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Doctoral Scholarship Examined: A Study of Strategy Research in Education Settings Conducted by Students Seeking Degrees From Doctoral Programs in Education in the United States

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DOCTORAL SCHOLARSHIP EXAMINED: A STUDY OF STRATEGY RESEARCH IN EDUCATION SETTINGS CONDUCTED BY STUDENTS SEEKING DEGREES FROM DOCTORAL PROGRAMS IN EDUCATION IN THE UNITED STATES

By

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Submitted in partial fulfillment of the requirements for the degree
Doctor of Philosophy
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APPROVAL FOR SUCCESSFUL DEFENSE

Joseph M. Hearl, has successfully defended and made the required modifications to the text of the doctoral dissertation for the Ph.D. during this Fall Semester 2016.

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Abstract

The purpose of this study was to explore and describe strategy-related dissertations in education doctoral programs in the United States. Using content analysis, dissertations published from 2005 to 2014 were classified into two time periods. Time-period 1 ranged from 2005 through 2009. During this period, the EdD degree was differentiated from the PhD degree in doctoral programs in the field of education. Time-period 2 included the years from 2010 through 2014 and was marked by the awarding in 2014 of a grant to the Carnegie Project for Education Doctorate (CPED) Initiative to document the success of a four-year effort to redesign the EdD.

A statistical profile of 408 dissertations was developed which revealed a 53% increase in strategy-related dissertations from period 1 to period 2. Such dissertations tend to have been written about public sector educational institutions at the Pre-K-12 level and to have been written by students who sought EdD degrees from institutions classified as large institutions as defined by the Carnegie Classification System. These institutions tended to be non-members of the CPED Initiative.

Chi Square and Fisher’s Exact tests were performed to examine relationships in the strategy-related dissertation data. One statistically significant relationship was identified between the CPED membership status of institutions from which dissertations were published and the time periods during which the dissertations were published. Another statistically significant relationship was identified between the research intensity of institutions from which dissertations were published and the nature of the strategy in these dissertations.

The data collected in this study revealed that doctoral students tended to study practically-oriented strategy topics (e.g., strategy content, processes, and practices). In period 1, no studies were identified that focused on academically oriented strategy topics. In period 2, a
limited number of studies were identified as such. This relative lack of academically oriented studies is noteworthy given that stakeholders in education expect education leaders to be strategic leaders. While this study highlights the relative lack of studies in academically oriented strategy research, a conclusion cannot be drawn that education leaders do not learn about strategic management in university-based programs.

Thus, program coordinators of such university-based programs should consider their respective programs and make informed decisions as to the inclusion of strategic management curriculum in the curricula designed to teach future education leaders. In order to make such informed decisions, future studies in strategy research are needed to ascertain the extent to which strategy curriculum is included in university-based programs designed to teach future leaders in education. For those university-based programs that are including strategic management in their curricula, studies are needed to describe the nature and extent to which strategy curriculum is included in university-based programs to teach future leaders in education. Finally, a study is needed to describe how future education leaders learn strategic management in university-based programs that are designed to teach future leaders in education. Without such studies, program coordinators must learn about strategic management and related pedagogy through other means.
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CHAPTER 1

INTRODUCTION

Background

In the 21st century, education leaders in the United States at both the higher education and Pre-K-12 education levels are expected to acquire strategic leadership competencies (Darling-Hamond, Lapoint, Meyerson, Orr, & Cohen, 2007; Glanz, 2006; Jasparo, 2006; Morrill, 2007; Williams & Johnson, 2013). Strategic leadership refers to “a person’s ability to anticipate, envision, maintain flexibility, think strategically, and work with others to initiate changes that will create a viable future for the organization” (Ireland & Hitt, 2005, p. 63). Requiring a significant amount of time to comprehend (Martin, Aupperle, & Rongxin, 1996), strategic leadership competencies are complex and best mastered with an orchestration of interventions administered throughout an individual’s career trajectory (Hughes & Beatty, 2005; Parente, Staphan, & Brown, 2012; Van, McCauley, & Ruderman, 2010). The extant research indicates that leaders in the field of education tend to learn strategic leadership competencies through self-study rather than education leadership programs at colleges and universities (Martin, Aupperle, & Rongxin, 1996). In a recent study, VanDenBerghe found that at one community college, education leaders learned about strategy through on-the-job experiences (VanDenBerghe, 2010). At the Pre-K through grade 12 levels, states like Idaho are more proactive by funding and facilitating training in strategic planning for school leaders (Idaho State Department of Education, 2016).

In the first decade of the 21st century, university-based educational leadership programs in the U.S., with the goal of preparing leaders at both higher education and pre-K-12 levels, have been the subjects of debate. For example, the president of Columbia University’s Teachers
College, Dr. Arthur Levine (2005), questioned the value of educational doctoral (PhD and EdD) programs. In the first decade of the 21st century, the transformation of doctoral programs in education has become an education reform strategy (Orr, 2006). By 2005, a majority of states in the U.S. (at the Pre-K-12 level) have adopted such leadership standards as the Interstate School Leaders Licensure Consortium (herein referred to as ISLLC) Standards for administrator certification and preparation programs (CCSSO, 2013). Program change initiatives were implemented in earnest toward the end of 2010. National foundations such as the Carnegie Foundation and the Wallace Foundation initiated programs that aimed at enhancing doctoral programs in education in the U.S (CPED, 2014; "SAELP Program," 2014). Given that the EdD degree is intended to be an applied degree and the PhD degree is meant to be a research degree, educational stakeholders attempted to distinguish between these degrees by making changes in doctoral education leadership programs (CPED Initiative, 2014).

Since 2005, several doctoral program coordinators have joined the Carnegie Project on the Education Doctorate Consortium (CPED) for the purpose of making changes in their respective EdD programs. As of 2016, the CPED has more than 80 members (CPED, 2016). By joining the CPED, members are committed to making their programs more practically relevant (Perry, 2012). Currently, some institutions that confer a PhD in education are also seeking to distinguish the EdD from the PhD programs (Basu, 2012). For instance, in 2010, Harvard launched a new doctoral program in education that grants an EdLD degree (Helix Learning, 2013), and the university enrolled its final cohort of students in its longstanding EdD program (Basu, 2012) in 2013. In 2014, Harvard University enrolled its first cohort in the university’s new PhD in Education program (McCartney, 2012).
In the 21st century, faculty and administrative personnel in doctoral programs in education are expected to make program changes in order to more clearly reflect the stakeholder’s expectations of doctoral curricula (Perry & Imig, 2008). One specific change is related to the doctoral education dissertation, which is typically a culmination of effort in doctoral programs. EdD program dissertations are expected to differ from PhD dissertations (Browne-Ferrigno & McEldowney, 2012; Osterman, Furman, & Sernak, 2014) since Ed.D dissertations follow a dissertation-in-practice model—that is, “a scholarly endeavor that impacts a complex problem of practice” (CPED, 2014)—and are expected to be more practically relevant to the field and to practitioners (Boyce, 2012; Willis & Inman, 2010) while PhD dissertations are expected to be more research oriented (Nelson & Calleen, 1994).

**Statement of the Problem**

In the second decade of the 21st century, many scholars have suggested that dissertations in education need to reflect three converging topics of interest to stakeholders in the education community, which are enumerated below. First, dissertations are expected to reflect the different foci between the two doctoral degrees (EdD vs. PhD). Second, doctoral programs, which prepare current and future education leaders, should reflect the education community’s interest in leaders in education acquiring strategic leadership competencies. Third, dissertations should reflect the education community’s interest in leadership development practices in general (Airola, Bengtson, Davis, & Peer, 2014; Hill, 2005; Levarez & Keyes, 2007) and strategic capability development in particular (Brown, 2004). However, little is known about the degree to which these three converging topics are reflected in education dissertations.
With little empirical research that exists that systematically examines education strategy, it was necessary to create a framework to classify such research by type and focus (see Table 1). A specific definition of each type of strategy research is provided in Chapter 2.

Table 1

*Strategy Research Types and Focus Categories*

<table>
<thead>
<tr>
<th>Type of strategy research</th>
<th>Category 1</th>
<th>Category 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Practical strategy research</td>
<td>Academic strategy research</td>
</tr>
<tr>
<td>Type 2</td>
<td>Strategy content</td>
<td></td>
</tr>
<tr>
<td>Type 3</td>
<td>Strategy process</td>
<td></td>
</tr>
<tr>
<td>Type 4</td>
<td>Strategy-as-practice</td>
<td>Strategy teaching</td>
</tr>
<tr>
<td>Type 5</td>
<td></td>
<td>Strategy learning</td>
</tr>
<tr>
<td>Type 6</td>
<td></td>
<td>Research of strategy research</td>
</tr>
</tbody>
</table>

In this dissertation, strategy research refers to research on a strategy-related topic of strategic importance. Specifically, strategy research can be classified as either practical (type 1, 2, or 3 strategy research, as listed in Table 1) or academically oriented (type 4, 5, or 6 strategy research, as listed in Table 1). Scholars who conduct strategy research seek to answer questions about a strategy related topic while scholars who conduct research about strategy research (i.e., meta studies) seek to answer questions about a collection of studies that are classified as strategy research in a certain period of time. As such, the aim of this dissertation is to meta-analyze a set
of strategy research in education settings as conducted by education scholars and published between the years 2005 and 2014.

Specifically, this dissertation sought to answer questions regarding the nature, timing, or extent of strategy teaching or the learning of strategy by future or current leaders in education. Given the education communities’ growing interest in imbuing education leaders with strategy related competencies, it is important that stakeholders understand how such competencies are imparted to its current and future leaders. For example, the faculty and administrators of Harvard University, in designing the new EdLD program, contemplated such teaching, as evidenced by three course in its new program that seek to develop student’s strategic competencies. These courses are as follows:

1. Leadership, Entrepreneurship and Learning;
2. Thinking Strategically about Education Reform; and
3. EdLD Leadership Workshops and Seminars (Harvard University, 2016).

Many university programs that do not have the resources of Harvard might be challenged in their ability to offer high-quality strategy curricula. Despite the education community’s interest in having leaders in education with strategy related competencies, little research exists to describe how such competencies are taught and are learned by current and future education leaders (VanDenBerghe, 2010).

While limited literature exists that describes and presents the findings of studies of programs offered in selective universities like Harvard that teach strategy related competencies, less selective institutions may also be experiencing strategy related teaching challenges. Such challenges include finding teachers qualified to teach strategy and developing strategy curricula that impart practical strategy related knowledge, skills, and abilities necessary to competently
practice strategy in a real educational setting. Although the business community has been teaching strategy since 1912, when Harvard University offered its first course in strategy, scholars in the business community today are “searching for a strategy to teach strategy” (Greiner, Bhambr, & Cummings, 2003, p. 402). Additionally, they are seeking to enhance the relationships among strategy researchers, teachers, and practitioners (Jarzakowski & Whittington, 2008; Mahoney & McGahan, 2007).

Strategy is a difficult topic that takes a long time to master (Hughes & Beatty, 2005; Parente, Stephan, & Brown, 2012; Van, McCauley, & Ruderman, 2010). Given that strategic planning has been utilized in the education community starting around 1970 (Hinton, 2012), strategy is not new to the education community (Jasparo, 2006). As taught and practiced in the business community, it has evolved into a discipline that is referred to as strategic management (Barney, 2011; Cox, Daspit, McLaughlin, & Jones III, 2012). Notwithstanding the business community’s long-standing practice of including strategy in the curricula of programs designed for their future leaders, the stakeholders in the business community expect that such competencies are learned both within institutions of higher education (herein referred to as “intra organizational”) and outside of higher education institutions through leader development programs.

As strategic competencies are increasingly required core competencies for educational leaders in the 21st century (Darling-Hamond, Lapoint, Meyerson, Orr, & Cohen, 2007; Glanz, 2006; Jasparo, 2006; Morrill, 2007; Williams & Johnson, 2013), faculty and administrators of doctoral programs in education that seek to develop future education leaders need to consider the inclusion of strategy curricula into the curricula of their programs. Moreover, conducting a meta-analysis of strategy research can be useful for identifying gaps in strategy research and for
encouraging researchers to pursue a line of inquiry into the teaching and learning of strategy in educational settings. In the business community, researchers in the Strategy-as-Practice International Network (herein referred to as SAP) have sought to link strategy research and education closer to the practice of strategy (Jarzakowski & Whittington, 2008). SAP scholars have pursued a line of research regarding strategy as something that people “do” as opposed to something that an organization “has” (Jarzablkowski, 2005; Johnson, 2007). Such scholars have been pursuing this SAP line of research with the aim of remedying what is perceived to be a problem in strategy education, which is the lack of balance in strategy teaching and practice (Jarzakowski & Whittington, 2008).

In addition to scholars in the business community, scholars in other disciplines have sought to pursue strategy research opportunities. Stone, Bigelow, and Crittenden (1999) conducted a study of the practically-oriented strategy research and related literature as applied in not-for-profit organizations. Scholars from the public administration community conducted a review of strategy literature that discussed and described research conducted in governmental settings (Bryson, Frances, & Yang, 2010; Poister, Pitts, & Edwards, 2010). In the business community, strategy scholars periodically reviewed the strategy literature emanating from business-oriented scholars to encourage researchers to pursue or to profile and describe a particular stream of strategy research. Although scholars in the education community have examined strategy research, few studies have been conducted to describe and analyze the nature, timing, and extent of strategy-related teaching and learning in education settings. Much of the strategy research to date has been practically oriented. In order to conduct a meta-analysis of strategy research that allows for the classification of existing research and the inclusion of both
the practically and academically oriented lines, a framework that integrates both aspects is needed.

**Purpose of the Study**

The primary purpose of this dissertation was to explore and to describe strategy dissertations in education doctoral programs. In order to achieve this goal, this dissertation used a profiling approach similar to that used by Shrivastava and Gaik (1989). However, those researchers focused their study on practically oriented strategy research, and they did not narrow the scope of the study to a particular community. My dissertation aims to show how strategy related dissertation research conducted in the field of education has changed over time. Such dissertations are expected to reflect programmatic and curricular changes in response to the education community’s growing interest in education leaders’ acquisition of strategic competencies.

**Conceptual Framework**

The purpose of this study was to profile existing strategy research. Specifically, this dissertation presents a profile of dissertations classified as strategy related that were published from 2005 to 2014. The dissertations included in this study were produced from doctoral education programs in the United States. This dissertation was influenced Shrivastava and Gaik (1989), who created a profile that included summary statistics for four practically-oriented strategy-related variables. In their study, the strategy research variables were the tasks of strategic management as prescribed at the time the article was written. As of 1989, the tasks of strategy management were considered to be a) organizational goal formulation, b) environmental analysis, c) strategy formulation, and d) strategy implementation, evaluation, and control (Shrivastava & Gaik, 1989).
Since 1989, the literature and research on strategy and related topics have evolved and expanded in scope. A conceptual framework was developed after a review of the strategy literature emanating from authors from three sectorally (for-profit, nonprofit, and governmental) different communities (Figure 1). The acronym MOST was chosen for the name of the model of the conceptual framework for this study because the model and the letters that make up the MOST acronym facilitate a discussion of the important strategy related topics that are discussed in detail in Chapter 2. MOST represents the following:

Modified

Open

Systems

Thinking
Upon review of the MOST model, the traditional open systems elements are evident, including the environment, inputs, the organization, and outputs (Luneneberg, 2010). Modifications to the traditional open systems model are the three-dimensional box, the pentagon shape within the box, and the rectangle shape at the top of the box. Each of these modifications is discussed in detail in Chapter 2. Systems thinking was chosen as the approach to the strategy research model out of deference to the strategy literature, which suggests that strategic thinking requires systems thinking (Liedtka, 1998; Pisapia & Robinson, 2010).

For the purposes of this study and the MOST model, the traditional open systems model was modified to facilitate a discussion of four concepts. It is important to distinguish three categories of the dissertation’s variables that were subject to accumulation in the content analysis phase of this study, as discussed in Chapter 3. First, the demographic variables included Dissertation Source Variables, including, among other levels, the institutional (University) level variables. For the purposes of this study, institutional source variables were the top-level variables that were descriptive of an institution that houses a unit (a college or school) that confers degrees on student researchers. The unit level variables used were intra institutional related variables (such as a education college within a university). Finally, the student level variable of interest in this study was the gender of the student who conducted a study, which is detailed in the dissertation.

In this study, it was important to distinguish Dissertation Source Variables from Dissertation Subject variables. The MOST model is a tool that is intended to facilitate strategic thinking about the subjects of strategic research. Dissertation Subject Variables were those variables of interest to student researchers in studies that focused on strategy related topics. The
MOST Model served as a tool to conceptualize five key subject-related strategy research variables. These variables were as follows:

1. Subject focus of strategy research;
2. Sector of the subject of strategy research;
3. Education level of the subject of the strategy research;
4. Hierarchical level of the subject of the strategy research; and

Each of the above listed variable categories is discussed in greater depth in Chapters 2 and 3.

The nature of strategy research needs to be introduced briefly because of the relative importance of the category. This consideration leads to a discussion of the Nature of Strategy Research Continuum, which has been designed as a component of the MOST model but also as a stand-alone model for use in the study of strategy research (the research of strategy research). Along with other strategy components (e.g., the pentagon shape and the four circularly positioned arrows), this continuum is presented in Figure 1 and is a component of the MOST model presented below in Figure 2.

![The Nature of Strategy Research Continuum](image_url)

*Figure 2. Strategy Research Continuum.*
The strategy continuum is positioned at the top of the three-dimensional box, which is a component of the MOST model designed to depict the organization of interest, while the pentagon shape and the four circularly-placed arrows are positioned within the three-dimensional box. The pentagon shape is discussed in greater detail in Chapter 2. For now, the discussion is limited to the Nature of Strategy Research Continuum, which is key to classifying strategy research in this dissertation and which is positioned graphically at the top of the three-dimensional box.

Before discussing this feature of the MOST model, the four circularly-placed arrows as graphically depicted in Figure 1 are useful for introducing the Nature of Strategy Research Continuum. The four arrows were adapted from the work of Pietersen (2010). The author placed great significance on strategic learning. In this dissertation, strategic learning is differentiated from learning about strategy. The differences between such concepts are accounted for in the Nature of Strategy Research Continuum. Practical strategy research is placed on the far left of the continuum and academic strategy research is placed on the far-right side. The practical side of the continuum includes research into strategy content as something an organization has (i.e., a strategy is something an organization has to achieve; some goal) and research into strategic processes or practices (Johnson, 2007). Strategic processes are those processes that an organization has to make to execute a particular strategy while strategic practices are individual level activities which people do to make and execute strategy (Johnson, 2007). Strategic learning, according to Pietersen (2010), is intra organizational learning that is deemed necessary to make and execute an effective strategy. This type of learning is differentiated from learning about strategy, which is done both intra and extra organizationally.
Teaching and learning about strategy is differentiated from the strategic learning anticipated by Pietersen (2010). The teaching and learning that occurs in extra organizational settings. For instance, a doctoral student taking a strategy course at a college of education doctoral program is differentiated from a leader who is learning about strategy intra organizationally in a leader development program as part of a succession planning strategy. In the above comparison, a dissertation in which a student studies the strategy related teaching and learning that occurs at the university is an example of academically-oriented strategy research. Alternatively, a dissertation in which a student studies the strategy-related teaching and learning that occurs by a principal in a district leadership development program is an example of hybrid strategy research. In this example, the district has a strategy to develop principals and the principals are learning strategy in the program.

**Research Questions**

There are three major questions that guide this study. The first question focuses on the profile of the strategy dissertations produced from doctoral programs in education. Select dissertations published from 2005 through 2014 were the focus of the current inquiry. The following four categories of variables were examined in this study:

1. Dissertation Date and Period (Periods 1 and 2, defined below);
2. Dissertation Source Variables;
3. Methodological orientation of dissertations; and
4. Dissertation Subject Variables.

For the purposes of this dissertation, the ten-year period from 2005 through 2014 was divided into two separate five-years periods. Period 1 is referred to as the change period and it includes the years 2005 through 2009. This period starts with the publishing of Dr. Levine’s report, which
severely criticized doctoral programs in education (Levine, 2005). Not long after this report was
issued, the CPED was formed and began accepting member universities whose stakeholders
sought to make changes in their doctoral programs in education (Zambo & Zambo, 2013). The
second period, Period 2, covers the years 2010 through 2014 and is referred to as the post change
period. The year 2010 was chosen as the start of this period because it was the year when
Harvard University launched its new EdLD (Helix Learning, 2013).

In this study, Dissertation Source Variables are differentiated from Dissertation Subject
Variables. Dissertation Source Variables are those variables that describe the source of the
dissertations that are studied via various research methodologies. Dissertation Source Variables
included the student researcher as the lowest level of source variable, the college or school as the
middle source level variable (from which the student researcher has sought a doctoral degree in
education), and the institutional level source variable (i.e., the university that housed a doctoral
program).

As for the Dissertation Subject Variables, the MOST model aids in the consideration of
these, including the following variable categories.

1. Subject of focus of strategy research;
2. Sector of the subject of strategy research;
3. Education level of the subject of the strategy research;
4. Hierarchical level of the subject of the strategy research; and
5. Nature of the strategy research.

Each of the variables is discussed in Chapter 2 in greater detail. The MOST model was used as a
conceptual framework for this study to guide the formulation and answering of research
questions.
Research Question #1

How has the profile of strategy-related dissertations in doctoral programs in education in the United States changed from Period 1 (2005 through 2009) to Period 2 (2010 through 2014)?

Research Question #2

How has the strategy research as reflected in dissertations in education in the United States changed from Period 1 (2005 through 2009) to Period 2 (2010 through 2014)?

Research Question #3

Is there a relationship between any of the Dissertation Source Variables and the Nature of Strategy Research Continuum variables?

3a. Do relationships exist between the student researcher variable and the variables classifiable along the Nature of the Strategy Research Continuum?

3b. Do relationships exist between the unit level variables (CPED membership status and degree conferred on the student) and the Nature of the Strategy Research Continuum variables?

3c. Do relationships exist between the institution level variables and the Nature of the Strategy Research Continuum (practical, academic, or not classifiable) variables?

Significance of the Study

In the 21st century, education leaders are expected to have strategy related competencies at both the Higher Education and K-12 Education levels. However, little research exists describing how current and future leaders in education learn such competencies and how such competencies are taught in the U.S. One study describes, via a case study approach, how one higher education institution in the U.K. developed education leaders through strategic management development practices (Brown, 2004). The aim of that study was to initiate a stream
of research that served to highlight gaps in strategy research and related literature in education settings.

This study aimed to empirically examine strategy research using a holistic strategy framework. This framework was developed with reference to strategy literature from a myriad of disciplinary angles and sectors and was intended to be relevant not only for use in this study but also in future studies of strategy research both within and outside the education community. Finally, this study is intended to shed light on the need to design, redesign, and improve strategy curricula designed for current and future leaders in higher education and Pre-k-12 education.
CHAPTER 2

REVIEW OF LITERATURE

Introduction

Although stakeholders from the business, public administration, and educational communities recognize that leaders in their communities should have some degree of mastery over strategic leadership competencies, the nature, timing, and extent of the teaching and learning of such competencies in university-based leadership educational programs varies across the respective communities (Martin, Aupperle, & Rongxin, 1996; Stumpf & Mullen, 1991). A study of academic presidents by Martin, Aupperle, and Rongxin (1996) revealed that such presidents had limited strategic management experience and required limited prior training. The study revealed that while 90% of the academic presidents indicated that they had experience in formal strategic planning, 82% of them did not obtain such knowledge from a formal teaching experience but obtained it through self-study (Martin, Aupperle, & Rongxin, 1996). In a more recent study, the researcher concluded that at a community college, leaders learned to strategize through previous experience (VanDenBerghe, 2010). At the Pre-K-12 level of education, states like Idaho are taking a more proactive approach by providing funding to facilitate the training of leaders via an organization that is not an institution of higher education (Idaho, 2016).

No current studies in the education community appear to exist that counter the fact that the approach to teaching strategy to education leaders tends to be significantly different than the approach to teaching strategy as utilized in the business community to prepare business leaders. At the higher education level, the education community appears to rely on work experiences to develop strategic competencies in leaders, but at the Pre K-12 level, at least one state facilitates such competency development through training programs funded by state funds (Idaho, 2016). In
the business community, strategy as a course (formerly known as business policy) in business education programs can be traced to second decade of the 20th century at Harvard Business School (Thomas, 1983). Historically, strategic management (the current title for the applied strategy discipline) courses have been integrated into the business curriculum of future business leaders (Geiger, 2010).

In the public administration and education communities, experience with strategy can be seen as beginning in the later part of the 20th century. The U.S. Federal Government, in 1993, codified a mandate requiring government leaders to develop a capacity for strategic management, and many states followed the federal lead (Streib, 2005). As Backoff, Wechler, and Crew (1993) pointed out, “Strategic management of public organizations has been one of the “hottest” topics of the past decade both in academia and in public management practice” (p. 127). At the federal level, this mandate was further strengthened and expanded in 2010, when President Obama signed the GPRA Modernization Act (herein referred to as the GPRAMA) of 2010 into law (White House, 2011). The GPRAMA amended the Government Performance Results Act of 1993 and requires, among other things, that governmental agencies periodically produce strategic plans and publish performance reports (Office of Inspector General, 2016).

Although the education community (at least at the higher education level) has been using strategic planning as a tool since the 1970s (Hinton, 2012), the first decade of the 21st century was the period during which educational stakeholders began to consider strategic leadership and strategic management more widely (Hallinger & Snidvongs, 2008). While the education community recognizes that educational leaders should have strategic leadership competencies at both the higher education (Freedman & Kochan, 2013; Man, 2010) and K-12 levels (Education Commission, 2005; Wolak, 2007), barriers may exist that impede the broader integration of
effective strategy-related courses into the educational programs designed for educational leaders. In this report, strategic leadership and strategic management literature from scholars in three sectors (the for-profit, non-profit, and public sectors) and from scholars in the education industry were considered in sufficient detail as to allow the reader to gain an understanding of the totality of sectoral strategic leadership competencies as taught, learned, and practiced to date.

In addition, the need to conduct meta-studies of strategy research emanating from scholars in the education community was highlighted. Scholars from the business and public administration communities periodically conducted meta-studies of strategy research by scholars in their respective communities. This research is useful, among other things, for identifying gaps in strategy research and for encouraging researchers to conduct research in a particular strategy-related topic of interest to the community. In conducting the present study, gaps in strategy research emanating from scholars in the education community were expected. Of particular interest in the present study was the teaching of strategy to and the learning of strategy by future leaders in education.

In order to achieve the aims of this study, a conceptual framework was developed to facilitate the development of a Dissertation Profile, which is attached as appendix C. An updated profile was necessary because the benchmark study conducted by Shrivastava and Gaik (1989) did not accommodate the multi-sectoral strategy literature published since 1989, when their article was published. With the development of the above-mentioned conceptual framework in mind, Chapter 2 is organized into four sections. In the first section, the reader is introduced to the concept of the sectoral enterprise and to select strategy-related competencies. This introduction is achieved with reference to a model of a sectoral enterprise and with reference to an updated Stumpf and Mullen (1991) strategic leadership competencies model. In the second section of this
chapter, the Stumpf and Mullen (1991) strategic leadership competencies model is made current by considering post-1991 strategy related literature from business, public administration, organizational behavior, and educational communities. Such literature is used to augment the Stumpf and Mullen (1991) model and to make it contemporaneously relevant. Also, in the second section of Chapter 2, strategic planning and strategic management are distinguished. In the third section of this review of the strategy literature, academically-oriented strategy topics are introduced and the remainder of sectoral strategy-related competencies are discussed. In the final section, a holistic strategy framework is introduced and its intended use in the study is discussed.

**Introduction to the Sectoral Enterprise and Strategic Competencies**

In this section, the concepts of sectoral enterprise and the strategic leader are introduced. A sectoral strategic leader is expected to have strategy related competencies that include, among other things, knowledge of strategy content, strategic processes, technical strategy-related competencies, and psychological strategy-related competencies (Stumpf & Mullen, 1991). Each of these competency areas are discussed in the pages that follow and are embodied in the applied discipline, which is referred to as strategic management (Cox, Daspit, McLaughlin, & Jones III, 2012). Although the roots of strategic management as a discipline can be traced to the early 20th century (Thomas, 1983), the starting point of this section of the literature review is 1991, which is the year that Stumpf and Mullen’s (1991) article, titled “Strategic Leadership: Concepts, Skills, Style and Process,” was published. In the article, Stumpf and Mullen (1991) presented and discussed a strategic leadership competency model. The Stumpf and Mullen (1991) model presented four elements of strategic leadership competencies by depicting the elements as four legs of a table upon which a business plan rests. In this literature review, the literature that that served to update these strategy-related competencies is discussed. In addition, the Stumpf and
Mullen (1991) table model of strategic leadership competencies is updated using a literary evolutionary walk forward approach, which resulted in a revised model of strategy-related competencies that can accommodate sectoral differences.

Before discussing competency modeling, a model of a sectoral enterprise is introduced with the aim of distinguishing strategy as something that an organization “has” from the concept of strategy being something that people “do,” as anticipated by contemporary strategy research, which is identified as strategy-as-practice (Johnson, 2007).

Figure 3. Sectoral enterprise as an open system.

Figure 3, above, depicts the sectoral enterprise as a system and updates the Stumpf and Mullen (1991) model of strategic leadership competencies. The original Stumpf and Mullen (1991) strategic leadership competency model was augmented in Figure 1 to include a) consideration of the environment and strategic management tools, b) consideration of industrial and sectoral contexts, c) consideration of sectoral strategic enterprises, resources, and expected
outcomes, d) consideration of strategic leadership competencies, and e) consideration of a strategy management office and the balanced scorecard. Each of the above listed augmentations to the Stumpf and Mullen (1991) is considered throughout this chapter.

It is important to mention here that the model of a sectoral enterprise, which was presented as Figure 3, serves two purposes. First, the systems graphic and approach facilitates the discussion of a complex subject that “requires significant time to understand” (Martin, Aupperle, & Rongxin, 1996, p. 147). A systems approach was chosen to give deference to a growing body of scholarly work in the area of strategic thinking (Pisapia, 2012) that anticipates the utilization of systems thinking (Liedtka, 1998). The second purpose for including Figure 3 is that the systems-based conceptual framework is useful for identifying and organizing industrial and sectoral features that are unique to the education industry and that may affect the teaching, learning, and practice of strategy-related competencies. In discussing the unique features of the education industry, the notion of the sectoral diversity of the education industry is considered in section two of this chapter.

According to the strategy literature, which is discussed throughout this dissertation, each sector has unique features that impact the strategic management process and practice elements when adapted for use in each of the sectors (i.e., the for-profit sector, non-profit sector, and governmental sector) (Nutt & Backoff, 1993). Given this multi-sectoral consideration, the word “sectoral” was added to the labels set forth in Figure 3 (above) and it is added to other strategy-related terms determined to be relevant and applicable in any sectoral setting. Notwithstanding such universal application, sectoral differences that affect the deployment of strategic management processes and practices were identified and considered for this dissertation.
In the pages that follow, each augmentation of the original Stumpf and Mullen (1991) model is considered, starting with the environment. The environment is one of five elements (inputs, the black box, outputs, the environment, and feedback) of an open system (Lunenburg, 2010). Figure 3 was designed with each element in mind. For this literature review, the environment was considered first. In starting with the environment, an external-to-internal sequential approach to discussing the model open systems theory was utilized to facilitate the strategy discussion in this chapter, which ends by opening the black box. Opening the figurative black box facilitates a discussion of sectoral strategy-related competencies that a sectoral leader must master to be an effective strategic leader. For the purposes of this dissertation, an external-to-internal approach was also adopted to present and discuss the unique features of the education industry, which must be considered by current and future educational strategic leaders and other interested stakeholders. This consideration begins with the environment and the sectoral context. While the original Stump and Mullen (1991) model does not specifically account for the environment or sectoral contexts in their strategic leadership competencies model, their singular focus on the strategic leaders of for-profit enterprises allowed the authors some liberty to focus on only one sector (the for-profit sector) and to have unwritten expectations regarding the importance of environment to strategic leaders.

The Environment

“According to the two most accepted views of strategy, competitive advantages result either from attractive positions of a company in an industry or from distinctive resources of that company” (Zahn, 1999, p. 1). While the resource aspect of the Zahn (1999) quote is considered later in this chapter, the industrial aspect of the quote is an element of the environment that is
discussed in this section. Strategy professionals consider the environment to be “a major source of uncertainty for strategic decision makers in charge with coping with emerging opportunities and threats” (Vecchiato, 2012, p. 387). The term *environment* “includes the social, political, and economic forces that impinge on the organization” (Lunenburg, 2010, p. 3) and is not adequately described until it is classified using environmental scanning. Environmental scanning is one tool in a strategic leader’s toolbox that can be used to gain a strategic understanding of external influences that allow such leaders to respond in ways that positively affect an organization’s quest for survival and success (Albright, 2004). It is important to note that environmental scanning is one of many tools available to strategic leaders “to support decision making within strategic management” (Spee & Jarzabkowski, 2009, p. 224). Throughout this dissertation, various strategic tools are introduced and discussed with the aim of putting a spotlight on those tools that have become practically relevant as confirmed by empirical studies since Stumpf and Mullen (1991) presented their strategic leadership competency model.

While environmental scanning was widely used before 1991 (Lenz & Engledow, 1986), the need to include the environment in the augmented Stumpf and Mullen (1991) model emerged from contemporary thinking that strategizing requires systems thinking (Zahn, 1999) and that uses environmental scanning and systems thinking as compatible tools. In addition to the use of environmental scanning by for-profit professionals, such scanning is considered to be a requisite to the successful management of public and non-profit sectorally-oriented organizations (Morrison, 1992). For example, for some time, educational scholars have recognized that the “successful management of colleges and universities depends upon the ability of senior leaders to adapt to a rapidly changing external environment” (Morrison, 1992, p. 86). Morrison (1992) recognized that environmental scanning is useful in that it enables decision-makers to understand the external
environment of an organization and that such scanning can aid in the planning and decision-making processes.

Fahey and Narayanan (1986) identified three environmental levels that can be scanned. These levels are the task environment, the industry environment, and the macro environment (Fayhey & Narayanan, 1986). The macro environment is the broadest level, and the environmental scanning of such an environment contemplates identifying changes in social, technical, economic, environmental, and political factors that directly or indirectly impact any or all-organizational categories (Morrison, 1992). At the other extreme, the task environment is institution-specific in that the task environment relates to a particular college, university, or K-12 institution. As a result, unique features of an individual institution that are not noteworthy for this report are relevant to particular institutions’ strategic initiatives. Of particular importance in this chapter are factors that can impact all education institutions, such as industrial factors.

Industrial versus Sectoral Contexts

In this dissertation, the terms *industry* and *sector* are differentiated. The industrial aspect of the environment was of particular interest in this report due to the numerous distinct education industrial features that impact strategic educational leaders in ways other strategic leaders do not encounter. First, the education industry is “near the top of the national political agenda” (Lunenburg, 2010, p. 3) although its issues and unique education features are best considered along industrial lines. While scholars and practitioners, on an interchangeable basis, bandy about the terms *industrial*, *sectoral*, and *sector*, such terms have distinct meanings in this dissertation. The terms *sector* and *sectoral* take on the meaning that is derived from “different ownership types: for-profit, private nonprofit, and public (government-owned)” (Hansmann, 1996, p. 245). For the purposes of this report, the term *industrial* takes on the meaning anticipated by The Malcom
Baldridge National Quality Award (Mendel, 2013), which has adopted the NAICS 2012 industrial classification system. While the NAICS 2012 classifies the education industry along seven categories, this dissertation focuses on two of the seven categories, which are Higher Education and K-12 Education. In considering the distinct features of the education industry, the two levels (Higher Education and K-12) are considered separately.

**Sectoral contexts.** When considering K-12 and higher education in the United States, the sectoral diversity of the industry (Hansmann, 1996) is a distinctive feature. The Stumpf and Mullen (1991) strategic leadership competencies model did not consider sectors other than the for-profit sector. Significant sectoral expansion of strategic management practices began with the enactment of the Government Performance and Results Act of 1993. With this Act, the sectoral expansion of strategic management processes became a reality, as the federal government mandated that federal agencies “develop strategic plans and tie them to budgets and performance measures” (Streib, 2005, p. 45). The 1993 Act was enhanced when President Obama signed the GPRA Modernization Act of 2010 into law. According to Streib (2005), states followed the lead of the federal government by issuing mandates similar to the federal strategic management mandates. In addition to the legal mandates, which result in increased scrutiny of public sector organizations, the public and the press are calling for a similar increased scrutiny of non-profit sector organizations (Stone, Bigelow, & Crittenden, 1999). Given the expansion of sectoral interest in strategic management, the Stump and Mullen (1991) model was augmented to include sectoral contextual distinctions. This augmentation was particularly necessary in light of the sectoral diversity of the education industry.

A key education industry uniqueness feature regards the sectoral diversity of both Higher Education and K-12 institutions (Hansmann, 1996). It is important to understand this uniqueness
because of the significant impact that such uniqueness has on educational leaders regardless of institutional level. Ultimately, education leaders may assume responsibilities to lead an educational organization that may be categorized as either a for-profit, a non-profit, or a governmental sector organization. In order to gain some perspective on the sectoral diversity of the education industry, it is useful to consider some demographic data on American education. At the higher education level, “of the 18 million undergraduate students at degree-granting institutions in the United States in fall 2010, some 76% attended public institutions, 15% attended private nonprofit institutions, and 10% attended private for-profit institutions” (Education Department, 2012). In 2012, the education K-12 level consisted of 71% public schools, 4% charter schools, and 25% private schools (Education Department, 2012). The sectoral situation at the K-12 level is not entirely clear given that privatizing activities fall into two categories. Only a small number of K-12 schools are owned by for-profit enterprises. The bulk of for-profit activity in the K-12 level is conducted by Education Management Organizations that are hired to manage public district schools or charter schools (Molnar & Garcia, 2007).

The impact of this sectoral diversity on the education industry is significant in that future leaders may seek employment in a for-profit, non-profit, or public organization and that, in order for them to be successful in the leadership position, such leaders must understand sectoral differences and how such differences may impact strategy. As discussed throughout this dissertation, there are significant strategic sectoral differences in educational organizations when considering an organizations’ sectoral orientation (for-profit, non-profit, or public). It is important to note here that research into public and private organizational differences support a model (core approach) that “emphasizes fundamental differences between public and private organizations” (Scott & Falcone, 1998, p. 129). A key distinction of the education industry is evident at the
environmental level due to the sectoral distinctiveness features discussed in this section. Constraints exist with regard to public organizations, which “result in greater oversight, less autonomy, and reduced authority among public managers, which lead to higher levels of formalizations, red tape, and bureaucratization” (Scott & Falcone, 1998, p. 129), and which, consequently, distinguished public sector from private sector enterprises. In addition to these constraints, the systems thinking approach was used in this dissertation to discuss sectoral outputs that account for major differences between the for-profit, not-for-profit, and governmental sectors and that establish why sectoral difference are so meaningfully different. Specific instances of such features and specific education industrial distinctiveness features are discussed in the pages that follow.

**K-12 industrial uniqueness features.** At the K-12 level of the education industry, the autonomy of schools and school districts is constrained severely, and the accountability requirements are significant and potentially confusing. For example, the accounting standards of public and private enterprises differ significantly. This creates challenges for all stakeholders in K-12 education. While some may think that it is not important for leaders to possess such financial knowledge, other stakeholders believe that lack of such knowledge should be a red flag in the educational leader hiring process (Witt & Kieffer, 2013). Private institutions adhere to financial accounting standards issued by the Financial Accounting Standards Board (FASB) while public institutions and school districts adhere to standards issue by the Government Accounting Standards Board (GASB) (Cottrell & Baker, 2013). In addition to differences in accounting standards, public and private institutions are seemingly at polar opposites with consideration to autonomy and accountability. Private school principals are more likely to think that they have more influence over their environments than do public school principals (National Center, 1997). An example of
this control regards common core. It is required for public schools but optional for private schools (Robelen, 2012). “The state board of education controls many of the strategic factors that are crucial to the operations of the local school board” (Valentine, 1991, p. 21). State governments, through certification requirements, regulate faculty and administrators (Valentine, 1991), and “public schools are more likely than private schools to require teacher certification” (National Center, 2006, p. 1).

**Higher education industrial uniqueness features.** Public and private sectoral differences are also evident in higher education, but the differences are mitigated by certain requirements common to all sectoral higher education institutions. Before discussing this mitigating factor, key differentiating factors warrant discussion. First, the same issue with regard the financial accounting differences for public and private institutions exists at the higher education level of the education industry (Cottrell & Baker, 2013). Additionally, the need for for-profit organizations to earn a profit and to enhance shareholder value is a primary sectoral differentiator. Given this pressure to turn a profit, only a few publically-traded education institutions still exist (Smith, 2016).

Notwithstanding the sectoral differentiators, higher education institutions are considered to be interdependent organizations in that they are influenced heavily by external organizations such as accrediting agencies. Such agencies seek to ensure the quality of institutions, but they tend to make them more standardized and to emphasize what they feel is necessary for an institution (ASHE-Eric, 2001). Regardless of the sectoral orientation of institutions of higher education, accreditation affects education leaders’ and other stakeholder’s ability to strategically change to meet the dynamic nature of the environment. Although organizations other than higher education institutions do not have the constraints that come with meeting accreditation standards, other
sectoral realities serve as constraints, some of which are discussed in the pages that follow as the black box is opened to discuss the inner workings of a sectoral enterprise that impact strategy.

**Inputs, the Black Box, and Outputs**

With the completion of the discussion of the environment and sectoral contexts, the discussion of the sectoral enterprise as graphically depicted in Figure 3 can move forward to consider the sectoral strategic inputs by figuratively opening the black box (the graphic depiction of the Sectoral Enterprise) and by considering sectoral outcomes. Before proceeding with these topics, sectorally-oriented definitions of strategic management must be considered to pave the way for the discussion. Given the multi-sectoral approach utilized in this dissertation to consider strategic leadership competencies, which include understanding the strategic management processes (Stumpf & Mullen 1991), definitions of strategic management were sought out in the literature from strategic management scholars from each of the three sectors. A definition from a textbook utilized in strategic management courses designed for future business leaders (Geiger, 2010) is as follows: “Strategic management is a set of managerial decisions and actions that determines the long-run performance of a corporation. It includes environmental scanning (both external and internal), strategy formulation (strategic or long-range planning), strategy implementation, and evaluation and control. Strategic management incorporates such topics as strategic planning, environmental scanning, and industry analysis” (Wheelen & Hunger, 2010, p. 5). The above definition is structured to match the elements of a model of strategic management that was utilized in an author’s textbook. While this definition was useful for identifying such process elements, it does not give appropriate deference to strategic leaders, the enterprises that they lead, or the specific expected outcomes of their leadership.
Another more sectorally-specific definition of strategic management is as follows:

“Strategic management deals with the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilization of resources to enhance the performance of firms in their respective environments” (Nag, Hambrick, & Chen, 2007, p. 944). The above for-profit industry-oriented definition of strategic management clearly focuses on the expectations of investors, which is a concept that is foreign to those contemplating the governmental and non-profit sectors. In a text written by a not-for-profit sector author, the author wrote that strategic management “denotes the whole processes of innovation, strategic analysis, formulation, and implementation, emphasizes the continuous nature of the process, and makes it much more likely that any strategies which are decided on will actually be implemented” (Courtney, 2002, p. 8). According to another author in the public sector community, strategic management in the public sector is defined as “the appropriate and reasonable integration of strategic planning and implementation across an organization (or other entity) in an ongoing way to enhance the fulfillment of its mission, meeting of mandates, continuous learning, and sustained creation of public value” (Bryson, 2011, p. 25).

In considering each sectorally-oriented definition, there are certain commonalities, notwithstanding significant sectoral differences. First, each definition anticipates that strategic management is more than strategic planning. This aspect of the definition is discussed in detail in section two of this report. In order to work as an effective definition, strategic management should consider the “who,” “what,” “when,” “where,” “why,” and “how” terms as they relate to strategy. Some key terms must be defined for this discussion to continue. Strategy is “a central integrated, externally oriented concept of how the business will achieve its objectives” (Hambrick & Fredrickson, 2005, p. 50). The “what” of strategy is its content. The “content of strategy describes
attractive destinations, but without explaining how to get there” (Chakravarthy & White, 2002, p. 183). Strategy content refers to strategic “content of decisions regarding goals, scope and/or competitive strategies of corporations or of one or more of their business units” (Fahey & Christensen, 1986, p. 168). Strategy process refers to “how strategies are formed, implemented and changed” (Chakravarthy & White, 2002, p. 182). In the second section of this chapter, the “when” and “how” of strategy are considered. In the pages that follow, strategy is considered by reference to “who,” “what,” “where,” and “why.”

**Systems Outputs and the “Why” of Strategy**

Sectoral outcomes are those sectorally-specific outcomes that for-profit, not-for profit, and public organizations, respectively, are expected to realize as a result of the successful deployment of sectoral strategic leadership and management. It is important to note here that the objective of strategic management and strategic leadership (Stumpf & Mullen, 1991) is “to influence others to voluntarily make day-to-day decisions that enhance the long-term viability of the organization while at the same time maintaining the short-term financial stability” (Rowe, 2001, pp. 81-82). This concept is sectorally neutral and does not stipulate specific sectorally-oriented outcome expectations, so further clarification is required. In the for-profit sector, the objectives of strategic leadership and strategic management are “strategic competitiveness and above-average returns” (Ireland & Hitt, 2005, p. 63). This expectation of above-average returns is unique to for-profit sectoral enterprises in that returns must be considered from two perspectives: the owners’ and the enterprises’. While some scholars place significance on revenue maximization at nonprofit organizations, such maximization attempts are not comparable with the powerful profit motive that exists for for-profit executives and stakeholders, notwithstanding that some scholars take an opposing view (Calkins & Wight, 2008).
Concepts such as competitive advantage and financial value, from an owner’s perspective, are foreign to leaders and other stakeholders of public and not-for profit enterprises, as there are no owners of such enterprises who are expecting financial returns that inure personally to them. Strategic decisions in public organizations are very different from in those of private organizations (Nutt, 2005). “In public organizations, the strategic decision maker must appreciate the desires and expectations in the delivery of service from service recipients and the tax-paying public” (Nutt, 2005, p. 294). Some scholars contemplate these outcomes to be a myriad of potential outcomes, including “more efficient operations, higher levels of productivity, improved service quality, more cost-effective programs, and increased customer satisfaction, in addition to more effective programs in terms of alleviating problems or improving conditions in clientele groups, target communities, or entire populations” (Poister, Pitts, & Edwards, 2010, p. 528). This list of outcomes is too wieldy. As a result, both the not-for profit community and the public administration community have begun to accept a proxy term and concept for financial value. The term is *public value*. In *Creating Public Value: Strategic Management in Government*, Moore (1995), a prominent scholar in the field of public management, contemplated the concept of “public value” for scholarly and practical purposes. While a comprehensive discussion of public value is beyond the scope of this manuscript, it is important to note that while the concept of “public value” as applied in the public sector as a proxy for the for-profit sector’s term “financial value” it is also being adopted by scholars and practitioners who are concerned with organizations that operate in the not-for profit sector (Mendel, 2013).

**System Inputs and Opening the Black Box**

With the definition of sectoral strategic management placing a focus on sectoral outcomes and strategic leadership theory being concerned with the “leadership of” the entire enterprise and
not focused on “leadership in” (the focus of supervisory theories) the enterprise (Boal & Hooijberg, 2001 p.516), the concept of enterprise (the black box in Figure 3) must be defined and the black box must be opened. In defining an enterprise for the purposes of this dissertation, three enterprise dimensions must be considered and the “where” and “what” of strategy must be contemplated. For the purposes of this dissertation, the three dimensions that define the enterprise are the accountability, the hierarchical, and the expanse dimensions, which complete the three-dimensional box depicted in Figure 3. For the purposes of this dissertation, the box is meant to be opened to consider the internal aspects of the enterprise.

First, the accountability dimension is considered. In determining the sectoral enterprise in the for-profit and not-for-profit sectors, the enterprise can be identified by reference to the financial statements for the enterprise. Generally Accepted Accounting Principles (GAAP) stipulate the rules that must be followed when determining the enterprise for financial reporting purposes. As for the determination of the enterprise in the public sector, reference can also be made to the financial statements of the enterprise. The Governmental Accounting Standards Board (GASB) stipulates the rules for determining the reporting entity for purposes of financial reporting. These same standards can be referenced to determine the sectoral strategic enterprise for strategic management purposes. While this financial accounting topic is beyond the scope of this literature review, strategic leaders must understand sectorally-oriented financial accounting because such accounting is considered a tool of strategic leaders (Stumpf & Mullen, 1991). While the above-mentioned accounting principles can be used to identify the entire enterprise that is considered to be the reporting entity, the remaining dimensions can be contemplated by opening the black box and considering the expanse, hierarchical dimensions, and strategic alignment that is considered necessary for an enterprise to achieve its expected sectoral outcomes. Strategic alignment (the
alignment dimension) is discussed in second section of this dissertation as one of nine sectoral strategy processes. In this dissertation, hierarchy in organizations can be considered both structurally and cognitively. The cognitive angle is discussed in section two by reference to stratified systems theory. Organizational hierarchy is discussed from two perspectives. One perspective is considered by reference to the resource-based theory, which is used to contemplate, among other things, “who” are considered the strategic leaders within a sectoral enterprise. The second perspective is discussed by reference to the strategy levels that should be considered when developing and implementing a strategy.

Table 2

*Strategy Levels (Adapted from Taylor, 1990)*

<table>
<thead>
<tr>
<th>Strategy level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise</td>
<td>Focus is on questions of existence &amp; governance of the enterprise</td>
</tr>
<tr>
<td>Institutional</td>
<td>Focus is on the vision of the future of the enterprise</td>
</tr>
<tr>
<td>Corporate</td>
<td>Focus is on what business or services the enterprise should perform</td>
</tr>
<tr>
<td>Business</td>
<td>Focus is on decisions regarding a particular business segment of an enterprise</td>
</tr>
<tr>
<td>Functional</td>
<td>Lowest level of strategy. Focus is on the functions of an enterprise such as marketing, finance, human resources, etc., and how those functions integrate with the requirements of other strategy levels</td>
</tr>
</tbody>
</table>

Although this dissertation focuses on the sectoral enterprise, organizational strategy is contemplated with reference to strategy levels. Strategy content (the “what” of strategy) can be
developed and implemented along five levels. These levels, and descriptions of each level, are listed in Table 2, above.

A sectoral strategic leader must have knowledge of strategy and must have the strategic competencies required to develop and implement strategy at each strategy level identified in Table 2 (above). At least one author wrote an article that identifies select education strategic initiatives along corporate, business, and functional levels (Linberg, 2012). This article is useful for gaining an understanding of the nature of each of the levels and is specifically focused on strategy as applied in educational settings.

With the black box opened and the levels of strategy presented in the section above, the attention can now turn to the “who” and the “where” of strategy. The “who” and “where” of strategy, for purposes of this dissertation, can be contemplated by answering the question, “Where are the enterprise resources located?” The answer to the question is contemplated in strategy research by reference to resource-based theory and is used in this study, among other things, to form the expanse dimension of the black box. According to the theory, researchers are interested not only in where the strategic resources are located but also consider human resources and, in particular, “who” the strategic leaders (strategic human resources) are. “Resource-based theory (herein referred to as RBT) has emerged as a key perspective guiding inquiry into the determinants of organizational performance” (Crook, Ketchen, Combs, & Todd, 2008, p. 1141). Ultimately, Crook et al. (2008) concluded, after conducting their meta-analysis, that that there is “strong support for the assertion that organizations’ performance is enhanced to the extent that they possess strategic resources” (Crook, Ketchen, Combs, & Todd, 2008, p. 1153). In addition to select human resources, scholars considering RBT contemplate strategic resources like reputation, patents, and unique knowledge (Barney & Arikin, 2001). While it is important to note
here that while human resources as a whole are important to strategy, the human resources of interest in RBT are strategic leaders (Boal & Hooijberg, 2001).

Sectoral strategic leadership is considered below, but the significant sectorally-oriented distinctiveness features of human resources in general must be considered first. Significant sectoral human resource differences exist in five aspects of employment (unionization, tenure, volunteerism, incentives, and levels of commitment) and these differences may have an impact on the effectiveness and capabilities of sectoral strategic leaders (with regard to the capacity for change), albeit with some industrial nuances in the education industry. In the education industry, unionization and tenure are sources of significant sectoral differentiation, which can affect strategy. At the higher education level, a discussion of faculty leads one to consider sectoral differences that are substantial but that are presently in a state of flux. While tenure is not unique to the public and non-profit sector, for-profit educational institutions are “creating competitive challenges to our traditional ways” (AFT Higher Education, 2006, p. 3). Meanwhile, for-profit institutions (e.g., an art institute) are not immune to unionization efforts, but such efforts do not appear to be as pervasive as the unionization efforts exerted by stakeholders of nonprofit and public sector institutions (Rolph, 2010). In December of 2014, the National Labor Relations Board issued a ruling that paved the way for unionization efforts by faculty at private colleges and universities (Jaschik, 2015). Similar sectoral uncertainty exists regarding the status of unions at the K-12 level, where unionization appears to be most heavily concentrated in the public sector and charter schools (Gross, 2016).

While multi-sectoral aspects of unionization and tenure are unique in the education industry, volunteerism and employee motivation lead to a discussion of issues that are not unique to the education industry but that relate to all governmental and nonprofit organizations to
varying degrees. Not-for-profit sector organizations need to be managed differently from both for-profit and governmental sector organizations (Courtney, 2002). “Four out of five charities use volunteers in their activities” (Brundy & Hager, 2004, p. 2). In pre-K-12 education, as of 2015, seventeen states have parental involvement policies and many states promote parental involvement (NEA, 2005). At the higher education level, governing boards tend to be volunteers, and it is common to find volunteer service on non-alumni advisory boards (Nagai & Nehls, 2013). Regardless of the sector of volunteer involvement, special volunteer management practices are recommended because of volunteer turnover (Brundy & Hager, 2004).

In addition to volunteerism distinguishing nonprofit and governmental organizations from for-profit organization, certain employment factors distinguish governmental and nonprofit organizations from for-profit organizations. In a study of employees who work in the for-profit, non-profit, and public sectors, a conclusion was reached as to the level of commitment of workers in each of the three sectors. The researchers found that employees who worked in the for-profit sector were most committed to their organizations, followed by non-profit sector employees, and finally followed by public sector employees who were the least committed to their organizations (Goulet & Frank, 2002). According to the researchers, “organizational commitment has been associated with influencing many organizational and behavioral outcomes” (Goulet & Frank, 2002, p. 203). Similarly, the use of incentives to encourage effective performance is more difficult in the public sector and, accordingly, “strategic management must take into account the lack of responsiveness to incentives in public organizations” (Nutt & Backoff, 2009, p. 225).

With the macro aspects of sectoral human resources now considered, the discussion can return to resource-based theory (RBT). The public administration research community appears to
have adopted RBT, or at least it appears to have adopted it with respect to strategic leadership. Strategic leadership theory has its roots in resource-based theory (Hoskisson, Hitt, Wan, & Yiu, 1999). “A potential unique resource is a firm’s strategic leaders. As such, strategic leadership has developed into a significant stream of strategic management research” (Finkelstein & Hambrick, 1996; Hoskisson, Hitt, Wan, & Yiu, 1999, p. 440). However, from a sectoral perspective, scholars in the public and in the not-for-profit sectors have conducted studies of strategic leadership to varying degrees. In order to consider sectoral strategic leadership, a second black box must be opened. This second black box is a depiction of the office of strategy management, and it is graphically depicted as Figure 4, below. Notwithstanding some graphical liberties taken with respect to the strategy management office, the strategy management office is contemplated as a function and not necessarily as a place (Kaplan & Norton 2005).

![Figure 4. The sectoral strategy management office.](image)
The sectoral strategy management office is considered in section two of this report. In this section, opening the second black box reveals a table and seven chairs. The table is meant to graphically depict the table model of strategic leadership competencies, which was presented and discussed in Stumpf and Mullen’s (1991) conceptual framework of strategic leadership competencies. The seven empty chairs have been added to augment the Stumpf and Mullen’s (1991) conceptual framework for sectoral differences in strategic leadership.

**Sectoral Strategic Leadership**

“Who” are sectoral strategic leaders and “why” do they matter? The second part of this question (the “why”) was already answered when the concept sectoral strategic outcomes was discussed. In the previous section, strategic management (as an applied discipline) and strategic leadership were theoretically linked via the resource-based view of the enterprise. As with the previously-discussed strategy related terms, the term *sectoral* has been added to the term *strategic leadership* to reinforce the reality that strategic leadership is equally applicable to the for-profit and not-for profit sectors (Phipps & Burbach, 2010) and the public sector (Nutt & Backoff, 1993). Sectoral differences are to be explored in the pages that follow. It is important to note, here, that educational leaders are expected to have strategic leadership competencies at either the higher education levels (Neuman & Nueman, 1999) or the K-12 level (Babo & Ramaswami, 2011; Williams & Johnson, 2013). More specifically, these competencies must be sectorally (for-profit, public, and not-for profit sector) and industrially (Higher Ed or Education K-12) specific given the unique sectoral reality that is experienced in the education industry.

While the education industry is the ultimate focus of this literature review, strategic leadership theory is a theory that scholars from the for-profit sectoral community derived from the resourced-based view of strategic management. Therefore, definitions of strategic leadership as
derived from authors in the for-profit community are set forth first here. According to Ireland and Hitt (2005), “strategic leadership is defined as a person’s ability to anticipate, envision, maintain flexibility, think strategically, and work with others to initiate changes that will create a viable future for the organization” (Ireland & Hitt, 2005, p. 63). Rowe (2001), while recognizing Ireland and Hitt’s (2005) definition, reworked their definition to include the concept of voluntary decision-making and the need for leaders to focus on the present as well as the future. Rowe’s definition is as follows: “Strategic leadership is defined as the ability to influence others to make day-to-day decisions that enhance the long-term viability of the organization while maintaining its short-term financial stability” (Rowe, 2001, p. 81).

The above stated definitions are sectorally neutral; however, they do not reflect the uniqueness of the public or not-for profit sectors. Definitions from both sectors were sought out for the purpose of this literature review. Nutt and Backoff (1993) set forth a succinct definition of strategic leadership that is equally applicable to both the governmental and not-for profit sectors. According to Nutt and Backoff (1993), “strategic leadership can be thought of as a process of guidance that sets a new strategy in place” (Nutt & Backoff, 1993, p. 324). They supplemented this definition by stating that the “ultimate test of strategic leadership is to realize change of enduring value” (Nutt & Backoff, 1993, pp. 324-325).

For the purposes of this literature review, “sectoral strategic leadership” is the exercise of strategy related competencies (Stumpf & Mullen, 1991) by authorized stakeholders and by those leaders at the apex (“who”) of a sectoral strategic enterprise (“where”) (Boal & Hooijberg, 2001). The first three figurative chairs at the strategy table are reserved for the board, the top executive (e.g., the CEO, Superintendent, or President), and the top management team (e.g., vice presidents). Such sectoral strategic human resources are held accountable to and are given varying degrees of
responsibility for executing contemporary sectoral strategic management processes (Stumpf & Mullen, 1991). These processes are completed by executing the appropriate style and by thinking and acting strategically (“how”) (Stumpf & Mullen, 1991) and influencing (Hughes & Beatty, 2005) with the aim of realizing sectoral strategic outcomes (“why”) over the long term while keeping an eye on the short term financial situation (Rowe, 2001). While the majority of the aspects of sectoral strategic leadership presented above have already been discussed in this manuscript, the “how” aspect of sectoral strategic leadership is considered in section two of this chapter, while the “who” aspect of sectoral strategic leadership is considered below.

Significant sectoral differences exist when considering strategic leadership from each sectoral perspective. All sectoral differences are evident when considering the education industry, however. Sectoral strategic leaders, in their quest for sectoral strategic outcomes, must consider each of four categories of strategic leadership differences. For education institutions in the non-profit sector and the public sector, four additional figurative chairs (four of the seven situation chairs in Figure 4) need to be added to the metaphorical table to account for these differences. The first additional symbolic chair is reserved for the public. The secret nature of for-profit strategic decision-making is not exercised in either non-profit (Courtney, 2002) or public sector organizations. Thus, strategic management process elements must be adapted for this reality (Joyce, 2004). The second, third, and forth additional chairs are the unique form of governance that is utilized in the education industry. The second additional symbolic chair is unique to the education industry in that faculty in American higher education participate in governance through what is referred to as “shared governance,” a “set of practices under which college faculty and staff participate in significant decisions concerning the operation of their institution” (AFT Higher Education, 2006, p. 4). The third extra chair is for students (Morrill, 2013), and the fourth extra
chair is for lay trustees (people who do not work in the education industry) (Hermalin, 2002).

Each of the above-mentioned four categories of stakeholders with a figurative chair at the strategy table represent significant departures from those practices deployed by for-profit sector organizations, where secrecy is valued, where authority is not constrained (Nutt & Backoff, 2009), and where there is greater linkage between compensation and performance (Scott & Falcone, 1998). This lack of constraint is also evident in payment practices at the board level and in sectoral risk orientation. While public board members, at least in some instances, receive minor stipends for board service (Arndt, 2013), the difference between public, for-profit, and non-profit sector board compensation is drastic. For-profit board members receive significant compensation and stock awards, while non-profit board members not only serve for no compensation but also are expected to make donations to the organization (Epstein & McFarlan, 2011). Notwithstanding these substantial sectoral differences, sectoral strategic leaders need to fully understand their respective sectoral reality and must master strategy related competencies (Stumpf & Mullen, 1991).

**Sectoral Strategy Processes and Competencies**

In this second section of Chapter 2, sectoral strategy related competencies are discussed and the literature regarding four theories (sectoral strategy content, sectoral strategy processes, sectoral strategic technical competencies, and sectoral strategic psychology) are considered. According to the U.S. Office of Personnel Management, “competencies specify the ‘how’ of performing job tasks, or ‘what’ the person needs to do the job successfully” (U.S. Office of Personnel Management, 2013). Sectoral strategy related competencies are a subset of leadership competencies and include, among other things, having knowledge of sectoral strategy content, sectoral strategy processes, and certain strategy related technical and psychological concepts,
All aspects of strategy content and process known to be relevant in 1991 were embodied in the Stumpf and Mullen (1991) strategic leadership competencies model. Each leg of the Stumpf and Mullen (1991) table model was conceptualized to represent one aspect of strategic leadership competencies, which are as follows: “1) Consistently applying a small number of key concepts, 2) Developing skill at thinking and acting strategically, 3) Taking advantage of knowing one’s personal style and its impact on others and 4) Understanding the nature of strategic management processes” (Stumpf & Mullen, 1991, p. 43). For the purposes of this dissertation, the original Stumpf and Mullen (1991) model is supplemented and augmented primarily by the work of Kaplan and Norton (2005), by scholarly work in psychology, and by the work of strategy-as-practice (SAP) researchers. This SAP research distinguishes “having” a strategy and strategy processes from the “doing” of strategy (Johnson, 2007).

This supplementation and augmentation is achieved by reference to two distinct models. The first model is the model of the sectoral enterprise, which was previously discussed and presented as Figure 3 in this chapter. The second model is presented below as Figure 5. In the model in Figure 5, sectoral strategy content and sectoral strategy processes, which an organization may “have,” is distinguished from practices that a sectoral strategic leader may “do.” In a best practice organization, such doing (strategy practices) is facilitated through an office of strategy management, and using this office is considered by some to be a best practice sectoral strategy tool (Kaplan & Norton, 2005). In this section, the strategy management office is
discussed along with other sectoral strategy processes and competencies depicted in Figure 5. Each aspect of the Stumpf and Mullen (1991) table model of strategic leadership competencies is considered in either this section or in the subsequent section by reference to Figure 5, above.

Figure 3 and the original Stumpf and Mullen (1991) table model were reconfigured and presented as Figure 5 (below) to facilitate a discussion of the specific categories of sectoral strategic leadership knowledge, skills, abilities, and other competencies. The model in Figure 5 was designed by trifurcating sectoral strategy related competencies. The three categories of competency areas are a) sectoral strategic management tools (herein referred to as sectoral strategic technical competencies), b) sectoral strategic management process elements, and c) sectoral strategic psychology. The third topic is discussed in section three, while sectoral strategic management process elements and sectoral strategic management tools are discussed in this section. The reconfigured model that is presented in Figure 5 places the strategic plan and the effectiveness plan at the center of this model of sectoral strategy-related competencies.

![Figure 5. Model of sectoral strategy processes and competencies.](image-url)
Sectoral Strategy Processes and Technical Competencies

Strategic planning and effectiveness planning were, in this research, considered to be sectoral strategic tools and technical competencies, which are distinguishable from sectoral strategic processes. As indicated in Figure 5, this dissertation describes sectoral strategy processes as either sectoral strategy-making processes or as sectoral strategy-execution processes by figuratively breaking up the pentagon shape. The model includes the best practice strategy management office as a sectoral strategy tool, indicated in Figure 6 (below), which shows the sectoral strategic technical competencies aspect of Figure 5.

Figure 6. Sectoral strategic technical competencies.

For purposes of this dissertation, the four sectoral strategic technical competencies are considered as follows: a) the strategy management office, b) strategic and effectiveness planning, c) other strategic tools, and d) strategic management development. Throughout this chapter, select strategic tools and strategic management development is discussed in the final section of this chapter. In this section, the strategy management office, strategic planning, and effectiveness planning are
discussed. While each of these tools of strategy differ, they are compatible with the balanced scorecard that as evolved from the work of Kaplan and Norton (2005) and that has been adopted by a significant number of enterprises from all sectors (i.e., For-profit, Governmental, and Not-for Profit) (Rohm, Wilsey, Stout Perry, & Montgomery, 2013), which includes school districts (Kaplan & Miyake, 2010) and higher education institutions (QCI Center for Organizational Development & Leadership, 1999).

The balanced scorecard and strategic planning are tools that are used widely in sectoral strategy making and execution processes, regardless of sectoral orientation. The balanced scorecard is a tool used for making and executing strategy and is the centerpiece of the strategy management office, which is discussed later in this chapter. In the model that is presented in Figure 5, the strategic plan and effectiveness plan replaced the business plan, which Stumpf and Mullen (1991) placed on top of the table that they designed to graphically represent strategic leadership competencies. While the balanced scorecard is not overtly referred to on the revised table model, it is implied in the graphic depiction of the effectiveness plan. The balanced scorecard is central to the strategy management office, which is proposed to be the next evolutionary phase of strategic management, discussed later in this section.

The balance scorecard is useful for effectiveness planning and strategic planning. As a result, both are placed at the center of Figure 7 (below), which shows the top aspect of the Sectoral Strategy Processes and Competencies model presented in Figure 5. According to a text written for administrators in education, strategic planning answers the question, “What actions should we take to implement the expended statement of purpose?” (Nichols & Nichols, 2000, p. 18). Effectiveness planning answers the question, “How well are our students learning and administrative services functioning?” (Nichols & Nichols, 2000, p. 18). Such graphical placement gives deference to the
reality that both are used in a myriad of sectoral settings in general and in educational settings in particular. In education settings, effectiveness plans and strategic plans are deemed essential to meeting accreditation requirements (Hinton, 2012; Stewart & Carpenter-Hubin, 2001). At both the higher education and Pre K-12 levels, the balance scorecard is used in institutional effectiveness planning and execution (Karathanos & Karathanos, 2005).

Figure 7. Sectoral Strategy Making Processes.

Strategic planning is considered a tool in education at both the higher education and the Pre K-12 levels. In the business community, strategic planning is the number one tool for for-profit executives, as reflected in an annual Bain & Company survey of for-profit executives (Rigby & Bilodeau, 2013). Additionally, strategic planning and strategic plans are both sectoral and industrial governmental mandates (Streib, 2005), and nonprofit community stakeholders have expectations regarding the need to conduct strategic planning (Courtney, 2002). The concepts anticipated by the first leg of the table model are considered in strategic planning and, ultimately, are reflected in a strategic plan (Southern University, 2010). In the concepts that are within the strategic planning process and those contemplated by Stumpf and Mullen (1991), leg
I of the table (mission, vision, objectives, goals, and strategy) are essentially the same. While a comprehensive discussion of each of these concepts is beyond the scope of this report, certain conceptual and practical challenges to strategy formulation must be discussed due to the impact on strategic planning, on strategic management, and, ultimately, on strategic leadership competencies. In the pages that follow, strategic planning is considered to be a tool of strategic management. In 1977, at a conference of business scholars, the business community converted much of the strategy field language from business policy and strategic planning to strategic management (Grant, 2007), and courses in strategic management evolved to be a pre-requisite at both the undergraduate and graduate levels of business education.

With this rise of strategic management, strategic planning was eventually relegated to a tool status, but it is still a very relevant tool in the sectoral strategy-making process. Graphically, sectoral strategy making is a collection of sub processes, as depicted above in Figure 7 (above). Sectoral strategy making is the first of two categories of sectoral strategy processes. As indicated in Figure 7, the sectoral strategy-making processes as a category is comprised of four sub processes, which are a) sectoral strategic awareness, b) sectoral strategic goal setting, c) sectoral strategic analysis, and d) sectoral strategy formulation. While the first three sub processes are discussed later in this document, the forth topic (sectoral strategy formulation) is discussed first due to the complexities that are embodied in this element.

The complexities regarding strategy not only emanate from the sectoral differences that are discussed in this report but also from fundamental disagreements about strategy (Whittington, 2001). The issues can be best understood through the writings of four scholars. Michael Porter, considered to be one of the founding fathers of strategic management
(Stonehouse & Snowdon, 2007), not only contributed to the theoretical base of strategy and strategic management but also provided practitioners with tools (e.g., Porters 3 Generic Strategies and 5 Forces Model) that placed his view of strategy on the deliberate end of a strategy continuum/debate (Moore, 2011) and, in this view, strategic planning is considered to be practically relevant.

At the other end of the continuum / debate, Henry Minzberg advocated a more emergent worldview on strategy (Whittington, 2001). In this view, “emergent strategy is the view that strategy emerges over time as intentions collide with and accommodate a changing reality” (Moore, 2011, p. 1). Karl Moore (2011) believed that “the nature of the world today no longer lends itself” (Moore, 2011, p. 1) to the deliberate view of strategy. Notwithstanding this belief, Moore (2011) held that the ideas of both Michael Porter and Henry Minzberg should be taught to future leaders. Whittington (2001) approached the topic from a more practical perspective. He recommended that every leader start the strategy development process by making a strategic choice as to the worldview, and he provided prescriptions to practitioners to consider before commencing the strategy formulation process element of strategic management. The education community at both the higher education level and the pre-K-12 level has adopted a deliberate view of strategy. The deliberate view is evident in the requirements for strategic planning in both accreditation standards and legal mandates (Streib, 2005).

**Strategic Management Process Elements**

For purposes of this dissertation, sectoral strategic management processes are presumed to be required or otherwise chosen (i.e., a deliberate strategy approach) and are classifiable along two distinct categories of processes, as depicted graphically in Figure 5. These processes are referred to as “sectoral strategy making” and “sectoral strategy execution.” The strategic choice process
referred to above is expected to be conducted in the first sectoral strategy making sub process (sectoral strategy awareness); however, the deliberate/emergent debate is only relevant for sectoral enterprises that are not subjected to legal or other mandates they must follow in order to engage in a deliberate strategy process. Such legal mandates that require a sectoral enterprise to undergo a deliberate strategy process were discussed above. In addition to legal mandates in government, mandates that do not rise to the level of law can be seen in education settings. For example, a Colleges of Business that seeks to acquire or to maintain AACSB (Association to Advance Collegiate Schools of Business) accreditation is required to conduct a deliberate strategic management process in order to be in compliance with AACSB accreditation standards (AACSB, 2015).

For this dissertation, the presumption was made that a deliberate strategy process is chosen or mandated. Also for the purposes of this dissertation, a deliberate strategy process is comprised of nine sub process categories organized into two process categories. These nine sub processes of sectoral strategic management are a) sectoral strategic awareness, b) sectoral strategic goal setting, c) sectoral strategic analysis, d) sectoral strategy formulation, e) sectoral strategic alignment, f) sectoral strategic budgeting, g) sectoral strategic communication, h) best practice sharing, and i) sectoral strategic evaluation and control. The nine elements were compiled and organized with reference to literature from the for-profit, non-profit, and public sector communities.

The first four of the nine sub processes mentioned above were classified as sectoral strategy making processes, and the final five of the sub processes were classified as sectoral strategy execution processes, as depicted in Figure 8 (below). The nine sub processes were derived from prescriptive articles by Kaplan and Norton (2005) that detailed the operations of the strategy
management office and from a review of the strategic management models in strategy-related
textbooks. In these textbooks, five core elements of strategic management were identified: a) strategic analysis, b) strategy formulation, c) strategy implementation, d) strategic evaluation, and e) control. The core elements were adopted from Figure 9, which is presented below.

Figure 8. Model of sectoral strategy processes and competencies.

Figure 9 sets forth the strategic management models used in specific textbooks frequently adopted for MBA-level strategic management courses. The list of texts was derived from a study of strategic management textbooks by Geiger (2010).
Upon reviewing Figure 9, one can see that terms common to each of the texts are included in the list of 9 sectoral strategy process elements, albeit with exceptions mentioned below, and are defined based upon current strategic management literature. *Strategic analysis*, as an element of the sectoral strategy-making process, not only anticipates the analysis of the external environment via tools like environmental scanning but also includes an analysis of the internal elements of an organization (Hussey, 1999). A tool that is useful for analyzing both the internal and external environment is referred to as Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis. This tool is used to contemplate the opportunities and threats posed by environmental factors and the strengths and weaknesses of the environment within the organization (Wheelen & Hunger, 2010). “The strategy literature identifies (*strategy*) *formulation* as the ends (objectives and goals) and (*strategy*) *implementation* as the means (action plans and allocation of resources) of strategy (Snow & Hambrick, 1980)” (Campbell, Datar, Kulp, & Narayanan, 2006, p. 2). *Strategy implementation* is “operationally defined as those senior-level leadership behaviors and activities that will transform a working plan into a concrete reality (implementation of the strategy)” (Schaap, 2006, p. 14). *Strategic evaluation and strategic control* are process elements that, when effectively deployed, ensure “that a company is achieving what it set out to accomplish” (Wheelen & Hunger, 2010, p. 328). According to
Wheelen and Hunger (2010), the *evaluation and control* sub-process is comprised of five tasks, as follows “1) determine what to measure, 2) establish standards of performance, 3) measure actual performance, 4) compare actual results with the standard, and 5) take corrective action. Strategy scholars in the public administration community also contemplate each of the above-mentioned nine strategic management elements” (Allison & Kaye, 2005; Bryson, 2011).

For the purposes of this dissertation, one of the five core elements of sectoral strategic management mentioned above (strategy implementation) was relabeled to the sectoral strategy process category, which is referred to as Sectoral Strategy Execution. As indicated in Figure 9 (below), sectoral strategy-making processes and sectoral strategy-execution processes, when considered together, comprise the entirety of sectoral strategy processes for purposes of this dissertation (graphically depicted as a pentagon within the box). However, in elevating the strategy implementation process category to the top-level category status, it was renamed “sectoral strategy execution” in deference to the work of Kaplan (2008). In his book, Kaplan (2008) discussed various studies and identified strategy execution as a determinant of successful strategy.

The repackaging of sectoral strategic process elements in Figure 8 was significantly influenced by the prescriptive literature of Kaplan and Norton (2005, 2008). In addition to repackaging and renaming certain processes and sub processes, six sub processes were added to derive the list of nine sub processes. The six sub processes were a) sectoral strategic awareness b) sectoral strategic goal setting, c) sectoral strategic alignment, d) sectoral strategic budgeting, e) sectoral strategic communications, and e) best practice sharing. Such additional elements were added to the graphic in Figure 8 to account for sectoral strategy process and tool developments that became practically relevant since the original Stumpf and Mullen (1991) strategic leadership
competencies model was published. The first of these sub processes referred to as *sectoral strategic awareness* was added to Figure 8 after considering strategic management textbooks from the public administration community. Given the relative late arrival of the public administration community to the strategic management discipline, only a few literary resources were identified that presented models for consideration. These models are shown below, in Figure 10 (below).

![Figure 10. Matrix of public administration strategic management models.](image)

The first augmentation is identifiable in Figure 10 below as *strategic pre-planning* (Category 1). As indicated in Figure 10, the public administration community considers *sectoral* strategic pre-planning to be an element of strategic management, as do stakeholders of the education community. For example, in the education industry, at least one K-12 district (East Lansing Public Schools, 2013) and at least one higher education institution (University of Hawaii, 2013) conduct pre-planning surveys.

Before any sectoral strategy making can occur, a choice to undergo deliberate strategy making must be made, and other pre-planning activities have been recommended if a deliberate strategy-making process is mandated or chosen. No studies by scholars in the education industry were found that identified the extent to which educational institutions utilize *sectoral strategic pre-planning*. For-profit scholars are prescribing a pre-planning phase as well. Such scholars
recommend pre-planning to mitigate the possibility of firms formulating strategies that are not within their realm of possibility either because of lack of resources or a will to implement the strategies (Sherman, Rowley, & Armandi, 2007).

The prescriptive literature of Kaplan and Norton (2005) heavily influenced the sectoral strategy processes depicted in Figure 8 (above), although, in their prescriptive strategy literature, they used the category label “Strategy Development Process.” For this dissertation, the label was changed to sectoral strategy making to avoid any confusion with strategic management development, which was identified in this research as a sectoral strategic tool. Strategic management development is discussed in section 3 of this literature review. In addition to introducing this renaming, the mission, vision, and values elements of the Kaplan and Norton model were subordinated to the sectoral strategic awareness sub process element. This subordination was made because, according to Kaplan and Norton (2008), the mission vision and values process element was intended to answer the question, “What business are we in and why?” This question is most appropriately answered in the sectoral strategic awareness sub process. The other three sub process in the sectoral strategy-making category of strategy processes are identified in Table 3 (below). In each sub process, sectoral strategy stakeholders seek answers to key strategy-related questions, as presented below in Table 3. With each of the above listed questions answered, attention is now turned to sectoral strategic execution (the second category of strategic management processes).

Kaplan and Norton (2008) identified strategic execution as essential to strategy. In this dissertation, sectoral strategic execution is considered to be the second of two categories of sectoral strategy processes (the first of which is sectoral strategy making).
Table 3

*Strategy Making Sub-process Questions (Adapted from Kaplan and Norton, 2008)*

<table>
<thead>
<tr>
<th>Sub-process element</th>
<th>Question answered during each sub-process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sectoral strategic goal setting</td>
<td>Where are we going?</td>
</tr>
<tr>
<td>Sectoral strategic analysis</td>
<td>What are our key issues?</td>
</tr>
<tr>
<td>Sectoral strategy formulation</td>
<td>How can we best compete or achieve our mission, vision and goals?</td>
</tr>
</tbody>
</table>

This category of processes (Sectoral Strategy Execution) is comprised of five sub processes, which are a) sectoral strategic alignment b) sectoral strategic budgeting c) sectoral strategic communication, d) best practice sharing, and e) sectoral strategic evaluation and control, as depicted in the graphic of sector strategy execution below in Figure 11. In Figure 11, sectoral strategic alignment is the first of five sectoral strategy execution processes. Strategic alignment, meanwhile, “has remained among the top concerns of executives and managers for over two decades” (Cao, Baker, & Hoffman, 2012). Historically, strategic alignment has been analyzed through the use of the Mckinsey 7-S model, a tool used to assess organizational alignment.

The 7-S model is another tool of sectoral strategy, and Kaplan (2005) concluded that the balanced scorecard and the McKinsey 7-S Model are complimentary strategy tools (Kaplan, 2005). The expectation of the McKinsey 7-s model and the essence of sectoral strategic alignment is captured in the following quote: “Alignment is a situation in which strategic goals are supported by organizational structures, support systems, processes, human skills, resources, and incentives” (Southern University, 2010, p. 27).
Kaplan and Norton (2005) prescribed that, in addition to sectoral strategic alignment, sectoral strategy execution processes should include strategy budgeting, strategic communications, best practice sharing, balanced scorecard management, and strategic initiative management. For the purposes of this dissertation, the last two strategy processes have been relegated to other sub processes. Although Kaplan and Norton (2005) identified strategic initiative management as one of nine strategy processes, it has been subordinated to the strategic evaluation and control sub-process category to avoid having to refer to the increased literature on the importance of having a strategic project management office and the need to distinguish projects from initiatives (Boston, 2013), topics beyond the scope of this dissertation. Similarly, a detailed discussion of the Balanced Scorecard is beyond the scope of this dissertation, but it is as a tool useful not only in sectoral strategy making but in sectoral strategy execution.

For the purposes of this dissertation, Balanced Scorecard management and strategy reviews were also subordinated into the sectoral strategy evaluation and control categories, but the pervasive utility of the balanced scorecard must be recognized in sectoral strategy communication.
Strategic communication includes both internal and external considerations. Externally, organizations use public relations as a form of strategic communications with the aim to influence stakeholders ("Strategic Communication", 2015). Internally, Kaplan and Norton (2005) suggested that the balanced scorecard and other aspects of strategy must be strategically communicated to internal stakeholders to facilitate effective strategy execution. Other forms of strategic reporting are considered essential for achieving strategic effectiveness.

Sectoral strategic reporting incorporates financial accounting, managerial accounting, and the Balanced Scorecard, and it is also categorized as an aspect of sectoral strategy communications. The issues regarding sectoral financial reporting that were previously discussed as being a sectoral challenge (i.e., the need to have knowledge of such reporting standards) for educational leaders justifies the sectoral strategic reporting distinction. Since financial accounting is concerned with the external reporting of financial information to stakeholders, managerial accounting and the balanced scorecard are tools of strategic management that are useful to strategic leaders within the enterprise (Stumpf & Mullin, 1991). The balance scorecard is the subject of a number of studies (Bisbe & Malagueno, 2012). The basic principles embodied in the balance scorecard are a) if you can’t measure it, you can’t manage and improve it and c) “measurement motivates” (Kaplan & Miyake, 2010, p. 1).

The Balanced Scorecard is a tool that can be used when conducting strategic activities in many of the strategic management process elements. “An emerging stratum of studies suggests that Strategic Performance Management Systems like Balanced Scorecard may effectively be used not only for ensuring the implementation of intended strategies but also for shaping the processes of their formulation” (Bisbe & Malagueno, 2012, p. 296). In addition to being useful for strategy formulation and implementation, the balanced scorecard is useful for monitoring performance and
facilitating strategic control (Banker & Johnston, 2002). In the education industry at the K-12 level “in Atlanta and other best-practice districts, the scorecard serves as the agenda for facilitating ongoing strategic discussions” (Kaplan & Miyake, 2010, p. 1). The Balanced Scorecard has successfully been deployed in higher education. Two education institutions to do so have received positive recognition from the agency that administers the Malcolm Baldrige National Quality Award (Beard, 2009). A detailed discussion of the Balanced Scorecard is beyond the scope of this literature review, but it was mentioned here to prescribe the Balanced Scorecard as a tool of strategic management; therefore, as with other strategic management tools, it is an aspect of sectoral strategic leadership competencies. However, it is important to note here that the latest best practices are that sectoral strategy making and sectoral strategy execution processes result in the production of effective strategy-related sectoral outcomes if conducted via a strategy management office.

**Strategic Management Evolutionary Phases**

In this section, the final aspect of Figure 4 (the Strategy Management Office) is considered, along with a discussion of the expected evolutionary phases of strategic management within an enterprise. According to a study conducted by Gluck, Kaufman, and Walleck (1982), “most strategic planning systems go through four stages: budgeting, forecasting, externally oriented planning, and strategic management” (Gluck, Kaufman, & Walleck, 1982, p. 9). The first phase is referred to as financial planning. In this phase, very little analysis is done, and budgeting for the following years is the primary concern of managers. In the second phase, managers extend the time horizon. They attempt to develop forecast-based plans that extend beyond one year. Such plans tend to be like traditional budgeting except that they cover a longer timeframe (Gluck, Kaufman, & Walleck, 1982). Phase 3 is a leap forward in enterprises planning
processes. This third phase is realized when top management initiates a strategic planning process and when this process is externally oriented. This process begins with an analysis of the external environment. In phase 3, once strategy is identified, strategic decisions are made and the plan is drafted, but no significant attention is given to strategy implementation. The perceived weaknesses (lack of focus on implementation) of phase 3 are corrected in phase 4. In phase 4, top management invests more time and resources into the process, and strategic planning is infused into enterprise management. This infusion is realized by adopting strategic management process elements, and the once-a-year planning activity becomes an integrated management process (Gluck, Kaufman, & Walleck, 1982).

The Gluck, Kaufman, and Walleck (1982) evolutionary model of strategic management discussed above was based upon a study in which the authors identified four evolutionary phases of strategic management within enterprises, but in this dissertation, a fifth phase was proposed. In this dissertation, the 5 phases have been graphically depicted as a pentagon. The 5 phases are introduced in this discussion with the expectation that future studies in strategy can reference the pentagon model as a conceptual framework. As a framework, researchers can study the strategy processes utilized by an organization and classify the organization into one of the 5 phases of strategic management evolution. Additionally, and more particular to this study, the pentagon figures prominently in graphic models of sectoral strategy processes and competencies. Figure 12 (below) provides an example of such usage. Before discussing that figure, it is important to disclose that the final augmentation of the Stumpf and Mullen (1991) table model is a graphic depiction of the strategy management office that was depicted in Figure 4. Since the Gluck, Kaufman, and Walleck (1982) study results were published in 1982, “the Balanced Scorecard has evolved from its early use as a simple performance measurement framework to full strategic
planning and strategic management” (Balanced Scorecard Institute, 2013). Given the success that the Balanced Scorecard has realized, organizations “that have managed to sustain their strategy focus have typically established a new unit at the corporate level to oversee all strategy related activities” (Kaplan & Norton, 2005, p. 1). The new unit is referred to as an Office of Strategy Management (Kaplan & Norton, 2005).

Figure 12. Sectoral strategic integration aspect of strategic leadership.

According to Kaplan and Norton (2005), “Strategy at most companies is almost completely disconnected from execution. Establishing a dedicated unit to orchestrate both will help to bridge the divide” (Kaplan & Norton, 2005, p. 1). Reflecting back on the model of sectoral strategic processes and competencies, one aspect of the model was not discussed. Kaplan and Norton (2008), and other authors, have are touted the significance of sectoral strategic integration (Kaplan & Norton, 2008; Lagace, 2008). Figure 12 (above) is a truncated version of the model of sectoral strategy competencies presented in Figure 8. This model is
presented again for easy reference to aid in the discussion of sectoral strategic integration, which is conveyed in the graphic.

Sectoral strategic integration is about connecting operations with strategy. According to Kaplan and Norton (2008), while it is important to distinguish operational goals and objectives (the day-to-day activities of the enterprise) from strategic goals and objectives, there has to be alignment. This alignment is best achieved if financial planning and budgeting for operations are conducted concurrently with budgeting for strategic initiatives and other strategy-related targets (Harvard Business, 2006; Kaplan & Norton, 2005). Such concurrency is an example of strategic integration. Concurrent budgeting, considering operational and strategic budgets, is what is expected in the sectoral strategy process. Sectoral strategic budgeting is a sub process of sectoral strategic execution, as depicted in Figure 11.

It is proposed that a sectoral enterprise that allocates sufficient resources to establish a strategy management office will more likely achieve its expected sectoral outcomes and that, as a result of such alignment, it enters the fifth phase of the evolutional development of strategic management. There appear to be no studies of the evolutionary development of strategic management in enterprises in the education industry at either the higher education or pre-K-12 levels. One university was found to have a strategy management office. According to the University of Texas website, the Office of Strategic Management “is responsible for the coordination and preparation of the strategic plan, planning process, [and] organizational performance improvement through alignment and integration at the institutional level” (University of Texas, 2013).
Academically Oriented Strategy Topics

With the introduction of contemporary models of sectoral strategy processes and practices complete, this section (section 3) segues the strategy discussion from practical topics to academically-oriented topics. It was proposed, for this dissertation, that in order for a sectoral enterprise to “have” a sectoral strategy process or content and for stakeholders to “do” sectoral strategy practices, academic aspects of strategy must be aligned and integrated within and without the sectoral enterprise. For purposes of this dissertation, academically-oriented sectoral strategy topics are classifiable as teaching, learning, or researching sectoral strategy. In discussing these topics, the Strategy Holism Framework was constituted and the nature of sectoral strategy was defined to facilitate the research design. This study specifically sought to initiate a stream of research into strategy research (meta-studies) as conducted by stakeholders in the education community in the United States.

Before discussing strategy research, the teaching and learning of strategy was contemplated with reference to the literature regarding the teaching and learning of strategy from scholars who have researched and published literary works for the business, public administration, and psychology communities. Such academically-oriented strategy literature is not readily available in the education community from U.S.-based scholars of education. However, the majority of leadership development literature in general and strategic leadership development in particular has been written by scholars emanating from the business community. In the pages that follow, competency modeling, strategic psychology, strategy teaching, and learning and research are discussed in sequence. In discussing each of these topics, three models are presented, which are a) a model of sectoral strategy competencies, b) the DELTA model of sectoral strategy teaching and learning, and c) the Strategy Holism Framework.
Model of Sectoral Strategy Competencies

In the previous section of this literature review, strategic resources and, in particular, strategic leaders were considered to be relevant to the performance of sectoral enterprises (Finkelstein & Hambrick, 1996; Morrill, 2007). In this section, the teaching of strategy and the learning of strategy by those leaders is discussed. Before doing so, however, it is necessary to present a competency model, shown below in Figure 13, which can serve as a reference as to the practical sectoral strategy related topics that are suggested to be taught to and learned by leaders in any sectoral community.

Figure 13. Model of sectoral strategy competencies.
This model of strategy related-competencies is presented to give context for a discussion of the teaching and learning of strategy. The focus of this section is on the sectoral strategy-related competencies expected of leaders, regardless of their sectoral or industrial orientation.

This model of sectoral strategy competencies was created with reference to two sources. First, the columns in Figure 13 show a continuum of leadership roles that were adapted from the Center for Creative Leadership’s (herein referred to as CCL) Leadership competency model (Center for Creative Leadership, 2015). In Figure 13, the far-right column was added to the continuum that was adapted from CCL’s leadership competency model (Center for Creative Leadership, 2015). The governance aspect of the enterprise was added given the contemplation of the board and its impact on strategic leadership, which was previously discussed by reference to literature regarding the resource-based view of the enterprise (Finkelstein & Hambrick, 1996). A second reference for Figure 13 was the OPM model of Executive Core Qualifications (herein referred to as ECQs). Such qualifications were used, among other things, to develop leaders for civil service in the federal government of the United States. Notwithstanding the fact that both the federal ECQs and the CCL model contemplate all competencies expected of leaders at various levels of a sectoral enterprise, the focus of Figure 13 is only on sectoral strategy-related competencies.

The sectoral strategy-related competencies indicated in Figure 13 (above) are organized by the hierarchical role that an individual plays within a sectoral enterprise and by category of competency. The competency categories are trifurcated into a) sectoral strategy processes and content, b) sectoral strategic technical competencies, and c) sectoral strategic psychological competencies. The first two categories were discussed in sections 1 and 2 of this chapter. The
third category of competencies, referred to as sectoral strategy psychological competencies, is introduced and discussed below.

**Sectoral Strategy Psychological Competencies**

The original Stumpf and Mullen (1991) table model of strategic leadership that was introduced earlier in this report was augmented by adding the concept of “influence” to strategic leadership competences and by adding strategic decision-making to the revised model introduced in Figure 8. A segment of this model is presented below, in Figure 14. This segment was designed by graphically segregating sectoral strategic psychological competencies from the “hard” skills anticipated by sectoral strategic technical competencies and by including sectoral strategy process categories.

![Figure 14. Sectoral strategic psychological competencies.](image)

The original Stumpf and Mullen (1991) model included “developing skill at thinking and acting strategically” (Stumpf & Mullen, 1991, p. 43) and included “taking advantage of knowing one’s personal style and its impact on others” (Stumpf & Mullen, 1991, p. 43) as separate legs on the table model of strategic leadership competencies. Stumpf and Mullen (1991), when considering the concept of thinking and acting strategically, indicated, “effective managers have
developed their ability for complex thinking. They are adept at interpreting, analyzing, and applying information” (Stumpf & Mullen, 1991, p. 48). In addition, strategic leaders “1) know the business and markets, 2) manage subunit rivalry, 3) find and overcome threats, 4) stay on strategy, 5) be an entrepreneurial force, 6) accommodate adversity” (Stumpf & Mullen, 1991, p. 48). Given the expanded sectoral perspectives introduced in this report, strategic leadership skills must be augmented to include knowing the sectoral and industrial uniqueness of the enterprise for which they are held responsible.

In addition to expecting strategic leaders to think and act strategically, Stumpf and Mullen (1991) expected strategic leaders to know their personal style, and Hughes and Beatty (2005) suggested that strategic influence cannot be isolated from strategic thinking and acting. According to Hughes and Beatty, “strategic influence is how leaders engender commitment to the organization’s strategic direction and learning” (Hughes & Beatty, 2005, p. 123). As for personal style, Stumpf and Mullen (1991) incorporated personal style as the final leg of their table model of strategic competencies and considered such style to be distinct from skills. Personal style is based upon a strategic leader’s personality and natural preferences. Such style can be uncovered via an instrument designed to diagnose a leaders’ “personality type preferences based upon his view of himself” (Stumpf & Mullen, 1991, p. 51). While style cannot be learned, it can be altered “in a specific situation to be able to perceive and judge things in ways different form one’s natural preferences” (Stumpf & Mullen, 1991, p. 49). Such preferences can be diagnosed via instruments that are typically given in the context of an executive development program (Stumpf & Mullen, 1991).

Such programs are designed to develop the competencies of leaders, but before discussing executive development programs, the last of four sectoral strategic psychological
competencies (strategic decision making) is discussed within the context of the sectoral enterprise. A leader is called upon to make a myriad of operational decisions. These types of decision are cognitively less challenging than strategic decisions. Decisions related to strategy are long-term in nature and are more meaningful to the future of the sectoral enterprise. Such decisions require significantly more complex cognitive abilities and a leader to bring to bear all sectoral strategy competencies.

The sectoral strategic competency model that was presented in Figure 13 contained columns that represent a continuum of roles. In Figure 13, strategic thinking was placed along the entire role continuum to account for the expectation that everyone in a sectoral enterprise should have some capacity for strategic thinking (Goldman & Casey, 2010; Mead & Stowell, 2013). Leaders of sectoral enterprises are not only expected to have all sectoral strategic technical competencies and all sectoral psychological competencies but are also are expected to exercise such competencies with the cognitive ability that is aligned with the internal environment of a particular sectoral enterprise (Browning & Dwight D. Eisenhower School for National Security & Resource Strategy, 2013). The variables that are expected to be in alignment are presented below, in Figure 15. These variables are the hierarchical level of the leader’s role, the number of employees that were employed, the sphere of influence, and the required cognitive ability of the leader.
This expected alignment is the essence of stratified systems theory. Elliot Jaques developed this theory, and it is deemed to be important to understanding the cognitive capacity of leaders (Boal & Hooijberg, 2001). Expanding upon the work of Jaques, Zaccaro (2001) concluded that individuals progressing to higher levels of an enterprise need a higher order of cognitive skills. In his book, Zaccaro (2001) included a chart that listed stratum from 1 to 7 with 1 being the lowest level and with 7 being the highest level of supervision in what he referred to as the strategic layer. According to Zacarro (2001), cognitive complexity is determined not only based upon the hierarchical level of the leader but also based upon the scope of work.

As indicated in Figure 15, the hierarchical level of a supervisor, the number of employees, and the geographical reach (the sphere of influence) of the enterprise should be aligned with the cognitive ability of the leader. Educational settings can be referenced to consider and to aid in understanding the model in Figure 15. For example, the cognitive capacity needs of a president of a flagship public university are significantly different from the cognitive needs of a president of a small public college. Flagship universities can employ over 4,000
faculty members and have locations both within and without the U.S. Small public colleges, by contrast, can have 100 faculty and only local operations. A similar comparison can be made to superintendents of school districts. Regardless of the level, the scope of institutional operations must be considered when contemplating the development of leaders.

**DELTA Model of Sectoral Strategy Teaching and Learning**

According to best practice thinking about human resources, more commonly referred to as “human capital” (Hitt, 2002), sectoral enterprises are expected to utilize talent management (Berger & Berger, 2004) and partnership approaches to employee development (Brownell, 2006). Such approaches provide the context for sectoral strategic management development. In accordance with the literature on sectoral strategy and the resource-based view of strategic resources, scholars expect that sectoral enterprises benefit strategically when they identify and develop strategic resources (Brown, 2005; Crook, Ketchen, Combs, & Todd, 2008). That being said, leadership development professionals also expect that future leaders must be active participants in their development as leaders in general and as strategic leaders in particular (Goldsmith, 2006).

Best practice thinking about leadership development anticipates that leadership efficacy and effectiveness are achievable through the orchestration of interventions throughout a leader’s career trajectory. Efficacy is defined and discussed later in this chapter. Figure 16, below, shows a model for planning such interventions that was developed with reference to the leadership development literature.
As indicated by Figures 16 and 17, leadership development in general and strategic leadership development in particular are both expected to occur throughout a leader’s career trajectory. Each type of intervention is discussed in the pages that follow. Each type of intervention is to be orchestrated throughout a leader’s career trajectory via a Professional Development Plan (herein referred to as PDP) which, in this dissertation, is referred to as a DELTA PDP.
The word DELTA is an acronym with each letter of the word representing a type of intervention designed to enhance a subject’s effectiveness and efficacy. Each of the intervention types is distinguished and discussed in the pages that follow.

Current thinking about leadership development, and strategic leadership development in particular, is that such development is expected to occur both within and without institutions of higher education via a partnership of sorts (Berger & Berger, 2004). Individuals who expect to fill roles at the apex of an organization should learn sectorally-oriented strategic leadership competencies throughout their career trajectory through education, training, and developmental interventions within the context of what researchers have referred to as “succession management.”

Without an orchestration of such interventions by the education community, future strategic leaders must rely on “self-help” (Martin, Aupperle, & Rongxin, 1996) in developing their sectoral strategy competencies. The education community is only recently beginning to
recognize the benefits of succession management as it relates to the enhancement of the presently-impaired leadership pipelines in both the higher education (Magner, 2009) and K-12 (Pounder & Crow, 2005) aspects of the educational community. Given the complexity (Martin, Aupperle, & Rongxin, 1996) of the topic of sectoral strategic leadership competencies—which has been the subject of this chapter and which has been identified to include the three categories of a) sectoral strategic management tools, b) sectoral strategic management process elements and content, and c) sectoral strategic psychology)—a single course or self-help is not sufficient to imbue future leaders with the knowledge, skills, and abilities to become effective strategic leaders.

In 2008, the for-profit community collectively spent $34 Billion on employee learning and development, and over 20% of that amount they spent on developing future leaders (Johnson, Garrison, & Steed, 2012). Given that strategic leadership competencies include both “soft” and “hard” skills, the for-profit community recognizes that effective strategic leadership is fostered through an orchestration of education, training, and development interventions throughout a leader’s career trajectory. Those interventions are discussed in the pages that follow within the context of talent management, leadership development, and strategic management development.

Talent management, leadership development, and strategic management development. These are distinguishable. According to Berstin (2014), the talent management processes include succession management and leadership development. “Succession management has become an important talent management initiative at companies around the world” (Center for Creative Leadership, 2009, p. 3). “At its best, succession management allows a company to seamlessly merge its employees’ capabilities and career aspirations with the
company’s business strategy and talent needs” (Center for Creative Leadership, 2009, p. 3). Succession management is distinguishable from replacement planning and succession planning (Page Up People, 2009). While succession management relates to the succession of all levels of management, replacement planning and succession planning applies to the top 2 or 3 levels of management (Page Up People, 2009). Replacement planning does not anticipate the development of successors, while succession planning anticipates the development of successors (Page Up People, 2009). The education industry at both the K-12 and higher education level is beginning to contemplate and operationalize succession planning either through voluntary action (Pounder & Crow, 2005) or explicit demands by creditors (Magner, 2009). Succession planning anticipates educational, training, and development interventions as well as psychological assessments.

“Best-practice organizations (e.g., GE, Shell, Johnson & Johnson) view leadership development programs as a way to increase competitive advantage and support corporate strategy” (Johnson, Garrison, & Steed, 2012, p. 555). Typical development options include a) developmental assignments, b) short-term experiences, c) executive education, and d) Professional Executive Coaching (Byham, Smith, & Paese, 2011). In business schools, development activities are expected to occur before key transition points in a leader’s career trajectory. This is especially true for developing upper echelon executives so that executive attitudes and motivation can be affected (Benjamin & O'Reilly, 2011). While succession management as a process is included in leadership development, a particular category of leadership development is of concern in this chapter. Given the 21st century need for sectoral strategic leaders, strategic management development is increasingly being considered and
utilized in the development of strategic leaders. Strategic management development is defined as follows: “Management development interventions which are intended to enhance the strategic capability and corporate performance of an organization” (Brown, 2003, p. 292). Strategic management development is distinguishable from strategic management training, strategic management education, and self-study of strategy. Each of these categories of interventions is discussed below.

**Strategic management training.** While development activities are designed to develop employees for promotion, training activities are designed to “impart knowledge, skills and attitudes necessary to perform job-related tasks” (Masadeh, 2012). For clarity, training is meant to affect performance on the employee’s current job so that he or she can do well on the current job, as opposed to being meant to ready them for a new job. The strategic management literature does not appear to make a fine distinction between training and development. However, some literature does distinguish leadership development and management development. “Leadership development can be defined as the expansion of the organization’s capacity to enact the basic leadership tasks needed for collective work: setting direction, creating alignment, and maintaining commitment” (Johnson, Garrison, & Steed, 2012, p. 557). Leadership development is distinguished from management development, “which is aimed at helping managers acquire the specific knowledge and skills needed to enhance task performance in the management role” (Johnson, Garrison, & Steed, 2012, p. 557). Such a definition of management development more closely resembles the outcomes anticipated by training interventions.

**Strategic management education.** Strategic management education for the business community occurs at both the undergraduate and graduate levels of higher education. In addition to doctorates in strategic management (Geiger, 2010), strategy as an applied science is taught to
future and current business leaders. In the business community, it is never too early to learn how to lead (Benjamin & O'Reilly, 2011), so strategy is taught at all levels of business education. At the graduate level, there are typically two categories of MBA programs, which are a traditional MBA and an Executive MBA program. The major difference between the two programs is the timing of the education. Typically, traditional MBA programs are used to educate first-time managers while Executive MBA programs are reserved for those employees who have been identified as executive material. MBA programs should be designed with this first management assignment in mind (Benjamin & O'Reilly, 2011).

Regardless of level, business programs typically teach strategic management as a separate course and use various pedagogical approaches to teach the course. Such pedagogical techniques include lecture, case studies, and business simulations (Hitt, Freeman, & Harrison, 2001). Historically, strategic management was taught as an integrated capstone programmatic experience. To achieve this integration, academics first teach students all foundational courses (i.e., “tool courses” such as accounting, finance, marketing, management, etc.) and then, in the final semester, teach the strategic management course (Greiner, Bhambri, & Cummings, 2003). Some elite schools have moved away from teaching strategic management as the last course in a capstone methodology (Greiner, Bhambri, & Cummings, 2003). Regardless of the timing of the course, the pedagogical approaches to teaching the strategic management course are as follows: case method, lecture, experiential exercises, field projects, computer simulations, problem-based learning, and online distance education (Hitt, Freeman, & Harrison, 2001). Just as the education community has been in a state of flux regarding their education leadership doctorate programs, the business community has been seeking avenues to continuous improvement.
With teaching of sectoral strategic leadership competencies to leaders in the education industry being a top concern of this report, a search was conducted for strategy-related textbooks written by scholars from the education industry, and such a search resulted in a list of textbooks that is presented in the chart below. Two of the texts were written by authors from the United Kingdom and are written predominantly from the U.K. perspective.

<table>
<thead>
<tr>
<th>Text #</th>
<th>Text Title</th>
<th>Cite</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strategic Change In Colleges and Universities</td>
<td>(Rowley, Lujan, &amp; Dolence, 1997)</td>
<td>Higher Ed</td>
</tr>
<tr>
<td>2</td>
<td>Strategic Management in Higher Education</td>
<td>(Toma, 2010)</td>
<td>Higher Ed</td>
</tr>
<tr>
<td>3</td>
<td>The Strategic Management of Higher Education</td>
<td>(Kazeroony, 2012)</td>
<td>Higher Ed</td>
</tr>
<tr>
<td>4</td>
<td>Strategic Management in Schools and Colleges</td>
<td>(Middlewood &amp; Lumby, 1998)</td>
<td>Mixed UK</td>
</tr>
<tr>
<td>6</td>
<td>Strategic Management in Education: A Focus on Strategic Planning</td>
<td>(Valentine, 1991)</td>
<td>US Ed K12</td>
</tr>
</tbody>
</table>

Chart of strategy related texts for use in the education community.

However, a text on strategic management, with a focus on the American K-12 context, was published in 1991 and not updated. As for texts written for the American Higher Education context, three texts were considered. One focused heavily on strategic planning and made a slight mention of strategic management. Another text addressed unique industrial features of higher education in American but presented an approach to strategic management that was dissimilar to the generally-accepted strategic management process elements discussed above. The last text on strategic management in higher education focused heavily on external and internal environmental considerations, but not on the strategic management process elements in their entirety. The importance of this analysis of strategic management textbooks cannot be understated if future leaders are to learn sectoral strategic leadership competencies. This need is particularly acute considering the educational leadership pipeline deficiencies at both the higher education (Magner, 2009) and K-12 levels (Pounder & Crow, 2005) of education in America.
Without a pipeline of leaders who have efficient sectoral strategic leadership competencies, the evolutionary development of strategic management within educational institutions may be impaired.

**Self-help, efficacy, and assessments.** A future or current leader in education who is not exposed to strategy in education programs, who is not in an educational institution that has a succession planning program, and who does not have access to any strategy training programs must attempt to become effective and efficacious in sectoral strategy competencies through self-study. Scant research was available that described how education leaders become effective and efficacious in sectoral strategy in educational settings, however. One study, from 1996, indicated that leaders in higher education at the president level learned their sectoral strategic leadership competencies through self-help (Martin, Aupperle, & Rongxin, 1996).

As previously suggested, those who expect to fill roles at the apex of an organization should learn sectorally-oriented strategic leadership competencies throughout their career trajectories through education, training, and developmental interventions. This is expected because, in order for an organization to “have” a strategy process, strategy practitioners must “learn” to do strategy. Without teaching interventions in which strategy practitioners learn the complexities of strategy that has been discussed in this section, self-study (self-help) for strategy is an insufficient means of arming leaders with the knowledge, skills, and abilities to be efficacious in the deployment of strategy practices in a particular environment.

Harvard University has recognized this need, and this recognition is evidenced by the infusion of strategy courses in the curriculum of their new EdLD programs (Harvard University, 2014). However, no literature is available that describes the extent to which such programs seek to enhance the sectoral strategic efficacy of their students. For purpose of this study, the term
“sectoral strategic efficacy” is based upon the works of Hannah and Avolio (2014), who contemplate three types of efficacy, which are defined in Table 4, below. Assessments are commonly used in leader development programs, but leadership assessment has not received much attention in the education community (E-Lead, 2104). Each of the above categories of efficacy is assessed via a leadership efficacy questionnaire (Hannah & Avolio, 2014).

The above referenced efficacy assessments are used to assess the entirety of a leader’s efficacy without specific mention of sectoral strategic leadership efficacy. That being said, one study was discovered in which the authors assessed the relative impact of cases and simulations as deployed in a strategic management course (Thompson & Das, 2000). The objective of the study was to assess the degree to which cases of simulations improved a student’s self-efficacy. According to the authors, simulations proved to be more effective in that regard (Thompson & Das, 2000). That being said, it is proposed here that leaders not only must be efficacious and effective in the practical aspects of strategy but that they also must have knowledge, skills, and abilities with respect to the academic side of the strategy.

Table 4

*Efficacy Categories Defined (Adapted from Hannah and Avolio, 2014)*

<table>
<thead>
<tr>
<th>Efficacy category</th>
<th>Definition of efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader action self-efficacy</td>
<td>“Leaders perceived capability to effectively execute various critical leaders actions, such as motivating, coaching and inspiring followers, and getting followers to identify with the organization and its goals and vision”</td>
</tr>
</tbody>
</table>
Leader self-regulation  “Leaders’ perceived capability to a) think through complex leadership situations, interpret their followers and the context, and generate novel and effective solutions to leadership problems; coupled with b) the ability to motivate oneself to enact those solutions using effective leadership with followers”

Leader means efficacy  “Leaders’ perceptions that they can draw upon others in their work environment (peers, senior leaders, followers) to enhance their leadership and the organizations’ policies and resources can be leveraged to impact their leadership”

According to Kaplan and Norton (2005), who advocated an Office of Strategy Management, such an office must integrate with human resources, training, and knowledge management (Kaplan & Norton, 2005). In order for this integration to occur, leaders must execute strategic alignment and allow for strategic integration. Thus, to facilitate such alignment and integration, a leader must have knowledge, skills, and abilities with respect to all relevant aspects of strategy.

**Strategy Holism Framework**

The Strategy Holism Framework was designed to be a model of everything related to strategy, including strategic leadership and strategic management, regardless of the sectoral context. With a multi-sectoral perspective in mind, strategy-related terms in this chapter have been augmented by the adjective “sectoral” to signify that these terms are applicable not only to the business strategy stakeholders but also to stakeholders who contemplating strategy from the governmental sectoral and not-for-profit sectoral perspectives. Even before the above-mentioned
sectoral definitional and practical differences became evident in the field of strategic management, strategy scholars lamented about the strategy field. This apparent lamenting and resulting anxiety led business scholars to perceive a need to conduct research in 2012 that concluded that strategic management is a discipline (Cox, Daspit, McLaughlin, & Jones III, 2012). Scholars thought that this research was necessary despite the fact that strategic management has its roots in 1912, when Harvard founded the first business policy course, and also despite the fact there are numerous post-graduate programs that include doctoral programs in strategic management (Cox, Daspit, McLaughlin, & Jones III, 2012; Greiner, Bhambri, & Cummings, 2003). Some scholars are calling for a new dominant design for strategic management (Herrmann, 2005).

Scholarly anxiety about the field of strategic management seems to have begun in the latter part of the 20th century as a result of tension in the field, which caused the writings of Dr. Minzberg, who identified ten schools of thought in strategy (Elfring & Volberda, 2001) and questioned the usefulness of strategic planning (Miech, 1995). His writings, coupled with the disciplinary diversity of the strategy field of study, have led some scholars to contemplate whether or not strategic management appears to be fragmented (Elfring & Volberda, 2001). At least one author found that such fragmentation is debilitating and that there was a need for multiple perspectives to be reconciled or integrated (Hambrick, 2004). Another held that strategic management has paradoxical foundations (Rasche, 2008). Other scholars say that the field swings to and fro like a pendulum (Guerras-Martin, Madhok, & Montoro-Sanchez, 2014; Hoskinsson, Hitt, Wan, & Yiu, 1999) based upon the research focus of scholars.

In the 21st century, there is concern that researchers and teachers of strategy are focusing on theory at the cost of the practice of strategy (Greiner, Bhambri, & Cummings, 2003), but this
concern appears to be giving way to the work of researchers who are focusing on strategy-as-practice research and to the work of other similarly-oriented scholars. Some strategy-focused scholars have encouraged the strategic integration of strategy research, teaching, and practice (Jarzabkowski & Whittington, 2008). Concurrently, strategy scholars contemplated the alignment of disparate disciplines via the Office of Strategy Management (Kaplan & Norton, 2005). Personnel in such an office is expected to work in concert with a myriad of multi-disciplinary stakeholders—including human resource officers, knowledge management officers, and strategic leaders—to ensure that everyone involved in the strategy process, among other things, learns to fulfill their respective strategic roles. The Office of Strategy Management concept was designed, in part, to be an organizational function to facilitate strategic alignment and the integration of strategic roles and functions (Kaplan & Norton, 2005). Scholars and practitioners contemplating an Office of Strategy Management (herein referred to as an OSM) expect role and functional integration to result in an effective strategy process, strategy, and strategic initiatives (Kaplan & Norton, 2005).

This expectation of role and functional integration coincided with the efforts of other strategy scholars. First, some strategy professors have been concerned that strategy scholars are devoid of a strategy to teach strategy (Greiner, Bhambri, & Cummings, 2003). Second, other strategy scholars have encouraged the strategy community to contemplate strategy as something people “do” and to distinguishing the “doing” of strategy from something that an organization “has” (Jarzabkowski & Whittington, 2008). This work is designed, in part, to counter the fears of some strategy stakeholders who are of the opinion that strategy as we know, it and its related theories, are not relevant to practitioners and that, as a result, strategic management as a discipline is losing its relevance (Farjoun, 2007). All of these questions and concerns regarding
strategy coincides with the education community’s interest in strategy, and one scholar in the education community has argued that the community’s knowledge of strategy is incomplete, muddled, and approached from a conceptually flawed position (Eacott, 2008).

Strategy-as-practice researchers have brought with them a promise to synthesize research, practice, and education (Jarzabkowski & Whittington, 2008). Therefore, in the second decade of the 21st century, the time now appears ripe to consider a strategy theory of everything. Just as scientists in the natural sciences have looked for a unifying theory of everything (Duff, 2011), a similar theory of everything related to strategy is needed to embrace sectoral and disciplinary diversity, to link together the disparate aspects of strategy, and to accommodate all strategic points of view. For purposes of this report, the term “strategic” is defined as essential for a strategy to be effective (Merriam-Webster, 2014).

It is proposed here that a framework of everything related to and essential for a strategy being effective should include and link together all significant strategic points of view that have been contemplated by scholars over the evolution of the field of strategic management. Such a framework is necessary for this study to answer its specific research questions, and it was created based upon a review of strategy literature from a myriad of disciplinary and sectoral perspectives. In reviewing the strategy literature from the education community, there appeared to be gaps in this research emanating from the education community. Strategy scholars in the education community do not appear to study strategy teaching, strategy learning, or strategy research. For clarity purposes, the education community does research strategy from a myriad of practice perspectives, but when considering the research on strategy research, there appeared to be a research void, and other possible voids, in strategy research in the educational context.
Thus, this study aimed to not only to initiate a stream of research into strategy research in educational settings in the United States but also to identify gaps in strategy research as conducted by education-focused scholars. A framework was designed to initiate a discussion of all potential strategy research categories (a holistic approach). The Strategy Holism Framework aids in the fulfillment of that purpose, and it is presented in below in Figure 18.

![Strategy Holism Framework](image)

*Figure 18. Strategy holism framework.*

In Chapter 2, each aspect of the Strategy Holism Framework was discussed, beginning with strategy process and content as something that a sectoral organization “has” with an aim to realize value enhancements. Such value enhancements are to be realized through an effective strategy. In Chapter 2, the concepts of value and effective strategy have been discussed in detail, and the concept of strategy process and content were contemplated from five different points of view. A metaphor of strategy process and content is useful here to frame the core topics.

Chakravarthy and White (2002) described strategy content research as the contemplation of “attractive destinations,” and they referred to strategy process research as the “journey” to get to
attractive destinations, with the attractive destinations being the content of strategy. While this metaphor is useful for creating a mental model of a complicated topic (strategy) that takes a long time to master (Martin, Aupperle, & Rongxin, 1996), the metaphor falls apart as a mental model in that it falls short of contemplating everything related to strategy.

In contemplating sectoral strategy process and content, the Strategy Holism Framework switches from a traveling metaphor to a theater-based metaphor. In making this metaphorical switch, the Strategy Holism Framework contemplates strategy by reference to a theatrical mental model. In addition, the Strategy Holism Framework is used to contemplate how sectoral strategy actors practice strategy as anticipated by strategy-as-practice researchers, who have been increasingly and prolifically researching strategy as something that people “do.” In addition, just like actors learn to act, the Strategy Holism Framework links the “having” and “doing” of strategy with “learning,” “teaching,” “researching,” and “authoring” in the field of strategy, regardless of sectoral context.

In attempting to achieve this linkage, the prescriptive Stumpf and Mullen (1991) article was referenced, and it figures prominently in the Strategy Holism Framework. While Stumpf and Mullen (1991) do not overtly adopt a theater-based metaphor, they do, among other things, include strategic thinking and acting as necessary competencies for leaders to master. In this dissertation, the Strategy Holism Framework as an evolutionary construct was discussed by reference to the Stumpf and Mullen (1991) model of strategic leadership competencies. Their model was literally and evolutionarily walked forward to the present to account for the research and prescriptive literature that is generally accepted to be relevant in the field of strategic management. Additionally, the Strategy Holism Framework expands the strategy discussion
beyond the process and practice of strategy by allowing not only the contemplation of the strategy practitioner’s point of view but also the consideration of other strategy-related points of view, including the strategy teacher, learner, researcher, and author. Well-respected strategy scholars and practitioners have contemplated such points of view within the context of the best practices for an Office of Strategy Management (OSM) (Kaplan & Norton, 2005). An OSM, as anticipated by Kaplan & Norton (2005), is expected to create an organizational culture in which the continuous learning of strategy process best practices is encouraged and operationalized through strategic alignment. Such alignment anticipates that sectoral strategic leaders will allocate the necessary resources to facilitate the operation of the OSM, among other things. Given this expectation, a key prerequisite anticipated by the Strategy Holism Framework is that, in order for a sectoral organization to “have” an effective strategy process and content, all role players must be competent in their respective sectoral strategic roles.

The Strategy Holism Framework was constructed with other strategic prerequisites in mind. Another such strategic prerequisite anticipates that, in order for sectoral strategic role players to be competent in their respective roles, such role players must experience a myriad of strategic management developmental activities. These activities are expected to include teaching interventions conducted by competent sectorally-oriented strategy teachers in university-based settings (Columbia University, 2000; Jarzbkowski, Giuliani, Oliveira, & Amoo, 2010; McNabb, 2007; Parente, Stephan, & Brown, 2012) and by other development-related interventions (Bleak & Fulmer, 2009; Brown, 2003, 2004, 2003). A related strategic prerequisite regards sectoral strategy research, which researchers have expected to be relevant to practice and to be integrated into sectoral strategy textbooks on a timely basis for pedagogical purposes (Stambaugh, Quinn,
& Trank, 2010). Accordingly, in order for strategy teachers to be competent in their roles as strategy teachers, they must not only learn strategy but must also be competent in the use of pedagogical tools suggested for use in best practice strategy pedagogy.

In Chapter 2, each strategic prerequisite mentioned above was developed, and each strategy point of view was accounted for with reference to the five aspects of the Strategy Holism Framework. Table 5 associates each of the five framework aspects with a related point of view. Each aspect and relevant perspective of the Strategy Holism Framework is accounted for in the model presented above as Figure 5 and below in Table 5. In the table, each aspect of the Strategy Holism Framework is associated with a specific strategy point of view. In this dissertation, each of the five aspects has been discussed throughout Chapter 2.

Table 5

<table>
<thead>
<tr>
<th>Framework aspect</th>
<th>Aspect point of view</th>
<th>Strategy is contemplated as</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Having” a strategy and process</td>
<td>Sectoral enterprise</td>
<td>Sectoral strategy process and content are concepts and things that a sectoral organization “has”</td>
</tr>
<tr>
<td>“Doing” strategy</td>
<td>Sectoral strategy practitioner</td>
<td>Sectoral strategy process practices are things that strategy practitioners “do”</td>
</tr>
<tr>
<td>“Learning” strategy</td>
<td>Sectoral strategy learner</td>
<td>Sectoral strategy process, practice and content are</td>
</tr>
</tbody>
</table>
concepts and things that an individual can “learn”

“Teaching” strategy  Sectoral strategy teacher  Sectoral strategy process, practice, and content are concepts and things that can be “taught”

“Researching” strategy  Sectoral strategy researcher  Sectoral strategy process, practice, content, and research are concepts and things that can be “researched”

As indicated in Table 5, the Strategy Holism Framework was used to classify and contemplate sectoral strategy process, content, and research from differing strategic points of view. These points of view are the sectoral organization, the strategy practitioner, the strategy teacher, the strategy learner, and the strategy researcher. In the next section of this chapter, the framework is used to profile and to contemplate doctoral dissertations specifically.

**Strategy Holism Framework Versus the MOST Model**

In this final section of Chapter 2, the Strategy Holism Framework that was designed to be a model of everything related to strategy has its limitations for use in profiling strategy research, which was my intention for this dissertation. The limitations stemmed from the need to distinguish the researcher from the research subject in this study. To account for these differing perspectives, another model was developed. The purpose of this study was to profile strategy research (a meta-study). This study was inspired by a 1989 study in which Shrivastava and Gaik
(1989) developed a statistical profile of select dissertations, and in their journal article they presented a one-page summary of variables. In their profile, the researchers classified strategy research as one of four practically-oriented strategy related variables. These strategy variables were considered to be the tasks of strategic management at the time the article was written.

Since 1989, the literature and research on strategy and related topics has evolved and expanded in scope. These changes have resulted in a need to create a conceptual framework to guide the creation of a dissertation profile for the present study. The conceptual framework, which is presented below in Figure 19, was developed after a review of the strategy literature by authors from three sectorally different (for-profit, nonprofit, and governmental) communities.

*Figure 19. MOST model.*
The acronym MOST was chosen for the name of the model of the conceptual framework for this study because the model and the letters that make up the MOST acronym facilitate a discussion about most of the important strategy related topics that are necessary to profile and contemplate strategy research. MOST as an acronym is detailed as follows:

**Modified**

**Open**

**Systems**

**Thinking**

Systems thinking was chosen as the approach to the model of strategy research out of deference to the strategy literature, which suggests that strategic thinking requires systems thinking. In creating this model, the traditional models of an open system used by scholars who contemplate organizations have incorporated five elements (the environment, inputs, a square to represent the organization, outputs, and feedback) (Lunenburg, 2010). This traditional model of an open system was modified by creating a three-dimensional box, by placing a structure inside the box, and by placing a circle around the box.

For the purposes of this study, the traditional open systems model was modified to facilitate the discussion of the four concepts that a reader must grasp before contemplating the Dissertation Profile, which is included at appendix C, and considering the answers to the research questions posed in this study. Before discussing the four concepts, it is important to distinguish three categories of dissertation variables. First, the demographic variables of this study are referred to as Dissertation Source Variables. These variables include the institutional (University) level variables. For purposes of this study, source variables also included variables
that are related to the unit (college or school of education) and the student researcher that produced the dissertations studied here. Unit level variables are intra-institutional related variables (such as a college education within a university). Finally, the student level variable of interest in this study was the gender of the student who conducted the research.

In this study, it was important to distinguish Dissertation Source Variables from Dissertation Subject Variables. The MOST model was useful in this regard. Dissertation Subject Variables were those variables of interest to student researchers in studies that focused on strategy-related topics. The MOST Model aids in thinking about the following five key subject-related strategy research variables:

1. Subject of focus of the strategy research;
2. Sector of the subject of strategy research;
3. Education level of the subject of the strategy research;
4. Hierarchical level of the subject of the strategy research; and
5. Nature of the strategy research contemplated in the study.

Each of the above five subject-related strategy research variables can be discussed and identified by reference to the MOST Model.

The five subject-oriented variables are discussed in sequence here. First, the MOST Model is a model of an organization and the system of interest in the open systems thinking aspect of the model. That being said, the focus of a study of strategy research can be on individual(s) who are somehow related to an organization, or the focus of a study on strategy research can be on an organization. The modifications of the traditional open systems thinking model allowed for the consideration of the other four subject-oriented variables considered in
this study. The organization or individuals who were the subject of a strategy-related dissertation could be further classified by sector, educational level, and hierarchical level. In this study, sector pertained to the sectoral orientation of the research subject of interest to a student researcher. A subject could be classified sectorally as hailing from the for-profit, nonprofit, or governmental sector. The sectoral orientation of the research subject was graphically depicted as a circle that is placed around the graphic depiction of an organization (the three-dimensional box in the MOST model). The three-dimensional box was derived by considering not only the educational level of the research subject but also the cognitive complexity of the research subject. The education level of the research subject refers to whether a research subject is set in higher education or in Pre-K-12 education. This educational distinction had some impact on the cognitive complexity that relates to the research subject, and the theoretical lens of interest was stratified systems theory.

Stratified systems theory (herein referred to as SST) is accounted for in the MOST model by the three-dimensional box and the nine-level bar on the right side of the box. SST takes into account the geographic expanse and the hierarchical structure of an organization. SST use of such expanse and structure is central to the consideration of the cognitive complexity in light of such expanse and structure. For example, the position of superintendent of a large urban district, in stratified systems theory, would require the leader to possess a greater cognitive ability than that needed by the principal of a small elementary school. Similarly, the president of a large flagship (public) university with many campuses domestically and globally, in accordance with SST, requires the leader to possess a greater cognitive ability than that which is needed by a president of a small public college.
The differing levels of cognitive complexity described above are expected to impact not only the placement of strategic leaders but also the education, training, and development of such leaders to serve in their roles and to succeed. After reviewing a few dissertations that were part of the sample considered in this study, a conclusion was reached that the geographic expanse is a variable that is not easily identified in the dissertation and, therefore, was not to be considered in this study. In addition, a decision was made to include in this study the hierarchical aspect of stratified systems theory, as it was considered to be more widely obtainable. Therefore, a model of organizational hierarchy was developed to allow for the quantification of such variables. The model for the hierarchical level of the subject of strategy research is depicted as a nine-step ladder, positioned to the right of the box, that is the centerpiece of the MOST model.

The nine-step model was adapted from the work of scholars and practitioners who also adopted the strata concepts embodied in stratified systems theory. The nine-step model was adapted from a recent repackaging of the original seven-step model used to discuss stratified systems theory and to measure the complexity of work (Gray et al., 2007). The model is a hierarchical and vertically-oriented continuum that places frontline employees at the bottom, which is labeled strata 1. At the top of the recent iteration of the work-based continuum is stratum 8, which is the CEO of a global enterprise. In between strata 1 and strata 8 are 6 other hierarchically-determined and placed strata. In the model, each stratum represents a role that requires the role player for a particular stratum to possess the requisite cognitive complexity to succeed in that role.

For the purposes of this study, the eight-strata model was augmented to consider a governance level (a 9th strata); as a result, a revised model was developed to account for
hierarchical roles within educational institutions. Since this study was a study of strategy research, which is set in the education industry, the nine-step model was adapted for use in considering the hierarchical levels present in the education industry. The ninth stratum was added after considering a strategy-related dissertation written by a doctoral student in education. In the dissertation, the researcher considered the training and self-perceptions (including strategy-related matters) of the members of school boards (Adamson, 2011).

Since this study was a study of strategy research, which is set in the education industry, the nine-strata model was adopted for use in considering the hierarchical levels present in both higher education and pre-K-12 education. The nine strata are presented below in Table 6, which is comprised of five columns. In the first column on the left, each of the nine is listed. The four columns to the right of the strata characterize each of the nine strata by education level (higher education or pre-K-12) and by focus (organizational or individual). In Chapter 3 of this dissertation, the purpose for creating this nine-strata table is discussed. The nine strata in the MOST model are depicted to the right side of the box as a nine-level hierarchical bar.
Table 6
Hierarchical Paradigm of an Educational Approach

<table>
<thead>
<tr>
<th>Strata</th>
<th>Higher education (HE)</th>
<th>Higher education (HE)</th>
<th>Pre-K-12</th>
<th>Pre-K-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Higher education</td>
<td>Individual level</td>
<td>Organization</td>
<td>Individual level</td>
</tr>
<tr>
<td>Strata</td>
<td>Higher education</td>
<td>Higher education</td>
<td>Pre-K-12</td>
<td>Pre-K-12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level/Role</th>
<th>Political / governance</th>
<th>Gov’t officials / board members</th>
<th>District system</th>
<th>Presidents / executives</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Political / governance</td>
<td>Gov’t officials / board members</td>
<td>Political / governance</td>
<td>Gov’t officials / board members</td>
</tr>
<tr>
<td>8</td>
<td>HE system</td>
<td>Presidents</td>
<td>District system</td>
<td>Presidents / executives</td>
</tr>
<tr>
<td>7</td>
<td>HE institution</td>
<td>Presidents</td>
<td>District</td>
<td>Superintendents</td>
</tr>
<tr>
<td>6</td>
<td>Functional level</td>
<td>Vice presidents</td>
<td>Functional level</td>
<td>Vice presidents / executives</td>
</tr>
<tr>
<td>5</td>
<td>College level</td>
<td>Deans / principals</td>
<td>School level</td>
<td>Principals</td>
</tr>
<tr>
<td>4</td>
<td>Departmental level</td>
<td>Department chairs / others</td>
<td>Department level</td>
<td>Department chairs / others</td>
</tr>
<tr>
<td>3</td>
<td>Program level</td>
<td>Coordinators</td>
<td>Program Level</td>
<td>Coordinators</td>
</tr>
<tr>
<td>2</td>
<td>Course / class level</td>
<td>Faculty</td>
<td>Course / class level</td>
<td>Faculty</td>
</tr>
<tr>
<td>1</td>
<td>Front line</td>
<td>Staff (non-management)</td>
<td>Front line</td>
<td>Staff (non-management)</td>
</tr>
</tbody>
</table>
Moving forward with the discussion of the MOST model leads to a discussion of the Nature of Strategy Research Continuum, which was designed not only to be a component of the MOST model but also to be a standalone model for use in the study of strategy research (the research of strategy research). As a component of the MOST model, the strategy continuum is positioned at the top of the three-dimensional box and is positioned inside a rectangular shape purposefully position partially inside and partially outside of the box that is meant to depict an organization. This continuum is presented in Figure 20.

*Figure 20. Strategy research continuum.*
The rectangular shape depicted in Figure 21, below, was added to the MOST model to allow for the contemplation of the Nature of Strategy Continuum and stakeholder theory. Before discussing how this theory applies to the MOST Model, it is useful to discuss each aspect of the Nature of Strategy Continuum, starting with the practical side of the continuum, at P1. Practical strategy research is placed on the far left of the continuum as a collection of the 3 Ps. Practical strategy elements are depicted in the MOST model as P1, P2, and P3, with each of the 3Ps
positioned inside of the triangular shapes, as depicted below in Figure 22.

Figure 22. The 3 practical P's of the MOST model.

The practical side of the continuum includes research into strategy content (P3) as something that an organization has (i.e., a strategy is something that an organization has to achieve some goal) that is realized through deliberate strategic processes (P2) and strategic practices (P3). Based upon the strategy literature that was reviewed in this chapter, two additional levels of practical research could be considered, as depicted in Table 7 (below).
Table 7

Two Lower Levels of Practical Strategy Research

<table>
<thead>
<tr>
<th>Level</th>
<th>P3</th>
<th>P2</th>
<th>P1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Strategy content</td>
<td>Strategic processes</td>
<td>Strategic practices</td>
</tr>
<tr>
<td>3</td>
<td>Enterprise strategy</td>
<td>Strategy making</td>
<td>Pre-cursor studies</td>
</tr>
<tr>
<td></td>
<td>Institutional strategy</td>
<td>Strategy execution</td>
<td>Qualitative studies</td>
</tr>
<tr>
<td></td>
<td>Corporate strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Functional strategy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the present study, the classification of strategy research is limited to the 1\textsuperscript{st} and 2\textsuperscript{nd} levels of the practical side of the Nature of Strategy Research Continuum. As indicated above, the 2\textsuperscript{nd} level of the practical side of strategy research includes strategy content, strategic processes, and strategic practices. Strategic processes (P2) are those processes that an organization has and uses to make and execute a particular strategy, while strategic practices are individual-level activities that people do to make and execute strategy. Strategic practice studies can be further classified at level 3 based upon the methodology utilized in this study. Most studies of strategic practices are qualitative in nature because of the need to get close to the practitioners to see what they are doing (Johnson, 2007). Pre-cursor studies, such as surveys, are at times used to identify potential SAP-type research opportunities (Johnson, 2007). Strategy content research can be classified at level 3 by considering strategy research in accordance with the level of strategy that is studied. The five levels of strategy content research have been
previously discussed and are listed above, as level 3. These 5 levels of strategy content research are graphically depicted in the MOST model and in Figure 22 (above) as five horizontally-placed bars within the pentagon. Strategy content is identified in the MOST model as P3 and strategy content is that which is supposed to be realized through strategic processes (P2) and strategic practices (P3).

In addition to such practical classification, strategy research can be classified as academic or hybrid strategy research. While it may at first appear to be relatively easy to identify academic strategy research, strategic learning and learning about strategy are distinguishable and, as a result, a hybrid category is necessary. Strategic learning, according to Pietersen (2010), is intra-organizational learning that is deemed necessary to make and execute an effective strategy. This type of learning is differentiated from learning about strategy, which is done both intra- and extra-organizationally. Teaching and learning about strategy in extra organizational environments is differentiated from learning about strategy intra-organizationally. An example of the former is a doctoral student taking a strategy course at a college of education doctoral program. An example of the latter is a future leader in a development program as part of a succession planning strategy. Another example of the latter is the strategic learning that is anticipated by Pietersen (2010). The Pietersen (2010) approach to strategic learning is reflected in the MOST model by the placement of four arrows that are depicted in the model with an apparent circular motion, as reflected in Figure 23 (below). According to Pietersen (2010), the four circulating arrows comprise the strategic learning cycle (learn, focus, align, and execute). Also, according to Pietersen (2010), the learning aspect of the cycle includes gaining insight into the environment and learning from one’s own actions.
After a holistic review of the literature for this study, practical strategy research was determined to be distinguishable from two other categories of strategy research and, as a result, the Nature of Strategy Research Continuum was developed. The additional two categories of strategy research include a hybrid category and an academic category. Academic strategy research is placed at the firm right of the continuum, which is at the polar opposite of the practical strategy research, and hybrid strategy research is placed at the center of the continuum. Table 8 (below) reflects the two levels of the hybrid and academic categories of strategy research. Level 1 was the top level, as indicated in Table 8. Hybrid strategy research can be classified at Level 2A, which was defined as a combination of practical and academic strategy research. An example of this type of research is a study of a School District and its strategy to develop future research (the practical aspect). As part of that strategy, consultants are hired to train future principals in how to conduct strategic planning. The second hybrid category was identified as Level 2B. As indicated in Table 8, level 2B is labeled “research to inform strategy.” An example of this type of research was found in a mixed method study, which was conducted to determine the need for a mentoring program for novice principals (Wiley, 2011). In this hybrid study, the researcher desired to inform a strategy, which would be academic in nature (a mentoring program).
Table 8

*Two Levels of Hybrid and Academic Strategy Research*

<table>
<thead>
<tr>
<th>Level</th>
<th>H</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hybrid strategy research</td>
<td>Academic strategy research</td>
</tr>
<tr>
<td>2A</td>
<td>Practical &amp; academic</td>
<td>Teaching &amp; learning</td>
</tr>
<tr>
<td>Level 2B</td>
<td>(Intra-organizational)</td>
<td>(Extra-organizational)</td>
</tr>
<tr>
<td></td>
<td>Research to inform strategy</td>
<td>Research of strategy research</td>
</tr>
<tr>
<td></td>
<td>(Extra-organizational)</td>
<td>(Extra-organizational)</td>
</tr>
</tbody>
</table>

Academic strategy research is distinguishable from hybrid and practical strategy research and is graphically positioned at the far right of the Nature of Strategy Research Continuum. As reflected in Table 8, academic strategy research is further classifiable as either Level 2A (Teaching and Learning – Extra Organizational) or Level 2B (Research of Strategy Research – Extra Organizational). Level 2A was teaching and learning, which was not part of an organizational strategy. An example of this type of research is a case study of a strategy that is part of an education leadership program at a university. Academic research could be further classified as Level 2 research. Level 2B is referred to as “research of strategy” research. This type of research is a meta-study of strategy research. The present study is an example of level 2B research. In this study, a meta-study of strategy related dissertations was conducted and strategy-related dissertations written by students were profiled and classified along the Nature of Strategy Research Continuum.
The Nature of Strategy Continuum is graphically depicted within a rectangle in the MOST model because the combination was designed to facilitate strategic thinking about both internal and external stakeholders and their relationship to the Nature of Strategy Continuum. Internal stakeholders, for purposes of the MOST model, are those individuals who can be classified along the nine strata, as listed on Table 6.

*Figure 24. Stakeholder Community aspect of MOST model.*

External stakeholders, for the purposes of this dissertation, are those individuals who have a stake in strategy processes and practices and the outcomes of such processes and
practices. In accordance with stakeholder theory, external stakeholders should also be considered and given due regard (Edward, 1984; Kettunen, 2015). In this dissertation, the external stakeholders that were given due regard are consultants, trainers, and educators in colleges and universities who develop, train, and educate leaders in education, and, in this study, the program coordinator was considered an external stakeholder of particular interest.

**Program Coordinator’s Quandary & Sectoral Strategy Research**

Program coordinators of education leadership programs must make and execute strategy for their respective programs. When conducting environmental scans, they must be aware of the educational leadership program debates that began in earnest after Dr. Levine’s report on doctoral-level education programs was published in 2005 (Levine, 2005). Since this report was issued, the education community began to envision a path to effective leadership teaching and learning. Given the nature of the economy in the early decades of the 21st century, the increasingly disruptive nature of technology, and a governmental focus on student success with downward trending governmental funding, we can begin to understand why Harvard University established a new education leadership doctorate (the Ed.L.D) and included strategic content in the curriculum of the program (Harvard University, 2009). Not all doctoral-level programs have the resources that are available to program coordinators at Harvard University, however, and this literature review identified an opportunity to assist program coordinators of the roughly 200 educational leadership doctorate programs throughout the United States with their strategy course quandary.

If program coordinators of educational leadership doctorate programs are to address the need for effective strategy-related courses for future higher education and K-12 leaders in their respective curricula, they will be faced with a quandary. This quandary is evident upon
contemplating the propositions that have been constructed based upon this literature review. They are as follows:

**Proposition 1** – *The sectoral diversity of the education industry results in a need for teachers of any aspect of sectoral strategic leadership competencies to accommodate sectoral differences in courses designed for future educational leaders.*

Given that the educational industry in the United States is comprised of educational institutions that can be classified as either not-for profit, for-profit, or public enterprises, consideration must be given to sectoral strategic leadership and management differences as enumerated throughout this report when designing and delivering courses to teach strategy to future educational leaders. In the public sector, “strategic management and strategic leadership approaches must be tailored to meet the special needs of public organizations (Nutt & Backoff, 1993, p. 300).” In the not-for profit sector, differences are expected in adapting strategy courses and practical application processes from the for-profit sector to the not-for profit sector (Phipps & Burbach, 2010).

**Proposition 2** – *Strategic leadership competencies in general and strategic management process elements in particular are advanced topics that require prerequisite tool course knowledge, skills, and abilities before a prospective student participates in a course designed to teach strategy.*

In educational programs designed for future business leaders, strategy has, for some time, been taught as a capstone experience (Langdon & Sandler, 2005). Postponing the strategy course allowed students to acquire the necessary “tools course” knowledge, skills, and abilities, such as accounting, finance, management, statistical analysis, and competitive analysis (Stumpf & Mullen, 1991) to successfully complete the capstone strategy experience. Confusingly, there
appeared to be a trend at least at top-tier business schools that strategy courses are being placed in the second semester of the first year of the MBA program (Greiner, Bhambri, & Cummings, 2003). Consequently, the tools course concept will require careful consideration by educational leadership program coordinators.

**Proposition 3** – Teachers of any aspect of sectoral strategic leadership competencies must either have a terminal degree in strategic management or must have spent a significant amount of time studying and practicing or researching strategy-related topics to be effective in teaching a strategy course, especially with the present lack of pedagogical resources designed for teaching future educational leaders.

While a few of the strategy professors in business schools have received doctoral training in strategic management, they typically do have doctoral-level education in economics or organizational theory (Greiner, Bhambri, & Cummings, 2003). Finding educational scholars with the requisite educational backgrounds, or with a desire to teach strategy courses, may be a challenging quest for educational leadership program coordinators. It is important, however, to note that strategic management and strategic leadership “requires significant time to understand and to implement” (Martin, Aupperle, & Rongxin, 1996, p. 147). In addition, with the relatively recent interest in strategy-related education by the education community, strategic management pedagogical resources may not be readily available to teach an effective strategy course (McNabb, 2007) in light of the sectoral and industrial differences identified with respect to the education industry, which has been identified in this dissertation.

Upon contemplating the three above-mentioned propositions, the quandary of program coordinators of doctoral level education leadership programs that housed in a university that does not have the resources available to a Harvard University peer becomes evident. Such a program
The coordinator has three options when contemplating the inclusion of a strategy course in the curriculum of future educational leaders. The first option is to assign a faculty member who has no strategy-related competencies the task of creating a course in strategy. The second option is to hire an adjunct faculty member who has experience in strategic management. The third option is to spend the requisite time, money, and energy to research “best practices” with the aim of optimizing the nature, timing, and extent to which competencies should be taught in doctoral-level programs designed to teach future leaders.

This dissertation was a study with the aim to assist program coordinators with the third option. This study was designed to initiate a stream of research into strategy research. This research was intended to be the first step in initiating a stream of research into the teaching and learning of strategy to current and future education leaders in the United States. The present study is intended to be the baseline from which to consider the pervasiveness of the teaching and learning of strategy as it relates to leaders in education. There is a relative (as compared with the considerable number of such textbooks in the business community) lack of textbooks available to teach strategy as applied in education settings. Since research is integrated into textbooks (Stambaugh & Quinn Trank, 2010), this study could facilitate the creation of a textbook for such purposes. At a minimum, this study sheds some light on the nature of strategy research that is conducted by doctoral students in education in the United States.
CHAPTER 3
METHODOLOGY

Introduction

The methodological approach to this study is modeled after a study of strategy-related dissertations conducted by Shrivastava and Gaik (1989). In their study, Shrivastava and Gaik (1989) utilized a task approach to categorize the strategy research that was discussed in the dissertations that were the subject of their study of strategy dissertations. Without the benefit of 27 years of strategy research, they limited the categories of strategy research to practical categories only. In the present study, the task approach was augmented to account for the strategy research written and published since 1989 in order to allow for the categorization of strategy research along what is referred to in this study as the “Nature of Strategy Research Continuum.” This continuum includes practical strategy research, academic strategy research, and a hybrid category. The hybrid category allowed for the classification of dissertations that were the subjects of this study that have both a practical and an academic aspect.

For the purpose of this dissertation, academically-oriented dissertations are those strategy-related dissertations in which scholars ask and seek answers to questions regarding the teaching strategy, learning about strategy, and researching of strategy research (meta-studies). Given the desire for leaders to have strategy-related competencies regardless of sectoral orientation, there is a need for each sectoral community (the for-profit, governmental, and nonprofit sectors) to facilitate the teaching and learning of such competencies. The literature to date indicates that each sectoral community approaches the teaching and learning of strategy differently (Greiner, Bhabri, & Cummings, 2003; McNabb, 2007). The present study seeks to
initiate a strand of research into the teaching and learning of strategy as applied in the education community with its unique sectoral makeup. In other words, the community includes educational institutions that hail from each of the three sectors. In addition, the present study seeks to initiate, as well, a novel strand of research into strategy research (meta-studies of strategy research). Such research has been useful for identifying gaps in strategy research emanating from scholars conducting strategy research in the for-profit (Sharp, Bergh, & Li, 2013), not-for-profit (Stone, Bigelow, & Crittenden, 1999), and governmental communities (Poister, Pitts, & Edwards, 2010).

A community approach (both within and without institutions of higher education) (Brownell, 2006) is suited to strategy research and to developing leadership competencies that include strategic competencies. Such an approach anticipates that leadership competencies are taught to and learned by current and future leaders, both within and without an institution of higher education. In the business community, such teaching and learning begins in undergraduate programs (Parente, Stephan, & Brown, 2012), continues into graduate programs such as MBA programs (Benjamin & O'Reilly, 2011), and is expected to continue along the individual leader's career trajectory (Hughes & Beatty, 2005). In the public administration and education fields, stakeholders expect that leaders have strategic competencies. However, there appears to be a void in the current literature from the respective communities as to how leaders acquire such competencies.

In the 21st century, leaders in education are expected to have strategic competencies, but a limited number of studies exist that describe or explore how such leaders are learning strategy competencies (VanDenBerghe, 2010). In the new EdLD program at Harvard University, the program currently includes three units of study that are strategy related. These units are as follows:
1. Leadership, Entrepreneurship and Learning;
2. Thinking Strategically about Education Reform; and

To date, no study exists that describes the nature, extent, and timing of the strategy content in the curricula of the Harvard program or other programs that seek to develop educational leaders. Furthermore, no studies have been conducted to profile, describe, or explore academically- or practically-oriented strategy research as conducted by scholars in their quest to answer strategy-related research questions pertaining to education settings.

Thus, the aim of this dissertation was to profile and to answer questions regarding strategy related dissertations written by doctoral students in education programs in the United States and published from January 1, 2005 through December 31, 2014. The period of time studied was divided into two distinct periods. Period 1 was from January 1, 2005 through December 31, 2009 and Period 2 was from January 1, 2010 through December 31, 2014. Period 1 was marked by the following events and circumstances:

1. In 2005, Dr. Levine’s critical report was published (Levine, 2005).
3. The Carnegie Project on the Education Doctorate (CPED) was launched in 2007 in response to a call to redefine the EdD and the PhD (Perry, 2013).

Period 2 was marked by the following events and circumstances:
1. 2010 was the first cohort year for the new Harvard EdLD (Helix Learning Partners, 2013).

2. In a 2010 Study, faculty perceived that education administration programs were well aligned with ISLLC Standards (Machado & Cline, 2010).

3. In 2010, the CPED was awarded a grant to document the success of a four-year effort to redesign the EdD (Perry, 2011).

The three research questions that guided this study follow.

**Research Question #1**

How has the profile of strategy-related dissertations in doctoral programs of education in the United States changed from Period 1 (2005 through 2009) to Period 2 (2010 through 2014)?

**Research Question #2**

How has the strategy research as reflected in dissertations on education in the United States changed from Period 1 (2005 through 2009) to Period 2 (2010 through 2014)?

**Research Question #3**

Is there a relationship between any of the Dissertation Source Variables and the Nature of the Strategy Research Continuum variables?

**Research Design**

In order to answer the questions posed in the current study, a quasi-mixed mono-strand design (Teddlie & Tashakkori, 2006) was utilized. This design is depicted in Figure 25 (below). The model in Figure 25 depicts a quasi-mixed design. In a quasi-mixed method, two types of data are collected but the qualitative and quantitative findings and inferences are not integrated (Teddlie & Tashakkori, 2006). In the present study, the qualitative data were collected via the
content analysis tools, which are included in appendices A and B, and the data are quantified for quantitative analysis. According to Teddlie and Tashakkori (2006), a strand of research refers to a phase of research that has three stages (e.g., see Figure 25, below). In Figure 25, the large arrow is depicted as the strand. The first stage is the conceptualization stage, which includes the formulation of the research purpose, questions, and other concepts.

![Figure 25. Model of quasi-mixed methods mono-strand design.](image)

The next stage is the experiential stage, which includes methodological operations, data generation, and data analysis (Teddlie & Tashakkori, 2006).

In the methodological stage (the second stage), data were converted from qualitative to quantitative data for analysis. In the present study, the content analysis tool is referred to as the Content Analysis Form and is four pages long. The form is comprised of eight categories of qualitative data (see Appendices A and B), and each section aids in the conversation of qualitative data from dissertations to quantitative data for input into the SPSS data file. The final stage of the research design is the inferential stage. According to Teddlie and Tashakkori (2006), a mono strand design employs only a single phase and encompasses all stages from conceptual to experiential to inferential. The quasi-mixed, mono-strand design is distinguishable from a true
mixed methods design (Teddlie & Tashakkori, 2006). In the latter, the researcher draws
inferences using both qualitative and quantitative methods but, in the former, no such integration
occurs.

**Sampling and Data Source**

A three-step process was used to derive the final list of 408 dissertations. In step 1, a
search of an electronic database was conducted to identify relevant dissertations. Specifically, the
ProQuest Social Sciences Database was searched after limiting the query to the Proquest
Education Journals and further limiting the source type to “Dissertations & Theses.” In deriving
the initial list, two additional limitations were placed on the search:

1. The database search was further limited by focusing on only two search terms,
   which were *strategy* and *strategic*, and by selecting those dissertations that
   included the two terms in the titles and the abstracts of the dissertations.

2. The database search was further limited by focusing the search on only
dissertations published between the years 2005 and 2014.

An initial list of 3,367 dissertations was generated using the above-described search process.

In step 2, the list of 3,367 dissertations was reduced to a list of 817, which were subjected
to the content analysis phase. Table 9 (below) reflects the adjustments made in the list of 3,367
dissertations. At the far-right column of the table, examples of each of the three categories of
dissertation types were indicated with citations. As show in Table 9 (below), a total of 1,659 of
dissertations were identified as teaching and learning dissertations that were distinguishable from
the teaching and learning of strategy and from teaching and learning as a strategy. The 1,659
studies were removed because they were determined to be tactical in nature. In such studies,
authors used the terms “strategy” or “strategic” in their titles, while the term “tactic” may have
been a more appropriate term (English & Steffy, 1982). Since the authors used the terms “strategy” and “strategic” instead of the term “tactic,” the 1,659 dissertations classified as teaching and learning tactics were removed from the list of 3,367 dissertations.

Table 9

Sample Identification

<table>
<thead>
<tr>
<th># of Dissertations</th>
<th>Sample cite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissertations derived from database query</td>
<td>3,367 Total to consider</td>
</tr>
<tr>
<td>Less: teaching &amp; learning dissertations</td>
<td>1,659 Kortz (2011)</td>
</tr>
<tr>
<td>Less: other dissertations not meeting criteria</td>
<td>609 Okendu (2008)</td>
</tr>
<tr>
<td>Dissertations subjected to content analysis phase</td>
<td>817 Subject to next phase</td>
</tr>
</tbody>
</table>

The remaining two categories of dissertations were removed to derive a list of 817 dissertations because such dissertations either were internationally (external to the United States) oriented or were otherwise not clearly classifiable as strategy research. The category of dissertations, which is labeled “Other Dissertations Not Meeting Criteria,” includes various studies that were not classifiable as strategy research and, therefore, such dissertations (n=609) were removed from the list. Lastly, the final category (“Dissertations Outside the U.S.”) of dissertations were removed from the list because such dissertations (n=282) either were not sourced in the United States (being written by students seeking degrees from institutions of higher education headquartered outside the U.S.) or were not about subjects that have some nexus to institutions that are situated inside the United States. This adjustment to remove
internationally-oriented dissertations led to the third step of a three-step process to derive a list of dissertations subjected to a content analysis.

**Method of Analysis**

In the third step, the content analysis phase, a final list of 408 dissertations was derived after reading Chapter 1 of each of them and, as necessary, other chapters of each of the above-mentioned 817 dissertations. By reading sections of each of the 817 dissertations, a conclusion was reached that an additional 409 of dissertations were not classifiable as strategy research. The remaining 408 dissertations were subjected to a content analysis by utilizing a coding form, which is presented in Appendices A and B.

**Coding Form, Variables, and Operational Criteria**

The coding form created for this study was a four-page Content Analysis Form. The form was designed with the end goals anticipated in this study, which is the creation and analysis of the Dissertation Profile and the derivation of data sufficient to answer the research questions posed in this study. With these goals in mind, the Content Analysis Form was developed to facilitate a conversion on qualitative data from the strategy-related dissertations into quantitative data for input into SPSS and to create a dataset for use in this study. The design of the coding form and the dissertation profile was made possible by first conceptualizing the model presented below as Figure 26. The Model for Strategy Research Dissertation Profiling, once created, was referenced to create the Content Analysis Form presented in Appendices A and B. The form that is present in Appendix A has eight sections.

The eight sections of the form are as follows:
1. Section 1 – Sample Dissertation Identification
2. Section 2 – Dissertation Dates
3. Section 3 – Dissertation Source Data - See Attached Appendix B
4. Section 4 – Dissertation Source Data – Unit Level
5. Section 5 – Dissertation Source Data – Student Level
6. Section 6 – Dissertation Subject Data
7. Section 7 – Research Methodology
8. Section 8 – Nature of Strategy Researched

Figure 26. Model for Strategy Research Dissertation Profiling
Each of these eight sections is discussed in greater detail in the pages that follow.

**Operational Procedures for Converting Qualitative Data into Quantitative Data**

The Content Analysis Form was designed to collect qualitative information gathered from each of the 408 dissertations considered in this study and to allow for the conversion of such data into quantitative data for input into a SPSS dataset created for this study. The Content Analysis Form was designed so that a 0 for *no* or 1 for *yes* could be placed on the form adjacent to each qualitative label, as identified and discussed below. A 0 (0 = no) indicates that the label does not describe a particular aspect of the dissertation. The number 1 (1 = yes) indicates that the label does describe a particular aspect of the dissertation.

**Section 1 – Sample Dissertation Identification**

In order to facilitate the coordination of the content analysis of the dissertations that were the subject of this study, a dissertation identification process was created. As previously stated, and as indicated in Table 9, a total of 817 dissertations were subjected to a complete reading of Chapter 1; other chapters were read as necessary to complete the Content Analysis Form. Since it was anticipated that this review would lead to a further culling of dissertations after reading sections of each of the 817 dissertations, a dual numbering system was created to allow for a coordination of dissertations that survived this culling process.

In Appendix A, the labels created for the two numbers, which identify a dissertation of interest in this student, are FSID and S1SPSSID. In conjunction with the printing of Chapter 1 of each of the 817 dissertations, each printout was labeled with an FSID (First Sample ID) number to allow for the identification of each of the 817 dissertations. As each dissertation was read, some dissertations were removed from the original list of 817 and some were retained. Those
dissertations that were retained were subjected to a content analysis. Using a new numbering system, dissertations that were retained were sequentially numbered from 1 to 408. Using the label S1SPSSID (Section 1 SPSS ID) as an identifier on the coding form and associating the dissertation with the number assigned in sequence, each dissertation was assigned a unique number to allow for the identification of each of the 408. In addition, the code form was designed to allow for easy entry of numerical variables into SPSS. This ease of entry was facilitated using the same variables identifiers on the code form as used in the SPSS data files. Each of the variable identifiers is discussed below as each section of the code form is introduced.

Section 2 – Dissertation Dates

For purposes of this dissertation, the ten-year period from 2005 through 2014 was bifurcated into two separate five-years periods. Period 1 was referred to as the change period and it includes the years 2005 through 2009. This period began with the publication of Dr. Levine’s, report severely criticizing doctoral programs in education (Levine, 2005). Not long after this report was issued, the Carnegie Project for the Education Doctorate (CPED) was formed and began accepting member universities whose stakeholders sought to make changes in their doctoral programs in education (Zambo & Zambo, 2013). Period 2, referred to as the post-change period, covers the years 2010 through 2014. The year 2010 was chosen as the start of this period because it was the year when Harvard University launched its new EdLD (Helix Learning, 2013) and because change initiatives implemented by CPED member institutions can reasonably be expected to impact dissertations written during 2010 through 2014.

Section 2 of the Content Analysis Form was used to classify 408 dissertations published within the ten-year period beginning January 1, 2005 through December 31, 2014. In order to
allow for the input of such variables into SPSS and the subsequent analysis of dissertations in accordance with the time periods of interest in this study, the Content Analysis Form included the following two variable categories:

**SPSS Variable Identifier: S2AYrDis.** This section of the page 1 of the Content Analysis Form was used to record the year in which each of the 408 dissertations was published.

**SPSS Variable Identifier: S2BDisPd.** This section of page 1 of the Content Analysis Form was used to record the period in which each of the 408 dissertations was published. Period 1 included the time from January 1, 2005 through December 31, 2009. Period 2 included the time from January 1, 2010 through December 31, 2014. On the Content Analysis Form, a 0 was entered if a dissertation was published in Period 1 and a 1 was entered if a dissertation was published in Period 2.

**Dissertation Source Variables - Sections 3, 4, and 5**

Sections 3, 4, and 5 of the packet of forms, collectively known as the Content Analysis Form, was used to facilitate the conversion and compilation of the quantified Dissertation Source Variables and to facilitate the entry of such data into the SPSS data file. Dissertation Source Variables are those variables that describe the source of the dissertations subjected to content analysis in this dissertation. Dissertation Source Variables are classified as student-level source data, college-level source data, and university-level source data, and each is discussed sequentially below, in Sections 3, 4, and 5.

**Section 3 – Dissertation Source Variables - See Attached Appendix B.** Section 3 includes four variables that were considered to be Dissertation Source Variables. The variables included in section 3 are listed by title only in Appendix A. Appendix B was created to facilitate
the data conversion of each of the four subcategories of the section 3 variables. Since 408 dissertations of interest in this study emanated from 155 institutions of higher education, some institutions published more that one of the dissertations considered in this study. To minimize the time required to conduct the content analysis, Appendix B was copied to create 155 different versions of Appendix B for each of the 155 institutions from which all 408 dissertations were published. Once created, the Appendix B for a particular institution was copied and associated with the dissertation that was published from that particular institution. Immediately below, each subsection of section 3 is described in detail.

**Section 3A – Dissertation Source Variables – Unit Level – CPED Member Status.**

Section 3A of Appendix B was used to record the CPED (Carnegie Program for the Education Doctorate) membership status of the institution from which each of the 408 dissertations considered in this study was published. In this section, two different categories of variables were considered. In the first category, there were two variable options, as follows:

- **SPSS Variable Identifier:** S3A1CPED = **Variable Description:** CPED Member
- **SPSS Variable Identifier:** S3A2NoMr = **Variable Description:** Not A Member

For these variables, the following content analysis procedural rules are applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the membership status of institutions from which the dissertation of interest was published. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.
In the second category of section 3A, CPED Membership status was indicated differently than that which was described above. The second category was a one-line member approach to indicating CPED membership status, as follows:

SPSS Variable Identifier: S3A3CPED = Variable Description: CPED Member Status

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the membership status of an institution from which the dissertation of interest was published. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

Section 3B – Dissertation Source Variables – Institutional Level – Sector. Section 3B of the Content Analysis Form was designed to allow for the identification and quantification of the sector of the university that conferred the doctoral degree on the author of student researchers. In section 3B, there were two sub-sections of the variables. In the first sub-section, there were three sectoral categories, which are as follows:

SPSS Variable Identifier: S3B1FPS = Variable Description: Private – For-Profit Sector
SPSS Variable Identifier: S3B2GvtS = Variable Description: Public – Governmental Sector
SPSS Variable Identifier: S3B3NPFS = Variable Description: Private – Not-for-profit Sector

For these variables, the following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the sectoral orientation of the institution from which the dissertation of interest was published. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the
criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second sub-section of 3B (Special Data), there were two additional variable categories. In each of the additional categories, the sectoral status of an institution was indicated differently than the approach described above. The first category in the second section was a one-line approach to indicate sectoral orientation. The first one-line variable category was as follows:

**SPSS Variable Identifier: S3B4PrPu** = **Variable Description:** Public or Private

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the sectoral orientation of the institution from which the dissertation of interest was published. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second one-line variable category, the sectoral status of an institution was more specifically described. The second one-line variable category was as follows:

**SPSS Variable Identifier: S3B5Sect** = **Variable Description:** specific sectoral orientation

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1, 2, or 3 was used to indicate the specific sectoral orientation of the institution from which the dissertation of interest was published. If the institutional sectoral orientation was for-profit, a number 1 was placed adjacent to the SPSS Variable Identifier: S3B5Sect. If the institutional sectoral orientation was governmental, a number 2 was placed adjacent to the SPSS
Variable Identifier: S3B5Sect. If the institutional sectoral orientation was not-for-profit, a 3 was placed adjacent to the SPSS Variable Identifier: S3B5Sect.

Section 3C – Dissertation Source Variables – Size. Section 3C of the Content Analysis Form was designed to allow for the identification and quantification of the size of the university that conferred the doctoral degree on the author of student researchers who wrote the dissertations that were reviewed in this study. The size of the institutions was determined by reference to the Carnegie Classification Institution Look-up Tool.

In section 3C, there were two sub-sections of variables. In the first sub-section, there were three sectoral categories, which are as follows:

SPSS Variable Identifier: S3C1Larg = Variable Description: Institutions Large in Size

SPSS Variable Identifier: S3C2Med = Variable Description: Institutions Medium in Size

SPSS Variable Identifier: S3C3Smal = Variable Description: Institutions Small in Size

For these variables, the following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the size of the institution from which the dissertation of interest was published. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second section of 3C (Special Data), there were two additional variable categories. The first category in the second section was a one-line approach to indicating institutional size. The first one-line variable category was as follows:

SPSS Variable Identifier: S3C4Siz1 = Variable Description: Size of Institution
The following content analysis procedural rules were applicable. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second one-line variable category, the size of an institution was more specifically described. The second one-line variable category was as follows:

SPSS Variable Identifier: S3C5Siz2  = Variable Description: specific size of the institution

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1, 2, or a 3 was used to indicate the specific size of the institution from which the dissertation of interest was published. If the institution was small in size, a number 1 was placed adjacent to the SPSS Variable Identifier: S3C5Siz2. If the institution was medium in size, a number 2 was placed adjacent to the SPSS Variable Identifier: S3C5Siz2. If the institution was large in size, a 3 was placed adjacent to the SPSS Variable Identifier: S3C5Siz2.

**Section 3D – Dissertation Source Variables – Research Intensity.** Section 3D of the Content Analysis Form was designed to allow for the identification and quantification of the research intensity of the university that conferred the doctoral degree on the author of student researchers who wrote the dissertations that were reviewed in this study. The research intensity of these institutions was determined with reference to the Carnegie Classification Institution Look-up Tool. In section 3D, there were two sub-sections of variables. In the first sub-section, there were four levels of research intensity, which were as follows:

SPSS Variable Identifier: S3D1RUH  = Variable Description: Very High Research Intensity
SPSS Variable Identifier: S3D2RUH  = Variable Description: High Research Intensity
SPSS Variable Identifier: S3D3DRU  = Variable Description: Doctoral Research (less than high)
SPSS Variable Identifier: S3D4Othr = Variable Description: Other (less than DRU)

For the above-listed variables, the following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the research intensity of the institution from which the dissertation of interest was published. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second sub-section of section 3D, there were two additional variable categories. In each of the additional categories, the research intensity of an institution was indicated differently than that which was described above. The first category in the second section was a one-line member approach to indicating the research intensity of the institution. The first one-line variable category was as follows:

SPSS Variable Identifier: S3D5RI1 = Variable Description: Research Intensity

The following content analysis procedural rules are applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the research intensity of the institution from which the dissertation of interest was published. If the institution was classifiable as very highly research intensive, a number 1 was placed adjacent to the SPSS Variable Identifier: S3D5RI1. If the institution was other than large (not large), a 0 (zero) was placed adjacent to the SPSS Variable Identifier: S3D5RI1.

In the second one-line variable category, the research intensity of an institution was described more specifically. The second one-line variable category was as follows:

SPSS Variable Identifier: S3D6RI2 = Variable Description: specific level of intensity
The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1, 2, 3, or 4 was used to indicate the specific size of the institution from which the dissertation of interest was published. If the institution was in the other category (not any of the three categories identified below), a number 1 was placed adjacent to the SPSS Variable Identifier: S3D6RI2. If the institution was classifiable as a Doctoral Research University, a number 2 was placed adjacent to the SPSS Variable Identifier: S3D6RI2. If the institution was classifiable as a highly intensive research university, a 3 was placed adjacent to the SPSS Variable Identifier: S3D6RI2. If the institution was classifiable as a very highly intensive research university, a 4 was placed adjacent to the SPSS Variable Identifier: S3D6RI2.

**Dissertation Source Variables – Unit Level**

For purposes of this study, there were two unit-level variables. One of these variables was described above. The CPED membership status was a unit level variable, but it was discussed above in the orientation to Appendix B. The second of the two unit level variables was discussed below.

**Section 4 – Dissertation Source Variables – Unit Level – Degree Conferred.** Section 4 on page 1 of the Content Analysis Form was used to record the degree conferred by the college on the students who wrote the 408 dissertations considered in this study. In this section, two different categories of variables were discussed.

In the first category, there were two variable options, which were as follows:

**SPSS Variable Identifier: S4APhD** = **Variable Description: PhD Degree Conferred**

**SPSS Variable Identifier: S4BOth** = **Variable Description: Other than PhD**

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the degree conferred on the student who wrote the
dissertation of interest in this study. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second category of section 4, the doctoral degree conferred on a student was indicated via a one-line approach to indicate the doctoral degree conferred on a student who wrote one of the dissertations of interest in this study. This one-line approach was as follows:

\[ \text{SPSS Variable Identifier: S4CDcf} = \text{Variable Description: Degree Conferred} \]

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate that the degree conferred on the student who wrote the dissertation of interest in this dissertation. If a student researcher was conferred a PhD Degree, a number 1 was placed adjacent to the SPSS Variable Identifier: S4CDcf. If a student researcher was conferred an “other than a PhD degree,” a 0 (zero) was placed adjacent to the SPSS Variable Identifier: S4CDcf.

**Section 5 – Dissertation Source Variables – Student Level – Gender.** Section 5 on page 1 on the Content Analysis Form was used to record the gender of the students who wrote the 408 dissertations considered in this study, and two different categories of variables were discussed. In the first category, there were two variable options, which were as follows:

\[ \text{SPSS Variable Identifier: S5AMale} = \text{Variable Description: Male} \]

\[ \text{SPSS Variable Identifier: S5BFemal} = \text{Variable Description: Female} \]

For these variables, the following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the gender of the student who wrote the dissertation of interest. A number 1 was recorded adjacent to the variable
identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second category of section 5, the gender of a student was indicated differently than that which was described above. The second category was a one-line approach to indicating the doctoral degree conferred on a student who wrote one of the dissertations of interest in this study. This one line was as follows:

SPSS Variable Identifier: S5CGender = Variable Description: Gender Student Researcher

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the gender of a student researcher who wrote a dissertation considered in this study. If the student researcher was a male, a number 1 was placed adjacent to the SPSS Variable Identifier: S5CGender. If the student researcher was a female, a 0 (zero) was placed adjacent to the SPSS Variable Identifier: S5CGender.

Section 6 – Dissertation Subject Variables

Section 6 on page 2 of the Content Analysis Form was used to record specific dissertation data regarding the subjects of the research that was conducted by a student researcher and discussed in their respective dissertations. Dissertation Subject Variables included the subject focus (individuals or organizations), sector of subjects, education level of subjects, and hierarchical level.

Section 6A – Research Subject – Subject Focus of the Dissertation. Section 6A on page 2 of the Content Analysis Form was used to record the subject focus (a focus that was primarily on individuals or organizations) of each of the 408 dissertations considered. In this study, two categories of variables were discussed. In the first category, there were two variable options, which were as follows:
For these variables, the following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the research subject focus. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

In the second category of section 6, the research focus of the dissertation was indicated differently than described above. The second category was a one-line approach to indicating the subject focus of the dissertation of interest in this study. This one-line approach was as follows:

The following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the research focus of a dissertation. If the research focus was on organizations, a number 1 was placed adjacent to the SPSS Variable Identifier: S6A3SFoc. If the research focus was on individuals, a 0 (zero) was placed adjacent to the SPSS Variable Identifier: S6A3SFoc.

Section 6B – Research Subject – Sectoral Orientation of Subject(s). Section 6B on page 2 of the Content Analysis Form was used to record the sectoral orientation of the subject that was the focus of each of the 408 dissertations considered in this study.
In this section, two different categories were discussed. Figure 27 shows a picture of only Section 6B of page 2 of the Content Analysis Form. As indicated in Figure 27, the first part of the graphic includes a list of sectoral options. As previously stated, the purpose of the Content Analysis Form was to facilitate the conversion of qualitative data into quantitative data for input into SPSS. The first part of Section 6B included a list of sectoral option categories, the corresponding labels for SPSS variables, and the applicable data conversion rules as indicated in Table 10 (below). A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

Also, as indicated in Figure 27, there was a Special Data section. In this section, the approach to data conversion was a one-line approach to indicate the sectoral orientation of the research subject. In Section 6B, there were two one-line data conversion sections, and the first of the two (in sequence) is as follows:

**SPSS Variable Identifier: S6B6PrPu = Variable Description: Sectoral Classification**

The following content analysis procedural rules were applicable. On the Content Analysis Form, in the spot adjacent to the SPSS Variable Identifier: S6B6PrPu, a number 1 was input for private sector subjects, a 2 was input for public sector subjects, a 3 was input if a dissertation was about

![Figure 27. Picture of Section 6B of Content Analysis Form.](image-url)
more than one sectoral subject, or a 9 was input if the sector of the subject was not available in
the dissertation.

The second of the two one-line data conversion sections was an expansion of the first and is as follows:

SPSS Variable Identifier: S6B7Sect = Variable Description: Expanded Sectoral Classification

The following content analysis procedural rules are applicable. On the Content Analysis Form, in the spot adjacent to the SPSS Variable Identifier: S6B7Sect, a number 1 was input for for-profit sector subjects, a 2 was input for government sector subjects, a 3 was input for not-for-profit subjects, a 4 was entered if a dissertation was about more than one sectoral subject each of differing sectoral orientation, or a 9 was input if the sector of the subject was not available in the dissertation.

Section 6C – Research Subject – Education Level of Subject(s). Section 6C on page 2 of the Content Analysis Form was used to record the education level of the subject that was the focus of each of the 408 dissertations considered in this study, and two different categories of variables were considered. Figure 28 (below) shows a picture of only Section 6C of page 2 of the Content Analysis Form. As indicated in Figure 28, the first part of the graphic includes a list

![Figure 28. Picture of Section 6C of Content Analysis Form.](image-url)

of education levels. On the content analysis form, a number 1 was recorded adjacent to the
variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

Also, as indicated in Figure 28, there was a Special Data section. In this section, the approach to data conversion was a one-line approach to indicate the education level of the research subject, and there were two one-line data conversion sections. The first of the two, in sequence, was as follows:

**SPSS Variable Identifier:** S6C5ELv1 = **Variable Description:** Education level

The following content analysis procedural rules were applicable. On the Content Analysis Form, in the spot adjacent to the SPSS Variable Identifier: S6C5ELv1, a number 1 was input for Pre-K-12 subjects, a 2 was input for higher education subjects, and a 3 was input if a dissertation was about more that one subject each of differing levels of education.

The second of the two one-line data conversion sections was as follows:

**SPSS Variable Identifier:** S6C5ELv2 = **Variable Description:** Education level expanded

The following content analysis procedural rules were applicable. On the Content Analysis Form, in the spot adjacent to the SPSS Variable Identifier: S6C5ELv2, a number 1 was input for Pre-K-12 subjects, a 2 was input for community college / two-year higher education subjects, a 3 was input for four-year and greater higher education institutions, and a 4 was entered if a dissertation was about more than one subject each at differing levels of education.

**Section 6D – Research Subject – Hierarchical Level of Subject(s).** Section 6D of the Content Analysis Form was used to record the hierarchical level of the subject that was the focus of each of the 408 dissertations considered in this study. Figure 29 (below)
Figure 29. Picture of Section 6D of Content Analysis Form.

shows a picture of only Section 6D of page 2 of the Content Analysis Form. On the form, a number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

Also as indicated in Figure 29, there was a special data section. In this section, the approach to data conversion was a one-line approach to indicate the hierarchical level of the research subject. In Section 6D, there was a one-line data conversion section, as follows:

**SPSS Variable Identifier:** S6DStrat  
**Variable Description:** Hierarchical level

The following content analysis procedural rules were applicable. On the Content Analysis Form, in the spot adjacent to the SPSS Variable Identifier: S6DStrat, a number 1 was input if the dissertation subject was any of the stratum within the range from 9 to 6, a 2 was input if the dissertation subject was any of the stratum within the range from 5 to 1, or a 3 was entered if there was more than one dissertation subject and each could be classified as hailing from differing strata.

**Section 7 – Research Methodology**

Section 7 on page 3 of the Content Analysis Form was used to record the research
methodology used by the student researcher in the dissertations that were subjected to content analysis in the present study. In section 7, there were three sections of variables. In the first section, there were three sectoral categories, which are as follows:

**SPSS Variable Identifier: S7AQuan = Variable Description: Quantitative**

**SPSS Variable Identifier: S7BMixd = Variable Description: Mixed**

**SPSS Variable Identifier: S7CQual = Variable Description: Qualitative**

For these variables, the following content analysis procedural rules were applicable. On the Content Analysis Form, a number 1 or a 0 (zero) was used to indicate the research methodology used in a dissertation of interest. A number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

**Section 8 – Nature of Strategy Researched**

Section 8 of the Content Analysis Form was used to record the nature of strategy research studied by student researchers, as reflected in each dissertation that was considered in this study. By reference to the Nature of the Strategy Research Continuum, there were three categories of strategy research: Practical, Hybrid, and Academically-oriented. In this study, two levels of strategy research were considered, in Section 8A and Section 8B.

**Section 8A – Research Subject – Nature of Strategy Research – Level 1.**

Section 8A on page 3 of the Content Analysis Form was used to record the Nature of Strategy Research studied and reflected in each of the 408 dissertations considered in this study. Figure 30
(below) shows a picture of only Section 8A of the Content Analysis Form. As indicated in Figure 30, the first part of the graphic included a list of the strategy research categorical options.

![Section 8A - Nature of Strategy Researched - Level 1 Categorization](image)

*Figure 30. Picture of Section 8A of Content Analysis Form.*

On the Content Analysis Form, a number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

As indicated in Figure 30, there was a Special Data section. In this section, the approach to data conversion was a one-line approach to indicate the nature of strategy research considered in a particular dissertation. In Section 8A, there was a one-line data conversion section, which is as follows:

**SPSS Variable Identifier:** S8A4Natr = **Variable Description:** Nature of Strategy Research

The following content analysis procedural rules were applicable. On the Content Analysis Form, in the spot adjacent to the SPSS Variable Identifier: S8A4Natr, a number 1 was input for practically-oriented strategy research and a 2 was input for either hybrid and pure academically-oriented strategy research.

**Section 8B – Nature of Strategy – Level 2.** Section 8B on page 3 of the Content Analysis Form was used to record the level 2 categorization of the nature of strategy research as reflected...
in each of the 408 dissertations considered in this study. Figure 31 (below) shows a picture of only Section 8B of page 3 of the Content Analysis Form.

<table>
<thead>
<tr>
<th>Section 8B - Nature of Strategy Researched - Level 2 Categorization</th>
<th>No = 0 Yes = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Learning (Intra Organizational) - Strategy Content - Organization &quot;Having&quot; (P1)</td>
<td>S8B1Cont =</td>
</tr>
<tr>
<td>Practical Learning (Intra Organizational) - Strategic Process - Organization &quot;Having&quot; (P2)</td>
<td>S8B2Proc =</td>
</tr>
<tr>
<td>Practical Learning (Intra Organizational) - Strategic Practice - Individuals &quot;Doing&quot; (P3)</td>
<td>S8B3Prac =</td>
</tr>
<tr>
<td>Practical Learning (Intra Organizational) - More Than One Practical Categories (P4)</td>
<td>S8B4MTO =</td>
</tr>
<tr>
<td>Academic Learning (Extra Organizational) (A1) - Strategy as something People &quot;Teach&quot;/&quot;Learn&quot;</td>
<td>S8B5TL =</td>
</tr>
<tr>
<td>Academic Learning (Extra Organizational) - &quot;Research&quot; of Strategy Research (A2)</td>
<td>S8B6RSR =</td>
</tr>
<tr>
<td>Hybrid - Research to Inform Strategy (H1) Practical &amp; Academic in Nature (Extra Organizational)</td>
<td>S8B7RIS =</td>
</tr>
<tr>
<td>Hybrid - Practical &amp; Academic (H2) Practical &amp; Academic in Nature (Intra Organizational)</td>
<td>S8B8PA =</td>
</tr>
</tbody>
</table>

*Figure 31. Picture of Section 8B of Content Analysis Form.*

Analysis Form. On the form, a number 1 was recorded adjacent to the variable identifier to indicate that the dissertation included content that met the criteria anticipated by the variable description. Alternatively, a 0 (zero) was recorded if the criteria were not met.

**Data Analysis**

In this study, the variable categories included on the Content Analysis Form were used to answer three research questions. The variable categories that were identified and described above were organized in accordance with a series of data analysis plans designed to facilitate the answering of each of the three questions. In the pages that follow, the data analysis plans for each of the questions and subsidiary questions were posited in sequence.
Data Analysis Plan for Research Question #1

In this section, on Research Question 1, relevant variables and the data analysis plan formulated to facilitate the answering of question 1 were discussed. Research Question 1 is as follows:

How has the profile of strategy-related dissertations in doctoral programs in education in the United States changed from “Period 1” (2005 through 2009) to “Period 2” (2010 through 2014)?

In order to answer this research question, the variables listed in Figure 32 were subject to compilation.

![Figure 32. Dissertation Variables for Research Question #1.](image)

The variable categories listed in Figure 32 comprise the variables considered to be relevant to include on a one-page Dissertation Profile of the strategy-related dissertations. The profile report plan entails compiling frequency distributions for each of the variables listed in Figure 32 and calculating the proportional percentages of frequency distributions for each
variable. These frequency distributions of dissertation variables were classified by dissertation period (Period 1 and Period 2).

**Data Analysis Plan for Research Question #2**

In this section, on Research Question 2, the relevant variables and the data analysis plan formulated to facilitate the answering of Research Question 2 were discussed. Research question 2 was as follows:

How has the strategy research as reflected in dissertations in education in the United States changed from Period 1 (2005 through 2009) to period 2 (2010 through 2014)?

In order to answer the research question, the variables listed in Figure 33 were compiled and analyzed.

![Figure 33 Variable Categories and Data Analysis Plan for Question #2.](image-url)
The variable categories listed in Figure 33 comprise the relevant variables necessary to answer question 2. The data analysis plan anticipated the creation of two contingency tables. The first of those two contingency tables was a 2 x 3 contingency table. This table classified strategy-related dissertations along two time periods (Period 1 and Period 2). The time periods were presented in columns with dissertations published in the years 2005 through 2009 and in the years 2010 through 2014. The three level-1 strategy categories were used to classify dissertation along three level 1 categories (practical, academic, and hybrid). The level-1 categories were further classified into two level-2 categories, which were identified in Figure 33. The second contingency tables reflected the level-2 strategy variable in a 2 x 8 contingency table. For each contingency table, proportional percentages were computed.

Data Analysis Plan for Research Question #3

Research Question 3 was an overarching question answered by way of three subsidiary questions. The overarching question was as follows:

Is there a relationship between any of the Dissertation Source Variables and the Nature of Strategy Research Continuum variables?

The three subsidiary questions and the respective data analysis plans for each of the subsidiary questions were as follows:

Data Analysis Plan for Research Question #3A

In this section, research question 3A, the relevant variables, and the data analysis plan formulated to facilitate the answering of question 3A are discussed. Research question 3A was as follows:
Do relationships exist between the student researcher variable and the variables
classifiable along the Nature of the Strategy Research Continuum?
The variable categories needed to answer the research question, as well the data analysis plan
needed to answer it, are presented in in Figure 34, below.

![Variable Categories and Data Analysis Plan](image)

*Figure 34 Variable Categories and Data Analysis Plan for Question #3A*

The variable categories listed in Figure 34 comprise the relevant variables necessary to
answer question 3A. The data analysis plan anticipated the creation of a 2 x 3 contingency table
comprised of the gender of the student researcher and the level-1 classification of strategy
research (practical, academic, or hybrid). In addition to computing proportional percentages of
frequencies distributions, chi-square and fisher exact tests were used to ascertain if relationships
existed between the variable categories.
Data Analysis Plan for Research Question #3B

In this section, the relevant variables and the data analysis plan that was formulated to facilitate the answering of question 3B are discussed. Research question 3B was as follows:

Do relationships exist between the unit level variables (i.e., CPED membership status and the degree conferred on the student) and the Nature of the Strategy Research Continuum variables?

The variable categories needed to answer the research question as well the data analysis plan needed to answer the research question are presented in in Figure 35, below.

![Variable Categories and Data Analysis Plan for Question 3B](image)

*Figure 35 Variable Categories and Data Analysis Plan for Question 3B*

This data analysis plan anticipated the creation of two 2 x 3 contingency tables. One 2 x 3 contingency table was comprised of the CPED membership status (member or not member) and the level-1 classification of strategy research (practical, academic, or hybrid). A second 2 x 3 contingency table was comprised of the degree conferred on the student who conducted the strategy research (PhD or other than PhD) and the level-1 classification of strategy research.
(practical, academic, or hybrid). For each contingency table, proportional percentages of
frequencies distributions were computed and chi-square and Fisher exact tests were planned to
ascertain whether relationships existed between the variable categories.

Data Analysis Plan for Research Question #3C

In this section, research question 3C, the relevant variables, and the data analysis plan formulated
to facilitate the answering of question 3C are discussed. Research question 3C is as follows:

Do relationships exist between the institution level variables and the Nature of the
Strategy Research Continuum (i.e., practical, academic, or not classifiable) variables?

In order to answer the research question, an array of variables, which are used to compile a
Dissertation Profile, are presented below, in Figure 36.

![Figure 36. Variable Categories and Data Analysis Plan for Question 3C](image-url)
The variable categories listed in Figure 36 comprise the relevant variables necessary to answer question 3C. The data analysis plan anticipated the creation of three contingency tables. One 3 x 3 contingency table was comprised of the sectoral orientation (for-profit, nonprofit, and governmental) of institutions that published dissertations considered in this study and the level-1 classification of strategy research (practical, academic, or hybrid). A second 3 x 3 contingency table was comprised of the size (small, medium, and large as determined by the Carnegie Classification System) of institutions that published dissertations considered in this study and the level-1 classification of strategy research (practical, academic, or hybrid). The last contingency planned was a 4 x 3 contingency table comprised of the research intensity (using the four categories of institutional research intensity as determined by the Carnegie Classification System) of institutions that published dissertations considered in this study and the level-1 classification of strategy research (practical, academic, or hybrid). For each of the three contingency tables, proportional percentages of frequencies distributions were computed and chi-square and Fisher exact tests were planned to ascertain if relationships existed between the variable categories.

**Limitations, Inferences, & Trustworthiness**

The limitations of this study resulted from the limited scope and the research method utilized. The limitation in scope included a single data source and limited inter-rater reliability. In this study, content analysis was used in the examination and coding of 408 dissertations written in education doctoral programs in the U.S. The sample was drawn from one source using a purposeful non-random sampling plan. The sample consisted of strategy-related
dissertations (with dates ranging from January 1, 2005 through December 31, 2014). No inferences could be made regarding the dates before or after the date range of January 1, 2005 through December 31, 2014.

In this study, a dissertation coding scheme was developed to analyze qualitative variables that were quantified during the content analysis process to answer the research questions and subsidiary questions. In executing the data gathering stage of this study, I served as the only person to code the sample of dissertations, which raises a concern with credibility (Alise, 2008). In order to mitigate this issue, I conducted a second content analysis of 10% of the dissertations comprising the sample in this study. This second content analysis was conducted to ensure that the original content analysis conclusions were consistent with the second conclusions. No differences were found in these conclusions.

Two types of inferences were presented in this study. First, qualitative inferences based upon the profile of dissertations were presented. Second, statistical inferences were drawn in this study using a chi-square test of independence. There are two concerns regarding this test. First, a purposeful sampling plan (not randomized) was used, but a census approach (i.e., 100% of the dissertations meeting the sampling criteria that fell within the designated date range were selected for coding) to the sampling plan was deployed, thus mitigating the challenge to making inferences.

When conducting statistical tests, chi-square and Fisher’s Exact tests were utilized, as appropriate. This resulted in a limitation in determining significance. Additionally, there was concern with respect to the small frequencies in certain cross-tabulation tables subjected to such statistical analysis. For chi-square, there is a general rule that the “smallest expected frequency
should be at least five” (Lovric, 2011). During the data analysis phase, a decision was made as to when a Fisher’s exact test of independence was utilized. According to McDonald (2009), Fisher’s exact test produces more accurate results when the expected frequencies are small.
CHAPTER 4
DATA ANALYSIS AND FINDINGS

Introduction

Of 3,367 doctoral dissertations that were initially evaluated for this study, a total of 408 were subjected to content analysis. The final sample of 408 dissertations was chosen for content analysis by utilizing a three-step process. First, a list of potential strategy-related dissertations was compiled using the Pro Quest Education Journals online database. In order to compile this list, the database was searched to identify dissertations using the terms strategy and strategic in the abstract or title of dissertations in the database searched that were published during the years 2005-2014. The search resulted in a list of dissertations that were reviewed in step two. In the second step, a total of 2,550 dissertations were removed from the original list of 3,367 because the dissertations either were published from non-US based educational institutions or contained sufficient enough information on the list to conclude that the dissertations did not meet the selection criteria (i.e., the dissertation is classifiable as strategy research). This culling process resulted in a list of 817 dissertations that were subjected to a more thorough review of each. In the final step, each of the 817 dissertations were carefully reviewed to derive the final total of 408.

The final culling process coincided with the content analysis to identify those meeting the criteria as being classifiable along the nature of strategy research continuum (i.e., Practical, Hybrid, or Academic Strategy Research). The continuum was introduced in the conceptual framework section of this dissertation and discussed in detail in Chapter 2. A total of 408 dissertations were identified as being classifiable along the Nature of Strategy Research
Continuum and were subjected to content analysis using a package of forms collectively referred to as the Content Analysis Form (Appendices A and B). After conducting a content analysis of Table 10

*Completed Dissertations by Institution, Period 1 and Period 2*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005 to 2009</td>
<td>2010 to 2014</td>
<td>2005 to 2014</td>
</tr>
<tr>
<td>University of Southern California</td>
<td>8</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>University of Pennsylvania</td>
<td>16</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>University of LaVerne</td>
<td>11</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Walden University</td>
<td>1</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Capella University</td>
<td>2</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Pepperdine University</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Johnson and Wales University</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Columbia University</td>
<td>2</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>University of South Dakota</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Lindenwood University</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>University of Kentucky</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>All others (155 – 11 = 144)</td>
<td>106</td>
<td>158</td>
<td>264</td>
</tr>
<tr>
<td>Total (N = 155)</td>
<td>161</td>
<td>247</td>
<td>408</td>
</tr>
</tbody>
</table>
the 408 dissertations, the resulting data were input into the SPSS data file and were summarized in Table 10 (above) and in a Dissertation Profile (Appendix C). The 408 dissertations that were written by student researchers who individually sought doctoral degrees from 155 different institutions are summarized in Table 15.

More strategy-related dissertations that were selected for content analysis were published in Period 2 than in Period 1. In Period 1, 39.4% of the dissertations ($n=161$) were published, and 60.6% of the dissertations ($n=247$) were published during Period 2. This represents a 53.4% increase ($n=86$) in the number of strategy-related dissertations published from Period 1 to Period 2 that met the criteria for content analysis set for this dissertation. From the years 2005 through 2014, eleven institutions are specifically listed, representing 35.29% of the dissertations considered in this study. These eleven institutions are specifically listed because each of the eleven institutions produced more than five dissertations that met the criteria for this study. The remaining 144 institutions ($155-11=144$) are unspecified because, at these institutions, less than five dissertations ($n=264$) were produced during the same time period.

**Demographic Variables**

In this section, the variables included in the Dissertation Profile referred to as Dissertation Source Variables are summarized and analyzed. A graphic representation of the
Dissertation Source Variables are presented above, in Figure 37 and in this study were distinguished from Dissertation Subject Variables (the subject of the student’s study).

**Institutional Level Variables**

Institutional Level Variables are the highest-level of the three Dissertation Source Variables. For this dissertation, there were three Institutional Level Variables included in the Dissertation Profile. The Institutional Level Variables were those variables that described the source institutions (institutions from which the dissertations of interest are derived) that were classified by sector, size, and research intensity.

**Sector of Source Institution**

A cross-tabulation table was created using the variables “sector” of the source institution and the time period in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation table is presented below.

There were no statistically-significant differences between the total dissertations published from institutions of differing control types (public versus private) and during the two time periods.
As shown in Table 11, the number of dissertations has changed between Period 1 (2005-2009) and Period 2 (2010-2014). The number of strategy-related dissertations at “private institutions” (for-profit and nonprofit) increased from 72 in Period 1 to 134 in Period 2, representing an 86.11% increase from Period 1 to 2. During the same period, the number of strategy-related dissertations at “public institutions” increased from 89 in Period 1 to 113 in Period 2, representing a 26.97% increase from Period 1 to 2. The number of strategy-related dissertations emanating from “private institutions” increased (86.11% increase) at a moderately faster rate than strategy-related dissertations from “public institutions” (26.97% increase). An inverse trend in proportion was identified, as reflected in the data reported in Table 11. As a proportion of the total, the percentage rate for dissertations from “private institutions” increased from Period 1 to Period 2 (44.7% to 54.3%) while the percentage rate of dissertations from “public institutions” decreased from Period 1 to Period 2 (55.3% to 45.7%).
Size of Source Institution

A cross-tabulation table was created using the “size” variable of the source institution and time period in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation is presented below.

Table 12

Size of Source Institution

<table>
<thead>
<tr>
<th>Size</th>
<th>Period 1 2005 – 2009</th>
<th>Period 2 2010 – 2014</th>
<th>Total</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>112</td>
<td>173</td>
<td>285</td>
<td>69.9</td>
<td></td>
</tr>
<tr>
<td>Other than large</td>
<td>49</td>
<td>74</td>
<td>123</td>
<td>30.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>247</td>
<td>408</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

$X^2 > .05$, NS.

There were no statistically significant differences between the numbers of dissertations published from institutions of differing sizes and the numbers of those published during two time periods (2005-2009 and 2010-2014). As shown on Table 12, the number of dissertations has changed between Period 1 (2005-2009) and Period 2 (2010-2014). The number of strategy-related dissertations at “large” institutions increased from 112 in Period 1 to 173 in Period 2, representing a 54.46% increase from Period 1 to Period 2. During the same two periods, the number of strategy-related dissertations at “other than large” institutions increased from 49 in Period 1 to 74 in Period 2, representing a 51.02% increase between these periods. The number of
strategy-related dissertations emanating from “large institutions” increased (54.46% increase) at a slightly faster rate than strategy-related dissertations emanating from “other than large” institutions (51.02% increase). In addition to the change in quantities from Period 1 to Period 2, a change in proportions was observed. A minor inverse trend in proportion was identified, as reflected in the data reported in Table 12. As a proportion of the total, the percentage rate for “large institutions” increased from Period 1 to Period 2 (69.6% to 70.0%) while the percentage rate for “other than large” institutions decreased from Period 1 to Period 2 (30.4% to 30.0%).

Research Intensity of Source Institution

A cross-tabulation table was created using the “research intensity” variables of the source institutions and time period in which the dissertation was published (Period 1= 005-2009 and Period 2 = 2010-2014). An analysis of the resulting cross-tabulation table is presented below.

Table 13

Research Intensity of the Source Institution

<table>
<thead>
<tr>
<th>Research intensity</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Other than very highly intensive</td>
<td>86  53.4</td>
<td></td>
<td>139  56.3</td>
<td></td>
<td>225  55.1</td>
<td></td>
</tr>
<tr>
<td>Very highly intensive</td>
<td>75  46.6</td>
<td></td>
<td>108  43.7</td>
<td></td>
<td>183  44.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>161 100.0</td>
<td></td>
<td>247 100.0</td>
<td></td>
<td>408 100.0</td>
<td></td>
</tr>
</tbody>
</table>

\[X^2 > .05, \text{NS.}\]
There were no statistically-significant differences between the numbers of dissertations published from institutions with differing levels of research intensity and the two time periods (2005-2009 and 2010-2014). As shown in Table 13, the number of dissertations has changed between them. The number of strategy research related dissertations at institutions classified as “other than very highly intensive” increased from 86 in Period 1 to 139 in Period 2, representing a 61.63% increase from Period 1 to Period 2. During the same two periods, the number of strategy-related dissertations at institutions classified as “very highly intensive” research institutions increased from 75 in Period 1 to 108 in Period 2, representing a 44.00% increase from Period 1 to Period 2. The number of strategy-related dissertations emanating from other institutions classified as “other than very highly intensive” increased (61.63% increase) at a faster rate than strategy-related dissertations emanating from institutions classified as “very highly intensive” (44.00% increase). In proportions, a relatively minor inverse trend was identified, as reflected in the data reported in Table 13. As a proportion of the total, the percentage rate for institutions classified as “other than very highly intensive” research institutions increased from Period 1 to Period 2 (53.4% to 56.3%) while the percentage rate for those institutions classified as “very highly intensive” research institutions decreased from Period 1 to Period 2 (46.6% to 43.7%).

**Unit Level Variables**

The second level (a level that is lower than the institutional level discussed above) of variables identified as Dissertation Source Variables are discussed in this section. The unit level
variables (college or school) of interest in this section were the “degree conferred on the student researcher” and the “CPED Membership” status of the college or school.

**CPED Membership Status**

A cross-tabulation table was created using the variables “CPED membership status” and the time-period in which the dissertation was published (Period 1=2005-2009 and “period 2”=2010-2014). An analysis of the resulting cross-tabulation table is presented below.

There was a statistically significant difference between the number of dissertations published from institutions with differing CPED membership status and those published during the two time periods ($X^2 = 4.32, p < .05$). As shown in Table 14, the number of dissertations has changed between Period 1 (2005-2009) and Period 2 (2010-2014). CPED Status was

<table>
<thead>
<tr>
<th>CPED membership status</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Not a member of CPED</td>
<td>139</td>
<td>86.3</td>
<td>193</td>
</tr>
<tr>
<td>CPED member</td>
<td>22</td>
<td>13.7</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
</tr>
</tbody>
</table>

$X^2 (1, N = 408) = 4.32, p < .05$. 

Table 14

**CPED Membership Status**
determined with reference to an article by Storey et al. (2015), who identified CPED member institutions as either phase I, II, or III institutions in accordance with the date that a particular institution joined the CPED as a member. The three phases are as follows:

- Phase I – 2007 through 2010,
- Phase II – 2011 through 2013, and
- Phase III - 2014

The number of strategy-related dissertations at institutions that were “not a member of CPED” increased from 139 in Period 1 to 193 in Period 2, representing a 38.85% increase from Period 1 to Period 2. During the same time periods, the number of strategy-related dissertations at institutions that are “CPED members” increased from 22 in Period 1 to 54 in Period 2, representing a 145.45% increase from Period 1 to Period 2. The number of strategy-related dissertations emanating from institutions that are “CPED members” increased (by 145.45%) at a materially faster rate than strategy-related dissertations emanating from institutions that are “not a member of CPED” (38.85% increase). An inverse trend in proportions was identified as reflected in the data reported in Table 14. As a proportion of the total, the percentage rate for institutions that were a “CPED member” proportionally increased from Period 1 to Period 2 (13.7% to 21.9%) while the percentage rate of dissertations from institutions that were “not a CPED member,” proportionally, decreased from Period 1 to Period 2 (86.3% to 78.1%).

**Degree Conferred**

A cross-tabulation table was created in SPSS using the variables “degree conferred” on the student researcher and time period in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation table is presented below.
Table 15

*Degree Conferred on Student Researcher*

<table>
<thead>
<tr>
<th>Degree conferred</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Other than Ph.D.</td>
<td>128</td>
<td>79.5</td>
<td>191</td>
<td>77.3</td>
<td>319</td>
<td>78.2</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>33</td>
<td>20.5</td>
<td>56</td>
<td>22.7</td>
<td>89</td>
<td>21.8</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
<td>100.0</td>
<td>408</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$X^2 > .05$, NS.

There were no statistically significant differences between the number of dissertations written by students seeking differing doctoral degrees and those published during the two time periods (2005-2009 and 2010-2014). As shown in Table 15, the number of dissertations has changed between time Period 1 (2005-2009) and Period 2 (2010-2014). The number of strategy-related dissertations classified as “other than a PhD” degrees increased from 128 in Period 1 to 191 in Period 2, representing a 49.2% increase from Period 1 to 2. During the same two period, the number of strategy-related dissertations classified as a “PhD” increased from 33 in Period 1 to 56 in Period 2, representing a 69.7% increase from Period 1 to 2. The number of strategy-related dissertations emanating from institutions conferring doctoral degrees classified as “PhD” degrees in education increased (69.70%) at a faster rate than strategy-related dissertations emanating from institutions conferring degrees classified as a “other than PhD” (49.22% increase). An inverse trend was realized in proportions was identified as reflected in the data reported in Table 15. As a proportion of the total, the percentage rate for institutions conferring “PhD” degrees in
education increased from Period 1 to Period 2 (20.5% to 22.7%), while the percentage rate for institutions conferring doctoral degrees classified as “other than PhD” in education proportionally decreased from Period 1 to Period 2 (79.5% to 77.3%).

**Student Level Variable**

The third level (the lowest of the three levels) of Dissertation Source Variables is considered in this section. Only one variable is considered in this section. The student level variable of interest in this section is the “gender” of the student researcher.

**Gender**

A cross-tabulation table was created using the variables “gender” of student researcher and the time period in which the dissertation was published. There were no statistically significant differences between the number of dissertations written by students of differing genders and those published during two time periods (2005-2009 and 2010-2014). As shown in Table 16, the number of dissertations has changed between time Period 1 (2005-2009) and Period 2 (2010-2014). The number of strategy-related dissertations written by “female students” increased from 91 in period 1 to 151 in period 2, representing a 65.93% increase from Period 1 to Period 2. During the same two periods, the number of strategy-related dissertations written by “male students” increased from 70 in Period 1 to 96 in Period 2,
Table 16

Gender of the Student Researcher

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Female students</td>
<td>91</td>
<td>56.5</td>
<td>151</td>
</tr>
<tr>
<td>Male students</td>
<td>70</td>
<td>43.5</td>
<td>96</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
</tr>
</tbody>
</table>

$X^2 > .05$, NS.

representing a 37.14% increase. The number of strategy-related dissertations written by “female students” increased (65.93% increase) at a faster rate than strategy-related dissertations written by “male students” (37.14% increase). An inverse trend, in proportion, was realized as reflected in the data reported in Table 16. As a proportion of the total, the percentage rate of dissertations written by “female students” increased from Period 1 to Period 2 (56.5% to 61.1%) while the percentage rate of dissertations written by “male students” decreased from Period 1 to Period 2 (43.5% to 38.9%).

Research and Dissertation Subject Variables

In total, 408 dissertations were subjected to content analysis in this study. In this section, the research methodologies utilized by student researchers and select variables relative to the subject of the research in the student’s respective dissertations are summarized and analyzed. These two categories of variables are graphically depicted below, in Figure 38.
Research Methodology Utilized in Dissertation

A cross-tabulation table was created using the variables “research methodology” and the time period in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation table is presented below. There were no statistically-significant differences between the number of dissertations written by students using differing research methodologies and those published during the two time periods (2005-2009 and 2010-2014).
Table 17

*Research Methodology Used by Student Researchers*

<table>
<thead>
<tr>
<th>Research Methodology</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Qualitative research</td>
<td>86</td>
<td>53.4</td>
<td>146</td>
<td>59.1</td>
<td>232</td>
<td>56.9</td>
</tr>
<tr>
<td>Quantitative research</td>
<td>36</td>
<td>22.4</td>
<td>54</td>
<td>21.9</td>
<td>90</td>
<td>22.1</td>
</tr>
<tr>
<td>Mixed research</td>
<td>39</td>
<td>24.2</td>
<td>47</td>
<td>19.0</td>
<td>86</td>
<td>21.0</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
<td>100.0</td>
<td>408</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\[X^2 > .05, \text{NS.}\]

As shown in Table 17, the number of dissertations has changed between time Period 1 (2005-2009) and time Period 2 (2010-2014). The number of strategy-related dissertations written by students using a “qualitative research” methodology increased from 86 in Period 1 to 146 in Period 2, representing a 69.77% increase between them. The number of strategy-related dissertations written by students using a “quantitative research” methodology increased from 36 in Period 1 to 54 in Period 2, representing a 50.00% increase. The number of strategy-related dissertations written by students using a “mixed research” methodology increased from 39 in Period 1 to 47 in Period 2, representing a 20.51% increase from Period 1 to Period 2. Strategy-related dissertations written by students using a “qualitative research” methodology increased (69.77% increase) at a faster rate than strategy-related dissertations written by students using a “quantitative research” methodology (50.00% increase) and at a faster rate than those dissertations written by students using a “mixed research” methodology (20.51% increase). In
proportion, an inverse trend was realized, as reflected in the data reported in Table 17. As a proportion of the total, the percentage rate for dissertations written by students using a “qualitative research” methodology increased from Period 1 to Period 2 (53.4% to 59.1%) while the percentage rate for dissertations written by students using a “quantitative research” methodology decreased from Period 1 to Period 2 (22.4% to 21.9%) and the percentage rate of dissertations written by students using a “mixed research” methodology decreased from Period 1 to Period 2 (24.2% to 19.0%).

**Dissertation Subject Variables**

In this section, the Dissertation Subject Variables were the variables of interest. For the purpose of this study, the dissertation subjects were individual(s) or organization(s) that were the primary focus of the strategy research conducted by the student researcher and that were discussed in the dissertations considered in this study. The Dissertation Subject Variables are graphically presented in Figure 39 (below). In this study, there were four variables used to describe the subject of the student researcher’s dissertation. In addition to the four descriptive variables, the “nature of strategy research” (practical, hybrid, or academically oriented) is considered. While such variables are also descriptive, they are the primary variable of interest in
this study. The four variables that identify the subject of the student researchers’ dissertation were considered first.

**Focus of Strategy Research**

A cross-tabulation table was created using the variables “focus of strategy research” and the time period in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation table is presented below. For the purposes of this study, the “focus of the strategy research” refers to whether or not the primary focus of the research is on individuals or organizations.

Table 18

**Focus of Strategy Research**

<table>
<thead>
<tr>
<th>Focus of strategy research</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on organizations</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Focus on organizations</td>
<td>126</td>
<td>78.3</td>
<td>208</td>
<td>84.2</td>
<td>334</td>
<td>81.9</td>
</tr>
<tr>
<td>Focus on individuals</td>
<td>35</td>
<td>21.7</td>
<td>39</td>
<td>15.8</td>
<td>74</td>
<td>18.1</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
<td>100.0</td>
<td>408</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$X^2 > .05$, NS.

There were no statistically-significant differences between the numbers of dissertations written about differing research foci and published during the two time periods (2005-2009 and 2010-2014).
As shown on Table 18, the number of dissertations has changed between time Period 1 (2005-2009) and time Period 2 (2010-2014). The number of strategy-related dissertations written by students with a “focus on organizations” increased from 126 in Period 1 to 208 in Period 2, representing a 65.08% increase between them. Over the same two periods, the number of strategy-related dissertations written by students with a “focus on individuals” increased from 35 in Period 1 to 39 in Period 2, representing an 11.43% increase from Period 1 to Period 2. Strategy-related dissertations written by students with a “focus on organizations” increased (65.08% increase) at a faster rate than strategy-related dissertations with a focus on individuals (a 11.43% increase). An inverse trend, in proportion, was realized, as reflected in the data reported on Table 18. As a proportion of the total, the percentage rate for dissertations considered in this study with a “focus on organizations” proportionally increased from Period 1 to Period 2 (78.3% to 84.2%) while the percentage rate for dissertations with a focus on individuals proportionally decreased from Period 1 to Period 2 (21.7% to 15.8%).

**Sector of Subject**

A cross-tabulation table was created in SPSS using the variables “sector” of the student researchers’ subject(s) and time period, in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation table was presented below. As indicated in Table 19 below, 81.4% of strategy-related dissertations were classifiable by “sector” of the student researcher’s subject and 18.6% were unclassifiable due to lack of information in the dissertations so as to allow for such classification. In total, 71.6% of all strategy-related dissertations were about research subjects with a “public sector” orientation.
Table 19

Sectors of the Student Researchers Subject(s)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Public sector</td>
<td>117</td>
<td>72.7</td>
<td>175</td>
<td>70.9</td>
<td>292</td>
<td>71.6</td>
</tr>
<tr>
<td>Nonprofit sector</td>
<td>15</td>
<td>9.3</td>
<td>12</td>
<td>4.9</td>
<td>27</td>
<td>6.6</td>
</tr>
<tr>
<td>More than one sector</td>
<td>5</td>
<td>3.1</td>
<td>7</td>
<td>2.8</td>
<td>12</td>
<td>2.9</td>
</tr>
<tr>
<td>For-profit sector</td>
<td>1</td>
<td>0.6</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Total classifiable</td>
<td>138</td>
<td>85.7</td>
<td>194</td>
<td>78.6</td>
<td>332</td>
<td>81.4</td>
</tr>
<tr>
<td>Unclassifiable</td>
<td>23</td>
<td>14.3</td>
<td>53</td>
<td>21.4</td>
<td>76</td>
<td>18.6</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
<td>100.0</td>
<td>408</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\( P = .253 \) Fisher’s Exact Test, NS.

There were no statistically significant differences between the numbers of dissertations written about subjects hailing from differing sectors and those published during the two time periods (2005-2009 and 2010-2014).

As shown in Table 19, the number of dissertations has changed between time Period 1
(2005-2009) and time Period 2 (2010-2014). The classifiable number of strategy-related dissertations written by doctoral students of education that were about the subject(s) hailing from the “public sector” increased from 117 in Period 1 to 175 in Period 2, representing an 86.11% increase from Period 1 to Period 2. Over the same two periods, the number of classifiable strategy-related dissertations written by doctoral students of education that were about the subject(s) hailing from the private sector (for-profit or not-for-profit sectoral organizations) decreased from 16 in Period 1 to 12 in Period 2, representing a 33% decrease. Lastly, the number of classifiable strategy-related dissertations written by doctoral students of education who studied more than one organization, and each of these organizations, hailed from “more than one sector” (for-profit, not-for-profit, and/or public sectoral organizations), increasing from 5 in Period 1 to 7 in Period 2, a 40% increase between them. In addition to the change in quantities from Period 1 to Period 2, a change in proportion was observed.

An overall downward trend in proportions was realized. While the number classifiable dissertations that had subjects hailing from the “public sector” increased in total \(n=117\) to \(n=175\) from Period 1 to Period 2, the overall percentage rate for such dissertations that were of public orientation, proportionally, decreased from Period 1 to Period 2 (72.7% to 70.9%). Over the same two periods, the number of classifiable dissertations that were about subjects hailing from the “private sector” (for-profit and not-for-profit) decreased in total (from \(n=16\) to \(n=12\)) from Period 1 to Period 2, and the overall percentage rate for dissertations that were about privately-oriented subjects, proportionally, decreased from Period 1 to Period 2 (9.9% to 4.9%). Over the same two periods, the number of classifiable dissertations that were about subjects hailing from “more than one sector” (for-profit, not-for-profit and/or public) increased in total
(from $n=5$ to $n=7$) from Period 1 to Period 2, and the overall percentage rate for dissertations about research subjects hailing from “more than one sector,” proportionally, decreased from Period 1 to Period 2 (3.1% to 2.8%).

**Education Level of Subject**

A cross-tabulation was created using the variables “the education level” of the research subject and the time period in which the dissertation was published (Period 1=2005-2009 and Period 2 = 2010-2014). An analysis of the resulting cross-table is presented below.

Table 20

*Education Level of the Research Subject*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-K through 12</td>
<td>105 65.1</td>
<td>178 72.1</td>
<td>283 69.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher ed 4 yrs or more</td>
<td>31 19.3</td>
<td>36 14.6</td>
<td>67 16.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community college / 2 yrs</td>
<td>22 13.7</td>
<td>24 9.7</td>
<td>46 11.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than one level</td>
<td>3 1.9</td>
<td>9 3.6</td>
<td>12 2.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>161 100.0</td>
<td>247 100.0</td>
<td>408 100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$P = .233$ Fisher’s Exact Test, NS.

There were no statistically significant differences between the number of dissertations written about subjects hailing from institutions at various education levels and those published during the two-time periods (2005-2009 and 2010-2014).
As shown on Table 20, the number of dissertations changed between time Period 1 (2005-2009) and Period 2 (2010-2014). During the two periods, the number of strategy-related dissertations written by doctoral students of education that reflected strategy research of subjects hailing from the “Pre-K through 12” level of education increased from 105 in Period 1 to 178 in Period 2, representing a 70% increase between them. The number of strategy-related dissertations that reflected the strategy research of subjects hailing from higher education (“Higher Ed-4yrs or more” and “Community College / 2 yr”) increased from 53 in Period 1 to 60 in Period 2, representing a 13% increase. The number of strategy-related dissertations considered in this study that reflected the strategy research of multiple subjects that, collectively, hailed from more than one level of education increased from 3 in Period 1 to 9 in Period 2, representing a 200% increase between them.

The number dissertations that were about “Pre-K through 12” subjects increased in total (n=105 to n=178) from Period 1 to Period 2, and the overall percentage rate (percentage of the total 408 dissertations considered in this study) for such dissertations, proportionally, increased from Period 1 to Period 2 (65.1% to 72.1%). During the same two periods, the number of dissertations that were about subjects operating in higher education (“community colleges / 2 yr” and “Higher Ed-4 yrs”) increased in total (from n=53 to n=60) from Period 1 to Period 2, and the overall percentage rate for dissertations about subjects in higher education proportionally decreased from Period 1 to Period 2 (33.0% to 24.3%). During the same two periods, the number of dissertations that were about subjects collectively hailing from “more than one level” of education (“Pre-K through 12,” “community colleges / 2 yr.,” and “Higher Ed-4 yrs.”) increased in total (n=3 to n=9) from Period 1 to Period 2, and the overall percentage rate for dissertations
about research subjects collectively hailing from “more than one sector,” proportionally, increased from Period 1 to Period 2 (1.9% to 3.6%).

**Hierarchical Level of the Research Subject**

A cross-tabulation table was created using the variables “hierarchical level” of the research subject and time period in which the dissertation was published (Period 1=2005-2009 and Period 2 = 2010-2014). An analysis of the resulting cross-tabulation table is presented below. There were no statistically-significant differences between the numbers of dissertations written about subjects hailing from organizations with differing strata classified and published during the two time-periods (Period 1=2005-2009 and Period 2=2010-2014).

Table 21

*Hierarchical Level of the Research Subject*

<table>
<thead>
<tr>
<th>Hierarchical level</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td></td>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Strata 1 through 5</td>
<td>67</td>
<td>41.6</td>
<td>131</td>
<td>53.0</td>
<td>198</td>
<td>48.5</td>
</tr>
<tr>
<td>Strata 6 through 9</td>
<td>74</td>
<td>46.0</td>
<td>94</td>
<td>38.1</td>
<td>168</td>
<td>41.2</td>
</tr>
<tr>
<td>More than one strata</td>
<td>20</td>
<td>12.4</td>
<td>22</td>
<td>8.9</td>
<td>42</td>
<td>10.3</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
<td>100.0</td>
<td>408</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$X^2 > .05$, NS.

dissertations written about subjects hailing from organizations with differing strata classified and published during the two time-periods (Period 1=2005-2009 and Period 2=2010-2014).

As shown in Table 21, the number of dissertations has changed between Period 1 (2005-2009) and Period 2 (2010-2014). During the two periods, the number of strategy-related
dissertations written by doctoral students of education that reflected the strategy research of subjects classifiable within “strata 1 through 5” increased from 67 in Period 1 to 131 in Period 2, representing a 96% increase from Period 1 to Period 2. The number of strategy-related dissertations written by doctoral students of education that reflected the strategy research of subjects classifiable within “strata 6 through 9” increased from 74 in Period 1 to 94 in Period 2, representing a 27% increase. The number of strategy-related dissertations written by doctoral students of education that reflected the strategy research of multiple subjects and were collectively classifiable within “more than one strata” increased from 20 in Period 1 to 22 in Period 2, representing a 10% increase. In addition to the change in quantity from Period 1 to Period 2, a change in proportion was observed.

An inverse trend in proportion was realized, as reflected in the data reported in Table 21. The number dissertations that were about subjects classified within “strata 1 through 5” increased in total (n=67 to n=131) from Period 1 to Period 2, and the overall percentage rate (percentage of the total 408 dissertations considered in this study) for such dissertations, proportionally, increased from Period 1 to Period 2 (41.6% to 53.0%). During the same two periods, the number of dissertations that were about subjects classified within “strata 6 through 9” increased in total (from n=74 to n=94) from Period 1 to Period 2, and the overall percentage rate for such dissertations decreased proportionally from Period 1 to Period 2 (46.0% to 38.1%). During the same two periods, the number of dissertations that included more than one subject and the consideration of “more than strata” are considered an increase in total (for n=20 to n=22) from Period 1 to Period 2, but the overall percentage rate for such dissertations decreased proportionally from Period 1 to Period 2 (12.4% to 8.9%).
Nature of Strategy Research

A cross-tabulation table was created using the variables “nature of strategy research” and the time-period in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation table is presented below.

Table 22
Nature of Strategy Researched

<table>
<thead>
<tr>
<th>Nature of strategy researched</th>
<th>Period 1</th>
<th></th>
<th>Period 2</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical strategy research</td>
<td>149</td>
<td>92.5</td>
<td>224</td>
<td>90.7</td>
<td>373</td>
<td>91.4</td>
</tr>
<tr>
<td>Hybrid strategy research</td>
<td>12</td>
<td>7.5</td>
<td>18</td>
<td>7.3</td>
<td>30</td>
<td>7.4</td>
</tr>
<tr>
<td>Academic strategy research</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>2.0</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
<td>247</td>
<td>100.0</td>
<td>408</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$P = .249$ Fisher’s Exact Test, NS.

There were no statistically-significant differences between the numbers of strategy-related dissertations produced at institutions and those produced during the two time periods (2005-2009 and 2010-2014).

As shown in Table 22, the number of dissertations has changed between Period 1 (2005-2009) and Period 2 (2010-2014). During the two periods, the number of strategy-related dissertations written by doctoral students of education that reflected the strategy research of subjects classifiable along the strategy research continuum as “practical strategy research”
increased from 149 in Period 1 to 224 in Period 2, representing a 50% increase. The number of strategy-related dissertations written by doctoral students of education that reflected the strategy research of subjects classifiable along the strategy research continuum as “hybrid strategy research” increased from 12 in Period 1 to 18 in Period 2, representing a 50% increase. The number of strategy-related dissertations written by doctoral students of education that reflected strategy research classifiable along the strategy research continuum as “academic strategy research” increased from 0 in Period 1 to 5 in Period 2.

In addition to the change in quantities from Period 1 to Period 2, a change in proportion was observed. The number strategy-related dissertations that were classified along the Nature of Strategy Research Continuum as “practical strategy research” increased in total ($n=149$ to $n=224$) from Period 1 to Period 2, and the overall percentage rate (percentage of the total 408 dissertations considered in this study) for such dissertations proportionally decreased from Period 1 to Period 2 (92.5% to 90.7%). During the same two periods, the number of strategy-related dissertations that were classified along the Nature of Strategy Research Continuum as “hybrid strategy research” increased in total (from $n=12$ to $n=18$) from Period 1 to Period 2, but the overall percentage rate for such dissertations, proportionally, decreased from Period 1 to Period 2 (7.5% to 7.3%). During the same two periods, the number of dissertations that were classified along the Nature of Strategy Research Continuum as “academic strategy research” increased in total (from $n=0$ to $n=5$) from Period 1 to Period 2, and the overall percentage rate for such dissertations increased proportionally from Period 1 to Period 2 (00.0% to 2.0%).
Strategy Research Analysis

In this section, the nature of strategy research that was the subject of a cross-tabulation table analysis in the previous section, by reference to Table 22, was created using the variables “nature of strategy research” and “time period in which the dissertation was published.” The data contained in that table is analyzed further in this section. First, a cross-tabulation table is — presented using the variables “nature of strategy research—level 2” (level 1 was presented in Table 22) and “time-period in which the dissertation was published” (Period 1=2005-2009) and Period 2=2010-2014). After presenting and analyzing the Level 2 cross-tabulation, a series of cross-tabulation tables, including the “nature of strategy research” variables and sequentially including each of the variables classified as Dissertation Source Variables in separate cross-tabulation tables. These tables, individually and collectively, facilitate the answering of Research Question 3 of this study.

Strategy Research Continuum Cross-Tabulation

A cross-tabulation table was created using the variables identifiable as “nature of strategy research – Level 2” and the time-period in which the dissertation was published (Period 1=2005-2009 and Period 2=2010-2014). An analysis of the resulting cross-tabulation table is presented below. Table 23 shows the majority of dissertations that were considered
Table 23

*Dissertation Strategy Research – Level 2*

<table>
<thead>
<tr>
<th>Nature of strategy research</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n   %</td>
<td>n   %</td>
<td>n   %</td>
</tr>
<tr>
<td>Practical–Strategy Content</td>
<td>93 57.7</td>
<td>147 59.6</td>
<td>240 58.7</td>
</tr>
<tr>
<td>Practical–Strategic Practice</td>
<td>23 14.3</td>
<td>27 10.9</td>
<td>50 12.3</td>
</tr>
<tr>
<td>Practical–More than One</td>
<td>16 9.9</td>
<td>28 11.3</td>
<td>44 10.8</td>
</tr>
<tr>
<td>Practical–Strategic Processes</td>
<td>17 10.6</td>
<td>22 8.9</td>
<td>39 9.6</td>
</tr>
<tr>
<td>Hybrid–Practical and Academic</td>
<td>8 5.0</td>
<td>11 4.5</td>
<td>19 4.7</td>
</tr>
<tr>
<td>Hybrid–Research to inform Strategy</td>
<td>4 2.5</td>
<td>7 2.8</td>
<td>11 2.7</td>
</tr>
<tr>
<td>Academic-Strategy Teaching/Learning</td>
<td>0 0.0</td>
<td>3 1.2</td>
<td>3 0.7</td>
</tr>
<tr>
<td>Academic-Research Strategy Research</td>
<td>0 0.0</td>
<td>2 0.8</td>
<td>2 0.5</td>
</tr>
<tr>
<td>Total Strategy Research</td>
<td>161 100.0</td>
<td>247 100.0</td>
<td>408 100.0</td>
</tr>
</tbody>
</table>

in this study classified as practical strategy research and, more specifically, as “Practical – Strategy Content.” In total, 58.7% of strategy research ($n=240$) was research into strategy content as contemplated in education.

Research into strategy content, and the three other subcategories of practical strategy Categories, account for 91.4% of the strategy research conducted by students who were seeking doctoral degrees in education in the United States during the years 2005 through 2014.

Of the strategy research that was considered in this dissertation, 8.6% ($n=35$) was either hybrid or academic in nature.
Table 24

Nature of Strategy Research Totals

<table>
<thead>
<tr>
<th>Nature of strategy research</th>
<th>Practical</th>
<th>Hybrid</th>
<th>Academic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n % of Total</td>
<td>n % of Total</td>
<td>n % of Total</td>
<td>n % of Total</td>
<td>n % of Total</td>
</tr>
<tr>
<td>Total</td>
<td>373 91.4</td>
<td>30 7.4</td>
<td>5 1.2</td>
<td>408 100.0</td>
</tr>
</tbody>
</table>

Table 24 reflects the fact that 7.4% \((n=30)\) of the strategy research that was considered in this dissertation was “hybrid” strategy research in nature, and only 1.2% \((n=5)\) of the strategy research that was considered in this dissertation was “academic” in nature. In the sections of this dissertation that immediately follow, six different cross-tabulation tables are presented in sequence to facilitate the answering of Research Questions 2 and 3 of this study.

**Strategy Research and Gender Cross-Tabulation**

A cross-tabulation table was created using the variables “nature of strategy research” and “gender” of the student researcher. An analysis of the resulting cross-tabulation table is presented below. There were no statistically-significant differences between the numbers of dissertations
Table 25

Nature of Strategy Research and Gender of Student Researcher

<table>
<thead>
<tr>
<th>Gender</th>
<th>Practical</th>
<th>Hybrid</th>
<th>Academic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Female Students</td>
<td>221</td>
<td>59.2</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Male Students</td>
<td>152</td>
<td>40.8</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>373</td>
<td>100.0</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*P = .155 Fisher’s Exact Test, NS.*

that were written by students of differing genders and classified as strategy research that was either practical, hybrid, or academic in nature.

The data in Table 25 reveals that “female students” wrote 59.3% (*n*=242) of the total dissertations considered in this study (*n*=408) and, in total, “male students” wrote a lesser number of such dissertations by writing only 40.7% (*n*=166) of the such dissertations subjected to content analysis. Both categories of student researchers conducted more “practical” strategy research that any other type of strategy research. Of dissertations (*n*=221) classified as “practical” strategy research, 59.2% were written by “female students,” while “male students” wrote less of the similarly-classified dissertations (*n*=152), representing 40.8% of such dissertations.

As previously stated, dissertations classified as “hybrid” and “academic” strategy research collectively accounted for 8.6% (*n*=35) of all dissertations (*n*=408) that were subjected to content analysis. Table 25 reveals that “female students” wrote 66.7% (*n*=20) of the
dissertations considered in this study, which are classified as “hybrid” strategy research \((n = 30)\) and, in total, “male students” wrote a proportionally a lesser number of such dissertations. “Male students” wrote 33.3\% \((n=10)\) of the dissertations classified as “hybrid” strategy research. Also, Table 25 reveals that “male students” wrote 80.0\% \((n=4)\) of the dissertations considered in this study that were classified as “Academic” strategy research \((n = 5)\); in total, “female students” wrote a lesser number of such dissertations. “Female students” wrote 20.0\% \((n=1)\) of the dissertations classified as “academic” strategy research.

**Strategy Research and Degree Conferred Cross-Tabulation**

A cross-tabulation table was created using the variables “nature of strategy research” and “degree conferred” by the source institution. An analysis of the resulting cross-tabulation table is presented below. There were no statistically significant differences between the numbers of

Table 26

**Strategy Research and Degree Conferred on Student**

<table>
<thead>
<tr>
<th>Nature of Strategy Research</th>
<th>Practical</th>
<th>Hybrid</th>
<th>Academic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n)</td>
<td>%</td>
<td>(n)</td>
<td>%</td>
</tr>
<tr>
<td>Other Than PhD</td>
<td>290</td>
<td>77.7</td>
<td>25</td>
<td>83.3</td>
</tr>
<tr>
<td>PhD</td>
<td>83</td>
<td>22.3</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>373</td>
<td>100.0</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\(P = .855\) Fisher’s Exact Test, NS.
dissertations written by students seeking differing types of degrees conferred on the student researcher and classified as either practical, hybrid, or academic in nature.

The data in Table 26 reveals that students completing dissertations seeking doctoral degrees “other than PhD” wrote 78.2% \( (n=319) \) of the total dissertations considered in this study \( (n = 408) \); and, in total, students completing dissertations seeking “PhD” degrees wrote a lesser amount of such dissertations by writing 21.8% \( (n=89) \) of the such dissertations that were subjected to content analysis in this study. Both categories of student researchers conducted more “practical” strategy research: 77.7% of dissertations \( (n=290) \) were classified as “practical” strategy conducted by research students who completed dissertations seeking doctoral degrees “other than PhD” while students who completed dissertations seeking “PhD” degrees wrote less of the similarly classified dissertations \( (n=83) \), representing 22.3 % of such dissertations.

As previously stated, dissertations classified as “hybrid” and “academic” strategy research collectively accounted for 8.6% \( (n=35) \) of all dissertations \( (n=408) \) that were subjected to content analysis. Table 26 reveals that students completing dissertations seeking doctoral degrees “other than PhD” wrote 83.3% \( (n=25) \) of the dissertations considered in this study that were classified as “hybrid” strategy research \( (n=30) \); in total, students completing dissertations seeking doctoral degrees wrote a lesser amount of such dissertations. Students completing dissertations seeking “PhD” degrees wrote 16.7 % \( (n=5) \) of the dissertations classified as “hybrid” strategy research. Also, Table 26 reveals that students completing dissertations seeking “other than PhD” degrees wrote 80.0% \( (n=4) \) of the dissertations considered in this study, which are classified as “Academic” strategy research \( (n = 5) \); in total, students completing dissertations
seeking “PhD” degrees wrote a lesser amount of such dissertations. Such students wrote 20.0% 
\((n=1)\) of the dissertations classified as “academic” strategy research.

**Strategy Research and CPED Membership Cross-Tabulation**

A cross-tabulation table was created using the variables “nature of strategy research” and
“CPED membership status” of the source institution. An analysis of the resulting cross-
tabulation is presented below. There were no statistically significant differences between

Table 27

**Strategy Research and CPED Membership Status of Source Institution**

<table>
<thead>
<tr>
<th>CPED Membership Status</th>
<th>Nature of strategy research</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Practical</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Not a member</td>
<td>304</td>
<td>81.5</td>
<td>23</td>
<td>76.7</td>
<td>5</td>
</tr>
<tr>
<td>CPED member</td>
<td>69</td>
<td>18.5</td>
<td>7</td>
<td>23.3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>373</td>
<td>100.0</td>
<td>30</td>
<td>100.0</td>
<td>5</td>
</tr>
</tbody>
</table>

\(P = .561\) Fisher’s Exact Test, NS.

The data in Table 27 reveals that students who completed dissertations seeking doctoral
degrees in education from doctoral programs in education housed in institutions that are “not
members of CPED” wrote 81.4% (n=332) of the total dissertations considered in this study (n = 408); in total, students completing dissertations seeking degrees from “CPED member” institutions wrote a lesser amount of such dissertations by writing 18.6% (n=76) of the such dissertations that were subjected to content analysis in this study. Both categories of student researchers conducted more “practical” strategy research: 81.5% of dissertations (n=304) classified as “practical” strategy research were written by students completing dissertations seeking doctoral degrees from programs housed in institutions that were “not a member” of CPED. Over the same time period, students who completed dissertations from doctoral programs housed in institutions that were “CPED members” wrote a lesser amount of the similarly classified dissertations (n=69, representing 18.5 % of such dissertations).

As previously stated, dissertations classified as “hybrid” and “academic” strategy research, collectively, accounted for 8.6% (n=35) of all dissertations (n=408) that were subjected to content analysis. Table 27 reveals that students completing dissertations from doctoral programs housed in institutions that are “not members of CPED” wrote 76.7% (n=23) of the dissertations considered in this study that are classified as “hybrid” strategy research (n=30); in total, students completing dissertations seeking doctoral degrees from doctoral programs housed in institutions that were “CPED members” wrote a lesser amount of such dissertations. Students completing dissertations seeking doctoral degrees from doctoral programs housed in institutions that were “CPED members” wrote 23.3% (n=7) of the dissertations classified as “hybrid” strategy research. Also, Table 27 reveals that students completing dissertations from doctoral programs housed in institutions that are “not members of CPED” wrote 100.0% (n=5) of the dissertations considered in this study that were classified as “Academic” strategy research (n=5).
In total, students completing dissertations from doctoral programs housed in institutions that were “CPED members” did not write any of the dissertations classified as “academic” strategy research.

**Strategy Research and Sector Cross-Tabulation**

A cross-tabulation table was created using the variables “nature of strategy research” and the “sector of source institution.” An analysis of the resulting cross-tabulation table is presented below. There were no statistically significant differences between the numbers of dissertations published at institutions hailing from differing sectoral orientation and classified as strategy research that was either practical, hybrid, or academic in nature.

<table>
<thead>
<tr>
<th>Nature of strategy research</th>
<th>Practical</th>
<th>Hybrid</th>
<th>Academic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Governmental</td>
<td>186</td>
<td>49.9</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>Not-for-profit</td>
<td>159</td>
<td>42.6</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>For-profit</td>
<td>28</td>
<td>7.5</td>
<td>2</td>
<td>6.6</td>
</tr>
<tr>
<td>Total</td>
<td>373</td>
<td>100.0</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

$p = .954$ Fisher’s Exact Test, NS.
The data in Table 28 reveals that students who completed dissertations from doctoral programs housed in “governmental” institutions wrote the most of such dissertations by writing 49.5% \((n=202)\) of the total dissertations considered in this study \((n = 408)\). In total, students who completed dissertations from doctoral programs housed in “not-for-profit” institutions wrote a lesser amount of such dissertations by writing 43.1% \((n=176)\) of the dissertations considered in this study. Students who completed dissertations from doctoral programs housed in “for-profit” institutions wrote the least number of dissertations. Students from “for-profit” institutions wrote 7.4% \((n=30)\) of the dissertations considered in this study.

Regardless of the sectoral orientation of the institutions at which the student matriculated to earn a doctoral degree in education, student researchers conducted more “practical” strategy research that any other category of strategy research. Students who completed dissertations from doctoral programs housed in institutions that are considered to be “governmental” sector institutions wrote most of such dissertations by writing 49.9% of the dissertations \((n=186)\) classified as “practical” strategy research. Students who completed dissertations from doctoral programs housed in intuitions “not-for-profit” institutions wrote 42.6 % of dissertations \((n=159)\) classified as “practical” strategy research. Students who completed dissertations from doctoral programs housed in “for-profit” institutions wrote 7.5 % of dissertations \((n=28)\) classified as “practical” strategy research.

Dissertations classified as “hybrid” strategy research collectively accounted for 7.3% \((n=30)\) of all dissertations \((n=408)\) that were subjected to content analysis. Students who completed dissertations from doctoral programs housed in “governmental” institutions wrote 46.7% of the dissertations \((n=14)\) classified as “hybrid” strategy research. Students who completed dissertations from doctoral programs housed in intuitions that are considered to be in
the “not-for-profit” sector institutions wrote 46.7% of dissertations (\(n=14\)) classified as “hybrid” strategy research. Students who completed dissertations from doctoral programs housed in intuitions that are considered to be “for-profit” institutions wrote 6.6% of dissertations (\(n=2\)) classified as “hybrid” strategy research.

Dissertations classified as “academic” strategy research collectively accounted for 1.2% (\(n=5\)) of all dissertations (\(n=408\)) that were subjected to content analysis. Students who completed dissertations from doctoral programs housed in intuitions “governmental” sector institutions wrote 40.0% of dissertations (\(n=2\)) classified as “academic.” Students who completed dissertations from doctoral programs housed in “not-for-profit” sector institutions wrote 60.0% of dissertations (\(n=3\)) classified as “academic” strategy research. Students who completed dissertations from doctoral programs housed in “for-profit” sector organizations did not write any dissertations classified as “academic” strategy research.

**Strategy Research and Institution Size Cross-Tabulation**

A cross-tabulation table was created using the variables “nature of strategy research” and “size of the source institution.” An analysis of the resulting cross-tabulation table is presented below. There were no statistically significant differences between the number of dissertations published from institutions of differing sizes and classified as strategy research that was either practical, hybrid, or academic in nature.
Table 29

*Strategy Research and Size of the Source Institution*

<table>
<thead>
<tr>
<th>Size of the source institution</th>
<th>Practical</th>
<th>Hybrid</th>
<th>Academic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Large</td>
<td>259</td>
<td>69.4</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td>Medium</td>
<td>97</td>
<td>26.0</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Small</td>
<td>17</td>
<td>4.6</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Total</td>
<td>373</td>
<td>100.0</td>
<td>30</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\[P = .879\] Fisher’s Exact Test, NS.

The data in Table 29 reveals that students who completed dissertations from doctoral programs housed in “large” institutions wrote 69.8% \((n=285)\) of the total dissertations considered in this study \((n = 408)\). In total, students who completed dissertations from doctoral programs housed in “medium” sized institutions wrote a lesser amount of such dissertations by writing 25.5% \((n=104)\) of the dissertations considered in this study. Students who completed dissertations from doctoral programs housed in “small” institutions wrote the least number of dissertations. Students from “small” institutions wrote 4.7% \((n=19)\) of the dissertations considered in this study.

Regardless of size of the institutions at which the student matriculated to earn a doctoral degree in education, student researchers conducted more “practical” strategy research than any other category of strategy research. Students who completed dissertations from doctoral
programs housed in “large” institutions wrote 69.4% of dissertations ($n=259$) classified as “practical” strategy research. Students who completed dissertations from doctoral programs housed in “medium” sized institutions wrote 26.0% of dissertations ($n=97$) classified as “practical” strategy research. Students who completed dissertations from doctoral programs housed in “small” institutions wrote 4.6% of dissertations ($n=17$) classified as “practical” strategy research.

Dissertations classified as “hybrid” strategy research collectively accounted for 7.3% ($n=30$) of all dissertations ($n=408$) that were subjected to content analysis. Students who completed dissertations from doctoral programs housed in “large” institutions wrote 73.3% of dissertations ($n=22$) classified as “hybrid” strategy research. Students who completed dissertations from doctoral programs housed “medium” sized institutions wrote 20.0% of dissertations ($n=6$) classified as “hybrid” strategy research. Students who completed dissertations from doctoral programs housed in “small” institutions wrote 6.7% of dissertations ($n=2$) classified as “hybrid” strategy research.

Dissertations classified as “academic” strategy research, collectively, accounted for 1.2% ($n=5$) of all dissertations ($n=408$) that were subjected to content analysis. Students who completed dissertations from doctoral programs housed in “large” institutions wrote 80.0% of dissertations ($n=4$) classified as “academic” strategy research. Students who completed dissertations from doctoral programs housed in “medium” sized institutions wrote 20.0% of dissertations ($n=1$) classified as “academic” strategy research. Students who completed dissertations from doctoral programs housed in “small” institutions did not write any dissertations ($n=0$) classified as “academic” strategy research.
Strategy Research and Research Intensity Cross-Tabulation

A cross-tabulation table was created using the variables “nature of strategy research” and “research intensity of the source institution.” An analysis of the resulting cross-tabulation table is presented below. There was a statistically significant difference between the numbers of dissertations published from institutions with differing research intensity and classified as strategy research that was either practical, hybrid, or academic in nature. The data in Table 30 reveals that students who completed dissertations from doctoral programs housed in “very highly intensive” research institutions wrote 44.9% (n=183) of the total dissertations considered in this

| Research intensity of the source institution | Nature of strategy research |  |  |  |  |  |  |  |
|---------------------------------------------|-----------------------------|---|---|---|---|---|---|
|                                             | Practical (n, %)            | Hybrid (n, %) | Academic (n, %) | Total (n, %) |  |  |  |
| Very highly intensive                       | 164 (44.0)                  | 16 (53.3)     | 3 (60.0)        | 183 (44.9)   |  |  |  |
| DRU                                         | 100 (26.8)                  | 11 (36.7)     | 1 (20.0)        | 112 (27.5)   |  |  |  |
| Highly intensive                            | 70 (18.8)                   | 0 (0.0)       | 0 (0.0)         | 70 (17.2)    |  |  |  |
| Other                                       | 39 (10.4)                   | 3 (10.0)      | 1 (20.0)        | 43 (10.4)    |  |  |  |
| Total                                       | 373 (100.0)                 | 30 (100.0)    | 5 (100.0)       | 408 (100.0)  |  |  |  |

P < .05, Fisher’s Exact Test, Significant.
study ($n = 408$). In total, students who completed dissertations from doctoral programs housed in institutions that are classified “DRU” (Doctoral Research University) wrote a lesser amount of such dissertations by writing ($n=112$, 27.5%) of the dissertations considered in this study. Students who completed dissertations from doctoral programs housed in “highly intensive” research institutions wrote a lesser number ($n=70$, 17.2%) of dissertations considered in this study. Students who completed dissertations from doctoral programs housed in “other” research institutions wrote a least amount ($n=43$, 10.5%) of dissertations considered in this study.

Regardless of the research intensity of the institutions from which the student matriculated to earn a doctoral degree in education, student researchers conducted more “practical” strategy research that any other category of strategy research. Students who completed dissertations from doctoral programs housed in “very highly intensive” research institutions wrote the most of such dissertations by writing 44.0% of dissertations ($n=164$) classified as “practical” strategy research. Students who completed dissertations at doctoral programs housed in “DRU” institutions wrote a lesser amount of such dissertation by writing 26.8 % of dissertations ($n=100$) classified as “practical” strategy research. Students who completed dissertations from doctoral programs housed in “highly intensive” research institutions wrote an even lesser amount of such dissertations by writing 18.8% of dissertations ($n=70$) classified as “practical” strategy research. Students who completed dissertations from doctoral programs housed in “other” research institutions wrote the least amount of such dissertations by writing 10.4% of dissertations ($n=39$) classified as “practical” strategy research.

Dissertations classified as “hybrid” strategy research accounted for 7.3% ($n=30$) of the total dissertations considered in this study. Students who completed dissertations from doctoral
programs housed in “very highly intensive” research institutions wrote most of such dissertations by writing 53.3% of the dissertations (n=16) classified as “hybrid” strategy research. Students who completed dissertations from doctoral programs housed in “DRU” institutions wrote a lesser amount of such dissertation by writing 36.7% of dissertations (n=11) classified as “hybrid” strategy research. Students who completed dissertations from doctoral programs housed in “highly intensive” research institutions did not write any of the dissertations (n=0) classified as “hybrid” strategy research. Students who completed dissertations from doctoral programs housed in “other” research institutions wrote the least amount of those writing such dissertations by writing 10.0% of dissertations (n=3) classified as “hybrid” strategy research.

Dissertations classified as “academic” strategy research accounted for 1.2% (n=5) of the total dissertations considered in this study. Students who completed dissertations at doctoral programs housed in “very highly intensive” research institutions wrote most of such dissertations by writing 60.0% of those (n=3) classified as “academic” strategy research. Students who completed dissertations at doctoral programs housed in “DRU” institutions as well as those that are considered to be “Other” institutions wrote a lesser amount, respectively. At each type of research institution, students wrote 20.0% of the dissertations (n=1) classified as “academic” strategy research. Students who completed dissertations from doctoral programs housed in “highly intensive” research institutions did not write any of the dissertations (n=0) classified as “academic” strategy research.

**Summary**

In this chapter, three categories of data were considered by reference to a Dissertation Profile and a detailed review of the Nature of Strategy Research Continuum as applied to
strategy research in education. The Dissertation Profile was broken into components and each aspect of the profile was discussed and analyzed in sequence. After analyzing the data contained on the Dissertation Profile, certain tendencies became evident. For the purposes of this study, a tendency is defined as occurring when a variable exceeds 65% of the total of a particular category of variable. Such tendencies are summarized in Appendix D.

In the Dissertation Profile, there are three top-tier variable categories (within each top tier there are lower tier variable categories), which are as follows:

Tier 1 – Dissertation Source Variables

Tier 2 – Research Methodology

Tier 3 – Dissertation Subject Variables

In tier 1, Dissertation Source Variables, three subcategories of variables had relative frequencies, in excess of 65%. The three variables, which occur most frequently, are as follows:

A) Dissertations are produced mostly from “large institutions;”

B) Institutions are mostly “not members of CPED;” and

C) Students tend to seek doctoral degrees in education that are “other than PhD” degrees (practically-oriented degrees like EdD or EdLD).

For Tier 2, research methodology, no variable category exceeded 65% in relative frequency (a % of the total in any given category). The majority of the dissertations (56.9%) were qualitative compared with 22.1% quantitative and 21.0% mixed method. In the final category of the Dissertation Profile, the Tier 3 Dissertation Subject Variables that occur most frequently are as follows:

1) Dissertation subjects tend to be organizations;
2) Dissertation subjects tend to be “public sector” institutions;

3) Dissertation subjects tend to be in “Pre-K through 12” level of education; and

4) Dissertations tend to focus on practically-oriented strategy research.

The tendencies mentioned above serve to collectively describe the 408 dissertations that were reviewed in this study.

In addition to the above-mentioned tendencies, certain variables are noteworthy in that relationships were found. First, in Table 30 (Strategy Research and Research Intensity of Source Institution), which is a cross-tabulation table, a statistically-significant difference was found between the number of dissertations published from institutions with differing research intensity and classified as strategy research that was either practical, hybrid, or academic in nature.

Second, the institutions tended not to be members of the CPED. Over the same two periods considered in this study (Period 1=2005 through 2009 and Period 2 = 2010 through 2014), dissertations from CPED member institutions increased from 22 in Period 1 to 54 in Period 2, with a 145.45% increase from Period 1 to Period 2. The number of strategy-related dissertations from “CPED members” increased (145.45% increase) at a faster rate than “not a member of CPED” (38.85% increase). While institutions do not tend to be members of CPED, a 145.45% increase in strategy-related dissertations produced at CPED member institutions is noteworthy in that no other variable category on the Dissertation Profile increased from Period 1 to Period 2 with such magnitude.
CHAPTER 5
DISCUSSION AND CONCLUSION

In this final chapter, the findings for each of the research questions are discussed and conclusions and implications for practice are presented.

Purpose and Nature of the Study

The purpose of this dissertation was to study and describe a select group of dissertations by profiling such dissertations. I created a Dissertation Profiling tool by updating and adapting a framework used by Shrivastava and Gaik (1989). While the profiling approach used in Shrivastava and Gaik’s study was useful as a benchmark for the present study, the final Dissertation Profile as presented at appendix C was designed after reviewing the strategy literature that was published since 1989. The final profile was populated with data from dissertations \(n=408\) that were compiled using a more narrow scope than that used in the Shrivastava and Gaik (1989) study. The dissertations of interest in the present study were from the field of education in the United States. More specifically, the dissertations considered were limited to those found in a search of the ProQuest Social Sciences Database and were further limited to “Dissertations & Theses” found in the Proquest Education Journals using select database search criteria.

The search criteria were date specific and term specific. The date range of interest started with January 1, 2005 and ended with December 31, 2014. In answering two of the three research questions, the 10-year period was broken down by considering four categories of variables from time Period 1 (2004-2009) to time Period 2 (2010-2014). These two time periods were chosen because of the expected change in the nature of strategy researched by doctoral students in
education programs from time Period 1 to Period 2. In addition to the time periods mentioned above, the search terms of interest in this study are *strategy* and *strategic*. Such terms in combination with the data range led to the identification of 408 dissertations that were subjected to content analysis. A primary objective of this study was to classify each of the 408 dissertations along the Nature of Strategy Research Continuum.

This continuum included practical and academic strategy research at opposite ends of the continuum with a hybrid category in the middle. The hybrid category included strategy research that contained both practical and academic aspects that were considered in any one dissertation. For example, a researcher may study a school district that has a strategy (studying a strategy is an example of practical strategy research) and that strategy is a leadership development program in which principals are taught how to do strategic planning via on-the-job training. In this example, the on-the-job training program is academic in nature but not purely academic because it is an intra organizational training program that is part of a strategy to develop future leaders (Idaho, 2016). In an example of a purely academically-oriented study, a researcher would closely examine a course of study in strategic planning in which the instructor utilized a simulation game to learn strategic management (Loon, Evans, & Kerridge, 2015).

Distinguishing the types of strategy research and categorizing strategy research using the Nature of Strategy Research Continuum allows for the study of changes in such research over time and by nature. This ability is important for this study because education leadership programs are expected to undergo changes in the second half of the first decade of the 21st century (Levine, 2005) and because members of the CPED are committed to revising the EdD (Hurst, 2014). Curricula changes are expected to reflect the need for education leaders to be
strategic leaders and the need for such leaders to think strategically (Darling-Hamond, Lapoint, Meyerson, Orr, & Cohen, 2007; Glanz, 2006; Jasparo, 2006; Morrill, 2007; Williams & Johnson, 2013). Dissertations as culmination efforts of doctoral degrees in education programs are expected to reflect current research in a field (Boote & Beile, 2005).

**Major Findings and Implications**

The creation of a Dissertation Profile was a primary goal of this study. Before answering the research questions, it is useful to consider the most frequently occurring variables in this study. These frequently occurring variables collectively serve to describe the collection of the 408 dissertations that were subjected to content analysis for this study. In Appendix D, the variables that are specifically listed by name are those most frequently occurring. As indicated in Appendix D, the dissertations tend to be produced from large institutions that were not members of the CPED and tended to be written by students who sought doctoral degrees classified as “other than PhD” (e.g., EdD). In addition, more than half of the dissertations were qualitative research (57%). The subjects of the dissertations tended to be organizations at the Pre-k through 12 levels in the public sector. Finally, 91% of the dissertations were classified as practical strategy research.

**Research Question #1 Answered**

**Research Question #1**

How has the profile of strategy-related dissertations in doctoral programs in education in the United States changed from Period 1 (2005 through 2009) to Period 2 (2010 through 2014)?
As shown in Appendix E, five items are noteworthy. Two Dissertation Source Variables have material upward trends from Period 1 to Period 2. Both private institutions and CPED membership categories of variables proportionally increased by 10% or more from Period 1 to Period 2. For private institutions, an 86% growth in the number of dissertations was realized, as well as a 145% growth rate in the number of dissertations from CPED members. In regard to three Dissertation Subject Variables, the first variable to consider was the education level of the research subjects. Over the ten-year period, 69% of the 408 dissertations considered in this study were about research subjects hailing from Pre-K though 12 institutions. From Period 1 to Period 2, a 7% proportional increase in such Dissertation Subject Variables was realized. The second Dissertation Source Variable that was noteworthy was the hierarchical level of the dissertation subject. Dissertation subjects classified in strata Levels 1-5 increased 96% from Period 1 to Period 2. Pre-K though 12 personnel in “strata 1-5” were school-level principals and below. Higher education personnel in “strata 1 – 5” were Deans and below. Proportionally, “strata 1-5” increased in number by 11% while the other strata levels collectively decreased by a commensurate amount. Lastly, similar changes were noted with regard to the Nature of Strategy Research Continuum variables, but these changes were discussed fully by answering research questions 2 and 3, below.

Research Question #2 Answered

**Research Question #2**

How has the strategy research as reflected in dissertations in education in the United States changed from Period 1 (2005 through 2009) to Period 2 (2010 through 2014)?
For purposes of this dissertation, the 408 dissertations were considered in this study because they were classifiable along the Nature of Strategy Research Continuum. The 408 dissertations were numerically stratified as represented below, in Table 31. In both periods, the majority (91.4% in total over two periods) of the 408 dissertations were classifiable as practical strategy research. A small number of dissertations were classified as either hybrid or academically-oriented strategy research. In Period 1, no dissertations were classified as academic in nature, but in Period 2 five dissertations were classified as such.

Table 31

*Dissertation Profile – Section 4E*

<table>
<thead>
<tr>
<th>Nature of strategy research</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical strategy research</td>
<td>149 (92.5%)</td>
<td>224 (90.7%)</td>
<td>373 (91.4%)</td>
</tr>
<tr>
<td>Hybrid strategy research</td>
<td>12 (7.5%)</td>
<td>18 (7.3%)</td>
<td>30 (7.4%)</td>
</tr>
<tr>
<td>Academic strategy research</td>
<td>0 (0.0%)</td>
<td>5 (2.0%)</td>
<td>5 (1.2%)</td>
</tr>
<tr>
<td>Total</td>
<td>161 (100.0%)</td>
<td>247 (100.0%)</td>
<td>408 (100.0%)</td>
</tr>
</tbody>
</table>
Research Question #3 Answered

Is there a relationship between any of the Dissertation Source Variables and the Nature of Strategy Research Continuum variables?

In order to answer Research Question 3, three subsidiary questions were considered. Question 3A was framed to allow for answering the question in the context of the student researcher as one of the three Dissertation Source Variables. Question 3B was framed to allow for the answering of the question in the context of the unit (college or school) from which the student earned their doctoral degree in education. Question 3C was framed to allow for the answering of the question in the context of the institution (University) from which the above-mentioned unit (college or school) was housed. Each of these three questions was answered in sequence.

Question 3A. Do relationships exist between the student researcher variable (gender of the student) and the variables classifiable along the Nature of the Strategy Research Continuum (practical, academic, or not classifiable)?

This question was answered by reference to Appendix F and Table 25. Two types of statistical tests with regard to gender were conducted. First, a chi-square test was conducted on the cross-tabulation table created by using the variables “gender” and time Period 1 and Period 2.
The test revealed that there were no statistically significant differences between the “gender” of the student researcher and time period (Period 1 and time Period 2). In both time periods, females wrote more strategy-related dissertations than males. Females collectively wrote 66% more dissertations from time Period 1 to time Period 2. Males collectively wrote 37% more dissertations from time Period 1 to time Period 2.

In order to specifically answer research question 3A, a Fisher’s Exact Test was conducted on the two by three cross-tabulation that was presented in Table 25 and is also presented in Appendix F. The table includes “gender” and the “Nature of Strategy Research” variables (practical, hybrid, and academic). Such a test (as opposed to a chi-square test) was required because only five academically-oriented dissertations were identified during the content analysis of the dissertations. Male students wrote 4 of the 5 (80%) dissertations while female students wrote 1 of the 5 (20%). The Fisher’s Exact Test revealed no significant differences between the “gender” of the student researcher and the “Nature of Strategy Research” variables. As a result, no relationship was found with regard to the “gender” of the student researcher and the “Nature of Strategy Research” variables. Although the academic variable category of the Nature of Strategy Research was relatively small in quantity compared to the quantities of hybrid and practical strategy research variable, the academic research variable existed (n=5) in the Period 2 while none was found in Period 1.

3B. Do relationships exist between the unit level variables (CPED membership status and degree conferred on the student) and the Nature of the Strategy Research Continuum (practical, academic, or not classifiable) variables?
This question is answered by reference to Tables 26, 32 and Appendix G. In answering question 3B, two unit-level variables (CPED membership status and degree conferred on the student) were considered. The first variable category to be considered in this section was the CPED membership status of the institutions from which students sought doctoral degrees and wrote the dissertations. Two types of statistical tests with regard to CPED membership were conducted. First, a chi-square test was conducted by using the variables “CPED Membership status” and time period (Period 1 and Period 2). The test revealed a statistically significant difference between “CPED membership” status and time period (Period 1 and Period 2). In both time periods, students attending institutions that were “not members of CPED” wrote more strategy-related dissertations than students attending “CPED member” institution. Notwithstanding this fact, students attending “CPED member” institutions collectively wrote 113% more dissertations from Period 1 to Period 2.

In order to specifically answer research question 3B with regard to “CPED membership” status, a Fisher’s Exact Test was conducted (the second of two tests). Such a test (as opposed to a chi-square test) was required because only 5 academically-oriented dissertations were identified during the content analysis of the dissertations. Students seeking doctoral degrees from institutions that were “not members of CPED” wrote all of the 5 dissertations, while students seeking doctoral degrees from “CPED member” institutions wrote none of the 5. The Fisher’s Exact Test revealed no significant differences between the “CPED membership status” and the “Nature of Strategy Research” variables. As a result, no relationship was found between “CPED membership status” and the “Nature of Strategy Research” variables. Although the academic
variable category of the Nature of Strategy Research Continuum was relatively small as compared to the quantities of hybrid and practical strategy research variable, the academic research variable was identified in Period 2 ($n=5$) while none was found in Period 1.

The second variable category considered in this section is the degree conferred on the student researcher who wrote the dissertations. Two types of statistical tests were conducted with regard to the “degree conferred” on student researchers. No relationship was found between the “degree conferred” on the student researcher and the time period (Period 1 and Period 2) that the dissertations were published. First, using the variables “degree conferred” and “time period,” a chi-square test was conducted. The test revealed no statistically significant differences between time Period 1 (2005 through 2009) and time Period 2 (2010 through 2014). In both time periods, students attending institutions that sought degrees that “were not PhD degrees” (e.g., EdD) wrote more strategy-related dissertations than students seeking “PhD” degrees.

In order to answer research question 3B with regard to the degree conferred on student researchers, a Fisher’s Exact Test was conducted. Such a test (as opposed to a chi-square test) was required because only 5 academically-oriented dissertations were identified during the content analysis of the dissertations. Students seeking doctoral degrees “other than PhD” wrote 4 of the 5 academically-oriented dissertations while students seeking “PhD” degrees wrote 1 of the 5. The Fisher’s Exact Test revealed no significant differences between the “degree conferred” and the “Nature of Strategy Research” variables. As a result, no relationship was found between the “degree conferred” and the “Nature of Strategy Research” variables. Although the academic variable category of the Nature of Strategy Research Continuum was relatively small as
compared to the quantities of hybrid and practical strategy research variable, the academic research variable was identified in Period 2 \((n=5)\) while none was found in Period 1.

3C. Do relationships exist between the institution-level variables (sector, size, and research intensity) and the Nature of the Strategy Research Continuum (practical, academic, or not classifiable) variables?

This question was answered by reference to Appendix H and Tables 33 through 35. In answering this question 3C, three institutional-level variables (sector, size, and research intensity) were considered. The first variable category to be considered in this section is the “sector” of the institutions from which students sought doctoral degrees and wrote their dissertations. Two types of statistical tests with regard to sector were conducted. First, a chi-square test was conducted using the variables “Sector” of the source institution and time period (Period 1 and Period 2). The test revealed no statistically-significant difference between the “sector” of the source institutions and time period. In both time periods, students attending institutions that were “private” institutions wrote slightly more strategy-related dissertations than students attending a “public” institution.

In order to specifically answer research question 3C with regard to the “sector” of the source institution, a Fisher’s Exact Test was conducted. Such a test (as opposed to a chi-square test) was required because only 5 academically-oriented dissertations were identified during the content analysis of the dissertations. Students seeking doctoral degrees from “private” institutions wrote 3 of the 5 academically-oriented dissertations while students seeking doctoral
degrees from “public” institutions wrote 2 of the 5. The Fisher’s Exact Test revealed no significant differences between the “sector” of the student researcher and the “Nature of Strategy Research” variables. As a result, no relationship was found between the “sector of the source institution” and the “Nature of Strategy Research” variables. Although the academic variable category of the Nature of Strategy Research Continuum was relatively small as compared to the quantities of hybrid and practical strategy research variable, the academic research variable was identified in Period 2 (n=5), while none was found in Period 1.

The second variable category to be considered in this section was the size of the source institution that conferred a degree on the student researcher who wrote the dissertations. Two types of statistical tests were conducted with regard to the “size” of the institution that conferred a degree on student researchers. A chi-square test was conducted by using the variables “size” of the source institution and time Period 1 and 2. The test revealed no statistically significant difference between time Period 1 (2005 through 2009) and time Period 2 (2010 through 2014). In both time periods, students attending “large institutions” wrote more strategy-related dissertations than students attending “other than large” institutions (medium and small sized institutions).

In order to answer research question 3C with regard to the “size” of the institution that conferred a degree on student researchers, a Fisher’s Exact Test was conducted. Such a test (as opposed to a chi-square test) was required because only 5 academically-oriented dissertations were identified during the content analysis phase of the dissertations. Students seeking doctoral degrees from “large institutions” wrote 4 of the 5 dissertations while students seeking doctoral degrees from “other than large institutions” wrote 1 of the 5. The Fisher’s Exact Test revealed no
significant differences between the “Size of the Source Institution” and the “Nature of Strategy Research” variables. As a result, no relationship was found between these variables. Although the academic variable category of the Nature of Strategy Research Continuum was relatively small compared to the quantities of hybrid and practical strategy research variable, the academic research variable was identified in Period 2 (n=5) while none was found in Period 1.

The third variable category to be considered in this section was the “research intensity” of the institution that conferred on the student researcher who wrote the dissertations. Two types of statistical tests were conducted with regard to the “research intensity” of the source institutions. No relationship was found between the time period that the dissertations were written and the “research intensity” of the institution that conferred degrees on the student. First, a chi-square test was applied to the cross-tabulation table created by using the variables “research intensity” and time Period 1 and Period 2. The test revealed no statistically significant difference between “research intensity” and time Period 1 (2005 through 2009) and time Period 2 (2010 through 2014). In both time periods, students attending institutions that were “other than very highly research intensive” wrote more strategy-related dissertations than students seeking degrees from “very highly research intensive” institutions.

In order to answer research question 3C with regard to the research intensity of the dissertation source institutions, a Fisher’s Exact Test was conducted. Students seeking doctoral degrees from “very highly research intensive institutions” wrote 3 of the 5 dissertations while students seeking doctoral degrees from institutions that were “other than very highly research intensive institutions” wrote 2 of the 5. The Fisher’s Exact Test revealed a significant difference between the “research intensity” and the “Nature of Strategy Research” variables. As a result, a
relationship can be said to exist with regard to the “research intensity” and the “Nature of Strategy Research” variables. Although the academic variable category of the Nature of Strategy Research Continuum was relatively small as compared to the quantities of hybrid and practical strategy research variables, the academic research variable was identified in Period 2 ($n=5$) while none was found in Period 1.

**Summary of Findings**

After conducting statistical analysis of the strategy-related dissertations that were the subject of this study, two statistically significant relationships were identified. These relationships were as follows: a) between “CPED membership status,” a Dissertation Source Variable and time period (Period 1 and Period 2) and a) between “research intensity of the universities,” a Dissertation Source Variable and the Nature of Strategy Research Continuum variables. This first significant relationship is of particular interest in this study. The quality of doctoral programs in education was questioned at the beginning of the 21st century (Levine, 2005). Initiatives like the CPED fostered changes in the doctoral programs in education for members of the CPED Initiative (Hurst, 2014). Other institutions such as Harvard University implemented initiatives by eliminating a long-standing EdD program (Basu, 2012), beginning their new EdLD program (Helix Learning, 2013) and starting a new PhD program in education (McCartney, 2012). The above-mentioned initiatives coincided with an increased interest in training leaders in education to acquire strategic competencies (Darling et al., 2007; Glanz, 2006; Jasparo, 2006; Morrill, 2007; Williams & Johnson, 2013). This study of strategy-related dissertations in education was meant to examine how these converging issues and strategic
expectations are reflected in the dissertations published in doctoral education programs in the United States.

More specifically, the objectives of this study were to identify any changes in strategy research conducted in the education over a ten-year period (2005-2014) and to identify any significant relationships between select variables. One relationship category of interest was between Dissertation Source Variables and the Nature of Strategy Research variables. A second category of relationships of interest were those between each of the variables included in the Dissertation Profile and time period during which the dissertations were published. The time period chosen for this study was 2005 through 2014.

This ten-year period was bifurcated into two five-years periods. Period 1 included the years 2005 through 2009 and Period 2 included the years 2010 through 2014. Period 1 was designated as the change period because 2005 was the year that Dr. Levine issued a report about the poor quality of doctoral programs in education. Not long after this report was issued, the CPED was formed and began accepting member universities whose stakeholders seek to make changes in their doctoral programs in education (Zambo & Zambo, 2013). The year 2010 was chosen as the post-change period. Period 2 covers the years 2010 through 2014 and was referred to as the post-change period. The year 2010 was chosen as the start of this period because it was the year when Harvard University launched its new EdLD (Helix Learning, 2013) and because change initiatives implemented by CPED member institutions can reasonably be expected to have had an impact on dissertations written during 2010 through 2014. In summary, time Period 1 and Period 2 served as before and after variables, and the objectives of this study were a) to
show how and if there was a change in strategy research from Period 1 to Period 2 and b) to identify any relationships that may be statistically significant.

In order to facilitate a consideration of how the variables of interest changed from Period 1 to Period 2, a Dissertation Profile tool was created. The profile included a series of cross-tabulation tables. Each of the tables was subjected to statistical tests like chi-squared and Fisher’s Exact Test, but the ability to draw specific conclusions is limited. One can only consider that a significant relationship was found between “CPED membership status” and time period (Period 1=2005-2009 and Period 2=2010-2014). This significant relationship should also be considered in light of the fact that from Period 1 to Period 2 the number of dissertations written by students seeking doctoral degrees from universities that were CPED members increased (145%).

Conclusions and Implications

In this study, I sought to achieve three objectives, each of which has implications for either the academy or for practice. First, I created a Dissertation Profile tool to facilitate meta-studies of strategy research for use not only by education scholars but also by scholars of other disciplinary communities. Second, I identified changes in Dissertation Profile variables from Period 1 to Period 2. Lastly, I identified gaps in strategy research as conducted by students in doctoral programs of education in the United States during the years 2005-2014.

In order to achieve the second and third objectives, I created a tool, which is referred to as a Dissertation Profile. This profile was designed by reference to the MOST model, which was created based up a review of strategy literature, and by reference to a Model for Strategy
Research Profiling, which was presented in Figure 26. The MOST model is useful not only because it facilitates a discussion of complex strategy-related topics but also because it facilitates strategic thinking, which is required in both practical and academic endeavors. The Dissertation Profile tool has practical and academic applications that stem from its usefulness in identifying gaps in research.

**Directions for Future Research**

The Dissertation Profile presented and discussed in this dissertation revealed certain gaps in strategy research as conducted by students in doctoral programs in education. Appendix D highlights these gaps in strategy research. First, almost 70% of the strategy related dissertations were about topics in Pre-K-12 settings, while almost 30% of such dissertations were about topics in higher educational settings. Since higher education is currently in a state of disruption (Christensen & Horn, 2011), some would think that there may be more strategy-related dissertations that focus on strategy-related topics in education to address such disruptions and that a more balanced proportion of strategy related-dissertations would have been realized. In addition to the disproportionate focus on the pre-K-12 level of education, student researchers focus primarily on strategy topics that are practically oriented. Less than 10% of the strategy related topics were about academically oriented topics while 90% of the dissertations were about practically oriented topics. In addition to the gaps identified above, the quantitative approach to this dissertation and the Dissertation Profile does not provide the reader any degree of specificity as to what was contained in the dissertations.
The gaps and lack of specificity discussed above can be addressed by conducting future meta-studies and by producing literature, which is suggested below in Table 32, and future qualitative studies, which are suggested below in Table 33. The future studies suggested in Table

Table 32

*Future Studies/Literature on Classified Dissertation Strategy Research*

<table>
<thead>
<tr>
<th>Number</th>
<th>Purpose</th>
<th>Benchmark study(ies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>To review and synthesize strategy content research?</td>
<td>(Hunt &amp; Blair, 1986; Linberg, 2012)</td>
</tr>
<tr>
<td>2)</td>
<td>To review and synthesize strategy process research?</td>
<td>(Poister, Pitts, &amp; Edwards, 2010; Stone, Bigelow, &amp; Crittenden, 1999)</td>
</tr>
<tr>
<td>3)</td>
<td>To review and synthesize strategic practices research?</td>
<td>(Poister, Pitts, &amp; Edwards, 2010; Stone, Bigelow, &amp; Crittenden, 1999)</td>
</tr>
<tr>
<td>4)</td>
<td>To review and synthesize hybrid strategy research?</td>
<td>(Poister, Pitts, &amp; Edwards, 2010; Stone, Bigelow, &amp; Crittenden, 1999)</td>
</tr>
<tr>
<td>5)</td>
<td>To review and synthesize academic strategy research?</td>
<td>(Poister, Pitts, &amp; Edwards, 2010; Stone, Bigelow, &amp; Crittenden, 1999)</td>
</tr>
</tbody>
</table>
32 anticipate the production of literature that presents a greater degree of specificity regarding
the various types of strategy research. In Table 33 below, other research is recommended as

Table 33

*Future Strategy Research*

<table>
<thead>
<tr>
<th>Future study number</th>
<th>Suggested research question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>What accounts for the 133% increase in strategy research by students seeking doctoral degrees from CPED member institutions?</td>
</tr>
<tr>
<td>2)</td>
<td>What strategy competencies are taught in the Ed.LD program at Harvard University?</td>
</tr>
<tr>
<td>3)</td>
<td>What strategy texts or other pedagogical media are utilized in the strategy related courses in the Ed.LD program at Harvard University?</td>
</tr>
<tr>
<td>4)</td>
<td>What pedagogical techniques are utilized in the strategy related courses in the Ed.LD program at Harvard University?</td>
</tr>
</tbody>
</table>
| 5)                  | What is different about doctoral programs of education which educate students who focus on Pre-K-12 education as opposed to those students who focus on higher education (given that the students focusing on pre-K-12 settings wrote over 70% of the strategy related dissertations)?
indicated by five research questions that aim to address the relative lack of academically-oriented strategy research, which was identified in this study.

**Implications**

This study and the recommended future studies have implications for both practice and the academy. In Chapter 2, the unique aspects of the education industry were highlighted and higher education institutions were recognized for the role they play in the education of future leaders. While future business leaders learn about strategy in undergraduate and graduate programs in higher education institutions, no studies have been identified in the education community in the United States that study strategy curricula in education leadership programs. Program coordinators of such programs are challenged in their contemplation of the inclusion of strategy in the curricula in their programs as a result.

The present study provided program coordinators with information to consider if they are seeking to change their programs with the aim of including strategy related-content in their curricula. First, Chapter 2 provides a comprehensive overview of the strategy literature for program coordinators to consider. Second, this study indicates that strategy is a topic largely considered by student researchers who focus on Pre-K-12 settings education. Program coordinators might contemplate what accounts for the differing quantities of strategy research conducted by Pre-K-12 students as compared with students of higher education. Program changes may be necessary to help leaders in higher education to address the disruption of higher education by offering strategy curricula in the programs for students of higher education. Lastly, program coordinators may find it helpful to look to others for insight into how they might proceed with strategy-related curriculum. One potential source of information is Harvard
University, given the strategy curriculum included in the relatively new EdLD program offered at the university program, which focuses on educating leaders in education. Another potential source may be the CPED, given the statistically significant relationship found in this study and the 145% increase in strategy-related research from Period 1 to Period 2.
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Appendix A

Content Analysis Form

Appendix A1 - Content Analysis Form

## Section 1 - Sample Dissertation Identification

<table>
<thead>
<tr>
<th>Final Sample Identifying Number</th>
<th>FSID =</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>S1SPSSID =</td>
</tr>
</tbody>
</table>

## Section 2 - Dissertation Dates

<table>
<thead>
<tr>
<th>Dissertation Year</th>
<th>S2AYrDis =</th>
</tr>
</thead>
<tbody>
<tr>
<td>05 = 1.06 = 2.07 = 3.08 = 4.09 = 5.10 = 6.11 = 7.12 = 8.13 = 9.14 = 10</td>
<td>(05-09) = 0 (10-14) = 1</td>
</tr>
<tr>
<td>Dissertation Period</td>
<td>S2BDDisPd =</td>
</tr>
</tbody>
</table>

## Section 3 - See Attached Appendix B which identifies the following:

- Section 3A - Dissertation Source Data - Unit Level (e.g. College/School) - CPED Membership
- Section 3B - Dissertation Source Data - Institution Level (e.g. University) - Sector
- Section 3C - Dissertation Source Data - Institution Level (e.g. University) - Size
- Section 3D - Dissertation Source Data - Institution Level (e.g. University) - Research Intensity

## Section 4 - Dissertation Source Data - Unit Level (e.g. college/school) - Degree Conferred

<table>
<thead>
<tr>
<th>Degree Conferred</th>
<th>S4CDcf =</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>S4APhD =</td>
</tr>
<tr>
<td>Other than PhD (e.g. EdD)</td>
<td>S4B0th =</td>
</tr>
<tr>
<td>Not PhD = 0 PhD = 1</td>
<td></td>
</tr>
</tbody>
</table>

## Section 5 - Dissertation Source Data - Student Level - Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>S5CGendr =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>S5AMale =</td>
</tr>
<tr>
<td>Female</td>
<td>S5BFemal =</td>
</tr>
<tr>
<td>Female = 0 Male = 1</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix A2 – Content Analysis Form

#### Section 6A – Research Subject(s) – Subject Focus of Dissertation Research

| Research Focus is on Individual(s) | S6A1Ind = |
| Research Focus is on Organization(s) | S6A2Org = |
| Research Focus of Dissertation | S6A3SFoc = |

#### Section 6B – Research Subject(s) – Sectoral Orientation of Subject(s)

| For-Profit | S6B1FPS = |
| Governmental | S6B2GvtS = |
| Not-For-Profit | S6B3NFPS = |
| More than one sector | S6B4MrT1 = |
| Unable to classify | S6B5Uncl = |

**SPECIAL DATA**

| General - Private = 1, Public = 2, More than 1 = 3, Unable to Classify = 9 | S6B6PrPu = |
| FPS = 1, GvtS = 2, NFPS = 3, More than 1 Sector = 4, Unable to Classify = 9 | S6B7Sect = |

#### Section 6C – Research Subject(s) – Educational Level of Subject(s)

| Pre and K-12 Education | S6C1PK12 = |
| Higher Ed – Community College 2 year | S6C2HE2Y = |
| Higher Ed – Other than Community College 2 Year – 4 Year and Plus | S6C3HE4P = |
| More than 1 level | S6C4MrT1 = |

**SPECIAL DATA**

| Pre-K12 = 1, HEld = 2, More Than 1 Level = 3, | S6C5ELv1 = |
| Pre-K12=1,CC 2Yr=2,4 Year and Plus=3, More than 1 level=4 | S6C6ELv2 = |

#### Section 6D – Research Subject(s) – Hierarchical Level of Subject(s)

<table>
<thead>
<tr>
<th>Organization Level</th>
<th>Governance / Leadership Levels</th>
<th>No = 0 Yes = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Political / Governance Level</td>
<td>Govt Official / Board Members</td>
<td>S6DStrat 9 =</td>
</tr>
<tr>
<td>2) HE System / BOCES Like District System</td>
<td>President / Executive</td>
<td>S6DStrat 8 =</td>
</tr>
<tr>
<td>3) HE Inst (HEI) Level / School District</td>
<td>President / Superintendent</td>
<td>S6DStrat 7 =</td>
</tr>
<tr>
<td>4) Functional Level (of HEI / District)</td>
<td>Vice Presidents</td>
<td>S6DStrat 6 =</td>
</tr>
<tr>
<td>5) College (HEI Unit) / School</td>
<td>Deans / Principals</td>
<td>S6DStrat 5 =</td>
</tr>
<tr>
<td>6) Departments (Ed &amp; Service &amp; Support)</td>
<td>Depart Chairs &amp; Other Admin</td>
<td>S6DStrat 4 =</td>
</tr>
<tr>
<td>7) Program Level</td>
<td>Coordinator</td>
<td>S6DStrat 3 =</td>
</tr>
<tr>
<td>8) Course / Class</td>
<td>Faculty</td>
<td>S6DStrat 2 =</td>
</tr>
<tr>
<td>9) Functional/Program/Dept Lower Level</td>
<td>Staff (Non-Mgt/Non-Faculty)</td>
<td>S6DStrat 1 =</td>
</tr>
<tr>
<td>10) More than 1 level</td>
<td>More than 1 Level</td>
<td>S6DStrat 99 =</td>
</tr>
</tbody>
</table>

(Strata 9 to 6) = 1, (Strata 5 to 1) = 2, (More than 1 Stratum) = 3 | S6DStrat =

---

Appendix A2 - Content Analysis Form
Appendix A3 – Content Analysis Form

### Section 7 – Research Methodology Paradigm of the Study (Level 1)

<table>
<thead>
<tr>
<th>Research Methodology</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative Research</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Mixed research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualitative Research</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 8A – Nature of Strategy Researched – Level 1 Categorization

<table>
<thead>
<tr>
<th>Strategy Research</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy Research with a Practical Leaning (Intra Organizational) (P)</td>
<td>S8A1Prac</td>
<td></td>
</tr>
<tr>
<td>Strategy Research with an Academic Leaning (Extra Organizational) (A)</td>
<td>S8A2Acad</td>
<td></td>
</tr>
<tr>
<td>Strategy Research that is Hybrid (H) (i.e. having both Practical &amp; Academic aspects)</td>
<td>S8A3Hybr</td>
<td>SPECIAL DATA</td>
</tr>
</tbody>
</table>

Practically Leaning Only = 1 (P), Academic Content Included= 2 (A & H) | S8A4Natr |

### Section 8B – Nature of Strategy Researched – Level 2 Categorization

<table>
<thead>
<tr>
<th>Strategy Research</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Leaning (Intra Organizational) – Strategy Content – Organization “Having” (P1)</td>
<td>S8B1Cont</td>
<td></td>
</tr>
<tr>
<td>Practical Leaning (Intra Organizational) – Strategic Process – Organization “Having” (P2)</td>
<td>S8B2Proc</td>
<td></td>
</tr>
<tr>
<td>Practical Leaning (Intra Organizational) – Strategic Practice – Individuals “Doing” (P3)</td>
<td>S8B3Prac</td>
<td></td>
</tr>
<tr>
<td>Practical Leaning (Intra Organizational) – More Than One Practical Categories (P4)</td>
<td>S8B4MTO</td>
<td></td>
</tr>
<tr>
<td>Academic Leaning (Extra Organizational) (A1)</td>
<td>S8B5TL</td>
<td></td>
</tr>
<tr>
<td>Academic Leaning (Extra Organizational) – “Research” of Strategy Research (A2)</td>
<td>S8B6RSR</td>
<td></td>
</tr>
<tr>
<td>Hybrid – Research to Inform Strategy (H1)</td>
<td>S8B7RIS</td>
<td></td>
</tr>
<tr>
<td>Hybrid – Practical &amp; Academic (H2)</td>
<td>S8B8PA</td>
<td></td>
</tr>
</tbody>
</table>

Practical & Academic in Nature (Extra Organizational) |   |

Practical & Academic in Nature (Intra Organizational) |   |
### Appendix B - Content Analysis Form - Source Data

#### Section 3A - Dissertation Source Data - Unit Level (E.g., College/School) - CPED Member Status

<table>
<thead>
<tr>
<th>CPED Member</th>
<th>No = 0, Yes = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3A1CPED</td>
<td></td>
</tr>
<tr>
<td>Not a Member</td>
<td>S3A2NoMr</td>
</tr>
<tr>
<td>Not CPED</td>
<td>0, CPED = 1</td>
</tr>
<tr>
<td>S3A3CPED</td>
<td></td>
</tr>
</tbody>
</table>

#### Section 3B - Dissertation Source Data - Institutional Level (E.g., University) - Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>No = 0, Yes = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>For-profit</td>
<td>S3B1FPS</td>
</tr>
<tr>
<td>Governmental</td>
<td>S3B2GvtS</td>
</tr>
<tr>
<td>Not-for-profit</td>
<td>S3B3NFPS</td>
</tr>
<tr>
<td>Private = 0, Public = 1</td>
<td>S3B4PrPu</td>
</tr>
<tr>
<td>For-Profit = 1, Governmental = 2, Not-For-Profit = 3</td>
<td>S3B5Sect</td>
</tr>
</tbody>
</table>

#### Section 3C - Dissertation Source Data - Institutional Level (E.g., University) - Size

<table>
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#### Section 3D - Dissertation Source Data - Institutional Level (E.g., University) - Research Intensity

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<tr>
<td>DRU</td>
<td>S3D3DRU</td>
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#### Section 3E - FSID's for Dissertations Which Are Sourced from the Institution

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### Appendix C

**Dissertation Profile**

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<td>Public Institution</td>
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<td>Male Researcher</td>
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<td>Community Colleges</td>
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<tr>
<td>Focus is on Organizations</td>
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<td>383</td>
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<td>Hybrid Strategy Research</td>
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<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Academic Strategy Research</td>
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<td>408</td>
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Appendix D

Dissertation Profile – Summary Indication

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<th>Period 2</th>
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<td>2005 - 2009</td>
<td>2010 - 2014</td>
<td></td>
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<tr>
<td>Total Strategy Related Dissertations</td>
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<td>247</td>
<td>408</td>
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| Section 2. Dissertation Source Variables       |            |           |       |
| Section 2A. Institution Level Variables         |            |           |       |
| Section 2A1. Sector of Source Institution       |            |           |       |
| No Material Standout Percentages                |            |           |       |
| Section 2A2. Size of Source Institution         |            |           |       |
| Large Institution                               | 70%        | 70%       | 70%   |
| Section 2A3. Research Intensity of Source Institution |        |           |       |
| No Material Standout Percentages                |            |           |       |
| Section 2B. Unit Level Variable                 |            |           |       |
| Section 2B1. CPED Membership Status            |            |           |       |
| Not A CPED Member                               | 86%        | 78%       | 81%   |
| Section 2B2. Degree Conferred                   |            |           |       |
| Other than PhD Conferred                        | 79%        | 77%       | 78%   |
| Section 2C. Student Level Variable              |            |           |       |
| Gender of Student Conducting Research           |            |           |       |
| No Material Standout Percentages                |            |           |       |

| Section 3. Research Methodology Utilized in Dissertation |            |           |       |
| Qualitative                                              | 54%        | 59%       | 57%   |

| Section 4. Dissertation Subject Variables          |            |           |       |
| Section 4A. Focus of Strategy Research              |            |           |       |
| Focus is on Organizations                           | 78%        | 84%       | 82%   |
| Section 4B. Sector of Subject                       |            |           |       |
| Public Sector                                        | 73%        | 71%       | 72%   |
| Section 4C. Education Level of Subject              |            |           |       |
| Pre-K through 12                                    | 65%        | 72%       | 69%   |
| Section 4D. Higherarchical Level of Subject         |            |           |       |
| No Material Standout Percentages                    |            |           |       |
| Section 4E. Nature of Strategy Researched           |            |           |       |
| Practical Strategy Research                         | 93%        | 91%       | 91%   |
### Appendix E

#### Material Change Model For Research Question #1

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| Total Strategy Related Dissertations | 39% | 61% | 100% |

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<td>Public Institution</td>
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<tr>
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| Section 2A2. Size of Source Institution  |
| Section 2A3. Research Intensity of Source Institution |
| No material Change                        |

| Section 2B. Unit Level Variable          |
| Section 2B1. CPED Membership Status      |
| Not A CPED Member                        | 86% | 78% | 81% |
| CPED Members                             | 14% | 22% | 19% |
| Total                                    | 100%| 100%| 100% |

| Section 2B2. Degree Conferred            |
| Section 2C. Student Level Variable       |
| No material Change                       |

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<td>No material Change</td>
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| Section 4. Dissertation Subject Variables               |
| Section 4A. Focus of Strategy Research                   |
| Section 4B. Sector of Subject                            |
| Section 4C. Education Level of Subject                   |
| Pre-K through 12                                         | 65% | 72% | 69% |
| Higher Education 4yrs or More                           | 19% | 15% | 16% |
| Community Colleges                                      | 14% | 9%  | 9%  |
| More Than One Level                                      | 2%  | 4%  | 4%  |
| Total                                                    | 100%| 100%| 98% |

| Section 4D. Higherarchical Level of Subject              |
| Strata 1 through 5                                       | 42% | 53% | 49% |
| Strata 6 through 9                                       | 46% | 38% | 41% |
| More then One Strata                                     | 12% | 9%  | 10% |
| Total                                                    | 100%| 100%| 100%|

| Section 4E. Nature of Strategy Researched                |
| Practical Strategy Research                              | 93% | 91% | 91% |
| Hybrid Strategy Research                                 | 7%  | 7% | 7% |
| Academic Strategy Research                               | 0%  | 2% | 2% |
| Total                                                    | 100%| 100%| 100%|
Appendix F

Data to Answer Question 3A

<table>
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<th>Section</th>
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<th>2010 - 2014</th>
<th>Frequency</th>
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<th>%</th>
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<th>% Increase</th>
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Section 2. Dissertation Source Variables

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<th>Frequency</th>
<th>%</th>
<th>Total Period</th>
<th>Frequency</th>
<th>%</th>
<th>Q Incr (decr)</th>
<th>% Increase</th>
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<td>Female Researcher</td>
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<td>91</td>
<td>56.5%</td>
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<td>61.1%</td>
<td>242</td>
<td>59.3%</td>
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<td>65.93% Female Researcher</td>
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Section 4. Dissertation Subject Variables

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<th>% Increase</th>
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<td>7.3%</td>
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<td>50.00% Hybrid Strategy Research</td>
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Data to Answer Question 3B

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**Section 2B. Unit Level Variables**

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<td>195 78.1%</td>
<td>332 81.4%</td>
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**Section 4E. Nature of Strategy Researched**

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<th>Q</th>
<th>In (Dec)</th>
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<td>5</td>
<td>319 78.2%</td>
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<td>89</td>
<td>21.8%</td>
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<td>5 100.0%</td>
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**Hybrid**

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<th>In (Dec)</th>
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<tbody>
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<td>304 81.5%</td>
<td>23 76.7%</td>
<td>5 100.0%</td>
<td>332</td>
<td>81.4%</td>
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<td>OPEC Sourced</td>
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<td>7 23.3%</td>
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<td>30 100.0%</td>
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Appendix H
Data to Answer Question 3C

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<tr>
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<td>72 44.7%</td>
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<tr>
<td>89 55.3%</td>
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<tr>
<th>Section 2A2. Size of Source Institution</th>
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<tbody>
<tr>
<td>2005 - 2009 Large Institution Frequency</td>
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<tr>
<td>112 66.6%</td>
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<td>173 70.0%</td>
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<tr>
<th>Section 2A3. Research Intensity of Source Institution</th>
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<tr>
<td>2005 - 2009 Other than Very High Research Frequency</td>
</tr>
<tr>
<td>86 53.4%</td>
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<td>75 46.6%</td>
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<tr>
<th>Section 4E. Nature of Strategy Researched</th>
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<tbody>
<tr>
<td>2005 - 2009 Practical Strategy Research Frequency</td>
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<tr>
<td>149 92.5%</td>
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<td>224 90.7%</td>
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<tr>
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<th>Hybrid</th>
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<td>n   %</td>
<td>n   %</td>
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<tr>
<td>Governmental Sourced</td>
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<td>2 40.0%</td>
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<tr>
<td>Not-For-Profit Sourced</td>
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<td>14 46.7%</td>
<td>3 60.0%</td>
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<tr>
<td>For-Profit Sourced</td>
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<td>2 6.6%</td>
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<td>Total</td>
<td>373 100.0%</td>
<td>30 100.0%</td>
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<tr>
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<td>n   %</td>
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<tr>
<td>Large Sized Institutions</td>
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<td>22 73.3%</td>
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<tr>
<td>Medium Sized Institutions</td>
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<tr>
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<td>30 100.0%</td>
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<tr>
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<td>n   %</td>
<td>n   %</td>
<td>n   %</td>
</tr>
<tr>
<td>Very High Research</td>
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<tr>
<td>Other</td>
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