of education is "to prepare innovative and talented leaders of Jewish Education". These examples provide evidence that the mission does not appear so much to differ based on department or school of origin as much as it appears to vary by the characteristics of the university of origin. Similar evidence is available in Table K1 in Appendix K, where the dissertation topic is tagged if it originated in a non-education school or department.

RQ3. To what extent do the similarities and differences in the type of institution, doctoral program research objective, mission and vision, and dissertation topic, between Ed.D. educational leadership dissertations and Ph.D. educational leadership dissertations, mediate the findings with regard to dissertation quality, as measured using the Dissertation Quality Rubric?

The third research question was addressed by analysis of both the quantitative and qualitative data collected from the Ed.D. dissertations and the Ph.D. dissertations, and so was a hybrid question. Data for each of the quantitative categorical variables measured using the Dissertation Quality Rubric (alignment of problem and purpose, research question quality, alignment of purpose and research questions, alignment of research questions with data collection, analyses, and results, alignment of results and conclusions, adherence to NIH principles, and document format quality) were disaggregated by type of institution (private non-profit, public, for profit) and cross-tabulated with degree type. These calculations were repeated when the data was disaggregated by the mission and vision variable: research emphasis (research emphasized, research not emphasized) and for the topic variable, education setting (PK-12, higher education, other).

Small or disproportionate sample sizes and data collection issues caused difficulties with some of the planned data analyses for RQ3. The data set was not disaggregated by the Carnegie classification because 56 institutions were classified as other graduate instructional programs and 4 were classified as graduate instructional programs with education doctorates only (see Appendix J). Data were not disaggregated by the educational setting the research was conducted in because 40 of the dissertations were conducted in PK-12 settings leaving 14 in the higher education settings, and 6 in

other settings. Data were not disaggregated by preparation focus because of the

extremely low count in the scholar category, in which three institutions were categorized

as preparing scholars only. Data were not disaggregated by research objective due to the

data collection issues noted previously in this chapter. Chi-square tests of independence

and chi-square tests of equal percentages were not conducted and are not included in the

results of the analyses for RQ3 because of the disproportionate numbers of institutions in

some categories for some variables.

A cross-tabulation table was constructed to present the effect of institution type,

as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and

Ed.D. dissertations, as measured by the alignment of the problem and purpose. See Table

44 for the results of the cross-tabulation. Across the three types of institutions and for

both degree types, the problem and purpose were aligned in 75% or more of the

dissertations.

Table 44

Cross-tabulation of Problem and Purpose Alignment by Degree

Disaggregated by Institution Type

Status	Alignment	Degree		Total
		Ed.D.	Ph.D.	
For-profit				
	Aligned	5	4	9
	Not-Aligned	1	0	1
	Undetermined	0	0	0
Private				
	Aligned	8	3	11
	Not-Aligned	2	0	2
	Undetermined	0	1	1
Public				
	Aligned	12	20	32
	Not-Aligned	2	1	3
	Undetermined	0	1	1
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type, as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and Ed.D. dissertations, as measured by the research question quality. See Table 45 for the results of the cross-tabulation. The Ed.D. dissertations originating in the for-profit institutions were distributed equally with regard to research question quality. For Ph.D. dissertations from the for-profit institutions and for both degree types across the other two types of institutions, research question quality was acceptable in 75% or more of the dissertations.

Table 45

Cross-tabulation of Research Question Quality by Degree Disaggregated

by Institution Type

Status	Quality	Degree		Total
		Ed.D.	Ph.D.	
For-profit				
	Acceptable	3	4	7
	Not Acceptable	3	0	3
	Undetermined	0	0	0
Private				
	Acceptable	8	3	11
	Not Acceptable	2	1	3
	Undetermined	0	0	0
Public				
	Acceptable	11	21	32
	Not Acceptable	2	1	3
	Undetermined	1	0	1
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type, as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and Ed.D. dissertations, as measured by the alignment of the purpose and research questions. See Table 46 for the results of the cross-tabulation. Across the three types of institutions and for both degree types, the purpose and research questions were aligned in 75% or more of the dissertations.

Table 46

Cross-tabulation of Purpose and Research Questions Alignment by Degree

Disaggregated by Institution Type

Status	Alignment	Degree		Total
		Ed.D.	Ph.D.	
For-profit				
	Aligned	5	4	9
	Not-Aligned	1	0	1
	Undetermined	0	0	0
Private				
	Aligned	7	3	10
	Not-Aligned	3	0	3
	Undetermined	0	1	1
Public				
	Aligned	10	19	29
	Not-Aligned	3	3	6
	Undetermined	1	0	1
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type, as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and Ed.D. dissertations, as measured by the alignment of the research questions and the data collection and analyses. See Table 47 for the results of the cross-tabulation. In the for-profit institutions 50% of the Ed.D. dissertations aligned the research questions and data collection and analyses, while in the other two types of institutions 60% or more of the Ed.D. dissertations contained aligned research questions and data collection and analysis.

Across the three types of institutions in dissertations completed for Ph.D. degrees, at least

80% of the research questions and the data collection and analysis were aligned.

Table 47

Cross-tabulation of Research Questions and Data Collection/Analysis Alignment by

Degree Disaggregated by Institution Type

		Degree		
Status	Alignment	Ed.D.	Ph.D.	Total
For-profit				
	Aligned	3	4	7
	Not-Aligned	2	0	2
	Undetermined	1	0	1
Private				
	Aligned	6	4	10
	Not-Aligned	4	0	4
	Undetermined	0	0	0
Public				
	Aligned	8	19	27
	Not-Aligned	5	3	8
	Undetermined	1	0	1
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type,

as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and

Ed.D. dissertations, as measured by the alignment of the research questions and the

results. See Table 48 for the results of the cross-tabulation. Across the three types of

institutions in dissertations completed for Ed.D. degrees, 50% of the research questions

and the results were aligned. In Ph.D. dissertations completed at for-profit institutions,

50% of the research questions and results were aligned. Across the other two types of

institutions in dissertations completed for Ph.D. degrees, at least 75% of the research

questions and results were aligned.

Table 48

Cross-tabulation of Research Questions and Results Alignment by Degree Disaggregated

by Institution Type

Status	Alignment	Degree		Total
		Ed.D.	Ph.D.	
For-profit				
	Aligned	3	2	5
	Not-Aligned	3	1	4
	Undetermined	0	1	1
Private				
	Aligned	5	3	8
	Not-Aligned	4	0	4
	Undetermined	1	1	2
Public				
	Aligned	7	20	27
	Not-Aligned	5	2	7
	Undetermined	2	0	2
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type,

as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and

Ed.D. dissertations, as measured by the alignment of the analyses and results. See Table

49 for the results of the cross-tabulation. Across the three types of institutions and for

both degree types, the analyses and results were aligned in 66.6% or more of the
dissertations.

Table 49

Cross-tabulation of Analysis and Results Alignment by Degree Disaggregated by

Institution Type

		Degree		
Status	Alignment	Ed.D.	Ph.D.	Total
For-profit				
	Aligned	4	3	7
	Not-Aligned	2	0	2
	Undetermined	0	1	1
Private				
	Aligned	8	3	11
	Not-Aligned	1	0	1
	Undetermined	1	1	2
Public				
	Aligned	10	21	31
	Not-Aligned	3	1	4
	Undetermined	1	0	1
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type,
as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and
Ed.D. dissertations, as measured by the alignment of the results and the conclusions. See
Table 50 for the results of the cross-tabulation. Across the three types of institutions and
for an Ed.D. degree, the results and conclusions were aligned in 57% or more of the

dissertations. Across the three types of institutions and for a Ph.D. degree, the results and conclusions were aligned in 75% or more of the dissertations.

Table 50

Cross-tabulation of Results and Conclusions Alignment by Degree Disaggregated by Institution Type

		Degree		
Status	Alignment	Ed.D.	Ph.D.	Total
For-profit				
	Aligned	4	3	7
	Not-Aligned	2	0	2
	Undetermined	0	1	1
Private				
	Aligned	6	3	9
	Not-Aligned	3	0	3
	Undetermined	1	1	2
Public				
	Aligned	8	19	27
	Not-Aligned	4	3	7
	Undetermined	2	0	2
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type, as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and Ed.D. dissertations, as measured by the adherence to the respect for persons principle. See Table 51 for the results of the cross-tabulation. Across the three types of institutions and for both degrees, the respect for persons principle was adhered to in at least 75% of

the dissertations. In one exception, Ed.D. dissertations originating in private institutions, 40% of the time the principle was followed.

Table 51

Cross-tabulation of Adherence to the Respect for Persons Principle by Degree Disaggregated by Institution Type

| | | Degree | | |
		Ed.D.	Ph.D.	Total
Status	Assessment			
For-profit				
	Adhered To	6	3	9
	Not Adhered to	0	1	1
	Undetermined	0	0	0
Private				
	Adhered To	4	3	7
	Not Adhered to	4	0	4
	Undetermined	2	1	3
Public				
	Adhered To	9	19	28
	Not Adhered to	2	2	4
	Undetermined	3	1	4
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type, as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and Ed.D. dissertations, as measured by the adherence to the beneficence principle. See Table 52 for the results of the cross-tabulation. The authors of all of the dissertations conducted at for-profit institutions followed the beneficence principle. At private institutions, 30% of authors of Ed.D. dissertations and 50% of authors of Ph.D.

dissertations followed this principle. At public institutions, 64% of authors of Ed.D.

dissertations and 57% of authors of Ph.D. dissertations followed this principle.

Table 52

Cross-tabulation of Adherence to the Beneficence Principle by Degree Disaggregated by

Institution Type

		Degree		
Status	Assessment	Ed.D.	Ph.D.	Total
For-profit				
	Adhered To	6	4	10
	Not Adhered to	0	0	0
	Undetermined	0	0	0
Private				
	Adhered To	3	2	5
	Not Adhered to	5	1	6
	Undetermined	2	1	3
Public				
	Adhered To	9	13	22
	Not Adhered to	1	8	9
	Undetermined	4	1	5
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type,

as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and

Ed.D. dissertations, as measured by the adherence to the justice principle. See Table 53

for the results of the cross-tabulation. The authors of all of the dissertations conducted at

for-profit institutions followed the justice principle. At private institutions 70% of

authors of Ed.D. dissertations and 75% of Ph.D. dissertations followed this principle. At

public institutions, 92% of authors of Ed.D. dissertations and 91% of authors of Ph.D. dissertations followed this principle.

Table 53

Cross-tabulation of Adherence to the Justice Principle by Degree Disaggregated by Institution Type

		Degree		
Status	Assessment	Ed.D.	Ph.D.	Total
For-profit				
	Adhered To	6	4	10
	Not Adhered to	0	0	0
	Undetermined	0	0	0
Private				
	Adhered To	7	3	10
	Not Adhered to	3	1	4
	Undetermined	0	0	0
Public				
	Adhered To	13	20	33
	Not Adhered to	0	2	2
	Undetermined	1	0	1
Total		30	30	60

A cross-tabulation table was constructed to present the effect of institution type, as categorized by its status as for-profit, private, or public, on the quality of Ph.D. and Ed.D. dissertations, as measured by the quality of the grammar, writing, and format of the dissertations. See Table 54 for the results of the cross-tabulation. With the exception of Ph.D. dissertations at for-profit institutions, of which 50% were accessed as acceptable,

the quality of the grammar, writing, and format for both Ed.D. and Ph.D. dissertations was assessed as acceptable 75% or more of the time.

Table 54

Cross-tabulation of Quality of the Grammar, Writing, and Format of the Dissertations by Degree Disaggregated by Institution Type

		Degree		
Status	Alignment	Ed.D.	Ph.D.	Total
For-profit				
	Acceptable	5	2	7
	Not-Acceptable	1	2	3
	Undetermined	0	0	0
Private				
	Acceptable	9	3	12
	Not-Acceptable	1	1	2
	Undetermined	0	0	0
Public				
	Acceptable	12	20	32
	Not-Acceptable	2	2	4
	Undetermined	0	0	0
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the alignment of the problem and purpose, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 55 for the results of the cross-tabulation. For both degree types and regardless of whether there was a research emphasis, the problem and purpose were aligned in 70% or more of the dissertations.

Table 55

Cross-tabulation of Alignment of the Problem and Purpose by Degree

Disaggregated by Research Emphasis

		Degree		
Emphasis	Alignment	Ed.D.	Ph.D.	Total
Research				
	Aligned	7	13	20
	Not-Aligned	3	1	4
	Undetermined	0	0	0
Not Research				
	Aligned	18	14	32
	Not-Aligned	2	0	2
	Undetermined	0	2	2
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the research question quality, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 56 for the results of the cross-tabulation. For both degree types and regardless of whether there was a research emphasis, the research questions were acceptable in 70% or more of the dissertations.

Table 56

Cross-tabulation of Research Question Quality by Degree Disaggregated

by Research Emphasis

Emphasis	Quality	Degree		Total
		Ed.D.	Ph.D.	
Research				
	Acceptable	7	14	21
	Not Acceptable	2	0	2
	Undetermined	1	0	1
Not Research				
	Acceptable	15	14	29
	Not Acceptable	5	2	7
	Undetermined	0	0	0
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the alignment of the purpose and research questions, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 57 for the results of the cross-tabulation. In 50% of the dissertations originating in organizations that emphasized research, the purpose and research questions were aligned. For both degree types, dissertations originating in institutions where research was not emphasized and for Ph.D. degrees in organizations where research was emphasized, the purpose and research questions were aligned in 85% or more of the dissertations.

Table 57

Cross-tabulation of Alignment of Purpose and Research Questions by Degree

Disaggregated by Research Emphasis

		Degree		
Emphasis	Alignment	Ed.D.	Ph.D.	Total
Research				
	Aligned	5	12	17
	Not-Aligned	4	2	6
	Undetermined	1	0	1
Not Research				
	Aligned	17	14	31
	Not-Aligned	3	1	4
	Undetermined	0	1	1
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the alignment of the research questions and the data collection and analyses, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 58 for the results of the cross-tabulation. In 50% of the dissertations originating in organizations that did not emphasize research, the research questions and data collection and analysis were aligned. For both degree types, dissertations originating in institutions where research was emphasized and for Ph.D. degrees in organizations where research was not emphasized, the research questions and the data and analysis were aligned in 70% or more of the dissertations. For Ed.D. dissertations where research was not emphasized approximately half were aligned.

Table 58

Cross-tabulation of Alignment of the Research Questions and Data Collection/Analysis by Degree Disaggregated by Research Emphasis

		Degree		
Emphasis	Alignment	Ed.D.	Ph.D.	Total
Research				
	Aligned	7	13	20
	Not-Aligned	2	1	3
	Undetermined	1	0	1
Not Research				
	Aligned	10	14	24
	Not-Aligned	9	2	11
	Undetermined	1	0	1
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the alignment of the research questions and the results, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 59 for the results of the cross-tabulation. Regardless of research emphasis, in dissertations completed for Ed.D. degrees, 50% of the research questions and the results were aligned. In dissertations completed for Ph.D. degrees, at least 78% of the research questions and results were aligned.

Table 59

Cross-tabulation of Alignment of the Research Questions and Results by Degree

Disaggregated by Research Emphasis

		Degree		
Emphasis	Alignment	Ed.D.	Ph.D.	Total
Research				
	Aligned	5	11	16
	Not-Aligned	3	2	5
	Undetermined	2	1	3
Not Research				
	Aligned	10	14	24
	Not-Aligned	1	1	2
	Undetermined	9	1	10
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the alignment of the analyses and results, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 60 for the results of the cross-tabulation. Regardless of research emphasis and for both degree types, the analyses and results were aligned in 70% or more of the dissertations.

Table 60

Cross-tabulation of Alignment of the Analyses and Results by Degree Disaggregated by

Research Emphasis

| Emphasis | Alignment | Degree | | Total |
		Ed.D.	Ph.D.	
Research				
	Aligned	8	13	21
	Not-Aligned	1	0	1
	Undetermined	1	1	2
Not Research				
	Aligned	14	14	28
	Not-Aligned	5	1	6
	Undetermined	1	1	2
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D.
dissertations, as measured by the alignment of the results and the conclusions,
disaggregated by whether the organization mission statement contains an emphasis on
research. See Table 61 for the results of the cross-tabulation. For an Ed.D. degree at an
institution that emphasized research, the results and conclusions were aligned in 40% of
the dissertations. For both degrees at institutions that did not emphasize research and for
a Ph.D. degree at institutions that did emphasize research, the results and conclusions
were aligned in 82% or more of the dissertations.

Table 61

Cross-tabulation of Alignment of the Results and the Conclusions by Degree

Disaggregated by Research Emphasis

		Degree		
Emphasis	Alignment	Ed.D.	Ph.D.	Total
Research				
	Aligned	4	12	16
	Not-Aligned	4	1	5
	Undetermined	2	1	3
Not Research				
	Aligned	14	13	27
	Not-Aligned	5	2	7
	Undetermined	1	1	2
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the adherence to the respect for persons principle, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 62 for the results of the cross-tabulation. Regardless of research emphasis and for both degrees, the respect for persons principle was adhered to in at least 60% of the dissertations.

Table 62

Cross-tabulation of Adherence to the Respect for Persons Principle by Degree

Disaggregated by Research Emphasis

		Degree		
Emphasis	Assessed	Ed.D.	Ph.D.	Total
Research				
	Adhered To	6	10	16
	Not Adhered to	1	3	4
	Undetermined	3	1	4
Not Research				
	Adhered To	13	15	28
	Not Adhered to	5	0	5
	Undetermined	2	1	3
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D. dissertations, as measured by the adherence to the beneficence principle, disaggregated by whether the organization mission statement contains an emphasis on research. See Table 63 for the results of the cross-tabulation. At institutions where research was emphasized 43% of authors of Ph.D. dissertations and 60% of Ed.D. dissertations followed this principle. At institutions were research was not emphasized, 60% of authors of Ed.D. dissertations and 81% of authors of Ph.D. dissertations followed this principle.

Table 63

Cross-tabulation of Adherence to the Beneficence Principle by Degree Disaggregated by

Research Emphasis

Emphasis	Assessed	Degree		Total
		Ed.D.	Ph.D.	
Research				
	Adhered To	6	6	12
	Not Adhered to	1	7	8
	Undetermined	3	1	4
Not Research				
	Adhered To	12	13	25
	Not Adhered to	5	2	7
	Undetermined	3	1	4
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D.

dissertations, as measured by the adherence to the justice principle, disaggregated by

whether the organization mission statement contains an emphasis on research. See Table

64 for the results of the cross-tabulation. Regardless of research emphasis and degree

type, 85% or more of the authors followed the justice principle.

Table 64

Cross-tabulation of Adherence to the Justice Principle by Degree Disaggregated by

Research Emphasis

		Degree		
Emphasis	Assessed	Ed.D.	Ph.D.	Total
Research				
	Adhered To	9	12	21
	Not Adhered to	1	2	3
	Undetermined	0	0	0
Not Research				
	Adhered To	17	15	32
	Not Adhered to	2	1	3
	Undetermined	1	0	1
Total		30	30	60

A cross-tabulation table was constructed to present the quality of Ph.D. and Ed.D.

dissertations, as measured by the quality of the grammar, writing, and format of the

dissertations, disaggregated by whether the organization mission statement contains an

emphasis on research. See Table 65 for the results of the cross-tabulation. Regardless of

research emphasis and degree type, 80% or more of the dissertations were assessed as

having acceptable grammar, writing, and format.

Table 65

Cross-tabulation of Quality of the Grammar, Writing, and Format of the Dissertations by Degree Disaggregated by Research Emphasis

Emphasis	Alignment	Degree		Total
		Ed.D.	Ph.D.	
Research				
	Acceptable	8	12	20
	Not-Acceptable	2	2	4
	Undetermined	0	0	0
Not Research				
	Acceptable	18	13	31
	Not-Acceptable	2	3	5
	Undetermined	0	0	0
Total		30	30	60

The quality of Ed.D. and Ph.D. dissertations varied to some extent when they originated at institutions that emphasized research in the mission and vision and institutions and that did not emphasize research in the mission and vision. The alignment of the purpose and research questions and the alignment of the research questions and the results were found in half or fewer of the Ed.D. dissertations that originated in institutions that emphasized research. Quality, as measured by adherence to the beneficence principle, was assessed in fewer than half of the Ph.D. dissertations that originated in institutions that emphasized research. Alignment of the research questions and data collection and analysis, alignment of the research questions and results, and alignment of the results and conclusions were found in half or fewer of the Ed.D. dissertations originating at institutions that did not emphasize research.

Summary

  Chapter four provided an account of the quantitative and qualitative analyses that addressed the three research questions. Following the description of the analysis for each question, an explanation of issues that caused revisions to or omission of the some of the analyses was included. The results associated with each of the analyses that were conducted to address each research question were then presented and explained. Next, chapter five provides a summary and conclusions about the study.

Chapter Five

Interpretation and Recommendations

The chapter starts with a comprehensive summary of the study, including the problem, purpose, research questions, methods, and major findings. The research findings are then interpreted in the context of expert opinion and previous research that was presented in the literature review in chapter two. This final chapter ends with recommendations for future research and general conclusions.

Study Summary

Central to the concern about the relative merit of the preparation of educational leaders in Ph.D. and Ed.D. graduate programs, according to Golde and Walker (2006), is the "struggle to strike a balance between the *practice* of education and *research* in education" (p. 247). To that end, faculty members, administrators, and policy makers must make informed decisions about appropriate graduate education curricula for the preparation of educational leaders, both practitioners and scholars. Becoming informed requires that these decision makers, in addition to expert opinion, have available to them the results of scientific inquiry and theoretical development.

Overview of the problem. While experts on PK-12 education and graduate higher education have expressed somewhat strong opinions on the graduate education that effectively prepares practitioners and scholars for educational leadership, they do not appear to have provided much scientific evidence to support their claims about the status of that preparation. They also have not provided a great deal of evidence about the role and relative merit of the Ph.D. and Ed.D. dissertation process and product as the capstone to the curricula that guide that preparation. Nelson and Coorough (1994) looked at the

research design, statistics, target populations, significance of results, age of subjects, and other characteristics of Ph.D. and Ed.D. dissertations, but did not provide any in-depth evidence the Ed.D. dissertation is, as some have claimed, a weak imitation of dissertation research (Levine, 2005; Nelson & Coorough, 1994). Archbald (2008) reviewed Ed.D. dissertations and concluded they reflect a "traditional social science empirical research orientation" (p. 706). Augusto (2009) interviewed three educational leadership doctoral dissertation advisors about the purpose of, expectations for, and the quality of Ph.D. and Ed.D. dissertations, and found few to no differences in the advisors' descriptions of these characteristics. Alanazy (2011) compared research methods and statistical analyses in dissertations and found that degree (Ed.D. or Ph.D.) did not affect the choice of research methods; but the statistics used tended to be more advanced in Ph.D. dissertations. Although, as these examples show, some research has been conducted around the nature and quality of dissertations, no evidence was found during the literature review for this study that pointed to a potential need for major overhauls to the graduate preparation of educational leaders. Any efforts toward program improvement, including educational reform associated with improving the graduate preparation of all educational leaders, should be supported by empirical evidence for what is right, and what should be corrected because it is not right. Additional research was necessary.

Purpose statement and overview of research questions. Three research questions were formed to address the purpose of this study, which was to collect evidence about the nature and quality of Ed.D. and Ph.D. dissertations, and how that quality can be affected by various research factors and institution characteristics. The dissertation research was evaluated with regard to the nature, status, and design utilized, and the

degree earned. Dissertation quality was measured along multiple methodological and ethical dimensions. Institution characteristics included the private, public, or private-for-profit status, and the Carnegie research classification for graduate schools.

Review of the methodology. The mixed methods research designed for this study involved the collection and analysis of 30 Ph.D. dissertations and 30 Ed.D. dissertations that were published between 2000 and 2014 on the ProQuest Dissertations and Theses Full Text: The Humanities and Social Sciences Collection (ProQuest) database. Along with degree status (Ph.D. and Ed.D.), a number of dissertation methodology characteristics and institution characteristics were analyzed. Frequencies and chi-square tests of equal percentages were used to analyze the variables associated with the quantitative part of the design. Content analysis and coding for themes were used to evaluate the variables associated with the qualitative portion of the research.

Major findings. Of the 30 Ed.D. dissertations and 30 Ph.D. dissertations studied for this research, approximately one-third each involved mixed, qualitative, and quantitative designs, and all but one involved applied research. These dissertations originated in public, private-for profit, and private-not-for-profit institutions that were more predominantly public; and all but four offered more doctoral degrees than an education doctorate (Ed.D. or Ph.D.). The results of the quantitative analyses provide strong support for the quality of the sampled dissertations, as evidenced by the variables measured and analyzed in this study. The quality of Ed.D. and Ph.D. dissertations varied to some extent when they originated at institutions that emphasized research in the mission and vision versus institutions and that did not emphasize research in the mission and vision. The alignment of the purpose and research questions and the alignment of the

research questions and the results were found in half or fewer of the Ed.D. dissertations

that originated in institutions that emphasized research. Alignment of the research

questions and data collection and analysis, alignment of the research questions and

results, and alignment of the results and conclusions were found in half or fewer of the

Ed.D. dissertations originating at institutions that did not emphasize research. Adherence

to the three ethical principles associated with the treatment of study participants was also

strongly supported. However, adherence to the beneficence principle was assessed in

fewer than half of the Ph.D. dissertations that originated in institutions that emphasized

research. The results of the qualitative analyses of the institution mission and the

dissertation topic revealed a wide variety of both. Institutions offering both Ed.D degrees

and Ph.D. degrees indicated in their mission statements that they were preparing

practitioners and practitioner scholars. An emphasis on research was stated in

approximately half of the mission statements of institutions offering both degrees, and a

large proportion of the dissertations were conducted in PK-12 educational settings for

both Ed.D. and Ph.D. degrees.

Findings Related to the Literature

Because the research into the quality of educational leadership doctoral programs

and dissertations is somewhat limited, the research results from the current dissertation

are placed in a couple of additional contexts. First the results are discussed in the context

of the content and structure of the programs. Second, the comparison of the quality of the

Ph.D. and Ed.D. programs presented in the literature review is revisited in the light of the

current study findings. Finally, research that has been conducted regarding preparation

programs and the purpose of dissertations is reassessed in the light of the findings from this study.

According to Clifford and Guthry (1988), graduate schools of education have struggled with meeting their science-based colleagues' scholarly expectations for research, and also have not provided the applied knowledge necessary for their graduates to be successful as practitioners in the field. These authors argued that the solution to both issues is that a professional degree, the Ed.D., which is focused on the practice of leadership, should be the standard degree for educational leaders. Brown (1990) disagreed with Clifford and Guthry's (1988) conclusion, arguing that an increasing demand in the field for new doctorates, the popularity of both degrees, and the expanding knowledge base in education would make their solution improbable. Brown supported his argument about the popularity of both degrees with the results of survey research conducted by Schneider et al. (1984, 1985), who found that there were not meaningful differences in student and faculty perceptions of program structure or context, or student and faculty satisfaction with the degree programs. Brown (1990) concluded that he would not recommend giving up on either degree, and especially not the Ph.D., as a way to further either academic or professional progress. The findings reported in the current study do not support the opinions about the misdirected focus of programs, popularity, or preferences as they were stated. However, based on the current findings, it can be noted that when Ed.D. and Ph.D. departments or schools were evaluated together, there were not any substantial differences in the institution missions. And when the dissertations from the two degree programs were evaluated regarding the nature and quality of the dissertations, differences were minimal. These findings that the program missions and

the dissertations are not differentiated between the two degrees support the participant

perceptions of context in the Schneider et al. (1984, 1985) findings, that the two degrees

are not really different.

Young (2006) proposed a curriculum for each degree which was based on

Everson's model (2006), which distinguished between the purpose or objective of each:

the Ph.D. is preparation for scholarship and the Ed.D. is preparation for practice. Young

offered a table that included specifications for core courses, research courses, internships,

and dissertation content (see Table C1 in Appendix C). The Ed.D. model includes

applied knowledge or practical coursework, an internship, and of interest to this study,

action research in the K-12 setting that informs practice. While the Ph.D. model includes

additional research courses and dissertation preparation courses, it does not specify

preferred dissertation content. Findings from the current study have indicated that the

research conducted for dissertations originating in both Ed.D. and Ph.D. degree programs

overwhelmingly are applied in nature, and the content, as gleaned from the problem,

purpose, and research questions of the dissertations in the sample, appears to a large

extent to inform educational practice in PK-12 settings. The curriculum dichotomy,

suggested by Young's 2006 model, is not supported by these findings.

Arguing for an integrated curriculum for preparing scholars and practitioners

together, Bredeson (2006) acknowledged the necessity for offering programs that address

the distinctly different skill sets necessary for the preparation of each. Bredeson (2006)

noted that the integrated approach "requires flexibility to address individual

specialization needs while not sacrificing the substantive dialogue between

scholar/researchers and educational practitioners that comes in commonly shared

seminars and learning activities where there is a significant overlap in professional knowledge" (p. 19). Likewise, ideas about an integrated approach to educating scholarly practitionersoriginated in a 2007 Carnegie Project for the Education Doctorate (CPED) reportwhich included and argument that candidates should "use practical research and applied theories as tools for change" (n.p.) and the dissertation should be "a scholarly endeavor that impacts a complex problem of practice" (n.p.). In contrast, Guthrie (2006) countered the idea of integrated programs with the argument that the level of research expected of educational scholars in the 21st century, and so the amount of preparation necessary for them to successfully conduct that research, makes it impossible to integrate practitioners into the same program as scholars. Results from the current study, which suggest that the program missions, dissertation topics, and dissertation quality are not really differentiated between the two types of degree programs, support Bredeson's and the CPED positions which endorse the integrated approach to educating practitioners and scholars.

When Richardson and Walsh (1978) looked at the educational leadership preparation purpose, to prepare researchers or practitioners, they found that approximately half of institutions that offered both degrees reported no differences in preparation purpose (researchers or practitioners) and reported no differences in the type of dissertation required between the Ed.D. and the Ph.D. degree programs. In 1983, Anderson conducted a comparative study of Ed.D. and Ph.D. degrees, in which he looked for differences in the type of dissertation project accepted by the two degree programs, and found that approximately half of the Ed.D. programs accepted a survey or a "practical problem" (p. 56) while 19% of the Ph.D. programs allowed this applied type of

research to be substituted for basic research. Dill and Morrison (1985) content analyzed information about the research objectives of doctoral degree programs and found three general categories of objectives: to develop students' ability to conduct original basic research, to develop the skills necessary to do an applied dissertation, and to develop the ability to read and interpret research. Basic research was emphasized most often for Ph.D. degrees and applied research and literacy were emphasized most often for the Ed.D. when the two degrees were differentiated. When they were not differentiated, Dill and Morrison (1985) presented only the Ed.D. results, and literacy was emphasized the most. In institutions where only the Ph.D. was offered, pure (basic) research was emphasized the most; while in institutions offering only the Ed.D. the three objectives were emphasized equally. The preparation focus, as stated in the mission and vison, for the institutions in the current study's sample was overwhelmingly assessed practitioner or practitioner-scholar, regardless of degree. And the type of research conducted in the dissertation was assessed as applied for all but one dissertation, regardless of degree. These results support the findings of Richardson and Walsh (1978). However, Anderson's (1983) and Dill and Morrison's (1985) findings of separate purposes and types of research are not supported.

Schneider et al. (1984), in a study of administrator, student and alumni opinions of doctoral programs, noted that the deans agreed that "the Ph.D. is the research degree, and the Ed.D. is the professional degree" (p. 618). However, all three participant groups reported that there was really no distinction between the degrees when the structure or context of the program was evaluated and there was no difference in the quality of the dissertations. The findings from the current study, which, regardless of the degree type,

provide empirical evidence of dissertation quality, support the opinions of administrators, students, and alumni surveyed by Schneider et al. (1985).

Powell (2006) sampled award winning dissertations. Among the characteristics of the dissertations and their authors that she evaluated, Powell (2006) looked at the topic of the dissertations and the research design used. The topics varied among organizational theory, higher education finance and policy, literacy, and faculty and faculty work product. Powell, looking at the research design, found that the largest percentage of the sample involved a qualitative research design. Topics in the current study varied substantially also, among teacher satisfaction, instructional strategies, technology, and gender and minority issues of students and leaders. The research designs used in the current sample of dissertations were distributed similarly to those Powell evaluated for both degree types, with qualitative research being used most often.

This section offered insight into how the findings from the current study fits into what has been offered as opinion of how the educational leadership preparation is and should be conducted, and how well the findings align with the results of earlier research on that preparation. In general, with one notable exception, the findings from the current study align more closely with previous research than they do with stated opinions and perceptions from various sources. The dissertations sampled for this research provide evidence, that regardless of opinion, an integrated, non-differentiated approach is the current way leaders are being prepared and dissertation research is being conducted.

Recommendations for Future Research

While the results from this study provide evidence for the quality of dissertations being conducted at public, private, and private-for-profit institutions whose mission is to

prepare practitioners and practitioner scholars, the focus was narrow and the sample was small. Additional evidence for the quality of the dissertation process and product could take a number of forms. With over 1,000 Ph.D. and Ed.D. dissertations in educational leadership currently available on ProQuest and institutional archives available at numerous universities, documents are available for additional research.

To address concerns about the quality of the Ed.D. and Ph.D. dissertations conducted toward doctoral degrees in education, in addition to replicating the current evaluation of research question quality, methodological alignment, and ethical compliance, researchers could look into quality based on other criteria. For example, Boote and Beile (2005), interested in the lack of importance education doctoral programs appeared to have attached to the quality of literature reviews, analyzed 12 literature reviews from dissertations completed at three public (state-funded) institutions. Based on Hart's (1999) suggestions for a framework for analyzing literature reviews, these researchers developed a rubric as a basis for their evaluation of the quality of the literature reviews along five dimensions: Coverage, Synthesis, Methodology, Significance, and Rhetoric. These authors found that the dissertations in their sample did not score well on their rubric. The research by Boote and Beile (2005) could be expanded to a larger sample size, and perhaps also extended to private and for-profit institutions.

Along with looking at the quality dimensions of literature reviews, other characteristics associated with quality, could potentially involve the four shared values for conducting research responsibly as put forward by the U.S. Department of Health and Human Services, Office of Research Integrity (ORI) to be commonly held across

disciplines: honesty, accuracy, efficiency, and objectivity (Stenneck, 2007). ORI defined honesty as communicating information as truthfully as possible, accuracy as precise reporting of findings, efficiency as using resources wisely, and objectivity as avoiding potential biases and allowing facts to speak for themselves. As was noted in chapter four, these values proved to be somewhat elusive to after-the-fact content analysis of dissertations. However, other approaches to research into their observance might involve discovering if graduate students are educated about the importance that should be attached to the values as research is designed, conducted, and reported. Graduate students and educators already holding a doctoral degree, could also be surveyed or interviewed about these values and their relevance to conducting research in the educational setting.

Because of the emphasis placed on appropriate graduate education for practitioners (Archbald, 2008, 2010; Hoffer, 2005), successful PK-12 and higher education administrators are an invaluable source of perceptions and perspectives about any number of aspects of their doctoral education, including the completion of a dissertation and the relevance of that effort to their success. Researchers could survey and interview these educational leaders and gain a wealth of knowledge about that particular aspect of the conversation about the appropriate graduate education of practitioners and scholars.

Although any number of additional studies could be suggested with regard to the effectiveness of Ed.D. and Ph.D. graduate education, an in-depth external evaluation of the relatively new programs at Harvard, which were reported in 2012 by Basu, is suggested. Harvard administration eliminated their Ed.D program in 2012 and replaced it

with a Ph.D. program, saying that there should be two separate degree paths - one to prepare leaders for practice – the other to prepare leaders to conduct research. These administrators said that the Harvard Ed.D. in educational leadership had been research-focused and so should instead always have been a Ph.D. They reported that Harvard students who planned to be practitioners would continue to have access to a doctor of education leadership (Ed.D.L), a 3-year program that "prepares students for leadership positions in school systems and other organizations" (Basu, 2012, para. 4), which was instituted in 2009. Seven years after the institution of this new practitioner degree and four years after the elimination of the Ed.D., preliminary evaluation of the success of these educational leadership programs could be conducted, for example, to question graduates about their perceptions and perspectives about the work they are doing, and the relevance of their preparation to that work.

As has been evidenced earlier in this document, some research has been ongoing, but no evidence has pointed to a potential need for major overhauls to the graduate preparation of educational leaders. Most opinions about change that have been offered by experts in the field appeared to be based on anecdotal or personal experience. Any efforts toward educational reform associated with improving the graduate preparation of educational leaders, should, however, be preceded by the collection of additional empirical evidence to identify a focus for the change that is needed.

Concluding Remarks

With the award of the first Ed.D. at Harvard University in 1922 (Harvard University GSE, 2014b), researchers and educators started and have remain engaged in a debate over the relative merit of the Ph.D. degree and its younger sibling, the Ed.D.

degree, for preparing educational leaders to function well as scholars in university settings, practitioners in public education settings, or scholar practitioners in both settings. Concerns have not been resolved about the appropriate content and format for the doctoral program curricula and the doctoral project that is the capstone of many of the preparation programs. The conversation should continue with more of an emphasis on empirical evidence as necessary to understanding the issues and decision making associated with improving the preparation of educational leaders.

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Appendices

Appendix A: Carnegie Graduate Instructional Program Classifications

As a companion to the Undergraduate Instructional Program classification, this classification examines the nature of graduate education, with a special focus on the mix of graduate programs across fields of study. In this classification, a single graduate-level degree qualifies an institution for inclusion. For more information regarding how this classification is calculated, please see the Graduate Instructional Program Methodology.

The classification is based on the level of graduate degrees awarded (master's degrees, and doctoral degrees categorized as either research/scholarship, professional practice, or other doctorate), the number of fields represented by the degrees awarded, and the mix or concentration of degrees by broad disciplinary domain. The classification has two parts: one for institutions that award at least one research/scholarship doctoral degrees (hereinafter referred to as research doctoral degrees), and one postbaccalaureate degree-granting institutions that either offer only master's degrees or that also offer professional practice or other doctoral degrees (based on the record of degree conferrals, not program offerings). Within each group, we then classify institutions with respect to the breadth of graduate offerings and the concentration of degrees in certain fields or combinations of fields.

For two categories of institutions offering research doctorates, we distinguish institutions offering medical education (defined as human or veterinary medical education, including allopathic medicine, osteopathic medicine, dentistry, and veterinary medicine). Institutions in other categories may also offer medical education, but the numbers were not large enough to justify subcategories, and we judged it preferable to differentiate with respect to the other graduate fields, rather than with respect to the presence or absence of medical education.

NOTE: Because a single research doctoral degree (as defined in the IPEDS data collection of the National Center for Education Statistics) qualifies an institution for inclusion in the doctoral categories, institutions with large master's or professional programs and modest doctoral-level programs are currently classified according to their doctoral programs.

The categories are listed below. The term "comprehensive" is used here to denote comprehensiveness of offerings across a range of fields.

Postbaccalaureate: Single program - Education

These institutions awarded master's or professional practice/other doctoral degrees in education as their only postbaccalaureate program.

Postbaccalaureate: Single program - Business

These institutions awarded master's or professional practice/other doctoral degrees in business as their only postbaccalaureate program.

Postbaccalaureate: Single program - Other

These institutions awarded master's or professional practice/other doctoral degrees in a single field other than education or business as their only postbaccalaureate program.

Postbaccalaureate: Comprehensive programs

These institutions awarded at least one master's degree or professional practice/other doctoral degrees in each of the humanities, social sciences, and STEM* fields, as well as such graduate degrees in one or more professional fields.

Postbaccalaureate: Arts & sciences-dominant

These institutions awarded master's or professional practice/other doctoral degrees in some arts and sciences fields. They may also award master's or non-research doctoral degrees in other fields, but in lesser numbers.

Postbaccalaureate: Education-dominant, with arts & sciences

These institutions awarded master's or professional practice/other doctoral degrees in both arts and sciences and professional fields, and the field with the largest number of such graduate degrees was education.

Postbaccalaureate: Business-dominant, with arts & sciences

These institutions awarded master's or professional practice/other doctoral degrees in both arts and sciences and professional fields, and the field with the largest number of such graduate degrees was business.

Postbaccalaureate: Other-dominant, with arts & sciences

These institutions awarded master's or professional practice/other doctoral degrees in both arts and sciences and professional fields, and the field with the largest number of such graduate degrees was a professional field other than business or education.

Postbaccalaureate: Education-dominant, with other professional programs

These institutions awarded master's or professional practice/other doctoral degrees in professional fields only, and the field with the largest number of such graduate degrees was education.

Postbaccalaureate: Business-dominant, with other professional programs

These institutions awarded master's or professional practice/other doctoral degrees in professional fields only, and the field with the largest number of such graduate degrees was business.

Postbaccalaureate: Other-dominant, with other professional programs

These institutions awarded master's or professional practice/other doctoral degrees in professional fields only, and the field with the largest number of such graduate degrees was a field other than business or education.

Research Doctoral: Single program - Education

These institutions awarded research doctoral degrees in education but not in other fields (they may have more extensive offerings at the master's or professional practice/other doctoral level).

Research Doctoral: Single program - Other

These institutions awarded research doctoral degrees in a single field other than education (they may have more extensive offerings at the master's or professional practice/other doctoral level).

Research Doctoral: Comprehensive programs, with medical/veterinary school

These institutions awarded research doctoral degrees in the humanities, social sciences, and STEM* fields, as well as in medicine, dentistry, and/or veterinary medicine. They also offer may also offer master's and professional practice/other doctoral degrees in other fields.

Research Doctoral: Comprehensive programs, no medical/veterinary school

These institutions awarded research doctoral degrees in the humanities, social sciences, and STEM* fields. They may also offer master's or professional practice/other degrees in fields other than medicine, dentistry, or veterinary medicine.

Research Doctoral: Humanities/social sciences-dominant

These institutions awarded research doctoral degrees in a range of fields, with the largest number of research doctorates in the humanities or social sciences.

Research Doctoral: STEM-dominant

These institutions awarded research doctoral degrees in a range of fields, with the largest number of research doctorates in the STEM* fields.

Research Doctoral: Professional-dominant

These institutions awarded research doctoral degrees in a range of fields, and the largest number of research doctorates were in professions other than engineering (such as education, health professions, law, public policy, or social work).

* STEM: Science, technology, engineering, and mathematics.

Classifications are time-specific snapshots of institutional attributes and behavior based on 2013-14 data.

Appendix B: Levine's Nine Point Assessment of Educational Leadership Programs

Nine-point Template for Judging the Quality of School Leadership Program

(Levine, 2005, p. 13)

1. Purpose: The program's purpose is explicit, focusing on the education of practicing school leaders; the goals reflect the needs of today's leaders, schools, and children; and the definition of success is tied to student learning in the schools administered by the graduates of the program.

2. Curricular coherence: The curriculum mirrors program purposes and goals. The curriculum is rigorous, coherent, and organized to teach the skills and knowledge needed by leaders at specific types of schools and at the various stages of their careers.

3. Curricular balance: The curriculum integrates the theory and practice of administration, balancing study in university classrooms and work in schools with successful practitioners.

4. Faculty composition: The faculty includes academics and practitioners, ideally the same individuals, who are expert in school leadership, up to date in their field, intellectually productive, and firmly rooted in both the academy and the schools. Taken as a whole, the faculty's size and fields of expertise are aligned with the curriculum and student enrollment.

5. Admissions: Admissions criteria are designed to recruit students with the capacity and motivation to become successful school leaders.

6. Degrees: Graduation standards are high and the degrees awarded are appropriate to the profession.

7. Research: Research carried out in the program is of high quality, driven by practice, and useful to practitioners and/or policy makers.

8. Finances: Resources are adequate to support the program

9. Assessment: The program engages in continuing self-assessment and improvement of its performance.

Appendix C: Young's 2006 Proposed Models

Table C1

Young's 2006 Proposed Program Models

Program	Ed.D.	Ph.D.
Leadership Core	Educational Leadership Accountability Diversity and Culture Learning and Curriculum The Laws and Politics of Education Public School Finance and Business Management of Human Resources School Leadership & Instructional Improvement Organizational Behavior and Change	The Laws and Politics of Education Public School Finance and Business Management of Human Resources School Leadership and Instructional Improvement Organizational Behavior in Education School-Community Relations
Internship	Two semesters participating in K-12 settings	
Research Core	Inquiry Methods I Inquiry Methods II Critique of Research	Prerequisite: Statistics Course Research Design Multiple Regression Qualitative Research Measurement Theory Advanced Qualitative Analysis
Cognate Core		4+ interdisciplinary courses
Dissertation Core		Preparatory course Dissertation work Advisement hours
Dissertation	Applied research for informing practice	original research for informing knowledge

Note: Adapted from "The M.Ed., Ed.D., and Ph.D. in educational leadership" by M. D. Young, 2006,

UCEA Review, 48(2), p. 6-9. *Retrieved from http://www.ucea.org/resource/ucea-review*

Appendix D: CPED Vision and Mission, Working Principles, and Design Concepts

Vision and Mission

The Carnegie Project on the Education Doctorate (CPED) is a Consortium of over 80

colleges and schools of education, which have committed resources to work together to

undertake a critical examination of the doctorate in education (EdD) through dialog,

experimentation, critical feedback and evaluation.

Vision: The vision of the Consortium is to transform the EdD (referred to as a

Professional Practice Doctorate within the Consortium) into the degree of choice for

preparing the next generation of practitioner experts and school (K-12) college leaders in

Education, especially those who will generate new knowledge and scholarship about

educational practice (or related policies) and will have responsibility for stewarding the

Education profession.

Mission: To accomplish this vision, the mission of the Carnegie Project on the Education

Doctorate (CPED) is to improve the efficacy and reliability of the professional doctorate

in education for the advanced preparation of school practitioners and clinical faculty,

academic leaders and professional staff for the nation's schools, colleges and the learning

organizations that support them. This is done by redesigning all aspects of EdD programs

including: curriculum, assessments, admissions, etc.

To this end, the Consortium does not offer a prescription for professional practice

preparation programs. Rather, we honor the local context of the school of education as

well as those constituents who are served by our member programs. As a result the

Consortium created the following principles and architecture to inform professional

practice preparation program development.

Working Principles

The Professional doctorate in education:

- Is framed around questions of equity, ethics, and social justice to bring about solutions to complex problems of practice.

- Prepares leaders who can construct and apply knowledge to make a positive difference in the lives of individuals, families, organizations, and communities.

- Provides opportunities for candidates to develop and demonstrate collaboration and communication skills to work with diverse communities and to build partnerships.

- Provides field-based opportunities to analyze problems of practice and use multiple frames to develop meaningful solutions.

- Is grounded in and develops a professional knowledge base that integrates both practical and research knowledge, that links theory with systemic and systematic inquiry.

- Emphasizes the generation, transformation, and use of professional knowledge and practice. (CPED, 2009, n.p.)

Design Concept Definitions

The CPED Consortium offers those seeking to redesign their EdD programs a set

Working Principles and Design Concepts that provide an architecture that honor[s] local

context rather than a prescription for program design. The Design Concepts each offer

specialized descriptions of program components that support the development of the

Scholar Practitioner, which offers an all[-]encompassing definition of the skills and

abilities that a graduate from a CPED EdD program should possess.

Scholarly Practitioner. Scholarly Practitioners blend practical wisdom with professional

skills and knowledge to name, frame, and solve problems of practice. They use practical

research and applied theories as tools for change because they understand the importance

of equity and social justice. They disseminate their work in multiple ways, and they have

an obligation to resolve problems of practice by collaborating with key stakeholders,

including the university, the educational institution, the community, and individuals.

Signature Pedagogy. Signature Pedagogy is the pervasive set of practices used to

prepare scholarly practitioners for all aspects of their professional work: "to think, to

perform, and to act with integrity" (Shulman, 2005, p.52). Signature pedagogy includes

three dimensions, as articulated by Lee Shulman (2005):

- Teaching is deliberate, pervasive and persistent. It challenges assumptions,
  engages in action, and requires ongoing assessment and accountability.

- Teaching and learning are grounded in theory, research, and in problems of
  practice. It leads to habits of mind, hand, and heart that can and will be applied to
  authentic professional settings.

- Teaching helps students develop a critical and professional stance with a moral and ethical imperative for equity and social justice.

Inquiry as Practice. Inquiry as Practice is the process of posing significant questions that focus on complex problems of practice. By using various research, theories, and professional wisdom, scholarly practitioners design innovative solutions to address the problems of practice. At the center of Inquiry of Practice is the ability to use data to understand the effects of innovation. As such, Inquiry of Practice requires the ability to gather, organize, judge, aggregate, and analyze situations, literature, and data with a critical lens.

Laboratories of Practice. Laboratories of Practice are settings where theory and practice inform and enrich each other. They address complex problems of practice where ideas— formed by the intersection of theory, inquiry, and practice—can be implemented, measured, and analyzed for the impact made. Laboratories of Practice facilitate transformative and generative learning that is measured by the development of scholarly expertise and implementation of practice.

Problem of Practice. A Problem of Practice is as a persistent, contextualized, and specific issue embedded in the work of a professional practitioner, the addressing of which has the potential to result in improved understanding, experience, and outcomes.

Dissertation in Practice. The Dissertation in Practice is a scholarly endeavor that impacts a complex problem of practice. (CPED, 2014, n.p.)

Appendix E: Literature Review Criteria

Table E

Literature Review Scoring Rubric

Category	Criterion
Coverage	A. Justified criteria for inclusion and exclusion from review.
Synthesis	B. Distinguished what has been done in the field from what needs to be done.
	C. Placed the topic or problem in the broader scholarly literature.
	D. Placed the research in the historical context of the field.
	E. Acquired and enhanced the subject vocabulary.
	F. Articulated important variables and phenomena relevant to the topic.
	G. Synthesized and gained a new perspective on the literature.
Methodology	H. Identified the main methodologies and research techniques that have been used in the field, and their advantages and disadvantages.
	I. Related ideas and theories in the field to methodologies.
Significance	J. Rationalized the practical significance of the research problem.
	K. Rationalized the scholarly significance of the research problem.
Rhetoric	L. Was written with a coherent, clear structure that supported the review.

Note. Adapted from "Scholars Before Researchers: On the Centrality of the Dissertation Literature Review in Research Preparation" by D. N. Boote, D. N. & & P. Beile, 2005, *Educational Research, 34*(6), pp. 3-15. Retrieved from http://eprints.rclis.org/16929/1/diss_lit_review.pdf

Appendix F: Educational Research Evaluation Criteria (Gall, Gall, & Borg, 2003)

Qualitative Research

Background and Literature Review

1. Are the research problems or findings unduly influenced by the researcher's institutional affiliations, beliefs, values, or theoretical orientation?

2. Do the researchers demonstrate undue positive or negative bias in describing the subject of the study?

3. Is the literature review section of the report sufficiently comprehensive? Does it include studies that you know to be relevant to the problem?

Research Procedures

1. Did the sampling procedure result in a case or cases that were particularly interesting and from which much could be learned about the phenomena of interest?

2. Was there sufficient intensity of data collection?

3. Is each measure in the study sufficiently valid for its intended purpose?

4. Is each measure in the study sufficiently reliable for its intended purpose?

5. Is each measure appropriate for the sample?

6. Were the research procedures appropriate and clearly stated so that others could replicate them if they wish?

Results

1. Did the report include a thick description that brought to life how the individuals responded to interview questions or how they behaved?

2. Did each variable in the study emerge in a meaningful way from the data?

3. Are there clearly stated hypotheses or questions? And do they emerge from the

data that were collected?

4. Were appropriate statistical techniques used and were they used correctly?

Discussion of Results

1. Were multiple sources of evidence used to support the researcher's conclusions?

2. Did the researchers provide reasonable explanations of the findings?

3. Was the generalizability of the findings appropriately qualified?

4. Did the researchers draw reasonable implications for practice and future research that the researchers drew from their findings?

<div align="center">

Quantitative Research

</div>

Introduction

1. Are the research problems or findings unduly influenced by the researcher's institutional affiliations, beliefs, values, or theoretical orientation?

2. Do the researchers demonstrate undue positive or negative bias in describing the subject of the study?

3. Is the literature review section of the report sufficiently comprehensive? Does it include studies that you know to be relevant to the problem?

4. Is each variable in the study clearly defined?

5. Is the measure of each variable consistent with how the variable was defined?

6. Are the research hypotheses, questions, or objectives explicitly stated, and if so, are they clear?

7. Do the researchers make a convincing case that a research hypothesis, questions, or objective was important to the study?

Methods

1. Did the sampling procedures produce a sample that is representative of an identifiable population or your local population?

2. Did the researcher form subgroups to increase understanding of the phenomena being studied?

3. Is each measure in the study sufficiently valid for its intended purpose?

4. Is each measure in the study sufficiently reliable for its intended purpose?

5. Is each measure appropriate for the sample?

6. Were the research procedures appropriate and clearly stated so that others could replicate them if they wished?

Results

1. Were appropriate statistical techniques used, and were they used correctly?

Discussion of Results

1. Do the results of the data analyses support what the researchers conclude are the findings of the study?

2. Did the researchers provide reasonable explanations of the findings?

3. Did the researchers draw reasonable implications for practice and future research from their findings?

Appendix G: IRB Application Form and Permission Letter

🏛 BAKER
UNIVERSITY

Date:

SCHOOL OF EDUCATION   IRB PROTOCOL NUMBER _____

GRADUATE DEPARTMENT   (IRB USE ONLY)

IRB REQUEST
Proposal for Research
Submitted to the Baker University Institutional Review Board

I.   **Research Investigator(s)** (Students must list faculty sponsor first)

  Department(s)   **School of Education Graduate Department**

      Name   Signature

1. Tes Mehring   _____,   Major Advisor

2. Katie Hole   _____,   Research Analyst

3.   University Committee Member

4.   External Committee Member

Principal Investigator: Margaret A. Waterman   _____
Phone: 816.560.6384
Email: pwaterman@bakeru.edu
Mailing address: 21016 Sail-A-Way N., Overbrook, KS 66524

Faculty sponsor: Tes Mehring
Phone: 913.344.1236
Email: tes.mehring@bakeru.edu

Expected Category of Review: _X_ Exempt ___ Expedited ___ Full

II: Protocol: (Type the title of your study)

A Comparison of Ph.D. and Ed.D. Educational Leadership Dissertations

Summary

In a sentence or two, please describe the background and purpose of the research.

Following the award of the first Ed.D. at Harvard University, in 1921 (Harvard University, Graduate School of Education, 2014), researchers and educators have engaged in a debate over the relative merit of the Ph.D. degree and its younger sibling, the Ed.D. degree, for preparing educational leaders to function well in both university settings and public education settings (see e.g., Guthrie & Marsh, 2009; Nelson & Coorough, 1994). Of importance to much of this debate is a discussion over the appropriate content and format for the doctoral program curricula and more specifically the doctoral project that is the capstone of these preparation programs (Archbald, 2008, 2010; Malen & Prestine, 2005). The first purpose for conducting this dissertation research is to understand the nature of the 21st century dissertation conducted in the U.S. The entire sample of 100 systematically selected dissertations will be profiled according to the type of institution, doctoral program mission, dissertation topic, type of research, and quality of the dissertation, as measured by three quality dimensions: conceptual alignment, methods, and ethics. The second purpose to be addressed is to develop an understanding of the similarities and the differences between the dissertation research conducted by Ed.D. educational leadership candidates and Ph.D. educational leadership candidates. Ed.D. and Ph.D. educational leadership dissertations will be compared using the following variables: type of institution, doctoral program mission, dissertation topic, type of research, and quality of the dissertation. The third purpose is to understand to what extent characteristics of the institution and the dissertation affect the differences in the quality of the dissertation, between dissertations conducted by Ed.D. educational leadership candidates and dissertations conducted by Ph.D. educational leadership candidates.

Briefly describe each condition or manipulation to be included within the study.

No conditions or manipulations will be used.

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.
Will the subjects encounter the risk of psychological, social, physical or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

Data will be collected from dissertations published on Proquest Dissertations and Theses Full Text: The Humanities and Social Sciences Collection database. University websites will be analyzed. No surveys will be used. Subjects will encounter no psychological, social, physical, or legal risks.

Will any stress to subjects be involved? If so, please describe.

No stress to subjects will be involved.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

Subjects will not be deceived or misled in any way.

Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

There will not be a request for information which subjects might consider to be personal or sensitive.
.
Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

Subjects will not be presented with materials which might be considered to be offensive, threatening, or degrading.

Approximately how much time will be demanded of each subject?

No time will be demanded of each subject.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

Technically, doctoral graduates of educational leadership programs are the subjects in this study because their published dissertations are the units of analysis. However, their participation will not be solicited.

What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

Doctoral graduates will not actually be participating. Voluntary participation is not an issue.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

No consent is needed. Published dissertations will be sampled and university websites will be accessed.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No aspect of the data will be made part of a permanent record that can be identified with any of the doctoral program graduates.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.

Subject participation or non-participation is a non-issue. Published dissertations will be sampled and niversity websites will be accessed.

What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?

All data will be stored in electronic format on a password-protected computer owned by the researcher. For research purposes, data will be retained and secured for five years after the study is completed. The data then will be deleted.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

There are no risks involved in the study.

Will any data from files or archival data be used? If so, please describe.

All data will be collected from published dissertations and university websites and so is archival in nature.

IRB References

Archbald, D. (2010). "Breaking the mold" in the dissertation: Implementing a problem-based, decision-oriented thesis project. *The Journal of Continuing Higher Education*, *58*, 99-107, doi:10.1080/07377361003617368

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

Harvard University, Graduate School of Education. (2014). *Doctoral programs: Doctor of Educational Leadership.* Retrieved from http://www.gse.harvard.edu/doctorate/doctor-education-leadership

Malen, B., & Prestine, N. (2005). The case for revitalizing the dissertation. *UCEA Review, 48*(2), 6-9. Retrieved from http://www.ucea.org/ucea-review1/

Nelson, J. K., & Coorough, C. (1994). Content analysis of Ph.D. versus Ed.D. dissertations. *Journal of Experimental Education, 62*(2), 158-168. Retrieved from http://edr.sagepub.com/content/38/3/216.full.pdf+html

Baker University Institutional Review Board

2/20/2015

Dear Margaret Waterman and Dr. Mehring,
The Baker University IRB has reviewed your research project application and approved this project under Exempt Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.
Please be aware of the following:
1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at CTodden@BakerU.edu or 785.594.8440.

Sincerely,

Chris Todden EdD
Chair, Baker University IRB
Baker University IRB Committee
Verneda Edwards EdD
Sara Crump PhD
Erin Morris PhD
Scott Crenshaw

Appendix H: Data Collection and Degree Coding Protocol

Go to the ProQuest Theses and Dissertations database
2. The search window should open to Advanced Search where you can enter multiple keywords.
3. On the first line enter "educational research" – no quote marks.
4. On the second line enter "Ph.D." and then on the right change "Anywhere" to "Degree".
5. Under "Search Options" (below) click on the "Full text" bullet.
6. And in Publication date click "Specific date range" and enter 2000 and 2014.
7. Click Search and you should see 112,000ish results.
8. Select the 10th dissertation and download it.

> To Download:
> Find the specified dissertation (e.g., #10).
>
> Under the title/author, etc. click on "Full Text - PDF" link. (you will see the first page of the dissertation when it loads).
>
> To the left above the first page click on "Open in PDF Reader". On my screen a black rectangle floats at the bottom of the screen and the save icon in that rectangle opens a box. You can use that - it defaults to a pdf file. If you don't see that you can go to the browser tools (mine is a button with three horizontal lines in the upper right corner). One of the tools is a "Save page as" link that defaults to a pdf).
>
> The initial files can be saved anywhere you want to in a file folder on your computer hard drive. I don't need those. I only need the two Word files you will create and assign a coded name. If Dropbox doesn't work you can email them as attachments. You will probably be able to only send a few in any one email - but we can test that later if we need to do so. We can also use a flash drive. I will provide one.

9. Then select the 15th dissertation and download it, etc..
10. Then select the 20th… etc. until you have 50 Ph.D. dissertations downloaded.
11. If there is a problem with a dissertation discard it and pick the one immediately after it. One potential problem is finding a dissertation that was completed outside of the United States. Discard those.
12. Repeat 1 – 11 with two changes: 4. On the second line enter "Ed.D."; 8. Select the 6th dissertation to start.
And now the fun begins.
Each pdf file that you downloaded must be converted to a Word doc. To do this you will need access to a subscription that allows you to download Adobe XI and access the file converter on the internet. When you open a pdf the Convert button is displayed. It links you to my subscription.
Login: ***************, Password: ***********
I have it set for stay signed in – but this link should work (Sorry – but I don't have time to learn the tiny URL thing today).

https://adobeid-na1.services.adobe.com/renga-
idprovider/pages/login?callback=https%3A%2F%2Fims-
na1.adobelogin.com%2Fims%2Fadobeid%2FSkybox4%2FAdobeID%2Fcode%3Fredirec
t_uri%3Dhttps%253A%252F%252Fcloud.acrobat.com%252F%253Fclt%253Dsusi%26st
ate%3D%257B%2522ac%2522%253A%2522cloud.acrobat.com%253AA-
WEB%253ALogin%2522%252C%2522av%2522%253Anull%252C%2522di%2522%25
3Anull%252C%2522mc%2522%253Anull%252C%2522pl%2522%253Anull%257D&cl
ient_id=Skybox4&scope=AdobeID%2Copenid%2Cskybox%2Cadditional_info.preferred
_email_languages%2Cadditional_info.address.mail_to%2Cadditional_info.job_function
%2Cadditional_info.job_title%2Cadditional_info.secondary_email%2Cadditional_info.u
ser_image_url%2Cupdate_profile.first_name%2Cupdate_profile.last_name%2Cupdate_p
rofile.mrktPerm&display=web_v2&denied_callback=https%3A%2F%2Fims-
na1.adobelogin.com%2Fims%2Fdenied%2FSkybox4%3Fredirect_uri%3Dhttps%253A%
252F%252Fcloud.acrobat.com%252F%253Fclt%253Dsusi%26response_type%3Dcode
%26state%3D%257B%2522ac%2522%253A%2522cloud.acrobat.com%253AA-
WEB%253ALogin%2522%252C%2522av%2522%253Anull%252C%2522di%2522%25
3Anull%252C%2522mc%2522%253Anull%252C%2522pl%2522%253Anull%257D&st
ate=%7B%22ac%22%3A%22cloud.acrobat.com%3AA-
WEB%3ALogin%22%2C%22av%22%3Anull%2C%22di%22%3Anull%2C%22mc%22
%3Anull%2C%22pl%22%3Anull%7D&relay=75d310a8-ccc8-4b79-964f-
c66a3828ead5&locale=en_US&flow_type=code&dc=false&client_redirect=https%3A%
2F%2Fims-
na1.adobelogin.com%2Fims%2Fredirect%2FSkybox4%3Fclient_redirect%3Dhttps%253
A%252F%252Fcloud.acrobat.com%252F%253Fclt%253Dsusi%26state%3D%257B%25
22ac%2522%253A%2522cloud.acrobat.com%253AA-
WEB%253ALogin%2522%252C%2522av%2522%253Anull%252C%2522di%2522%25
3Anull%252C%2522mc%2522%253Anull%252C%2522pl%2522%253Anull%257D

Conversion is a bit of a pokey process (They promise 90 seconds or less). When you open/download a pdf in Adobe XI one tool option is to convert to Word. The Convert button should be displayed on the right in the Tools section. If you follow their instructions the internet software does the conversion and provides a Word doc for you to save. I won't need the complete word doc or the pdf – so you can just store those in a file folder on your computer until we finish.

Each Word doc has to be separated into two files. The dividing point is at the first page of chapter one (Note: If you use the search tool it could read "one", "1" (number one), or "I" (capital I).

The pages before that (preliminary pages) I would like for you to save in the Preliminary Pages folder we will be sharing on Dropbox. Create a coded name that indicates they are the preliminary pages from a Ph.D. dissertation and assign each one a number. I am not supposed to know whether the dissertation is a PhD or an EdD – so be sneaky – e.g., use something like RX1, RX2, etc. Then when you save the main body of the dissertation (everything else), make sure the number matches the preliminary pages number – but

give it a different equally sneaky code – e.g., RY1 to match the RX1, RY2 to match the RX2, etc. Save the chapters part of the doc in the Dissertation Chapters folder.
The degree status should be listed on the first/cover page of each dissertation.
You will repeat this process with all of the Ed.D. dissertations – except you will need new sneaky codes for each piece of those. Number them 1, 2, etc. also.
Feel free to do all of this in whatever order you want (e.g., Maybe you will want to start with the PhD dissertations. Or not. Perhaps you will want three different codes for each type of dissertation – perhaps not. I just need to be as close to oblivious of which was written for which degree as possible. All I care is that I have 50 dissertations from each degree type in the two Dropbox folders – and that after I conduct part of the data analysis I will be able to rejoin the two sections from each dissertation for the rest of my analyses. So keep records.

Appendix I – Variable Measurement and Coding

Variable Measurement and Coding			
Dissertation Quality Rubric			
Variable	Categories	Coding	Explanation
ID#	unique number for each degree	1-100	unique number
Coded Degree	Blind Coding for PhD or EdD	A1-A10	Ten categories of coding were used to increase certainty of blind evaluation of the dissertations. Password protected and unlocked after analysis is complete.
	Blind Coding for PhD or EdD	B1-B10,…	
	Blind Coding for PhD or EdD	J1-J10	
Align Pr&Pu	aligned	a	The problem must flow directly into the purpose for them to be aligned. The purpose must address all aspects of the problem.
	not aligned	na	
	not applicable	dk	
RQQuality	acceptable research quality	arq	Research questions must be appropriate for the research design and method used. Not applicable is used when for any reason the judgement cannot be made.
	research quality not acceptable	rqna	
	not applicable	na	
Align Pu&RQ	aligned	a	The purpose and RQs must align one to one. . Not applicable is used when for any reason the judgement cannot be made.
	not aligned	na	
	not applicable	dk	
Align RQ&CA	aligned	a	Every variable addressed in a RQ must be addressed in the data collection and analysis. . Not applicable is used when for any reason the judgement cannot be made.
	not aligned	na	
	not applicable	dk	
Align RQ&R	aligned	a	The RQs align with the results. The results provide answers to the RQs. Not applicable is used when for any reason the judgement cannot be made.
	not aligned	na	
	not applicable	dk	
Align A&R	aligned	a	Analyses and results are aligned. Interpretations of the findings make sense. . Not applicable is used when for any reason the judgement cannot be made.
	not aligned	na	
	not applicable	dk	
Align R&C	aligned	a	Conclusions are connected to and based on the results. Not applicable is used when for any reason the judgement cannot be made.
	not aligned	na	
	not applicable	dk	
Adhere Respect for Persons	stated	s	Informed consent was gained if applicable. Not applicable is used when for any reason the judgement cannot be made.
	not stated	ns	
	not applicable	dk	
Adhere Beneficence	risks considered	rc	Risks to subjects are considered and benefits outweigh risks. Not applicable is used when for any reason the judgement cannot be made.
	risks not considered	rnc	
	not applicable	dk	
Adhere Justice	appropriate sample	as	Sample is appropriate for the study. Not applicable is used when for any reason the judgement cannot be made.
	inappropriate sample	is	
	not applicable	dk	

Variable Measurement and Coding continued			
Dissertation Quality Rubric			
Honesty	communication honest	h	All information is communicated honestly. Not applicable is used when for any reason the judgement cannot be made.
	communication not honest	nh	
	not applicable	dk	
Accuracy	results accurate	ra	Report of results is accurate. Not applicable is used when for any reason the judgement cannot be made.
	results not accurate	rna	
	not applicable	dk	
Efficiency	efficient use of resources	e	Resources are used efficiently. Not applicable is used when for any reason the judgement cannot be made.
	inefficient use	ne	
	not applicable	dk	
Objectivity	objective	o	Researcher retains objectivity about the results and conclusions. Not applicable is used when for any reason the judgement cannot be made.
	not objective	no	
	not applicable	dk	
RefQ	acceptable	a	References include scholarly books and articles and resources from educational institutions and the government.
	not acceptable	na	
	not applicable	dk	
DFormat	acceptable		Language, grammar, format, etc. are appropriate for academic writing.
	not acceptable		
	not applicable		

Variable Measurement and Coding continued			
Characteristics			
Variable	Categories	Coding	Explanation
ID#	unique number for each degree	1-100	
Coded Degree	Blind Coding for PhD or EdD	A1-A10	See explanation above.
	Blind Coding for PhD or EdD	B1-B10,…	
	Blind Coding for PhD or EdD	J1-J10	
Actual Degree			
Topic	open-ended		From purpose section.
RDMethod	quantitative	qn	Research method is identified/identifiable. Not applicable is used when for any reason the judgement cannot be made.
	qualitative	ql	
	mixed	m	
	not applicable	dk	
RDNature	basic	b	The nature of the research is identifiable/identified. Not applicable is used when for any reason the judgement cannot be made.
	applied	a	
	not applicable	dk	
RDStatus	replication	r	The research design status as a replication, etc. is identified/identifiable. Not applicable is used when for any reason the judgement cannot be made.
	replication with extension	re	
	unique	u	
	not applicable	dk	

Institution Variables			
Variable	Categories	Coding	Explanation
ID#	unique number for each degree	1-100	
Coded Degree	Blind Coding for PhD or EdD	A1-A10	See explanation above.
	Blind Coding for PhD or EdD	B1-B10,…	
	Blind Coding for PhD or EdD	J1-J10	
Type 1	private	pr	Information found at institution website or at Carnegie website.
(Status)	public	pu	
	for profit	fp	
	not applicable	dk	
Type 2	very high research	vhr	Carnegie classification based on doctoral research
(Carnegie)	education	education	
	other	other	
Research Objective	open-ended		From institution website.
Mission &Vision	open-ended		From institution website.

Appendix J: Dissertation Degrees and Topics

Table J1

Dissertation Degrees and Topics

ID#	Degree	Topic
1	EDD	Life experiences and integration into South Korean society of North Korean defectors.
2	EDD	WV principals' perceptions of barriers to educating foster children, and the effect of the years as a principal, years as principal at the current school, gender, and region.
3	EDD	Perceptions of social, academic, and behavioral educational experiences during maternal Army Reserve deployments elicited from children, care-givers, and mothers.
4	EDD	Explore the meaning of critical learning moments in the transformative leadership practices of female leaders of California's two-year public colleges.
5	EDD	The role of resilience and key environment related variables to the educational success of students who were from migrant worker backgrounds.
6	EDD	RQs: 1. "What are principals' understandings of RtI? 2. What educational practices do principals believe promote social justice? 3. How does RtI promote or inhibit socially just educational practices?"
7	EDD	Understand teachers' and school administrators' perceptions of educational technology leadership in rural schools in terms of NETS-A 2009 standards, and to examine the perception differences between job types.
8	EDD	RQs: 1) How do market-based school reform strategies and school management affect social equity-focused high school leadership? 2) To what extent has market-based reform played a role in high school principals' practices?3) To what extent do focal principals feel that their own professional goals as educators are enabled or stifled by the market-based reform climate? 4) How are families' perceptions and enrollment trends reflections of marketized practices within the LEM? 5) How does the competitive environment affect the demographic representation of the beneficiaries of educational policy and practice decisions within the LEM?
9	EDD	Examination of educational outcomes, such as grades and learning, and levels of student satisfaction with on-site social work courses compared to remote-site social work courses.
10	EDD	Explore how white educational leaders, who are conscious about race and racism and want to talk about it, understand and address race and racism by exploring their own thoughts, perceptions, and experiences about race and racism to better understand race, racism, and anti-racism.
11	EDD	The exploration of the experiences of parents of gifted students in the United States, who have located and selected online classes for their children.
12	EDD	Determine the extent teachers in international Christian schools, accredited by ACSI, perceive their schools are engaged in various strategies that promote effectiveness in education.

13	EDD	Using the published literature, identify the essential factors needed to sustain an effective educational technology program and to explore the degree to which the identified effectiveness factors align with New Jersey's Technology Survey.
14	EDD	Identify perceived educational issues of patients with chronic medical conditions, according to them, their caregivers, and their educators; find out if beliefs vary from among the three groups, and from one time during treatment to another; and if perceptions are impacted by the age of the patient, the gender of the patient, the diagnosis of the patient, and/or the patient's state of residence.
15	EDD	Achieve a better understanding of low-income Black male students' experiences with regard to educational equity in Alabama public schools.
16	EDD	Investigate the relationships among participation in the Bolsa Família program, educational outcomes as measured by Saresp 2007 Portuguese and math tes t scores, and age-grade distortion (students are not in age-appropriate grades because of late school entry or grade repetition) for sixth grade public school students in Campinas, Brazil.
17	EDD	The relationships between teacher retention and the following variables in Title I high schools: student achievement, school finance, student demographics, and student attendance; student achievement variables include the dropout rate, completion rate, and students' performance on the Texas Assessment of Knowledge and Skills (TAKS); school finance variables include the average spending per pupil, the average operating cost, and the average spending on instructional leadership; student demographics including te extent students are economically disadvantaged, ELS status, and special education status..
18	EDD	Identify the perceptions and experiences of supplementary educational services (SES) reading instructors regarding the preferred time of day for implementation, the most effective type of reading program, length of program implementation per day or per week, appropriate supervision of supplementary educational services, and instructors' rationale for each of their perceptions and experiences.
19	EDD	The relationships between student achievement and facility conditions, school climate, and school safety.
20	EDD	RQs. How is Jamaica's educational challenge being framed, and how does it shape the generation of policy solutions? What definitive policy discourses are emerging and what specific practices accompany them? In what ways do the discourses challenge or advance social justice?
21 [a]	PHD	RQs. R1: Does sector of teacher employment affect job satisfaction; do the independent variables predict job satisfaction; to what extent is the relationship between sector of teacher employment and job satisfaction mediated by organizational perceptions including school environment, school structure, professional development opportunities, and employment conditions? R2: Does job satisfaction predict turnover taking into account the possible effects of organizational perceptions? R3: Does job satisfaction have a stronger effect on the decision to leave the teaching profession than indicators for personal circumstances and workforce pulls?

22 [a]	PHD	First RQ. How does the application of two theoretical frameworks—a Freirean critical pedagogy and an emphasis on the benefits of educational third spaces for the acculturation process help in the understanding of educational technologies as empowerment tools for foreign-born Latino students. The final research question evolved over time, however, and emerged from my own involvement in the study. What is the relationship between FBL students and new technology? Instead of the normative approach implied by the original research question, the final research question seeks a fuller description of how and to what extent newcomer FBL students engage with educational technologies.
23 [a]	PHD	RQs. What factors limit adjunct instructors from incorporating educational technology tools in lesson plans at a non-profit, private university located in the southeast? 1. How would adjunct instructors become familiar enough with computer technology to be willing to incorporate the educational technology tools in their lesson plans? 2. What would help adjunct instructors to feel more comfortable with using the educational technology tools that are currently in the classroom?
24	PHD	To collect firsthand accounts from public K-12 educational leaders who were directly affected by the April 27, 2011 tornadoes in rural Alabama. The goal is to help educational leaders better understand preparation for crisis situations.
25	PHD	The purpose of this study is to link characteristics of a caring school principal with ethical educational influences the school culture and community.
26	PHD	The process employed in selecting and acquiring technology and the intended use of that technology in a new high school in southern New Mexico (NM): the process selection criteria (identification of decision makers, funding used to purchase technology, restrictions associated with funding, and a determination if selected technology is meeting the intended goals.) Also determine if an increase in access to the technology is related to student success.
27	PHD	Understand the perceptions of teachers, school administrators and state legislators on the relationship between federal legislation, which is affecting educational experiences in Missouri public schools, and educational practices at the local level; to understand their roles in policy.
28	PHD	The interrelationships among family involvement in education (FIE), parent child relationship (PCR), child behavior problems (CBP), and academic performance (AP) over time within the entire sample that participated in the Power and colleagues (2012) study.
29	PHD	Analyze, using a Literacy Action Rubric, the academic achievement and level of engagement of adolescent Black males participating in single-gender and co-educational reading classes utilizing culturally relevant pedagogy.

30	PHD	Instructors' use of social network sites as constructivist tools for teaching and learning and educators' perceptions regarding the benefits and drawbacks associated with their use.
31	EDD	Conduct a survey on a decentralized educational system to explore vital instruments that will help to implement a decentralized educational system in Southern Sudan
32	EDD	Explore the under representation of females in educational leadership through themes, constructs, patterns of perceptions, and lived experiences of female educational leaders in China and in the United States. RQs 1. What experiences do you think led to your choice of a career as an educational leader? 2. Out of those same experiences, which ones equipped you to face the daily challenges in your educational system?
33	EDD	Identify board governance practices among a cross denominational sample of Jewish day schools of varying size and financial condition in order to evaluate whether there are common board governance practices that prevail among varying segments of day school. The key question was whether board governance practices correlate with school financial success and educational practices that correlate with student learning.
34	EDD	Examine potential shortages in public school principals and the retention practices of 11 districts within a regional educational collaborative in the State of Rhode Island. It focuses on three research questions: RQs 1. What are the principals' attitudes toward current recruitment and retention policies? 2. What do principals identify as the major reasons contributing to the principal vacancies? 3. What policies and practices do principals perceive school districts are employing to retain principals once they are hired?
35	EDD	Determine what teachers need in order for them to increase their use of technology in the classroom, barriers to this use, and what they recommend for training and support. Determine the relationship between teacher use of technology and lack of teacher comfort using technology, belief that technology is not necessary to learning, lack of adequate technology use, lack of desire to use technology, and lack of access.
36	EDD	Explore the facilitator's role in a student-centered online learning environment at two- or four-year universities.
37	EDD	RQs. 1. What are the current instructional vision and improvement strategies at the school level; 2. How are resources used to implement the school's instructional improvement plan; 3. How did the allocation and use of resources change in response to recent changes in California and federal education budgets and flow of dollars; 4. How are the school-level, resource-use patterns aligned with or different from the resource use strategies used in the Evidence-based Model?
38	EDD	Examine the process of educational change that took place at Universidad Metropolitana (UNIMET) in Caracas, Venezuela, between the years 1995 and 2002. Analyze the main characteristics of this process, identifying and describing its categorical aspects in terms of new structures and new strategies.

39	EDD	Examine the perceived value of educational-simulation technology, faculty's technology competency, and educational assessment technology among community colleges' executive administrators, deans, and faculty.
40	EDD	Determine if the specific needs of migrant students are being addressed through the courses school principals must take to meet the Florida Consent Decree requirement of 60 hours of ESOL training.
41	PHD	Examine how immigrant refugee adolescents' ethnically similar (and dissimilar) peer connectedness, ethnically dissimilar peer connectedness and parental monitoring, educational barriers, and school engagement affect academic self-efficacy; and if location or gender affect the previous findings.
42	PHD	RQ 1: How are educational leaders using SNSs to engage with colleagues in virtual communities of practice? RQ 2: How are educational leaders using SNSs to support their personal and professional learning? RQ 3: What is the evidence that supports the perception that educational leaders' participation in SNSs is helpful to their practice?
43	PHD	Compare the accuracy of the conservative dual-criteria and semi-interquartile range methods in interpreting single-case research design data; examine how training impacts participants' accuracy in single-case research design data interpretation; and examine how consistency in information impacts visual inspection accuracy prior to and after training on data interpretation. It is unclear how accurate educators are in interpreting data and making decisions based on student progress data.
44	PHD	Investigate the nature of the lived experiences of RN to BSN graduates and their reintegration into professional practice following the completion of that education.
45	PHD	Understand the role of experienced superintendents/district leaders as mentors and coaches to inexperienced district leaders in times of stressful educational reform?
46	PHD	Examine the educational aspirations and experiences of Latino immigrants in New York City who immigrated to the United States between the ages of 15 and 24 with incomplete secondary education, are officially high school drop-outs, who enroll in educational second chance options outside of traditional high schools, including adult education General Education Diploma (GED) and English as a Second Language courses; as well as the roles of demographics and social capital on their attempts to reach their goals.
47	PHD	Examines how university-based programs of education leadership are responding to research on school leadership preparation and political demands that programs meet licensure criteria.
48	PHD	Describe the perspectives of parents of expelled disabled students placed in home-based interim alternative educational settings (IAES) re: their relationships with school officials after the change in placement; their school involvement after the removal of their children from the school setting; and the factors that affect their ability to participate in school and district programs and activities and to take part in school and district level decision-making.

49	PHD	RQs 1. What are prospective educational leaders' beliefs and knowledge about grade retention? 2. Which three factors most influence prospective educational leaders' decision to retain or socially promote students? 3. What is the relationship between prospective educational leaders' knowledge and beliefs about grade retention? 4. What is the relationship between prospective educational leaders' knowledge about grade retention, and their rate of actually recommending students for retention? 5. Do prospective educational leaders who have studied grade retention in their undergraduate or graduate coursework possess more knowledge about retention than those who have not studied grade retention in their college coursework? 6. Do prospective educational leaders who report that propositional knowledge sources contribute most to how they obtained their information about grade retention and social promotion have more knowledge about retention research than those who report that practical knowledge sources serve as the primary information source?
50	PHD	Investigate the educational and social use of technology among college students; and the demographic and individual difference factors that are associated with how frequently students utilize technology, the variety of technology used, the social/emotional use of technology, and the educational use of technology.
51	PHD	RQs How do expectant mothers' academic expectations of their unborn children vary as a function of ethnicity, age, income, educational background, marital status, and number of children? 2. Which variable or combinations of variables have the most predictive power for parental expectations and to what degree can they predict parental expectations? 3. Do all parents have set educational expectations prior to receiving feedback regarding the child's abilities and performance?
52	PHD	Examine the relationships between the adult education students' background demographics and a) their educational aspirations and b) their career choices; the effect of the background demographics on a) the relationship between career choices and motivational orientations in learning, and b) the relationship between motivational orientations in learning and educational aspirations?
53	PHD	Explore the nature of conflicts that educational leaders from northern Mississippi public schools encounter in their work settings which can potentially be resolved using skills from the continuum of standard conflict resolution strategies and the need to have training in conflict resolution strategies.
54	PHD	Understand how low SES parents successfully involve themselves in the academic lives of their children and how these disadvantaged children perceive their circumstances and view the types of involvement that their parents provide them; explain academic success among low SES children and the factors that distinguish a child's success among similarly disadvantaged parents, why some students put forth effort aimed at achieving educationally and others do not, and how parents influence these various patterns of child motivation .

55[a]	PHD	Evaluate the impact of self-regulated learning (SRL) and interactive workshop (IW) methods of teaching evidence-based safe patient practice on knowledge and reduction of musculoskeletal injuries among nurses in a Midwestern hospital in Illinois.
56	PHD	This study gathered historical artifacts that provide critical responses to the following research questions about two founders of Black higher education institutions: 1. What were the similarities and differences between the social, historical, political and cultural forces that led to the founding of the colleges? 2. What were the similar and different motivations and interests of the founding leaders? 3. What were the similar and different effects of these founding leaders on their institutions in their time period? 4. What similar and different supports did these institutions receive from their religious organizations? 5. What can we learn from the impact of these institutions on Black higher education over the last 150 years?
57	PHD	Provide a meaningful insight into the process of policy-making in Jewish education in day schools and contribute to understanding the roles and relationships between donors and educational leaders.
58	PHD	Aim 1: Assess the value and utility of educational materials in the gross anatomy curriculum utilizing a prospective study comparing results between randomized, matched groups. Aim 2: Integrate courses in gross anatomy, histology, and pathology in the first year medical curriculum. Aim 3: Author an undergraduate human anatomy laboratory manual designed to meet the needs of modern curricula. Secondary aim: Incorporate insights and lessons learned from Aim 1 and Aim 2 into the laboratory manual.3
59	PHD	Understand associations between individual, family, and school factors and educational outcomes (i.e., school completion and post-secondary school attendance) for ELL students at high academic risk and to examine resilience in the form of school completion.

60 [a]   PHD   Find out whether using QuesGen improves the quality of MCQs. RQ1: Does the explicit association of an educational objective with a multiplechoice question increase the chance that the question will assess mastery of one of the stated objectives of the given unit of instruction? RQ2a:Does the inclusion of semantic question templates result in a greater diversity of MCQ types that a teacher will write? RQ2b:Does the inclusion of semantic question templates result in a greater number of questions targeting cognitive skills greater than recall, i.e. understanding, application, analysis? RQ3: Does the inclusion of a question quality checklist lead teachers to write questions with fewer technical flaws than without the checklist? RQ4: What will teachers relative level of satisfaction be with the QuesGen tool compared to a tool without the new functionality? RQ5: Relative to a tool without QuesGen functionality, are teachers likely to say that they will use QuesGen for writing multiple-choice questions? RQ6: Does the inclusion of semantic question templates decrease the time—real or perceived— it takes for a teacher to write a new question? Finally, there are some research questions that are of interest either because they deal with an intervening variable affecting QuesGen's performance, or because they are exploratory. RQ7: How will interaction with QuesGen impact teachers' attitudes toward using MCQs for assessment? RQ8: How will the impact of QuesGen differ across different subject areas? RQ9: What is the role of teachers' experience in the resulting quality of questions?

Appendix K: Institution Status and Carnegie Classification by Degree

Table K1

Institution Status and Carnegie Classification Disaggregated by Degree

Degree = Ed.D.

Institution	Status	Carnegie
California Lutheran University	private	other
California State University East Bay	public	other
California State University Fresno	public	other
California State University Northridge	public	other
Columbia International University	private	other
Columbia University Teachers College	private	other
Fielding Graduate University	private	other
George Washington University	private	other
Johnson & Wales University	private	education
Kansas State University	public	other
Liberty University	private	other
North Dakota State University	public	other
Northcentral University	for-profit	other
Northcentral University	for-profit	other
Northcentral University	for-profit	other
Seton Hall University	private	other
University of Arkansas Little Rock	public	other
University of Cincinnati	public	other
University of Florida	public	other
University of Houston Clear Lake	public	education
University of Illinois Urbana-Champaign	public	other
University of Massachusetts	public	other
University of Phoenix	for-profit	other
University of Phoenix	for-profit	other
University of Phoenix	for-profit	other
University of South Florida	public	other
University of Southern California	private	other
University of West Florida	public	education
West Virginia University	public	other

Degree = Ph.D.

Institution	Status	Carnegie
Capella University	for-profit	other
Capella University	for-profit	other
Colorado State University	public	other
Florida State University	public	other
Fordham University	private	other
George Mason University	public	other
Illinois State University	public	other
Indiana State University	public	other
Kent State University	public	other
Lehigh University	private	other
Marian University	private	education
New Jersey Insttitute of Technology	public	other
New Mexico State University	public	other
New York University	private	other
North Dakota State University	public	other
Northern Arizona University	public	other
Southern Illinois University Carbondale	public	other
Temple University	public	other
Trident University International	for-profit	other
University of Alabama at Birmingham	public	other
University of California Riverside	public	other
University of California Santa Barbara	public	other
University of Mississippi	public	other
University of Missouri-Kansas City	public	other
University of North Carolina at Chapel Hill	public	other
University of Northern Colorado	public	other
University of Oregon	public	other
University of Utah	public	other
University of Utah	public	other
Walden University	for-profit	other