

University of Central Florida

STARS

Electronic Theses and Dissertations

2017

Doctoral Supervision: An Analysis of Doctoral Candidates' and Graduates' Perception of Supervisory Practices

Colton Tapoler

University of Central Florida



Part of the [Educational Administration and Supervision Commons](#)

Find similar works at: <https://stars.library.ucf.edu/etd>

University of Central Florida Libraries <http://library.ucf.edu>

This Doctoral Dissertation (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

STARS Citation

Tapoler, Colton, "Doctoral Supervision: An Analysis of Doctoral Candidates' and Graduates' Perception of Supervisory Practices" (2017). *Electronic Theses and Dissertations*. 5494.

<https://stars.library.ucf.edu/etd/5494>

DOCTORAL SUPERVISION: AN ANALYSIS OF DOCTORAL CANDIDATES' AND
GRADUATES' PERCEPTION OF SUPERVISORY PRACTICES

by

COLTON J. TAPOLER

B. A. University of Central Florida, 2012

B. S. University of Central Florida, 2012

M. S. Pace University, 2014

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the College of Education and Human Performance
at the University of Central Florida
Orlando, FL

Spring Term
2017

Major Professors: Rosemarye Taylor & Thomas Vitale

© 2017 Colton Tapoler

ABSTRACT

The purpose of this study was to collect and examine the reported supervisory practices experienced by professional doctoral candidates in the last year of their program, and recent program graduates, within the last three years, from across multiple disciplines. Doctoral supervisors, specifically in the United States, are not usually provided a set of practices or concrete training prior to advising doctoral candidates (Walker, 2008, p. 35). With this in mind, and the limited amount of research available on doctoral supervision in professional doctoral programs in the United States, it was critical to analyze the experienced supervision of professional doctoral candidates and its perceived effectiveness.

Current candidates and recent graduates were asked to participate in interviews based on the supervision they received. Ultimately, 3 current candidates and 15 recent graduates were interviewed for this study. The interviews were transcribed verbatim and then analyzed using grounded theory (Corbin & Strauss, 1990). The interviews were carefully analyzed for emerging trends that went on to represent individual supervisory practices, or concepts. After several additional readings the concepts were grouped together based on similarity into categories. Finally, the concepts and categories were analyzed for connections to candidate success, which developed into the findings of this study.

Ultimately, candidates and recent graduates discussed 19 supervisory practices. The 19 supervisory practices, or concepts, were: frequency of communication, quality of communication, mode of communication, accessibility, feedback, the use of articles and research, the use of a timeline for candidates, utilization of the supervisor's existing

expertise, workshop offerings, use of the supervisor's network, building a personal connection, showing enthusiasm, candor, trust, encouragement, autonomy, guidance, providing advice academically, and developing a colleague-to-colleague relationship. Each of the 19 concepts was discussed as having varying levels of impact on candidates successfully completing their programs. Doctoral supervisors, and doctoral programs, should consider the implementation of these supervisory practices and the training that helps supervisors develop their supervisory experiences.

ACKNOWLEDGMENTS

My success in my doctoral program could not have been possible without my family: my mother, Deborah, my brothers, Cody and Colin, and my partner in life, Kevin. To each of you I owe a great deal of gratitude for constantly encouraging me along the way. When I needed someone to remind me that I could do this, and that I could persevere through any struggle, you all were my first line of defense, and for that I am forever grateful. Thank you for your unconditional love throughout this process, and for your belief in my ability to succeed in all of my pursuits. You will never know how instrumental you all have been in each of my successes.

I would also like to thank my built-in support network of friends, both near and far. Without you all, I could never have come this far with such an understanding of the balance needed between scholarship and friendship. To Adam, Kim, Madison, Bailey, Kristina, Latoya, Chase, Samantha, Shannon, LJ, Rebecca, Claire, Kari, Kristen, Chelsea, Blair, Serena, Nate, Chuck, and Dan: Thank you for your endless motivation, support, and sometimes necessary distraction when you saw I was overwhelmed. You were the perfect balance for me through my academic career.

Mentorship is a concept you will hear much about in this dissertation. I would not be the scholar, the researcher, or the academic that I am growing into without the mentorship of Dr. Rosemarye Taylor. Her guidance, feedback, and genuine enthusiasm in my success culminated in the completion of this dissertation. I would also like to thank the members of

my committee, Dr. Thomas Vitale, Dr. Walter Doherty, and Dr. Nancy Marshall, for their unwavering encouragement and contributions to the work of this study.

Lastly, I would like to acknowledge my late father, Jeff, as the role model who taught me to live out my dreams, no matter how big, and to do it while staying true to myself. I hope that I continue to make you proud as this chapter of my life ends, and I begin writing the next. This is for you, Dad.

TABLE OF CONTENTS

LIST OF TABLES	x
CHAPTER ONE: INTRODUCTION	1
Problem Statement	3
Purpose of the Study	4
Significance of the Study	4
Definition of Terms	5
Research Questions	6
Conceptual Framework	7
Methodology	10
Context	10
Population and Sample	12
Instrumentation	12
Procedures	13
Analysis	16
Research Question 1	17
Research Question 2	18
Research Question 3 and Research Question 4	18
Research Question 5	19
Variables	19
Limitations	19
Delimitations	20
Assumptions	20
Organization of the Study	20
Summary	21
CHAPTER TWO: LITERATURE REVIEW	22
Introduction	22
Doctoral Degrees	23
The Purpose of Receiving a Doctorate	24
Faculty Pedagogy and Training	27
Research and Publishing	30
Professional Doctoral Degrees	33
The Difference between PhDs and Professional Doctoral Degrees	34
Industry Impact of Professional Doctoral Degrees	39
Role of the Supervisor in Professional Doctoral Programs	42
Supervision in Doctoral Programs	45
Supervisory Practices in Doctoral Programs	46
Supervisor Perceptions of Doctoral Supervision	48
Candidate Perceptions of Doctoral Supervision	52
Summary	56

CHAPTER THREE: METHODOLOGY	57
Introduction.....	57
Design of the Study.....	57
Research Questions.....	58
Selection of Participants	58
Instrumentation	59
Data Collection	61
University Protocol	61
Scheduling and Conducting the Interviews	61
Qualitative Data Analysis	64
Summary.....	67
CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA	68
Introduction.....	68
Research Question 1	70
Category: Communication.....	72
Category: Relationship Development.....	76
Category: Mentorship	80
Category: Experience and Resource Utilization.....	84
Research Question 2	89
Effective Supervisory Practices	89
Lacking and Missing Supervisory Practices	95
Research Question 3	99
Research Question 4	101
Research Question 5	104
Additional Findings	109
Cohort Model and Classmates	110
Flexibility of Program.....	111
Committee Structure and Assembly	113
Proposed Theory	114
Summary.....	114
CHAPTER FIVE: SUMMARY, DISCUSSION, AND CONCLUSIONS	116
Introduction.....	116
Summary of the Study	116
Discussion of the Findings.....	119
Research Question One.....	119
Research Question Two	119
Research Question Three	126
Research Question Four.....	129
Research Question Five	132
Additional Findings	138
Implications for Practice.....	139
Implications for Doctoral Supervisors	139

Implications for Doctoral Programs.....	140
Recommendations for Further Research.....	140
Limitations and Suggestions for Replication Studies	141
Researchable Topics Related to the Study.....	141
Conclusions.....	142
APPENDIX A: UNITED STATES INTERVIEW PROTOCOLS.....	144
APPENDIX B: ERASMUS CONSORTIUM ON MODERN DOCTORATES INTERVIEW PROTOCOLS	146
APPENDIX C: DOCTORAL CANDIDATE AND RECENT GRADUATE INTERVIEW ITEMS (UNITED STATES)	149
APPENDIX D: DOCTORAL CANDIDATE AND RECENT GRADUATE INTERVIEW ITEMS (EUROPEAN UNION).....	153
APPENDIX E: INSTITUTIONAL REVIEW BOARD APPROVAL	157
APPENDIX F: ERASMUS CONSORTIUM ON MODERN DOCTORATES	159
REFERENCES	161

LIST OF TABLES

Table 1 Research Questions and Data Sources.....	15
Table 2 Interviewee Descriptors and Alphanumeric Codes	64
Table 3 Supervisory Practices (<i>N</i> = 18).....	71
Table 4 Category: Communication as an Experienced Supervisory Practice (<i>N</i> = 18).....	74
Table 5 Category: Communication Sample Comments (<i>N</i> = 18).....	75
Table 6 Category: Relationship Development as an Experienced Supervisory Practice (<i>N</i> = 18).....	78
Table 7 Category: Relationship Development Sample Comments (<i>n</i> = 17).....	79
Table 8 Category: Mentoring as an Experienced Supervisory Practice (<i>N</i> = 18).....	82
Table 9 Category: Mentoring Sample Comments (<i>n</i> = 17)	83
Table 10 Category: Experience and Resource Utilization as an Experienced Supervisory Practice (<i>N</i> = 18).....	86
Table 11 Category: Experience and Resource Sample Comment (<i>n</i> = 15)	87
Table 12 Categories of Communication and Relationship Development: Effective Concepts/Supervisory Practices (<i>N</i> = 18)	92
Table 13 Categories of Mentorship and Experience and Resource Utilization: Effective Concepts/Supervisory Practices (<i>N</i> = 18)	93
Table 14 Effective Supervisory Practices: Sample Supportive Comments (<i>N</i> = 18)	94
Table 16 Categories of Mentorship and Experience and Resource Utilization: Missing Concepts/Supervisory Practices (<i>N</i> = 18)	97
Table 17 Missing Supervisory Practices: Sample Supportive Comments (<i>N</i> = 18).....	98
Table 18 Percentages of Interviewees Who Discussed Each Concept by Academic Status (<i>N</i> = 18).....	101
Table 19 Percentages of Interviewees Who Discussed Each Concept by Academic Status (<i>N</i> = 18).....	103
Table 20 Percent of Comments Made, by Concept and Participant Discipline (<i>N</i> = 18)	108
Table 21 Additional Themes Discussed by Interviewees (<i>N</i> = 18).	110

Table 22 Cohort Model and Classmates ($f = 7$)	111
Table 23 Flexibility of the Program ($f = 4$).....	112
Table 24 Committee Structure and Assembly ($f = 2$)	113

CHAPTER ONE: INTRODUCTION

A doctoral degree is often seen as the pinnacle of a student's academic career. Doctoral degrees are completed in part through a doctoral candidate's dedication to scholarly research and a university academic advisor or supervisor's commitment to the candidate's success in his or her chosen field. Though met with a great deal of prestige, it is acknowledged globally that there is limited oversight involved in the supervision that doctoral candidates experience throughout their program, specifically in the United States (U.S.).

There are few or no official national standards that doctoral programs must meet—no centralized government organization that is responsible for credentialing or PhD program review. Even at the local level, the crucial student–research advisor apprenticeship model allows for considerable variation (and privacy) in the actual mentoring process, the degree of student independence, and the developmental trajectory of the formation of the next generation of scholars. (Walker, 2008, p. 35)

Ultimately, developing scholars to become influential in a chosen field is one of the main purposes of doctoral education (Stubb, Pyhalto, & Lonka, 2011, p. 34). Cakmak et al. (2015) further explain that the responsibility of success for doctoral candidates does not rest solely on their own abilities, but that these future scholars are guided by doctoral supervisors currently working and researching in the field (p. 608). The authors write, “Doctoral education is a process that requires not only the students but also the faculty and advisors to engage in planning” (2015, p. 608). In fact, doctoral programs in the United States give much

of the responsibility of shaping the candidate-supervisor relationship to the specific department at the university or the individual doctoral supervisor (Walker, 2008, p. 35). Walker (2008) explains that these doctoral supervisors are often basing their advising on “general disciplinary standards” (p. 35). It could be argued then that a more evidence-based approach to the supervision of doctoral candidates would likely enhance the work being conducted by both involved parties. Franke and Arvidsson (2011) also discuss the structure of much doctoral supervision and explain that, “How supervision should be conducted pedagogically within the administrative framework laid down has to a large extent, however, been left to supervisors themselves to decide on. They are expected to have the professional knowledge required for this work” (p. 9).

The research available on doctoral supervision and how both doctoral candidates and doctoral supervisors perceive the experience is limited. The majority of related research has been conducted in countries other than the United States (Fillery-Travis, 2014). Additionally, much of the existing research located prior to this study focuses solely on doctorates of philosophy (Ph.D.) and does not directly analyze professional doctoral degrees. Ph.D.’s are generally seen as research-based, focusing on contributing new knowledge to an existing field with the primary goal of Ph.D. candidates being to work in academia (Fenge, 2009, p. 168). In comparison, professional doctorates are generally thought to have the purpose of connecting research and professional practice (Fenge, 2009, p. 169). This lack of research on doctoral candidate supervision in the U.S. has left a need for data to be collected from U.S. doctoral candidates specifically.

This study will serve as one portion of a much larger international study being conducted on the practices of doctoral supervisors known as the Erasmus Consortium on Modern Doctorates (Fillery-Travis, 2014). This study, as a part of the larger international study, investigated qualitative data on the perceptions of supervisory practices as experienced by doctoral candidates and recent graduates in the United States. Studies by other researchers in the U.S. were being conducted on quantitative data of these perceptions, and also on the perceived effectiveness of supervisory practices as described in interviews by current doctoral supervisors in the United States. The findings of these studies will be shared with the Erasmus Consortium on Modern Doctorates so that findings in the United States may be included in analyses of similar data collected internationally (Fillery-Travis, 2014).

Problem Statement

The problem that was addressed in this study was the limited amount of available data from the U.S. on the perceptions of professional doctorate candidates and recent graduates related to doctoral supervision during their program and during the research process. Doctoral programs across different disciplines require an effective relationship between doctoral supervisor and doctoral candidate. Anne Lee (2008) writes, “That the supervisor can make or break a PhD student. More specifically, the communication between the supervisor and student is key” (p. 267). Through the literature search, little research was available surrounding the practices of doctoral supervisors in the U.S. and how supervisory practices were perceived by the candidates they work with. In fact, George Walker highlighted that “there are few or no official national standards that doctoral programs must meet,” in regards

to doctoral supervision in the U.S. (2008, p. 35). Further, none of the research that was identified prior to this study was exclusive to professional doctorate programs focused exclusively on practice.

Purpose of the Study

The purpose of this study was to collect and examine the reported supervisory practices experienced by professional doctoral candidates in the last year of their program, and recent program graduates (within the last three years) from across multiple disciplines. This examination revealed the candidates' and recent graduates' perceived effectiveness of supervisory practices that were applied within and across multiple disciplines in the U.S.

Significance of the Study

The significance of the study was to address what practices were being used by doctoral supervisors in the United States and how effective the practices were based on the perceptions of doctoral candidates and recent graduates. The research will begin to address the gap in the literature on perceptions of professional doctoral program supervision in the United States. The research could also be analyzed, and compared to existing or future research on doctoral supervisors' perceptions in the U.S. and around the world, to develop a set of evidence-based practices for doctoral supervisors to use in future practice or to be used in the preparation of doctoral supervisors. The limited amount of research existing on the topic of professional doctoral candidate supervision in the U.S. indicates that this research will begin to fill that gap in the existing literature and body of knowledge. By enhancing the

candidate's experiences through evidenced-based supervisory practices, professional doctoral programs may see this reflected in the future success of candidates.

Definition of Terms

For the purpose of this study the following definitions were used for key terms that pertain directly to the research being conducted.

Professional Doctorate: A type of doctorate that distinguishes itself through its “focus on knowledge-in-use for professional practice” (Salter, 2013, p. 1175).

Doctoral Supervision: The responsibility of a doctoral faculty member to work with, support, and develop a relationship with doctoral candidates.

Candidacy/Candidate: When a doctoral student completes specific requirements outlined by his or her program to advance from being categorized as a doctoral student. This usually occurs after the first few years of doctoral coursework or the successful completion of milestones such as comprehensive or qualifying examinations. In this study, candidates who are participants will be limited to those in their last year prior to completion.

Candidate Perception: The candidates' stated reaction to and experience with a specific supervisory practice.

Doctoral Supervisor: A current faculty member of a doctoral program charged with the responsibility of supervising and advising current doctoral candidates on their research. Doctoral supervisors are sometimes referred to as doctoral chairs and doctoral advisors.

Recent Graduate: A recent graduate will be defined as someone who completed his or her doctoral degree within the last three years.

Discipline: A specific field of research at the doctoral level.

Successful completion: When a doctoral candidate completes all of his or her program's requirements, including successful defense of his or her dissertation and graduation.

Supervisory Practices: The various methods employed by doctoral supervisors and chairs in guiding doctoral candidates toward successful completion of their research and programs.

Research Questions

The following research questions were selected in an effort to better understand the supervisory practices experienced by professional doctorate candidate as well as how candidates and recent graduates perceived the effectiveness of the practices. Additionally, the intent of the research questions was to discover if differences existed in the perception of these practices between different samples of candidates compared to recent graduates within and across disciplines. The first research questions were designed to be broad and proceed in specificity to research question five to help organize and focus the research.

1. What are the supervisory practices that professional doctoral candidates and recent graduates report experiencing?
2. What do professional doctoral candidates and recent graduates perceive to be less effective and more effective supervisory practices for guiding professional doctoral candidates towards successful degree completion?
3. What similarities exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?

4. What differences exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?
5. How do perceptions of professional doctoral candidates and recent graduates across multiple disciplines compare related to practices in professional doctoral supervision?

Conceptual Framework

Existing research, largely international, showed gaps between the perceived effectiveness of supervisory practices from supervisors to candidates. Anne Lee conducted research where supervisors were interviewed based on their experiences in doctoral supervision. In her research, one supervisor was quoted saying, “I act as a bridge between the knowledge and the student and eventually they don’t need me” (2008, p. 275). One of the critical parts that this supervisor highlighted was that the researchers gained a sense of independence and were able to independently carry out the final portions of research and make their own contribution to their chosen field (Lee, 2008, p. 275). Another supervisor was quoted as saying, “I am always waiting for that epiphany moment when they say ‘no I don’t agree,” and “You get a lot of satisfaction, you have facilitated that growth in them” (Lee, 2008, p. 275). This research, in conjunction with other studies, addressed the supervisory practices that doctoral supervisors report. Further, the research indicates that candidates are less frequently asked to report the supervisory practices they experience while working in their programs.

Additionally, in research conducted by Kirsi Pyhältö, Jenna Vekkaila, and Jenni Keskinen (2015), 24% of candidates and 20% of doctoral supervisors said that coaching was

a significant part of the supervision process (p. 9). This was the second most commonly reported task of the supervisor, second only to assistance in research. The authors explained, based on this research, the candidates and supervisors “saw giving emotional support and constructive feedback, guiding candidates towards finding their own paths, collaborative thinking and promoting the doctoral candidate’s active agency as a member of the scholarly community as important elements of supervising” (Pyhalto, Vekkaila, & Keskinin, 2015, p. 9).

These elements detailed by the researchers were similar to the learned outcomes of mentorship highlighted by Linden, Ohlin, and Broden (2013). The authors cited some of the learned outcomes of the candidates they interviewed as including “dealing with anger” (comparable to giving emotional support), “recognizing that it is possible to make a career and be yourself” (comparable to guiding candidates toward their own paths), and receiving project feedback from within the industry (similar to constructive feedback; 2013, pp. 650-652). These studies began to highlight what supervisory practices doctoral candidates perceived as more effective and how they compared to the perceptions of supervisors themselves. What the existing research did not address was whether the candidate’s perceptions changed over time, or in hindsight after graduation, and whether or not any correlation existed between perceptions and discipline.

Further research conducted by Murphy, Bain, and Conrad (2007) also looked at the perceptions of both candidates and supervisors in relation to the supervisory relationship. The authors divided supervision into two parts; supervision was either based on control or guidance and was either task-oriented or person-oriented (2007, p. 219). Among the first two

groupings, a majority of interviewees said they viewed supervision as guidance-based. Interestingly, of the second groupings, a majority also said they thought supervision was more task-oriented (2007, p. 220). This was interesting because guidance-based supervision, grounded in collaboration, would seem to pair with person-oriented supervision, which was grounded in developing the candidate both professionally and personally (2007, p. 220). Part of the difference in the perception of supervision may come from gaps in perception between candidates and supervisors. Murphy, Bain, and Conrad underscore that,

When the data for supervisors and candidates were separated, we found a small tendency for supervisors to endorse guiding (12) over controlling (5) beliefs, and to be more person-focused (11) than task-focused (6). The opposite trend seemed to apply to the candidates: controlling beliefs (10) were expressed more than guiding beliefs (7), and task-focused beliefs (12) were more often expressed than person-focused beliefs. (5). (2007, p. 225)

Additional research exists that supported the idea that the perception of the supervisors on their own practices was not always in line with the perception of the candidates they work with. In the research conducted by Linden, Ohlin, and Brodin (2013), the authors noticed instances where supervisors thought they had made impacts in the personal development of their candidates, but comparatively the candidates did not share similar thoughts. Instead, candidates thought the supervisor did an effective job impacting only their learning (2013, p. 659). Further, the researchers explained that, “Since PhD education is intended to prepare doctoral students for professional work both within and outside academia, it is problematic that students’ personal learning was not supported to a

greater extent” (Linden, Ohlin, & Brodin, 2013, p. 659). Here, some perceptions that addressed less effective practices in supervision from the perspective of candidates (and supervisors) were seen. Again, there was little research addressing whether perceptions changed over time and if there was a correlation between perception and discipline.

Methodology

This study on doctoral candidates’ and recent graduates’ perceptions of supervisory practices in professional doctorate programs in the United States was qualitative in nature, through the use of interviews. According to Sophie Tessier, “For researchers doing qualitative research, interviews are a commonly used method. Data collected through interviews can be recorded through field notes, transcripts, or tape recordings” (2012, p. 446).

Context

The structure of this study was derived from the Erasmus Consortium on Modern Doctorates grant in which the University of Central Florida was an unfunded associate partner (Fillery-Travis, 2014). The application for this project explains, “The project's overall aim is to develop a framework for the supervision of the modern modes of doctorate, i.e. professional, industrial or practice-based doctorates, that is both effective and appropriate for supervisors, organisational sponsors and candidates,” (Fillery-Travis, 2014). While the European partners, which include Middlesex University London, Maastricht School of Management, Trinity College of The University of Dublin, Fondazione ADAPT, The

International Association for Practice Doctorates, and the European Council of Doctoral Candidates and Junior Researchers (Eurodoc), were eligible to receive research funding from the European Union, the University of Central Florida as a U.S. institution did not and does not receive funds from the grant.

This study was on doctoral supervisory practices in the U.S., and also served as part of the broader research of the Erasmus Consortium on Modern Doctorates through the European Union (Fillery-Travis, 2014). Before the research for this study took place, a fellow member of the consortium conducted interviews with 15 doctoral supervisors in the U.S. The researcher of the current study, focused on doctoral candidates and recent graduates, assisted with the interviews. The doctoral supervisor interviews focused on both the preparation and practices of faculty members who were supervising doctoral candidates. The interviews were completed in December of 2015 (Maguire, 2015). Data collection for the current study began directly after supervisor interviews were completed, and included interviewing 18 candidates and/or recent graduates of professional doctorate programs in the United States (Maguire, 2015). It was important to note that the interview protocols and interview items did vary slightly from this study and those used by researchers in Europe. The differences existed due to U.S.-centric language choices and meaning compared to European countries. The U.S. interview protocols and interview items can be found in Appendices A and C and the European interview protocols and interview items can be found in Appendices B and D.

Population and Sample

Interviewees were invited based on expressed interest in the study during attendance at previous conferences and from professional networks of members of the Erasmus Consortium on Modern Doctorates. The interviewees were invited from different disciplines (including but not limited to education, nursing, physical therapy, etc.) and different universities to ensure that the data collected were representative of professional doctorate programs in general and not of just one discipline or of just one university (Maguire, 2015). None of those interviewed came from the discipline area of the university of the researcher to ensure the analysis was able to remain objective.

The 18-person sample was purposive in nature. According to Fraenkel and Wallen (2009), one type of purposive sampling involves selecting a sample that does not expect participants to be representative of the population but instead that the selected participants possess necessary information related to the population (p. 99). In this study the necessary information included the supervisory practices of doctoral supervisors and the perceptions of practices from the doctoral candidates and recent doctoral graduates.

Instrumentation

The doctoral candidate interview items were written in conjunction with the Erasmus Consortium on Modern Doctorates research team to ensure the interview protocols were aligned with those used in other countries and those used for the interviews with doctoral supervisors and chairs (Maguire, 2015). The interview items were derived from the doctoral supervisor interview items to ensure that similar data were collected. Draft interview items

were written, revised, and finalized in conjunction with the doctoral representative from one of the European partners of the Erasmus Consortium on Modern Doctorates, the European Council of Doctoral Candidates and Junior Researchers (Eurodoc) to provide for consistency across interviews internationally. The items and protocol are found in Appendices A and B. The interview items were piloted with doctoral candidates and were refined to assure that the intended data was collected and that the items were understood by participants. The final set of protocols, items, and probes were reviewed and agreed upon by the Erasmus Consortium on Modern Doctorates research team before being finalized and implemented with the 18 U.S. doctoral candidate interviews (Maguire, 2015). The interviews focused on the perceived effectiveness of the supervisory practices of doctoral chairs as reported by doctoral candidates and recent graduates.

Procedures

Potential interviewees were invited to participate in the study via e-mail based on previously expressed interest. Interviews took place between December of 2015 and March of 2016 (Maguire, 2015). Interviewees provided informed consent on the recording prior to the interview starting. Demographic data were collected through a pre-interview questionnaire that the interviewees were asked to complete. All interviews were semi-structured and included probes for deeper investigation into each question as related to the responses from the interviewee. The 18 interviews were recorded with the permission of the interviewee. Interviewees were given the option to be interviewed in-person, over the phone, or via virtual platforms for accessibility to doctoral candidates and recent graduates all

around the U.S. (Maguire, 2015). The interviews were assigned an alphanumeric code based on the participant's discipline and location in an effort to protect their identity and anonymity. After the interviews were conducted and recorded, they were transcribed verbatim.

Table 1

Research Questions and Data Sources

Research Question	Method of Analysis	Data Source
1. What are the supervisory practices that doctoral candidates and recent graduates report experiencing?	All interviews analyzed together for commonalities.	Interview items 4, 5, and 6 from Appendix C.
2. What do doctoral candidates and recent graduates perceive to be less effective and more effective supervisory practices for guiding doctoral candidates towards successful degree completion?	All interviews analyzed together for commonalities and trends of effectiveness.	Interview items 3, 5, 6, 8, and 9 from Appendix C.
3. What similarities exist in the perceptions of doctoral candidates and recent graduates related to the doctoral supervision process?	Doctoral candidate and recent graduate interviews compared against each other for similarities.	Interview items 3, 5, 6, 7, 9 and 10 from Appendix C.
4. What differences exist in the perceptions of doctoral candidates and recent graduates related to the doctoral supervision process?	Doctoral candidate and recent graduate interviews compared against each other for differences.	Interview items 3, 5, 6, 7, 9 and 10 from Appendix C.
5. How do perceptions of doctoral candidates and recent graduates across multiple disciplines compare related to practices in doctoral supervision?	Doctoral candidate and recent graduate interviews separated by discipline and then compared against each other for similarities and differences.	Interview items 5, 6, 7, 8, 9, and 10 from Appendix C.

Analysis

The Grounded Theory Method of analysis was used to organize and analyze the interviews and the resulting themes from the responses. The Grounded Theory Method was selected to allow the researchers to identify thematic similarities and differences across different sets of interviews as outlined in the Erasmus Consortium on Modern Doctorates Interview Guidelines and Protocols (Maguire, 2015). Lunenburg and Irby (2008) explain, “Grounded theory is intended to generate or discover a theory inductively from data gathered about a specific phenomenon. Three elements of grounded theory are concepts, categories, and propositions” (p. 102). Concepts were the basic units of analysis that allowed the researcher to label phenomena, categories were sets of concepts that were similar in nature, and propositions showed the generalized relationships between concepts and categories, and also between different categories (2008, pp. 102-103).

With this in mind, the researcher searched for common words and phrases among the interviews through a close reading of the transcriptions, which became concepts. At least four readings of the transcripts were conducted. The first reading allowed for general understanding; the second reading allowed for the identification of common words, phrases, and themes; the third reading ensured nothing was missed in prior readings when identifying concepts, and the final reading allowed the researcher to organize concepts into categories and evaluate for potential propositions. The readings occurred over the course of several days to allow for reflection. By noting the frequency of common words and phrases, concepts were identified, and categories were created leading to the labeling of propositions that arose

across multiple interviews. The data formed and established themes, or concepts, for comparison. Each of the interviews was analyzed individually for concepts that emerged based on the responses of the interviewee and then compared against the other interviews.

After analysis of the transcriptions was completed, the researcher met with colleagues on the research team to compare notes on the similarities and gaps in supervision themes that were identified. As concepts were identified that had not previously been highlighted, the researcher reviewed the transcriptions once more to further define the additional themes. All comments made by the research team were addressed during this additional review of the transcriptions.

Research Question 1

What are the supervisory practices that doctoral candidates and recent graduates report experiencing?

The doctoral candidate and recent graduate interviews were analyzed together to identify the supervisory practices that were being experienced throughout the supervision process. This analysis of the doctoral candidate and recent graduate interviews allowed the researcher to answer the first research question by identifying supervisory practices that were experienced by doctoral candidates.

Research Question 2

What do doctoral candidates and recent graduates perceive to be less effective and more effective supervisory practices for guiding doctoral candidates towards successful degree completion?

The researcher then identified thematic similarities and differences to highlight which supervisory practices were perceived as more effective and which were perceived as less effective. This analysis of the doctoral candidate and recent graduate interviews allowed the researcher to answer the second research question on the perceived effectiveness of the experienced supervisory practices and their role in guiding candidates to successful completion of their doctoral studies.

Research Question 3 and Research Question 4

What similarities exist in the perceptions of doctoral candidates and recent graduates related to the doctoral candidate supervision?

What differences exist in the perceptions of doctoral candidates and recent graduates related to the doctoral candidate supervision?

Once the similarities and differences were identified, an analysis for thematic similarities and differences between both populations, current doctoral candidates and recent graduates, was conducted. Comparing the doctoral candidate interview concepts to the recent graduate interview concepts allowed the researcher to answer the third and fourth research questions intended to identify any differences that existed between the perceptions of doctoral candidates and recent graduates, and also to identify areas where doctoral candidates and recent graduates were in agreement on effective supervisory practices.

Research Question 5

How do perceptions of doctoral candidates and recent graduates across multiple disciplines compare related to practices in doctoral supervision?

Finally, the researcher examined interview transcripts by discipline, to determine if any thematic similarities and/or differences existed in perceptions among specific disciplines. Analyzing the interviews based on discipline allowed the researcher to answer the fifth research question, which examined whether or not effective supervisory practices existed that were specific to some disciplines but not others.

Variables

The independent variables for this study included the identified perceived supervisory practices by the doctoral chairs, the category of the participant as doctoral candidate or recent graduate, and the discipline. The dependent variables were the perceived effectiveness of the supervisory practices as reported by both doctoral chairs and recent graduates, and also the successful completion of doctoral candidates. Extraneous variables in this study were different university policies on doctoral supervision and previous graduate coursework of the candidates and recent graduates.

Limitations

Limitations existed for the study. The results may not be generalizable to all professional doctorate programs depending on existing university policies and the discipline of the doctoral program. The results may also not apply to doctorate programs whose purpose was to prepare theoretical researchers rather than to prepare scholar practitioners or those

who will use research to lead and influence practice in a chosen field. The study was limited by the sample size ($N = 18$) when looking at different groupings from the sample. The study was also limited to the experiences of only the selected doctoral candidates and recent graduates in that the interviewees' responses may have been impacted by the strength of their program. The results of this study should be compared to results of other studies of professional doctorate programs from other disciplines and of universities around the world for further application.

Delimitations

The study was delimited to include only professional doctorate programs and professional doctorate programs in the United States. The study excluded former professional doctorate candidates who did not complete their programs, which may have limited the findings. In other words, the study included successful doctoral candidates and did not include those for whom the doctoral experience was not successful.

Assumptions

This study assumed that doctoral chairs had a set of supervisory practices, whether written or implied, that they actively relied on while working with doctoral candidates.

Organization of the Study

The study was organized and presented in a five-chapter dissertation. The first chapter outlines the problem statement, the purpose statements, the terminology as it relates

to the research, and an overview the methodology of the study. The second chapter focuses on the literature review that encouraged this study. The third chapter details the methodology and procedure employed for this study. Chapter four discusses the findings of this study. Finally, chapter five discusses further implications of the results and suggestions for future study.

Summary

The aim of this study was to identify evidence-based practices for doctoral chairs to use when working with doctoral candidates toward successful completion of their programs based on the doctoral chair and doctoral candidate's perceived effectiveness of existing supervisory practices. Professional doctorate candidates and recent graduates were interviewed to discuss their supervisory experiences and their perceptions of their experienced supervision. This qualitative data was then broken down by research question and analyzed for thematic trends.

CHAPTER TWO: LITERATURE REVIEW

Introduction

The purpose of the literature review was to provide necessary background information and relevant support for conducting research to better understand the supervisory practices of professional doctorate faculty and how supervisory practices were perceived by doctoral candidates and recent graduates of professional doctorate programs. The literature review provides an overview of doctoral programs in general, and then focuses in on professional doctoral degrees, their impact on industries, and the perceptions of experienced supervisory practices.

In chapter one, the conceptual framework provided a number of supervisory practices that were experienced by candidates, and how doctoral candidates perceived supervisory practices. The conceptual framework also revealed supervisor perceptions of the practices they utilize in working with doctoral candidates. This review of the literature is provided to affirm the need for this study to analyze the perceived effectiveness of these experienced supervisory practices across multiple disciplines in the United States (U.S.).

The literature review is representative of the existing research surrounding general doctoral supervisory practices with a focus on professional doctorate programs. It was developed through exhaustive searches through several online databases available through the University of Central Florida. The databases that were included were: Education Resources Information Center (ERIC) Education Full Text, Dissertations & Theses Full Text, LexisNexis Academic, Web of Science, and Psycinfo. Key terminology used to compile

existing literature for review included, “professional doctorate(s),” “practice based doctorate(s),” “professional practice doctorates,” “doctoral supervisory practices,” “supervisory practices,” “doctoral supervision,” “doctoral candidate perception,” “doctoral supervisory perception,” “doctoral faculty,” “doctoral supervisor,” “doctoral chair,” and “dissertation chair.” There was a very limited amount of research available on professional doctorate programs in the US, and so a large portion of the literature is international. Literature not directly related to doctoral level study and/or supervision of doctoral candidates were excluded from this review. Chapter two is arranged into four sections: (a) general overview of doctoral degrees, (b) the impact of professional doctoral degrees, (c) perceptions of experienced supervisory practices, and (d) the summary.

Doctoral Degrees

A doctoral degree, completed in part through a candidate’s dedication to scholarly research and a supervisor’s commitment to the candidate’s success in their chosen field, is often seen as the pinnacle of a student’s academic career (Mowbray & Halsey, 2010). The widely accepted role of a doctoral degree includes a primary focus of producing scholars who become influencers in their chosen field. This serves as one of the main purposes of doctoral education (Stubb, Pyhalto, & Lonka, 2011, p. 34). Other focuses, when discussing the purpose of a doctorate, vary among researchers. Some explain that earning a doctorate is a “process of acquiring intellectual virtues,” while others define its purpose as coming from a shift “from being a license to teach in academic institutions to being an important strategic resource for a country's economic development,” (Mowbray & Halsey, 2010, p. 653; Herman,

2012, p. 1). Doctoral degrees, their purpose, faculty pedagogy, research, publication, and collaboration between doctoral supervisor and candidate are all analyzed in the existing research (Mowbray & Halse, 2010; Robinson & Hope, 2013; Lee & Kamler, 2008)

The Purpose of Receiving a Doctorate

Ingrid Lunt of Oxford University, and Val Klenowski of Queensland University, explain in their research that the focus in the United Kingdom for doctoral programs is the inclusion of some form of reflection which leads the student to integrate academic and professional knowledge, to consider their learning and to link this with their professional development” (2008, p. 204). The primary focus is building reflection into the doctoral programs to help ensure that candidates are developing in their professional practice outside of their coursework (Klenowski & Lunt, 2008, p. 204). This thought of ensuring candidates and graduates are capable of impacting their industries has sparked the initial conversations about the introduction of Professional Practice Doctorates (PPD; Shulman et al., 2006). The intent of Professional Practice Doctorates, or the conversations surrounding these kinds of doctorates, would be “that practitioners will develop the capacity to contribute to policy and practice decision-making in completing the PPD” (Klenowski & Lunt, 2008, p. 204). With this kind of focus on the responsibility of doctorates, Klenowski and Lunt (2008) argue that reflection must also be one of the key elements of doctoral level study to put professional impact at the forefront of any doctoral degree (p. 204). Like Chaya Herman (2012), the trending thoughts on doctoral study are moving away from local impact and towards global impact, whether economic, industrial, or otherwise (Klenowski & Lunt, 2008).

Christine Halse and Susan Mowbray, professors at Deakin University, include in their investigation into the purpose of a doctorate that while a doctorate is the culmination of years of study for many students, business and industry leaders are disappointed with the lack of definitive skills that candidates who complete doctorates are entering the work force with (2010). They write that western universities, specifically in the United Kingdom and Australia, were focusing their doctoral programs with “skills pushes” to ensure that their graduated candidates are able to contribute more to the workforce after degree completion (Mowbray & Halse, 2010). The concern that Mowbray and Halse raise is that these skills pushes leave out key parts of the purpose of doctorates, including, but not limited to, motivation, engagement, perseverance, and innovation (2010). They highlight these attributes as key elements in developing productive citizens and a “disposition for lifelong learning” that they argue is one of the most important returns on an investment in doctoral level education (Mowbray & Halse, 2010, p. 654). Chaya Herman (2012) further substantiates these focuses of doctoral education in her analysis of doctoral degrees in South Africa.

In her analysis of doctorates in South Africa, Chaya Herman, associate professor of education at the University of Washington, highlights that the conversation amongst their Department of Science and Technology and their National Research Foundation revolves around the concept that “the Ph.D. [is] a key driver for economic development and global competitiveness” (2012, p. 2). Further, she explains “the NRF and the DST embarked on initiatives for a five-fold increase in the number of Ph.D. graduates by 2018, especially in science, engineering, and technology, in order to 'provide the bedrock for [an] innovative and entrepreneurial society” (National Research Foundation, 2007, p. 8 as cited in Herman,

2012). The conversation in South Africa is on the importance of focusing doctoral education to serve as more than an exclusive means to an academic career, and instead to have it also serve as a means to help establish South Africa as an influencer in the global economy by producing influencers of industry (Herman, 2012). This emphasis on global impact and industry influence is further investigated by research conducted in Australia (Sinclair et al., 2014, pp. 1972-1973).

Finally, in line with previously mentioned researchers, Jennifer Sinclair, Robyn Barnacle, and Denise Cuthbert of the School of Graduate Studies at RMIT University in Australia, write that some of the most important elements to consider of doctorate study in Australia, are the pressures of government that doctoral degrees lead to national innovation (Sinclair et al., 2014, pp. 1972-1973). They explain that, “governments seek to frame doctoral study in human capital terms of training a research workforce which will drive innovation and enable national participation in the global knowledge economy,” and also that “older conceptions of doctoral study as ‘research’ persist, with doctoral graduates understood as apprentice members of disciplinary research communities” (Lee & Boud, 2008; Sinclair et al., 2014, p. 1972). These researchers highlight that research should focus on what elements most impact the ability of a doctoral program to produce scholars who are most ready to participate in academia and/or industry as active researchers who will move their fields forward (Sinclair et al., 2014, p. 1972).

Another trend amongst the countries highlighted in this research is the intellectual battle between what doctoral programs have been for years and how different governments hope they will evolve in the future (Sinclair et al., 2014, p. 1972; Herman, 2012; Klenowski

& Lunt, 2008; Mowbray & Halse, 2010). The researchers discuss how, in each of their respective countries, there are active conversations debating the purpose of doctoral degrees in general with questions such as: should they continue on as paths to careers in academia or should they begin to focus on producing scholars ready for careers in either academia or as influencers of industry? (Sinclair et al., 2014, p. 1972; Herman, 2012; Klenowski & Lunt, 2008; Mowbray & Halse, 2010). These conversations and this research show the importance of understanding all aspects of doctoral education.

Faculty Pedagogy and Training

Margaret Zeegers of the University of Ballarat and Deirdre Barron of the Swinburne University of Technology, examine “the so-called Oxbridge approach of a novice student researcher learning from an academic who is assigned as the principal or coordinating supervisor—a role based on discipline rather than teaching knowledge,” that has grown in popularity in Australian universities (2012, p. 20). Further, Zeegers and Deirdre argue that, in terms of necessary pedagogy in working with doctoral candidates, that,

Pedagogy in a supervisor-supervisee relationship, moreover, takes issue with the positioning of the mediating influence of all research production on the part of the supervisor. Pedagogy acknowledges the postgraduate research student as an active learner, and acknowledges that supervision and being supervised is not a matter of chancing upon a supervisor that does not construct the supervisee in deficit terms. It implies systematic and orchestrated approaches to be explored and implemented. (2012, p. 26)

The idea in this research is that faculty pedagogy is a key part of the supervisory relationship between doctoral supervisor and doctoral candidate and that it impacts the success of the doctoral candidate (Zeegers & Deirdre, 2012, pp. 20-30). With this in mind, it is critical that doctoral supervisors have a diverse pedagogy to utilize in training their supervisees as researchers and as learners (Zeegers & Deirdre, 2012, pp. 20-30).

Knowing the importance of doctoral pedagogy and its role in the success of doctoral candidates (Zeegers & Deirdre, 2012, pp. 20-30) it is important to discuss the pedagogy and training that doctoral faculty receive in preparing to work with doctoral candidates (Robinson & Hope, 2013, p.1). In their review of literature, Terrell Robinson and Warren Hope (2013) of the Florida Agriculture and Mechanical University, cite research from Richard Smock of the University of Illinois and Robert Menges (1985) of Northwestern University, that explains “even though only about 50% of new doctoral graduates accept positions in higher education, a considerable number of graduate students in many disciplines continue to see teaching as their primary career goal” (as cited in Robinson & Hope, p. 2). Further, Robinson and Hope (2013) substantiate their study on doctoral faculty training and pedagogy by referencing an assertion made by John Boehrer and Ellen Sarkisian of Harvard University, that postulated that “TAs and new professors will quickly “discover that students’ learning does not necessarily mirror their own” and that “teaching a class is more complex than tutoring an individual” (as cited in Robinson & Hope, 2013, p. 2). With this foundation, Robinson and Hope (2013) found through their research that 80% of doctoral faculty indicated that they were never required to take courses to develop their teaching skills and that only 37% of surveyed doctoral faculty had ever enrolled in courses designed to develop

teaching skills (p. 7). Ultimately, the research argues that doctoral faculty should be exposed to more opportunities for professional development in teaching to ensure they are best prepared for careers in higher education and for working with doctoral candidates in those careers (Robinson & Hope, 2013, p. 10).

Further endorsing the idea that supervisor development is a critical element in the success of doctoral candidates, Cally Guerin, Heather Kerr, and Ian Green of the University of Adelaide, write that at universities in Australia and abroad, doctoral supervision preparation must be constantly revisited (2015, p. 107). Based on narratives from those involved in the doctoral supervisory relationship that were collected by Guerin, Kerr, and Green (2015), they currently recommend that doctoral supervisors are prepared with a set of different skills to employ when supervising doctoral candidates instead of relying on a one model fits all approach (p. 116). They also explain that the narratives placed a strong emphasis on ensuring that supervisors be aware of how his or her own candidacy experience is affecting their work as a current supervisor (Guerin, Kerr, & Green, 2015, p. 116). Finally, in line with the research reviewed in the previous section of this chapter, researchers suggest that, “supervisor development programmes should do much more to encourage participants to consider the researcher identities and graduate qualities being produced during the doctoral process” (Guerin, Kerr, & Green, 2015, p.106). Again, the research shows an emphasis on the pedagogy that doctoral supervisors bring to the supervisory relationship, but also a focus on the work that doctoral candidates will do once they have completed their respective programs (Guerin, Kerr, & Green, 2015, p. 107). This is directly aligned with the research that highlighted the current emphasis on ensuring that candidates are prepared for different

kinds of work after graduation, including work in both academia and also in industry (Guerin, Kerr, & Green, 2015 p. 107; Sinclair et al., 2014, p. 1972; Herman, 2012; Klenowski & Lunt, 2008; Mowbray & Halse, 2010). The importance of the pedagogy that a doctoral supervisor is prepared with, and the work that doctoral candidates are being prepared to do, can be seen in the currently existing research on doctoral programs, faculty, and candidates.

Research and Publishing

In discussing pedagogy, one of the elements of doctoral supervisor and doctoral candidate collaboration comes in the form of conducting research together, and preparing the candidate for life beyond the doctorate (Guerin, Kerr, & Green, 2015 p. 107). Alison Lee and Barbara Kamler, doctoral faculty at the University of Technology, Sydney and Deakin University respectively, explain that, “Low publication rates from doctoral degrees have been noted as a problem in the quality of doctoral education for preparing students to participate in research cultures. At the same time there is ambivalence and some resistance among doctoral supervisors and candidates about the place of publication in doctoral work” (2008, p. 511). In providing two different case studies with different approaches to incorporating doctoral candidate publishing into doctoral pedagogy moving forward, Lee and Kamler (2008) argue that not enough education is being provided to doctoral candidates on how to publish directly from their research (p. 521). They explain that, in these case studies, there was an observable demand on doctoral graduates to be able to publish their work and a gap existed in the current doctoral faculty pedagogy in preparing doctoral candidates to be able to do just that

(Lee & Kamler, 2008, p. 522). To meet this demand, Lee and Kumlar (2008) present two different approaches to developing necessary skills in doctoral candidates (p. 513). The first encourages candidates to work together in writing groups to promote peer revision prior to making more critical decisions with the assistance of the doctoral supervisor (Lee & Kumlar, 2008, pp. 513-516). The second approach relied more exclusively on the supervisory relationship and utilizes the supervisor as a kind of critical reader and friend in preparing the candidates research and writing for publication (Lee & Kumlar, 2008, pp. 517-521). Ultimately, doctoral programs are seeing an increased need to prepare students to publish based on their research, and doctoral faculty are now tasked with finding ways to build publication assistance into the supervisory relationship to help ensure that doctoral candidates can meet this growing need (Lee & Kamler, 2008, p. 522).

Simon Lei and Ning-Kuang Chuang of Kent State University describe, in their analysis, the trend of candidates begin publishing before graduation (2009). They explain that,

In today's academic climate, the old adage "publish or perish" no longer applies solely to postdoctoral scholars, lecturers, visiting and tenure-track faculty members. Many masters and doctoral (graduate) students nationwide are expected to publish their research results before graduation. Many leading academic departments have required their respective master's and doctoral students to publish at least one and two to three research articles in scholarly journals, respectively, as part of their graduation requirements. Publishing research papers are a lengthy process, often involving

collaboration with faculty mentors. (Lei & Chuang, 2009, Introduction section, para.

1)

With research and publishing being at the forefront of many doctoral degrees, Lei and Chuang explain the benefits and drawbacks of publishing as a collaboration between doctoral candidates and their supervisors (2009). In analyzing this from the candidates' perspective, they found that some of the noted benefits included receiving valuable input from supervisors, the sharing of research knowledge, techniques, and responsibilities, as well as being able to utilize the supervisors professional network, and learning from the supervisor how to respond to feedback, criticism, and other communication from editors (Lei & Chuang, 2009). Opposite this, the researchers found that some of the candidate's perceived costs of a collaboration in publishing between doctoral candidate and supervisor included changes in the relationship, a feeling of being overworked or exploited, and the chance that editors may question the originality of the work itself (Lei & Chuang, 2009). With these ideas in mind, Lei and Chuang quote a previously published article of Lei's where he surmised "In many cases, graduate students have a joint authorship with faculty mentors when attending annual research conferences and when submitting research manuscripts to peer-reviewed journals for consideration of publication" (Lei, 2008 as cited in Lei and Chuang 2009). While collaboration in publication is a growing trend, the research conducted here by Lei and Chuang, as well as the research conducted by Becky Siu Chu Kwan highlight that finding the right balance between supervisor and candidate is something that must continue to be a focus of doctoral faculty in developing their pedagogy (Lei & Chuang, 2009; Kwan, 2013).

Building on this idea that research and publication are a large part of doctoral pedagogy, Becky Siu Chu Kwan, of the University of Hong Kong, writes about the prevalence that doctoral education, and more specifically doctoral research and publication, plays into universities becoming competitive in a global market (2013, p. 207). This concept of competitiveness is directly in line with previously reviewed literature that discussed the growing significance that outside influences like global economies and industries are playing in doctoral education (Sinclair et al., 2014, p. 1972; Herman, 2012; Klenowski & Lunt, 2008; Mowbray & Halse, 2010). Further, Kwan (2013) explains that based on her research conducted on the publication process through interviews with current doctoral supervisors, that there appeared to be gaps in the pedagogy and instruction that candidates were receiving from their supervisors (p. 215). Kwan (2013) explained that while supervisors reported providing support in the areas of manuscript writing, submission strategies, and handling reviewers comments, supervisors did not discuss the support they provided in areas including designing research for publication, outline planning, and thesis-publication alignment (pp. 215-219). With such an emphasis being placed on doctoral candidates to produce publications either while in their programs or after program completion, it is becoming increasingly more important for doctoral faculty to build these ideas into their work with their candidates (Kwan, 2013, pp. 207-215).

Professional Doctoral Degrees

Until this point, the literature review has analyzed doctoral programs, largely PhD programs, from around the world. More specifically, the literature begins to analyze

professional doctorate programs specifically, and how doctoral faculty and students experience working in professional doctorate degree programs. One of the key differences between traditional PhD programs and the more recently evolving professional doctorate is that professional doctorate programs are designed to promote research in either non-traditional or professional fields (Neumann, 2005, p. 173). The existing literature highlights similarities and differences between PhD programs and professional doctorate programs in areas including structure, recruitment, retention, research, and across multiple disciplines now offering professional doctoral degrees (Neumann, 2005; Downs, 1989).

The Difference between PhDs and Professional Doctoral Degrees

In examining the growth, and comparisons of PhD programs and professional doctorate programs, Florence Downs, Associate Dean of Graduate Studies at the University of Pennsylvania, discusses the growth that nursing doctorates have seen, and the focuses of the professional doctoral degrees in nursing (1989, p. 263). In line with more recent literature on the professional qualifications for doctoral degrees in Australia, Downs (1989) wrote, “Because the professional doctorate in nursing is generally construed to be the practice-oriented, clinical, or applied degree, it seems to imply, to some educators, preparation for a practice role of some sort.” (p. 263). This begins to emphasize the differences in the backgrounds of students that enter PhD programs versus the students that enter professional doctorate programs.

In a qualitative analysis of the similarities and differences between PhD and professional doctoral degree programs, Ruth Neumann of Macquarie University, explains

that some of the most significant differences between PhDs and professional doctorate programs lie in the fields of industry that research is conducted for each, and also in the speed at which the program is completed (2005, p. 173). In her discussion, Neumann (2005) begins by explaining that the growth of professional doctorate programs in Australia has gone mostly unnoticed, or under researched, over the last few decades (p. 173). As professional doctorate programs have grown in popularity in Australia, Neumann (2005) explains that similar trends have been noticed in the United Kingdom since 1990 (p. 174). In collecting and analyzing interview and document data, Neumann (2005) was able to identify that in terms of structure; the PhD programs and professional doctorate programs that were reviewed were actually quite similar (p. 174). They both incorporated research courses, courses specific to discipline, and a culminating research project of sorts, which the student's graduation relied on (Neumann, 2005, pp. 180-182). On the other hand, differences began to arise when examining candidate selection. Neumann (2005) concluded that, "Thus a major differentiation between professional doctorates and the PhD is the mode of entry: a professional qualification and/or professional experience are essential criteria for entry into professional doctorates but not for the PhD" (p. 178).

Carol Costley and Stan Lester of Middlesex University take a different tone with professional doctoral degrees; referred to in their research as work-based doctorates (2012, p. 257). As opposed to conclusions and questions raised by Wilden, Peden, and Chan (2014), Neumann, Costley, and Lester (2012) provide evidence that work-based doctorates are showing "significant value in terms of organisational benefit and individual professional development, and, although they still occupy disputed territory within the university, they are

capable of being conceptualised and implemented in a way that is intellectually rigorous and robust,” in the United Kingdom and in Australia (p. 257). Their research focuses on the areas in which work-based doctoral programs are positively impacting higher education. Costley and Lester (2012) quote previous research of their own that highlights that these positively impacted areas include: “widening access to higher education; the direct impact on the workplace of the investigation or project; effective personal and professional growth for the candidate; and, provided the employer is able to capitalise on learners’ development, resultant benefits for the organization” (Lester & Costley, 2010, p. 265). This differs from the traditional PhD programs which Costley and Lester (2012) briefly describe as primarily responsible for academic research and the development of future university faculty members (p. 257). Based on the existing research, the purpose and benefits of the doctorate are also key elements in deciphering between PhD programs and work-based or professional doctoral programs (Costley & Lester, 2012, p. 265).

Though, research is limited, there are some studies available on the development of professional doctoral programs, from PhDs, in the United States. In fact, Felly Chiteng Kot and Darwin D. Hendel of the University of Minnesota-Twin Cities, write, “Little is known about the history of professional doctoral programs in the USA, because of a dearth of research on the subject and the lack of systematic data collection on these degree awards” (Kot & Hendel, 2012, p. 351). While they acknowledge that the PhD is still the most popular doctoral degree in the US, the professional doctorate in the USA has seen growing numbers since the 20th century (Kot & Hendel, 2012, pp. 352-353). The researchers also highlight the changing landscapes of industry that have led to this growth (Kot & Hendel, 2012, pp. 353-

354). They speak specifically about industry trends in the areas of physical therapy, audiology, and occupational therapy that are moving toward careers that will only be held by individuals who also possess a professional doctorate; for example, the doctorate of physical therapy is quickly becoming a minimum requirement for careers in physical therapy. (Kot & Hendel, 2012, p. 354).

At the conclusion of her research, Neumann (2005) writes that the distinction between PhD programs and professional doctoral programs may not be necessary (p. 184). In discussing the trends of professional doctoral programs in China, Iceland, and Australia, Helen Wildy, Sanna Peden, and Karyn Chan of the University of Western Australia, also highlight a concern for the future of professional doctoral programs (2014). After diving into the details of specific professional doctorate programs from the perspective of doctoral candidates in each of the three named countries, they explain that,

The trajectories of the development of the professional doctorate in the three sites we describe in this study suggest some commonalities, and all cases show concern for the status of the new professional doctorate, not only in the conceptual stage, but even after nearly 20 years of highly successful delivery. (Wildy, Peden, & Chan, 2014, p. 772)

They argue that acceptance of professional doctoral programs, especially when compared to PhD programs, may take a generational shift in thinking among stakeholders in higher education (Wildy, Peden, & Chan, 2014). Despite this argument, the researchers do explain that an increased value in contributing to professional or industry knowledge is a key part of the success that professional doctoral programs have seen so far (Wildy, Peden & Chan,

2014). Further, they describe professional doctoral candidates as, typically, “mature-aged, mid-career professionals, who are keen to progress in their workplace” (Wildy, Peden, & Chan, 2014, p. 772). Their line of research compliments the thoughts of previous researchers in this review that spoke of trends in doctoral education leading toward an emphasis on professional industry and/or global impact as new influences (Klenowski & Lunt, 2008; Mowbray & Halse, 2010). Wildy, Peden, and Chan discuss what sets professional doctoral programs apart from PhDs, including the students these programs attract and the emphasis on the workplace, while also being honest about some of the challenges that professional doctoral programs face (2014).

Based on the research of Carol Costley and Stan Lester and other researchers, the professional doctorate’s focus and impact on the workplace and professional growth separate it from the PhD (2012, p. 265). Kot and Hendel, for example, quote R.S Edwardson as explaining that the trend for professional doctoral programs may exist because the PhD is now ‘too focused on scholarly research, to the neglect of all other faculty responsibilities and non-academic careers’ (Edwardson, 2001, pp. 89–90 as cited in Kot & Hendel, 2012, p. 353). In addition to the growth of professional doctoral programs, industry trends are seemingly responsible for some of the popularity of professional doctoral programs as they become either critical for career advancement, or necessary for the kinds of research they allow candidates to complete (Kot & Hendel, 2012).

Industry Impact of Professional Doctoral Degrees

John Fulton, Judith Kuit, Gail Sanders, and Peter Smith of the University of Sunderland, UK, analyze the role that professional doctoral programs take in developing professional practice in their candidates (2012). They open up this discussion in writing,

As with any doctoral programme, the Professional Doctorate requires that candidates can offer a significant contribution to their profession. Pragmatically that means that they each produce a report and portfolio to demonstrate some kind of discrete contribution, for example a new model of practice or a novel solution to an existing problem. It is upon this that they are formally assessed. However, a more implicit and yet core objective of the Professional Doctorate programme is personal transformation of the candidates into professionals who can view their workplace through a fresh lens. (Fulton et al., 2012, p. 134)

The researchers explain that this context presents two unique challenges for preparing candidates for work in their chosen field: “territorialized knowledge and professional identity” (Fulton et al., 2012, p. 134). Fulton and his associates describe those with territorialized knowledge based on Baumard’s explanation that includes anyone who possessed detailed knowledge on a specific career or organization (1999 as cited in Fulton et al., 2012, p. 134). The challenge is assisting professional doctorate candidates in breaking from their mental maps of their programs and look at their industries from different perspectives (Fulton et al., 2012, p. 134). Further, they explain that professional identity, based on Schein’s definition, is how someone uses their values, knowledge, and personal experience to define who they are as working professionals (1978 as cited in Fulton et al.,

2012, p. 134). Professional identity can encourage a similar problem where potential candidates may struggle to embrace new ideas and methods of their industry if they conflict with their current identity (Fulton et al., 2012, p. 134). Ultimately, the researchers explain that, “The Professional Doctorate holder is expected to be a leader in their area of practice, not only of their own profession but also in terms of the wider context in which they work” (Fulton et al., 2012, p. 136). With this in mind, the professional doctorate promotes a desire for new knowledge and authentic open-mindedness in its candidates, who are able to overcome things like territorialized knowledge and professional identity (Fulton et al., 2012, p. 136)

In education specifically, Swapna Kumar and Kara Dawson of the University of Florida, investigated how professional doctoral degrees have impacted the field (2013). In their explanation of what impact looks like in professional doctoral programs, Kumar and Dawson cite an article written by Australian researchers Lee, Green, and Brennan who write that, “Research in professional practice has been viewed as an intersection of the profession, workplace, and the university, where knowledge is produced within a context of application” (2000, as cited in Kumar & Dawson, 2013, p. 166). To better understand the relationship between the student’s program, his or her work, and his or her industry, the researchers interviewed 18 doctoral candidates about their experiences taking their coursework to their field (Kumar & Dawson, 2013, p. 169). Additionally, the researchers reviewed the students’ curriculum vitae and websites (Kumar & Dawson, 2013, p. 169). They reported that all of the participants reported impacts in the areas of technology in the classroom, creation of new curriculum, and a focus on newly instituted professional development with online

components (Kumar & Dawson, 2013, p. 170). Further, seven students reported having adjusted their practices in making data-driven decisions based on exposure to research techniques while in their courses (Kumar & Dawson, 2013, p. 171). Ultimately, the researchers reported that these changes, through the application of their coursework, came from a feeling of increased confidence that the doctoral candidates walked away from the professional doctorate program with. This led directly to professional growth in the field, as referenced by twelve participants, and changes in the candidates' roles in their profession, as referenced by 15 of the participants. (Kumar & Dawson, 2013, p. 173)

Alison Fox and Bonnie Slade, of the University of Stirling and the University of Glasgow in the UK, respectively, also take a look at the impact that professional doctoral programs have had on the field of education, but also in public and health services (2014, p. 549). They conducted interviews with four graduates of professional doctoral programs, and then also with colleagues and/or supervisors of the graduate who was interviewed (Fox & Slade, 2014, p. 550). The interviews focused questioning on perceived organizational impact that the professional doctorate had on the work that the graduate was doing, and also and perceived changes in the graduate themselves as they progressed through the professional doctorate program (Fox & Slade, 2014, p. 550). In their findings, the researchers report that one of the impacts noticed by all of the graduates was a change in their conceptual framework (Fox & Slade, 2014, p. 552). One of the graduates explained this as having a part of her mind called upon by the professional doctorate that was not often used in her workplace (Fox & Slade, 2014, p. 552). Similar to the findings of Kumar and Dawson's study, these researchers also found that the colleagues of the graduates perceived an increase

in their confidence in the workplace (Fox & Slade, 2014, p. 554). One of these colleagues explained that, “having heightened self-belief allowed one graduate ““to express her ideas’ and that she became ““far more open”” (Fox & Slade, 2014, p. 554). Finally, in terms of the impact of the program on organizations, Fox and Slade report that the most tangible example explained that the graduates experienced ““more effective networking and network-building”” (Fox & Slade, 2014, p. 555).

Through the research available on the specific impacts derived from professional doctoral programs, an increase in the self-confidence of graduates is the most common finding (Fox & Slade, 2014, p. 554; Kumar & Dawson, 2013, p. 173). Further though, research has found that professional doctoral degrees also have positive impacts on the work that graduates are conducting, the professional identity that they see for themselves, the relationships that graduates are building with others, and the development of colleagues with whom the graduates are working (Fox & Slade, 2014, p. 555; Kumar & Dawson, 2013, pp. 170-171; Fulton et al., 2012, pp. 130-136).

Role of the Supervisor in Professional Doctoral Programs

Susan Carr, Monique Lhussier, and Colin Chandler, of Northumbria University UK, open up their discussion of supervision in professional doctoral programs by acknowledging a lack of research available on the topic (2010). They argue that this scarcity prompts questioning on what doctoral supervision looks like in these programs (Carr et al., 2010). In response to these questions on professional doctorate supervision, the researchers explain that to help the doctoral candidate develop as a practitioner himself or herself, it is the role of a

supervision team, including an academic supervisor and also a professional advisor to come together for the growth and success of the candidate (Carr et al., 2010). In this approach, the role of the supervision team is to ensure a balance in practice development, as the academic supervisor is often times “not actually located in practice” (Carr et al., 2010, Situational appraisal section, para. 3). While this approach is different from most of the existing literature, the idea of developing the candidate on multiple fronts is corroborated by other researchers analyzing doctoral supervision.

In their article on doctoral supervision in health science professional doctoral programs, Peter Leggat and Kay Martinez of James Cook University cite the elements of supervision provided by an online supervision resource known as For Improvement in Research Supervision and Training (fIRST) (2010). These elements include “framing the candidature, guiding and monitoring progress, and completing” (For Improvement in Research Supervision and Training, 2007 as cited in Leggat & Martinez, 2010). Leggat and Martinez (2010) define these three elements further using components of doctoral supervision outlined by Tim Unwin of the University of London. The researchers explain that in the supervisor’s role of framing the candidature, the supervisor is responsible for assisting with items like the development of a proposal for research and coursework, enrollment, general skills development and induction (Leggat & Martinez, 2010). They also explain that in guiding and monitoring candidate progress, supervisors must do things like host peer-supervisory meetings, encourage networking amongst doctoral students, promote participation in seminars and academic meetings, as well as provide feedback on research written work (Leggat & Martinez, 2010). Finally, the researchers detail that in assisting

candidates with completion, doctoral supervisors assist with the submission of the thesis or dissertation, and provide corrections for the finalization of the thesis or dissertation (Leggat & Martinez, 2010). Finally, Leggat and Martinez (2010) cite further research on doctoral supervision conducted by Susan Danby and Erica McWilliam of the Queensland University of Technology. Leggat and Martinez (2010) highlight that, from this research, the role of the doctoral supervisor includes valuing candidate's professional knowledge, promoting connection between candidates, assisting with implementing methods that will ensure timely and successful completion of the different doctoral stages, as well as working as a mentor in helping candidates understand the ethics and processes of conducting research (Danby & McWilliam, 2005 as cited in Leggat and Martinez, 2010). With all of these ideas in mind, the key roles of the doctoral supervisor based on this summation of research are to develop and maintain a program that will lend itself to the successful completion of its candidates, work as a guide for doctoral candidates navigating their way through coursework and research, and to promote collaboration amongst doctoral candidates (Leggat & Martinez, 2010).

In conducting research on the framework of professional doctoral programs, Annette Jayne Fillery-Travis of Middlesex University presents support that a collaborative partnership between candidate and supervisor, where the supervisor works as a coach, is a strong approach to the doctoral supervisory relationship (2014, p. 616). In establishing support for this approach, Fillery-Travis cites research conducted by Carol Costley and Davis Boud, of Middlesex University and the University of Technology in Sydney, Australia respectively (2014, p. 616). From the research of Costley and Boud, Fillery-Travis includes the five clusters of competencies that pertain to doctoral supervision in professional doctoral

programs which are: knowledge of work and its context, learning consultancy skills, transdisciplinary awareness, enquiry approaches, and reflexivity and review skills (2007 as cited in 2014, p. 616). These competencies include the supervisor building on candidate's current knowledge, identifying learning opportunities, and enquiring in ways that prompt research opportunities, among other practices (Costley & Boud, 2007, as cited in Fillery-Travis, 2014). With these supervisory practices at the forefront of this research, Fillery-Travis (2014) states, "the aim of advising has shifted from achievement of technical outputs to development of the learning of the candidate," in support for a supervisor-as-coach model (p. 616)

Supervision in Doctoral Programs

Doctorates aim to develop their candidates to be knowledge contributors and influencers in their respective industries and in many cases in academia as well (Stubb, Pyhalto & Lonka, 2011, p. 34). This process requires the guidance of a doctoral supervisor in planning the candidate's progression (Cakmak et al., 2015, p. 608). This section of the literature review takes a closer look at the supervisory practices of doctoral supervisors, and how different stakeholders perceive them.

Supervisory Practices in Doctoral Programs

In understanding doctoral supervision, literature reveals that there is a limited amount of direction provided to doctoral supervisors on how best to supervise the doctoral candidates that they are working with. George Walker, of Cleveland State University, explains,

There are few or no official national standards that doctoral programs must meet – no centralized government organization that is responsible for credentialing or PhD program review. Even at the local level the crucial student–research advisor apprenticeship model allows for considerable variation (and privacy) in the actual mentoring process, the degree of student independence, and the developmental trajectory of the formation of the next generation of scholars. (Walker, 2008, p. 35)

Walker (2008) then explains that doctoral programs in the United States give much of the authority on developing the candidate-advisor relationship to the specific department at the university or the individual supervising faculty member (Walker, 2008, p. 35). Under this model, there is no guiding set or principles for doctoral supervisors to build a plan (Walker, 2008, p. 35) Walker (2008) goes on to explain that these doctoral faculty advisors are often basing their advising on “general disciplinary standards” (p. 35).

Building on the writings of George Walker, research is available on the different experienced supervisory practices of doctoral supervisors and candidates (Franke & Arvidsson, 2011; Lee, 2008). One practice that is evidenced in much of the literature surrounding doctoral supervision is the concept of mentoring (Franke & Arvidsson, 2011, p. 13). According to Franke and Arvidsson (2011) this mentor piece of the relationship can take on many forms (p. 13). They highlight that the faculty advisor can assume the role of a

“dialogue partner” where they encourage the candidate to begin thinking for himself or herself and applying the research practices they have learned from their supervisor to do independent research (Franke & Arvidsson, 2011, p. 14). Beyond this though, Franke and Arvidsson say that the mentorship can become significantly more personal. One of the supervising faculty members that was interviewed in their study stated,

It’s very difficult to put a finger on ... well, it’s a sort of participation, which you can give both from the point of view of content and cognitively, generally speaking, and, not least, emotionally, of course. In the cases where I was closely involved, it was sort of more like a mentor situation than a supervisor situation and an examiner function because when it’s reached the examination point, everything has been prepared in those cases. (Franke & Arvidsson, 2011, p. 15)

The closer the relationship between the faculty supervisor and the candidate the smoother the examination went, according to this supervisor (Franke & Arvidsson, 2011, p. 15).

As an additional part to the mentorship piece of supervision, Anne Lee (2008) highlights the necessity for a positive relationship to exist between supervisor and candidate in order for either party to find success (p. 275). The idea within Lee’s research (2008) is that a strong correlation exists between the emotional intelligence on the part of the supervisor and the completion rates of doctoral candidates (p. 275). She quotes supervisors as having said, “Research supervision is a very personal thing. It is about relationships. If they don’t have the motivation you need to fire the imagination, it is different for different students,” and “My supervisors are lifelong friends. I am still angry with the students who passed and dropped off the end of the earth after five years working together” (Lee, 2008, p. 276).

Research is showing the importance in working together towards building a functional relationship that goes beyond just the research being conducted. Lee (2008) acknowledges that it is ultimately the responsibility of the supervisor to initiate this relationship (p.276). She explains that this relationship building involves a desire to “enthuse, encourage, recognize achievement, and offer pastoral support” (2008, p. 276).

Calling on the previously discussed research of Annette Jayne Fillery-Travis (2014), the argument of her paper was that supervising was a coach was one supervisory practice that could benefit the success of both the candidate and the supervisor (p. 616). Similarly to mentoring, and strong communication, Fillery-Travis (2014) explains that it may be beneficial to have the supervisor serve as a “research facilitator” in terms of their contributions to the candidate’s study (p. 618). She explains, “In moving the leadership of the research from the professional researchers and scholars to the practitioner there is a shift in power which is highly significant as it places the research professionals and scholars at the service of the practitioner’s research agenda” (Fillery-Travis, 2014, p. 618). Fillery-Travis (2014) explains that the supervisory practice here involves the supervisor allowing the candidate to be the “expert in context and goal,” while the supervisor serves as a sounding board, or coach, and “expert in process and inquiry” (p. 618).

Supervisor Perceptions of Doctoral Supervision

As previously mentioned, in her discussion of the emancipation of the doctoral candidate during the supervisory process, Anne Lee (2008) explains that mentoring is a vital task in assisting candidates in finding a sense of autonomy in their work and to begin

conducting research as independent researchers (p. 274). She mentions that through this research “A major finding was that the supervisors’ own experiences (when they themselves were students) had a significant impact on how they now supervise” (Lee, 2008, p. 269). The research goes on to look at the perceptions of doctoral supervisors on their own supervision. It breaks supervisory practices into five approaches: functional, enculturation, critical thinking, emancipation, and developing a quality relationship (Lee, 2008, pp. 270-271). In examining supervision through these five approaches Lee (2008) collects qualitative data to support the work done in each (p. 269). Supervisors who identified most with the functional model displayed qualities most in line with the professional role of faculty (Lee, 2008, p. 269). Supervisors were quoted having said, “I have a weekly timetabled formal slot for them and follow-up if they do not turn up,” and “In the second year we see them monthly and they produce 5000 words before each meeting” (Lee, 2008, p. 269). These quotes highlight supervisors who believe in a more practical supervisory relationship (Lee, 2008, p. 269). The enculturation model looks more at developing the candidate into a “member of an academic discipline” (Lee, 2008, p. 272). Supervisors in this section were quoted having said, “I get them to do conference presentations and write proceedings, I go with them if they are presenting for the first time,” and “I would feel I had failed if they did not stay in the field ... my students all know their academic grandfather” (Lee, 2008, p. 272).

The critical thinking approach to supervision encourages candidates to think about their research through the conceptual framework, having the candidate ask, “what is the underlying conceptual framework, what are the arguments for and against, what has been considered and what has been left out” (Lee, 2008, p. 273). Supervisors in this area were

quoted as saying, “I ask them to email me a question about their project every week,” and “at the end of the process I want the student to have the maturity to know when a good idea is worth following or not” (Lee, 2008, p. 273). The fourth approach to supervision considered by Lee (2008) is emancipation, or the candidate becoming his or her own researcher (p. 274). Supervisors in this approach stated, “At the start you know a little bit more than them, but not much. Your job as a supervisor is to get them to the stage of knowing more than you, and “Very few of my students are doing it for an academic career, they want the intellectual rewards. I want my students to have had adequate challenge and support to get that” (Lee, 2008, p. 274). Finally, the fifth approach labeled in this research was relationship development (Lee, 2008, p. 275). Supervisors who supported relationship development most were quoted in the study having said, “I really think my relationship with my supervisor opened my eyes. It was the character of my supervisor, it went beyond mere mentoring. He was considered unconventional, a maverick...” and “The more pastoral support of the supervisors was really important. I remember being surprised at how helpful they were. This was as important in helping me to get through as any intellectual support” (Lee, 2008, p. 275). Finally, Lee (2008) argues that one of the strongest implications of this research details that supervisors who are aware of their own strengths and weaknesses in each of these approaches are the most likely to see the benefits of the work they do (p. 279).

Research also exists that supports the idea that the perception of the supervisor on their own practices does not always align with the perception of their candidates (Linden, Ohlin, & Brodin, 2013). Researchers, Jitka Linden, Mats Ohlin, and Eva Brodin, of Lund University (2013), found that there were instances where supervisors thought they had

specifically made impacts in the personal development of their candidates, outside of their growth in academia. Comparatively though, the candidates did not share similar thoughts, and instead thought the supervisor did an effective job impacting their learning, without mention of their personal growth (Linden, Ohlin, & Brodin, 2013). The researchers explained this significance in saying that, “Since PhD education is intended to prepare doctoral students for professional work both within, and outside academia, it is problematic that students’ personal learning was not supported to a greater extent” (Linden, Ohlin, & Brodin, 2013). The researchers emphasize the importance of not only developing the entire candidate, but also ensuring that the faculty member is delivering on his or her intended purpose in working with the candidate (Linden, Ohlin, & Brodin, 2013).

Additionally, in research conducted by Kirsi Pyhältö, Jenna Vekkaila, & Jenni Keskinen (2015), each of the University of Helsinki, analyzed supervisor and candidate perceptions of four elements of doctoral supervision (p.8). The four elements were: supervision of the research process, coaching, project management, and central prerequisites for supervision like presence and commitment of the supervisor (Pyhalto, Vekkaila, & Keskinen, 2015, p. 8). Looking specifically at supervisor perception, the task that was reported as most important by the most participants was supervision of the research process (Pyhalto, Vekkaila, & Keskinen, 2015, p. 11). Supervision of research was followed by coaching as the second most important reported task of the supervisor (Pyhalto, Vekkaila, & Keskinen, 2015, p. 11). Project management was the third most reported, and basic prerequisites was the least frequently reported task of the supervisor (Pyhalto, Vekkaila, & Keskinen, 2015, p. 11). A review of the candidate’s perceptions will follow in the next

section, but it is important to note that candidates did respond differently (Pyhalto, Vekkaila, & Keskinin, 2015, p. 11). In line with these findings, the research collected quotes from doctoral supervisors. When asked to describe the most important tasks of the supervisor, one supervisor explained, “Depth and accuracy. Critical but encouraging comments ... introduction to the scholarly community” (Pyhalto, Vekkaila, & Keskinin, 2015, p. 11). A second stated, “Taking care of the quality of the research and teaching the quality criterion, including research ethics” (Pyhalto, Vekkaila & Keskinin, 2015, p. 11). These quotes further emphasize the significance placed on supervising the research process that supervisors displayed in their surveys (Pyhalto, Vekkaila & Keskinin, 2015, p. 11).

Candidate Perceptions of Doctoral Supervision

Looking back on the research conducted by Linden, Ohlin, and Brodin (2013), the analysis of the perceptions of candidates, as well as supervisors, on the outcomes of the supervisory relationship that they experienced were revealed. They worked with three candidates specifically who all reported different levels of learning based on their relationship with their mentor as well as in direct supervision (Linden, Ohlin, & Brodin, 2013). Of the three candidates, two were more direct in their explanation that the power of their mentorship came from things like the “experienced relevance for the thesis work, shared between doctoral students, mentors and supervisors (Linden, Ohlin & Brodin, 2013). Further, only one of the three candidates reported any level of personal learning, despite the presence of a mentor in the supervision process (Linden, Ohlin & Brodin, 2013). Ultimately, the study found that candidates reported learning being directly tied to task and role in terms of

understanding supervisory relations (Linden, Ohlin & Brodin, 2013). With these ideas in mind, the study calls for further research to be conducted on the different kinds of learned outcomes of doctoral programs as well as on how to encourage candidate's personal growth in academia (Linden, Ohlin & Brodin, 2013).

In revisiting the research conducted by Kirsi Pyhalto, Jenna Vekkaila, & Jenni Keskinen (2015), of the University of Helsinki, the researchers were also able to look at the candidate's perception of the doctoral supervisory experience (p. 12). They explain that, "To our knowledge, no prior studies have been conducted on the fit between supervisors' and doctoral students' perceptions about supervisory activities and across faculties in different domains" Pyhalto, Vekkaila & Keskinen, 2015, p. 14). When asked what task was most important of the supervisor, one doctoral candidate reported, "The ability to guide the student into the scientific world and its thinking. No holding hands, but instead showing the frameworks and providing the student with both support and independence, as well as responsibility and an opportunity to develop" (Pyhalto, Vekkaila & Keskinen, 2015, p. 11). Comparatively, when responding in survey as to which tasks of the four previously stated were most important of supervisors, candidates also put a great deal of emphasis on supervising the research process, but put more emphasis that supervisors on coaching and project management (Pyhalto, Vekkaila & Keskinen, 2015, p. 11). This further emphasizes the research conducted by Anne Lee (2008) that highlighted mentoring, coaching in this case, as a key element of supervision for doctoral candidate success (p. 274). According to the findings of the research that Pyhalto and associates (2015) conducted, candidates who felt that they were being supervised more frequently were less likely to interrupt their studies (p.

14). In fact, one candidate reported that “Being available. To be able to drop by the supervisor’s office is an important thing,” when asked about the main roles of the supervisor (Pyhalto, Vekkaila, & Keskinin, 2015, p. 12). Additionally, they explain that their findings showed that an alignment between student and faculty expectations for the relationship was also likely to lead to a stronger supervisory relationship (Pyhalto, Vekkaila & Keskinin, 2015, p. 15).

In also analyzing candidate perception of experienced doctoral supervision, Kelsey Halbert (2015), of James Cook University in Australia, establishes what quality supervision looks like in Australia, and then looks into the candidates’ perceptions more specifically through qualitative research. Halbert (2015) defines quality supervision in reflecting on existing research. She writes,

A quality supervisory relationship goes beyond knowledge transfer and institutional protocols to foster norms and expectations that enable supportive processes of knowledge production. Quality supervisory practices have been identified as: provision of appropriate feedback, the frequency of meetings, making an early start on writing, clarifying expectations, a positive relationship and a sustained topic and supervisor. (Heath, 2002; Kiley, 2011; Malfroy, 2010, as cited in Halbert, 2015, p. 30)

This definition falls in line with the research of both Anne Lee (2008) as well as Kirsi Pyahlto and associates (2015) in that it touches on the importance of relationship building and frequency of supervision. Halbert’s (2015) research explains that the qualities that candidates’ values included the supervisor being “supportive, personal, flexible, and

responsive.” Other elements they spoke favorable of included “accessibility, approachability, knowledge of the field and of the research process, interest and enthusiasm, regular contact, respect or and valuing of students’ ideas” (Halbert, 2015, p. 31). In considering power and knowledge production, candidates said their supervisors, “[were] friends to me. Open to thoughts, exchange knowledge,” and “[had] a lot of field experience and good theoretical background. They can help you out with fieldwork and see the bigger picture (Halbert, 2015, p. 31). Gives good support and ideas. We don’t have a day to meet because I know what I’m supposed to do but I can meet with them anytime to discuss something (Halbert, 2015).

These quotes emphasize the importance of the supervisory dynamic reflecting more of a relationship instead of an apprenticeship (Halbert, 2015). In discussing differentiating ways of working and communicating, candidates reported, “My supervisor is informal. If I want to talk, he says come back after lunch. We never have minutes of regular discussions,” and “[I] think it’s about finding what suits the people involved. If there are weeks, I feel I have nothing to say and am not ready to discuss it we just don’t have a meeting that week. I think it’s about creating that structure at the beginning” (Halbert, 2015, p. 34). This substantiates the thought that communication should go “beyond protocols and routines to an understanding of each other’s ideologies and beliefs about the research” (Halbert, 2015, p. 34). Finally, in talking about the student and supervisor as social subjects, candidates explained the following thoughts as positive experiences: “Highlight and anchor has been supervisors that have faith in what I can do,” “There is a lot of trust both ways,” and “Having a supervisor that encourages you. My supervisor is keen because he’s interested, we’re doing something that hasn’t been done before. He sits in the back and says ‘Go, go, go.’ Can stay

passionate and focused” (Halbert, 2015, p. 35). These quotes bring to light the importance of building an environment where candidates feel they can work with their supervisor together (Halbert, 2015).

Summary

The literature reviewed in this section began examining doctorates in a broad sense, analyzing the purpose of doctoral degrees, faculty pedagogy in doctoral programs, and the bond between supervisor and candidate in terms of research and publishing. The review then analyzed professional doctoral programs more specifically, as professional doctoral programs are the programs that are relevant to this study. The literature highlighted the differences between philosophical doctorates and professional doctoral degrees, the impacts on industry of professional doctoral degrees, and the role of the supervisor in professional doctoral programs. The literature review then became most specific to this study, comparing the other research projects that took focused on at least one aspect of the supervisory practices of professional doctoral candidates. This section reviewed existing literature on specific experienced supervisory practices, and then the faculty and candidate perceptions towards experienced supervisory practices.

CHAPTER THREE: METHODOLOGY

Introduction

The purpose of this study was to collect and examine the reported supervisory practices experienced by professional doctoral candidates in the last year of their program, and recent graduates from within the last three years across multiple disciplines. The qualitative methods conducted to complete this study are presented in this chapter. This chapter is divided into six sections: (a) the design of the study, (b) the selection of participants, (c) the instrumentation, (d) data collection, (e) data analysis, and (f) summary.

Design of the Study

This study was designed to qualitatively analyze the perceived supervisory practices of doctoral supervisors and the perceived effectiveness of supervisory practices from the viewpoint of professional doctoral candidates and recent graduates of professional doctorate programs. Furthermore, differences in perceptions between professional doctoral candidates and recent graduates, and differences in perceptions across professional doctoral candidates and recent graduates across different disciplines were analyzed. To collect qualitative data from professional doctoral candidates and recent graduates, interviews on supervisory practices experienced were conducted with a purposive sample of candidates and recent graduates. In analyzing the data, the Grounded Theory Method of analysis was used to identify similar concepts across the different interviews. As per qualitative researchers Juliet Corbin and Anselm Strauss (1990) these concepts should “provide a thorough theoretical

explanation of social phenomena under study. A grounded theory should explain as well as describe” (p. 5).

Research Questions

The research questions listed guided the research on professional doctoral candidate and recent graduate perceptions of the doctoral supervisory practices they experienced while completing their programs.

1. What are the supervisory practices that professional doctoral candidates and recent graduates report experiencing?
2. What do professional doctoral candidates and recent graduates perceive to be less effective and more effective supervisory practices for guiding professional doctoral candidates towards successful degree completion?
3. What similarities exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?
4. What differences exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?
5. How do perceptions of professional doctoral candidates and recent graduates across multiple disciplines compare related to practices in professional doctoral supervision?

Selection of Participants

The populations of study for this analysis were professional doctorate candidates and recent graduates of professional doctoral programs. A purposive sample of 15

recent graduates and three professional doctoral candidates in 2015 was built from a set of candidates and recent graduates who had previously expressed interest in participating in the study at professional conferences or who were members of the professional network of members of the researcher. Additionally, doctoral supervisors who previously expressed an interest in the study at professional conferences were invited to ask current and/or former professional doctoral candidates who they supervised directly to partake in interviews. A total of five professional doctoral candidates or recent graduates who had directly expressed an interest in the study, were contacted by the researcher via e-mail and were invited to participate in an interview for this study. None of the five invitees were able to participate in the study. Three did not respond to the invitation and two were enrolled in philosophical doctorate programs, which eliminated them from the study. Twelve professional doctoral candidates and recent graduates were contacted from the professional network of the researcher and of those invited, 9 participated in interviews. Finally, five doctoral supervisors were contacted and asked if they would invite their current and former professional doctoral candidates to participate in the study. Nine individuals from the combined five doctoral faculty members participated in interviews for this study. None of those interviewed came from the discipline area of the university of the researcher to ensure the forthcoming analysis was able to remain objective.

Instrumentation

This analysis utilized a qualitative instrumentation method by collecting all relevant data for this study through the development of interviews implemented with the sample.

Qualitative data were collected through interviews, which were recorded and transcribed verbatim.

The instruments used to collect data for this study were open-ended, semi-structured interviews with three professional doctoral candidates and 15 recent professional doctoral graduates for a total of 18 interviews. The interview items are available in Appendix C. Sharan Merriam, professor at the University of Georgia, explains that a semi-structured interview includes both open-ended and structured questions (1998). The semi-structured interviews allowed the researcher to gather important demographic data while also allowing participants to respond to certain interview items at greater length than an inclusively structured interview would allow (Gall et al., 1996).

Draft interview items were developed in partnership with a representative from the European Council of Doctoral Candidates and Junior Researchers (Eurodoc). The items were then adjusted to account for US-centric language. This process ensured that the candidate and graduate interviews being conducted in the United States were consistent with the candidate and recent graduate interviews that were conducted in Europe for the ERASMUS Modern Doctorate Consortium (Maguire, 2015). Interview items were piloted with five professional doctoral candidates and then refined for clarity to ensure that the interview items were clear and capable of collecting the intended data.

The interviews began with several demographic items to determine initial data including the individual's discipline and the candidate or graduate status. The items in the interviews began by asking about the individual's experiences in doctoral education, and then moved on to their experiences with their doctoral supervisors and their perceptions of the

supervision they received. The items were aligned with the five research questions of this study to ensure that the data collected could appropriately answer the research questions that guided this study.

Data Collection

University Protocol

Before the interviews for this study were conducted, an application highlighting the structure of this study was submitted to the University of Central Florida's Institutional Review Board (IRB) on November 24th, 2015. The application submitted to the university (IRB) included the entirety of chapter one of this research study as well as appendices detailing the interview protocols and the interview items. Additionally, the IRB required the successful completion of several courses dealing with research ethics that were available on the Collaborative Institutional Training Initiative (CITI) site. The required courses were completed in the fall of 2015. Final Institutional Review Board approval was received on December 5th, 2015. The International Review Board did not require informed consent to be sent to potential participants prior to their agreement to be interviewed. Consent was given orally prior to the implementation of the items.

Scheduling and Conducting the Interviews

This research utilized a qualitative approach to collect and analyze data through the use of thematic analysis of professional doctoral candidate and recent graduate interviews. The following steps were taken in scheduling and conducting the interviews

1. Candidates and recent graduates who had expressed interest in participating in the study at the International Conference on Professional Doctorates were contacted via e-mail with an invitation to be interviewed.
2. Doctoral supervisors who had expressed an interest in helping with the study through either their attendance and expressed interest at the International Conference on Professional Doctorates or through their expressed interest to one of the faculty researchers on the Erasmus Consortium on Modern Doctorates were contacted to send invitations to be interviewed to their candidates and recent graduates.
3. Candidates and recent graduates e-mailed the researcher directly to confirm their willingness to be interviewed on the subject of doctoral supervision and their perceptions of the supervision they received from their faculty supervisor(s).
4. The interviews were scheduled via e-mail with special consideration being placed on the candidate's or recent graduate's time availability, time zone, and also the medium in which the interviewee preferred to be interviewed. The e-mails included a summary of the study being conducted.
5. Interviews were conducted between December 21, 2015 and January 20, 2016. Informed consent was provided prior to the recording of the interview and then once more as a part of the recording and the interview transcript. The interviews ranged in length from 20 to 30 minutes. All interviews were conducted via telephone at the requests of the interviewee. Verbal permission was obtained from

all being interviews to have the interview recorded. Permission was reiterated on the recording itself.

6. The researcher took detailed notes as the interviews were conducted per interview item.

7. At the conclusion of the final interview, all recordings were transcribed verbatim.

The ERASMUS Modern Doctorate Consortium provided the funding for the transcriptions.

The names of the interviewees were not tied to their interviews. Interviews were labeled only by the discipline of the program of the interviewee, and by the order in which the interviews were conducted. The alphanumeric coding system is provided in Table 2.

Table 2

Interviewee Descriptors and Alphanumeric Codes

Discipline	Order of Interview – By Discipline	Alphanumeric Code
Career and Technical Education	1	USCTEd1
Higher Education	1	USHE1
Sports Management	1	USSM1
Physical Therapy	1	USDPT1
Physical Therapy	2	USDPT2
Physical Therapy	3	USDPT3
Curriculum Development	1	USCurriculum1
Curriculum Development	2	USCurriculum2
Educational Leadership	1	USEdLead1
Educational Leadership	2	USEdLead2
Educational Leadership	3	USEdLead3
Educational Leadership	4	USEdLead4
Instructional Technology	1	USIT1
Instructional Technology	2	USIT2
Instructional Technology	3	USIT3
Nursing	1	USNurse1
Nursing	2	USNurse2
Nursing	3	USNurse3

Qualitative Data Analysis

The analysis of this study applied a qualitative approach to understanding the data collected from the interviews with professional doctoral candidates and recent graduates. The grounded theory analysis method was selected based on the research questions that set the foundation for this study (Glaser & Strauss, 2008). The researcher conducted a preliminary reading of the notes from the interviews to develop an initial list of themes and categories. From there, the researcher conducted several readings of the transcripts to

develop a list of revised themes that could then be categorized and analyzed based on this study's research questions.

The analysis of Research Question 1 addressed the professional doctoral candidate and recent graduate interviews together to identify the faculty supervisory practices that were experienced throughout the time in their program. To complete this analysis, the researcher used the grounded theory analysis method to identify concepts, or themes, of the supervisory practices experienced by the candidates and recent graduates (Glaser & Strauss, 2008). The concepts were then categorized based on similarities as described by each interviewee. Having this list of experienced supervisory practices enabled the researcher to further analyze the collected data for the remaining research questions.

The analysis of Research Question 2 sought to understand which of the supervisory practices from Research Question 1 were viewed as more effective and which were viewed as less effective, based on the comments made by professional doctoral candidates and recent graduates. Grounded theory was used to separate the common supervisory practices, or concepts, identified by Research Question 1, and then categorized them as either viewed positively or negatively based on the description provided by the interviewee. The categories were analyzed for potential propositions that connected supervisory practices viewed as more effective by a large portion of the sample to the success of these professional doctorate candidates and recent graduates.

Research Questions 3 and 4 analyzed the differing perceptions of professional doctoral candidates and recent graduates specifically examining the supervision they experienced. The intention of this research question was to determine if the views on

supervision of professional doctoral candidates changed after they successfully completed their program. The data collected for this research question were analyzed using grounded theory by separating the more effective and less effective supervisory practices identified and categorized in Research Question 2 by sample group: candidate or recent graduate. Each group's data were then compared against one another to identify any differences recognized between the groups.

The analysis of Research Question 5 focused on whether or not the supervisory practices viewed as more effective were the same or different between groups of professional doctoral candidates and recent graduates of different disciplines. Grounded theory was used to analyze this data by, again, separating the data from Research Question 2 about the perceptions of more and less effective supervisory practices, this time by discipline instead of academic standing. Analyzing the interviews based on discipline allowed the researcher to determine whether or not effective supervisory practices exist that are specific to some disciplines, but not others.

The analysis of the interviews utilized grounded theory of research (Glaser & Strauss, 2008; Moustakas, 1994; Bowen, 2009). In using the grounded theory analysis methodology for this study, the transcriptions of the recordings of the interviews were skimmed for superficial examination, reread several times for a more thorough examination, and interpreted so that data could be categorized by research question and then evaluated for each research question (Bowen, 2009). The analysis of the interview transcripts and recordings called for coding by theme, sorting codes or concepts into categories, making comparisons among the developed categories, and ultimately constructing a theory (Moustakas, 1994, p.

4). This thematic analysis worked to identify patterns in the interviews that allowed for themes to emerge, and then be categorized, and analyzed (Fereday & Muir-Cochrane, 2006). As concepts were coded and categorized based on similarity and the analysis continued, categories were added or eliminated based on the gathered data. Then, categories were evaluated to construct a theory on professional doctorate supervisory practices (Glaser & Strauss, 2008; Bowen, 2006).

Summary

This chapter reintroduced both the purpose of this study and also the five research questions. This study used a qualitative approach to address each of the research questions. Data were collected from 18 interviews conducted with current professional doctorate candidates and recent graduates from within the past three years (2013-2016). The interviews focused on their experiences related to the supervision they received from their respective doctoral faculty members. Instrumentation for this study was discussed in addition to how the data were collected as well as data analysis methods for each of the research questions. The data analysis section detailed how grounded theory was used to identify concepts, to categorize these concepts, and to analyze the categories based on the intention of each of the research questions (Glaser & Strauss, 2008). Results of the data analysis are presented in the following chapter.

CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA

Introduction

In 2015, this study was designed to add to the limited research available at the timeframe of this study in 2015-2016 on the supervisory practices of doctoral supervisors in professional doctorate programs in the United States. Doctoral supervision "...implies systematic and orchestrated approaches to be explored and implemented" (Zeegers & Deirdre, 2012, p. 26). In developing industry leaders through their doctoral-level study, it is critical to understand the kinds of supervision that most help doctoral candidates in completing their degrees and enabling them to grow into contributors of new knowledge for their fields. Given the limited amount of research available on this topic, specific to professional doctoral programs and doctoral education in the United States in general, this research was necessary to understand the experienced supervision of professional doctoral candidates in the U.S.

The purpose of the study was to understand the experienced supervisory practices of doctoral candidates and recent graduates while assessing supervisory practices that were perceived to be more effective and less effective. The study was also designed to reveal the similarities and differences between the perceptions of doctoral candidates and graduates when discussing their experienced supervision. Doctoral candidates were interviewed in the final year of their doctoral programs, after they had an established relationship with their supervisors. Graduates were interviewed within three years of degree completion to ensure their supervisory experience was still fresh in their memory. Finally, the study revealed the

similarities among different disciplines in terms of the supervision that their doctoral supervisors employed in working with doctoral candidates. This purpose was achieved through the analysis of interviews conducted with professional doctoral candidates and recent graduates that facilitated discussion on their experiences and their perceptions of how their experiences impacted program success.

The research questions used to guide this study were:

1. What are the supervisory practices that professional doctoral candidates and recent graduates report experiencing?
2. What do professional doctoral candidates and recent graduates perceive to be less effective and more effective supervisory practices for guiding professional doctoral candidates towards successful degree completion?
3. What similarities exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?
4. What differences exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?
5. How do perceptions of professional doctoral candidates and recent graduates across multiple disciplines compare related to practices in professional doctoral supervision?

To answer the research questions, the researcher conducted 18 interviews with current candidates and recent graduates of professional doctoral programs in the U.S. during the months of December 2015 and January 2016. The interviews were transcribed verbatim and reviewed to identify major categories or larger themes in doctoral supervision. Subsequent readings allowed the researcher to identify concepts, or supervisory practices that could be

sorted into the previously established categories. Next, analysis was conducted for each research question using the data collected. The results of the data analysis for each research question are presented in chapter four. Chapter four is separated into seven sections: one for each of the five research questions, additional findings, and summary.

Research Question 1

What are the supervisory practices that professional doctoral candidates and recent graduates report experiencing?

Using grounded theory to review interview transcripts, four major categories emerged authentically, as major elements of the supervision experiences reported by the interviewees. The four categories were: (a) communication, (b) relationship development, (c) mentoring, and (d) experience and resource utilization (Corbin & Strauss, 1990). To be considered a category for the purposes of this study, each had to be mentioned by at least 15 of the 18 individuals interviewed.

Upon completing several close readings of the transcripts, the researcher then identified concepts that helped to define what each category encompassed. The concepts represented experienced supervisory practices as reported by the interviewees. To be included as a concept within a category, each supervisory practice had to be mentioned by at least one of the interviewees. A complete list of the supervisory practices, and the frequencies at which they were mentioned can be found on Table 3. The concepts were then categorized based on their similarity in nature. The frequency at which the categories and concepts were mentioned divided by category can be found, respectively, in Tables 4, 6, 8,

and 10. Review of these tables reveals each interviewee’s alphanumeric code and the frequency they mentioned each concepts.. Tables 5, 7, 9, and 11 list supportive comments made by each interviewee about each concept, organized by alphanumeric code. Tables 4 and 5 are specific to the communication category. Tables 6 and 7 focus on the relationship development category. Tables 8 and 9 are specific to the mentorship category. Finally, Tables 10 and 11 highlight the resource utilization and development category.

Table 3

Supervisory Practices (*N* = 18)

Concept	Frequency
Frequency of Communication	28
Personal Connection	21
Encouragement & Support	20
Advisement	18
Experience/Perspective	17
Mode of Communication	15
Autonomy	15
Feedback	11
Guidance	9
Accessibility	7
Quality of Communication	6
Enthusiasm	6
Candor	6
Providing Articles/Research	6
Development of a Collegial Relationship	4
Timeline	4
Supervisor’s Network	4
Trust	2
Use of Workshops	2

Category: Communication

The category of communication includes the concepts: frequency of communication with the supervisor ($f = 28$), mode of communication with the supervisor ($f = 15$), feedback from the supervisor ($f = 11$), accessibility of the supervisor ($f = 7$), and quality of communication ($f = 6$). All 18 interviewees mentioned at least one concept in the communication category. The concepts relate directly to the characteristics of communication between supervisor and candidate.

When considering frequency, one interviewee explained, “I think I was the one that really kept the communication and I always made sure to be in touch with him because I never liked to feel left out or that I wasn’t making an effort” (USDPT3). Eleven candidates reported that they wished the frequency had been greater than was experienced.

In discussing mode of communication, USNurse2 mentioned “I did it at a distance. Our communication was mainly through telephone and a lot of emails.” The discussion on mode of communication focused on the use of e-mail, phone conferences, and face-to-face meetings in supervision.

Another reflection shared about feedback, “The way she would deliver feedback was gracious versus authoritarian” (USEdLead3). Interviewees who discussed feedback appreciated it when it was constructive and specific.

Comments made about the accessibility of the supervisor included, “He was always just an email away” (USDPT1). Like frequency, interviewees preferred when their supervisor was easily reachable.

Finally, when reflecting on quality one interviewee reported “Sometimes I would show up for our meetings and she would be half an hour late” (USCTEd1). While two interviewees explained they felt the communication quality was high, two others reported that they wish they had felt their time was more valued.

Table 3 highlights the number of times each interviewee discussed the different concepts under the category of communication. Table 4 includes a set of sample comments, one from each interviewee, to substantiate the role of the communication category. The comments related to each of the five concepts, organized by alphanumeric code. The tables display the emergence of not only the communication category, but also the emergence of each of the underlying concepts.

Table 4

Category: Communication as an Experienced Supervisory Practice (*N* = 18)

Interviewee Information		Supervisory Practice Concept				
Interviewee	Status	Frequency	Mode	Feedback	Accessibility/ Availability	Quality
USCTEd1	Candidate	1	1	0	0	1
USHE1	Graduate	2	0	0	0	0
USSM1	Graduate	2	4	0	0	0
USDPT1	Graduate	0	1	0	5	0
USDPT2	Candidate	2	1	1	4	0
USDPT3	Graduate	3	0	0	1	0
USCurriculum1	Graduate	4	0	0	0	0
USCurriculum2	Graduate	2	1	0	2	0
USEdLead1	Graduate	1	0	0	0	1
USEdLead2	Graduate	0	0	3	0	0
USEdLead3	Graduate	1	0	1	0	0
USEdLead4	Candidate	3	1	2	0	0
USIT1	Graduate	1	1	1	0	1
USIT2	Graduate	1	2	0	1	0
USIT3	Graduate	4	0	2	0	0
USNurse1	Graduate	0	1	0	1	2
USNurse2	Graduate	1	1	0	1	1
USNurse3	Graduate	0	1	1	2	0
Frequency Totals:		28	15	11	7	6

Table 5

Category: Communication Sample Comments ($N = 18$)

Concept	Sample Comment
Frequency	<p>“We didn’t get to meet our advisor until almost at the end.” (USIT3)</p> <p>“I was sometimes waiting on him to provide me with something before I could move on to the next step.” (USCurriculum2)</p> <p>“For most of the time he got back to me within a decent amount of time.” (USHE1)</p> <p>“I could send him something and not hear from him for like a month.” (USSM1)</p> <p>“He was always just an email away.” (USDPT1)</p> <p>“I think I was the one that really kept the communication and I always made sure to be in touch with him because I never liked to feel left out or that I wasn’t making an effort.” (USDPT3)</p> <p>“The turnaround time can be several weeks.” (USEdLead4)</p>
Quality	<p>“While he is wonderful and he is fairly well respected, he’s not exactly the best at communication. Which again, I knew because we had a relationship before.” (USCurriculum1)</p> <p>“There’s a cultural piece to it where I would say that you kind of looked forward to the meetings with her.” (USEdLead1)</p> <p>“If I could do it over again... it would just be how I would communicate with her... she was a great sounding board to talk to and that is really what I was doing.” (USNurse1)</p>
Feedback	<p>“The feedback was always meaningful and intended to grow me.” (USEdLead2)</p> <p>“The way she would deliver feedback was gracious versus authoritarian.” (USEdLead3)</p>
Mode	<p>“We would meet in person quite regularly upon my request and so I got to drive the frequency of how often we got together.” (USIT1)</p> <p>“I did it at a distance. Our communication was mainly through telephone and a lot of emails.” (USNurse2)</p>
Accessibility	<p>“I would say that the best thing was that she was readily available.” (USNurse3)</p> <p>“We didn’t have contact until the end of the program.” (USIT2)</p> <p>“We didn’t get to meet our advisor until almost at the end.” (USIT3)</p>

Category: Relationship Development

Relationship development includes the concepts: the development of a personal connection with the supervisor ($f = 21$), encouragement and support from the supervisor ($f = 20$), enthusiasm of the supervisor ($f = 6$), candor from the supervisor ($f = 6$), and the emergence of trust between the candidate and supervisor ($f = 2$). The concepts belonging to the relationship development category pertain to the relationship that occurs as the candidate and the supervisor work together on the dissertation, final project, or other culminating assessment for the degree. Seventeen out of 18 of the interviewees mentioned at least one concept belonging to the relationship development category.

While reflecting on a personal connection as being a significant factor, one interviewee explained, “So I had him two years prior to him becoming my actual faculty supervisor. I actually picked his specific project because I liked working with this supervisor,” (USDPT1). An existing or developed personal connection with the supervisor was seen as a benefit to the success of the student.

In discussing support, USHE1 explained, “But he was very encouraging, very supportive, if I had questions...” The supervisor acting as a motivator through encouragement and support was also seen favorably by interviewees.

Enthusiasm was reflected on by one interviewee who explained,

“The one thing I’ll never forget was that I was able to go watch some other folks defending and to watch them defend, and their directors would present the candidates in a hell of a nonchalant way in comparison to [my supervisor]—it just seemed like she

had prepared a speech ahead of time about who we were as individuals.”

(USEdLead3)

Interviewees shared an appreciation for supervisors who showed enthusiasm for their research or work.

When reflecting on candor, one interviewee said, “I can be very honest with her. As far as on a personal level I feel very comfortable with her and I feel like I can talk to her” (USCTEd1). Honesty in the relationship was also seen as a benefit to the success of the student while working with their supervisor.

Finally, in speaking on trust, USEdLead4 explained, “I was lucky, I got someone that I was comfortable with.” A trusting, or comfortable relationship, was something that interviewees spoke about favorably.

Table 5 highlights how many times each interviewee discussed the different concepts under the category of relationship development. Table 6 includes a set of sample comments, one from each interviewee, to substantiate the emergence of the relationship development category. The table includes comments related to each of the five concepts, organized by alphanumeric code. The tables display the emergence of not only the relationship development category but also the emergence of each of the concepts.

Table 6

Category: Relationship Development as an Experienced Supervisory Practice (*N* = 18)

Interviewee Information		Supervisory Practice Concept				
Interviewee	Status	Personal Connection	Encouragement & Support	Enthusiasm	Candor	Trust
USCTEd1	Candidate	1	0	1	1	0
USHE1	Graduate	1	2	0	0	1
USSM1	Graduate	0	0	0	0	1
USDPT1	Graduate	2	0	1	0	0
USDPT2	Candidate	1	0	2	0	0
USDPT3	Graduate	1	2	0	1	0
USCurriculum1	Graduate	2	0	0	2	0
USCurriculum2	Graduate	0	0	1	0	0
USEdLead1	Graduate	1	3	0	0	0
USEdLead2	Graduate	1	4	0	0	0
USEdLead3	Graduate	4	1	0	0	0
USEdLead4	Candidate	1	0	0	1	0
USIT1	Graduate	0	3	0	1	0
USIT2	Graduate	2	3	0	0	0
USIT3	Graduate	3	0	1	0	0
USNurse1	Graduate	0	2	0	0	0
USNurse2	Graduate	1	0	0	0	0
USNurse3	Graduate	0	0	0	0	0
Frequency Totals:		21	20	6	6	2

Table 7

Category: Relationship Development Sample Comments ($n = 17$)

Concept	Sample Comment
Personal Connection	<p>“It is different in an online sense. I think in a face-to-face you would obviously get to know them a lot more.” (USSM1)</p> <p>“So I had him two years prior to him becoming my actual faculty supervisor. I actually picked his specific project because I liked working with this supervisor.” (USDPT1)</p> <p>“Overall, it’s a very close relationship as compared to undergrad.” (USDPT2)</p> <p>“I enjoyed having someone that I always felt I had a little bit more of a relationship with.” (USDPT3)</p> <p>“The relationship was great because, first of all, I chose the individual I was going to work with and that I had worked closely before in other studies.” (USCurriculum1)</p> <p>“For me it was kind of like she became a friend and a colleague and it meant that I got invited to her house for social events and she’s well connected in the community.” (USEdLead1)</p> <p>“Through the process we knew each other better on a personal level too. After the defense, I was able to co-author with her and get our paper published in a journal.” (USIT3)</p>
Encouragement	<p>“But he was very encouraging, very supportive, if I had questions, but also the program was...” (USHE1)</p> <p>“She did develop a personal relationship. I tried not to take advantage of that, but she did give me her personal cell number at one point and called me from home and just gave me a pep talk when I was getting to a point of frustration and just provided some of the emotional cheerleading that I needed at points where I was just getting very stuck in the mud.” (USIT1)</p> <p>“I had her full support which was really needed.” (USNurse1)</p>
Trust	<p>“The relationship was great because, first of all, I chose the individual I was going to work with and that I had worked closely before in other studies.”</p> <p>“He was very approachable...” (USCurriculum2)</p> <p>“I was lucky, I got someone that I was comfortable with.” (USEdLead4)</p> <p>“She is someone who I feel comfortable working with so it worked out for me.” (USNurse2)</p> <p>“I knew him really well from taking several classes with him and he knew me very well and my writing style and my research style.” (USIT2)</p>
Enthusiasm	<p>“The one thing I’ll never forget was that I was able to go watch some other folks defending and to watch them defend, and their directors would present the candidates in a hell of a nonchalant was in comparison to [my supervisor] – it just seemed like she had prepared a speech ahead of time about who we were as individuals.” (USEdLead3)</p>
Candor	<p>“I think that, I had had him as a professor and I respected him and I would say he was very, he was very practical and realistic.” (USEdLead2)</p> <p>“I can be very honest with her. As far as on a personal level I feel very comfortable with her and I feel like I can talk to her.” (USCTEd1)</p>

Category: Mentorship

Concepts of advisement from the supervisor ($f = 18$), autonomy in practice provided by the supervisor ($f = 15$), guidance in research and scholarship provided by the supervisor ($f = 9$), and the development of a collegial relationship ($f = 4$) were included in mentorship. Seventeen of the 18 interviewees mentioned at least one concept from the mentorship category. It is important to note that the key differences between concepts of mentorship and concepts of relationship development are that mentorship focuses on the development of the candidate as a professional, whereas relationship development focuses on the personal development of the candidate.

When talking about advisement, USEdLead2 explained, “He gave me great advice as far as hiring an editor because he could tell that I had a tendency to be a little hard on myself.”

Another interviewee supported autonomy in saying, “He was very autonomous with me, he allowed me to do what I needed to do, he would check in with me every now and again, but it was almost as if it was sort of self-supporting” (USHE1). Interviewees who discussed autonomy felt that being able to direct the research and the project themselves was very important to their success.

Emphasizing guidance, one interviewee said, “Well, she guided me to the right classes. Obviously beyond the typical transcripts. She was able to guide me to the right classes” (USCTEd1). Guidance was seen as critical to the interviewees’ success not only in the final project but also in the program in general.

Finally, in terms of the development of a collegial relationship, it was summed up with, “I guess in the nursing role I am faced with the ‘doctor-nurse’ relationship where the doctor is ‘I am over you, I am in charge of you’ type thing, and then as a nurse practitioner we are on a new level playing field and I am coming to her with new ideas and new situations that we can change and make better and improve” (USNurse1). Interviewees indicated that they began to also see that the supervisor was acting more as a mentor and less as a boss or superior.

Table 7 highlights the frequency that each interviewee discussed the different concepts under the category of mentorship. Table 8 includes a set of sample comments, one from each interviewee, to substantiate the emergence of the mentorship category. The comments discuss each of the five concepts, organized by alphanumeric code. The tables display the emergence of not only the mentorship category but also the emergence of each of the related concepts.

Table 8

Category: Mentoring as an Experienced Supervisory Practice ($N = 18$)

Interviewee Information		Supervisory Practice Concept			
Interviewee	Status	Advisement (Personally & Professionally)	Autonomy	Guidance	Collegial Relationship
USCTEd1	Candidate	0	3	1	0
USHE1	Graduate	0	4	0	0
USSM1	Graduate	1	0	1	0
USDPT1	Graduate	2	3	0	0
USDPT2	Candidate	2	0	1	0
USDPT3	Graduate	0	0	0	0
USCurriculum1	Graduate	2	0	0	0
USCurriculum2	Graduate	0	0	0	2
USEdLead1	Graduate	0	4	1	0
USEdLead2	Graduate	1	0	0	0
USEdLead3	Graduate	1	1	1	0
USEdLead4	Candidate	1	0	0	0
USIT1	Graduate	3	0	1	0
USIT2	Graduate	0	0	0	0
USIT3	Graduate	2	0	0	0
USNurse1	Graduate	1	0	0	1
USNurse2	Graduate	0	0	2	0
USNurse3	Graduate	2	0	1	1
Frequency Totals:		18	15	9	4

Table 9

Category: Mentoring Sample Comments ($n = 17$)

Interviewee	Sample Comment
Advisement	<p>“Well she guided me to the right classes. Obviously beyond the typical transcripts. She was able to guide me to the right classes.” (USCTEd1)</p> <p>“A lot of the time they act as devil’s advocate because they know getting through the IRB process and getting the research is very difficult, so they want to make sure that we’re ready for all challenges.” (USDPT2)</p> <p>“Well first off he was really focused on having students understand the importance of data, the nature of data and how data works to support program creation implementation or sustaining a program or really analyzing one.” (USCurriculum1)</p> <p>“He gave me great advice as far as hiring an editor because he could tell that I had a tendency to be a little hard on myself.” (USEdLead2)</p> <p>“It was an opportunity for me to sit down and show her what I was currently working on and get her advice on how to proceed.” (USIT1)</p> <p>“Yes, I would say he was a mentor to me, absolutely.” (USDPT3)</p>
Autonomy	<p>“He was very autonomous with me, he allowed me to do what I needed to do, he would check in with me every now and again, but it was almost as if it was sort of self-supporting.” (USHE1)</p> <p>“She tried to really tell us to take ownership where there were decision points to be made.” (USEdLead1)</p> <p>“So we really led the way in what we wanted to do, and he was always there for any advice and to answer any questions.” (USDPT1)</p>
Guidance	<p>“I guess I expected maybe a little more, I don’t know if guidance is the right word.” (USSM1)</p> <p>“So, I think she guided me through the process of ‘you can trust me, I don’t mean to intimidate you, and yes you can do this.’ I understood the process better at the end, but isn’t that always the case.” (USEdLead3)</p> <p>“She asked me many questions that I never thought about before. She was provoking a new perspective on my study, by giving me feedback and keeps communicating with me.” (USIT3)</p> <p>“She was there to guide and sort of lead you in a direction.” (USNurse2)</p> <p>“Running through the proposal presentation together helped to a degree.” (USIT2)</p> <p>“I think when we started talking about my final project I remember sitting down with her and we discussed what I was interested in and then she was there to guide me in terms of different ideas and what work was needed in the field.” (USNurse3)</p>
Development of a Collegial Relationship	<p>“I guess just the fact that he treated me as a colleague, which was kind of nice going in there.” (USCurriculum2)</p> <p>“I guess in the nursing role I am faced with the ‘doctor-nurse’ relationship where the doctor is ‘I am over you, I am in charge of you’ type thing, and then as a nurse practitioner we are on a new level playing field and I am coming to her with new ideas and new situations that we can change and make better and improve.” (USNurse1)</p>

Category: Experience and Resource Utilization

The last category is experience and resource utilization which included the concepts of: providing perspective through personal experience ($f = 17$), providing articles and research to the candidate ($f = 6$), providing timelines to the candidate ($f = 4$), the use of the supervisor's professional network ($f = 4$), and providing different workshops to the candidates ($f = 2$). Fifteen of the 18 interviewees mentioned at least one of the concepts from the experience and resource utilization category. The concepts of experience and resource utilization were categorized based on the supervisor's role in providing support to the candidate through the use of outside materials and existing expertise.

When noting the utilization of the supervisors existing expertise and experience an interviewee explained, "Definitely his knowledge and not necessarily of just the subject matter as in what my dissertation was on, but just the whole research process" (USSM1). Interviewees either mentioned an appreciation for their expertise on the research topic or the research process.

In discussing the use of articles and other research, one interviewee explained "She did a really good job with pulling some resources, some articles, and some books that I could read to understand more about my research method" (USCTEd1).

When providing perspective on the use of timelines for milestones of the degree, USEdLead3 said "I'm someone who likes order and I like a timeline and so when we first started, you know, our work it was like: 'wow, this is too loose goosey for me', I need to know 'I want this done by this date.'" Interviewees who discussed a timeline wanted one to provide structure to their experience.

Utilization of the supervisor's network was noted this way "She definitely was the one who kind of handpicked the faculty members that she thought would be appropriate specifically for my project" (USNurse3). Supervisors were seen as having important connections for the research of the interviewee.

Finally, workshops were brought up in regards to writing and additional support. One interviewee explained "they would offer different writing workshops if we needed them, they would offer time offline, if we needed to go for faculty hours, those kinds of things" (USHE1).

Table 9 highlights the frequency each interviewee discussed the different concepts under the category of experience and resource utilization. Table 10 includes a set of sample comments, one from each interviewee, as evidence of the emergence of the experience and resource utilization category. The comments relate to each of the five concepts, organized by alphanumeric code. The tables display the emergence of not only the experience and resource utilization category, but also the emergence of each of the related concepts.

Table 10

Category: Experience and Resource Utilization as an Experienced Supervisory Practice (*N* = 18)

Interviewee Information		Supervisory Practice Concept				
Interviewee	Status	Experience/ Perspective	Articles/ Research	Timeline	Network	Workshops
USCTEd1	Candidate	0	1	2	0	0
USHE1	Graduate	3	0	0	0	2
USSM1	Graduate	1	0	0	0	0
USDPT1	Graduate	1	0	0	0	0
USDPT2	Candidate	0	1	0	1	0
USDPT3	Graduate	0	1	0	0	0
USCurriculum1	Graduate	2	0	0	0	0
USCurriculum2	Graduate	1	1	0	0	0
USEdLead1	Graduate	3	0	0	0	0
USEdLead2	Graduate	0	0	0	0	0
USEdLead3	Graduate	1	0	1	1	0
USEdLead4	Candidate	1	0	0	0	0
USIT1	Graduate	0	0	0	0	0
USIT2	Graduate	0	2	0	1	0
USIT3	Graduate	0	0	1	0	0
USNurse1	Graduate	3	0	0	0	0
USNurse2	Graduate	1	0	0	0	0
USNurse3	Graduate	0	0	0	1	0
Frequency Totals:		17	6	4	4	2

Table 11

Category: Experience and Resource Sample Comment ($n = 15$)

Interviewee	Sample Comment
Articles/ Research	<p>“She did a really good job with pulling some resources, some articles, and some books that I could read to understand more about my research method.” (USCTed1)</p> <p>“Like referring to textbooks and to the internet and to research journals, I guess we were provided access to journals.” (USDPT3)</p> <p>“Offering me some resources that she had as an expert in the field, that was helpful.” (USIT2)</p>
Workshops	<p>“So they would offer different writing workshops if we needed them, they would offer time offline, if we needed to go for faculty hours, those kinds of things.” (USHE1)</p>
Experience/ Expertise	<p>“Definitely his knowledge and not necessarily of just the subject matter as in what my dissertation was on, but just the whole research process.” (USSM1)</p> <p>“I would say his knowledge of research practices, number one. He knew his stuff, he knew all of his theory.” (USCurriculum1)</p> <p>“So all of our professors really tried to give us as much knowledge as they could.” (USDPT1)</p> <p>“[He was from] out of the country and so his experiences, I found, were useful to expand my horizon beyond just Florida.” (USCurriculum2)</p> <p>“She knew about my topic. She has published, written countless numbers of papers herself.” (USNurse2)</p> <p>“So I feel like quantitative is not her specialty and it’s causing a delay in my process.” (USEdLead4)</p> <p>“And so our adviser, which we called our captain, really did not have any expertise per se in that topic, but had extensive experience of doing research and research for the client as well.” (USEdLead1)</p>
Network	<p>“One of them goes out and networks to try and find locations where we can recruit patients from.” (USDPT2)</p> <p>“Basically by saying to all the staff that we are going to do this, because she is the boss, she just basically said whether you like it or not, we are doing this.” (USNurse1)</p> <p>“She definitely was the one who kind of handpicked the faculty members that she thought would be appropriate specifically for my project.” (USNurse3)</p>
Timelines	<p>“I’m someone who likes order and I like a timeline and so when we first started, you know, our work it was like: wow, this is to loose goosey for me, I need to know I want this done by this date.” (USEdLead3)</p>

All four categories were included in the five most mentioned concepts. The most commonly referenced concept, from the communication category, was the frequency of the communication between the supervisor and the candidate ($f = 28$). The second most common supervisory practice reported by interviewees was the sense of a personal connection with the supervisor ($f = 21$). Encouragement and support was the third most mentioned supervisory practice experienced ($f = 20$). These two concepts came from the relationship development category.

The fourth most discussed supervisory practice was advisement, from the mentorship category ($f = 18$). And the fifth most reported supervisory practice was providing of new perspectives or experiences to assist the candidate, from the experience and resource development category ($f = 17$).

The least occurring supervisory practices that were reported included the development of a collegial relationship ($f = 4$), the existence of a timeline ($f = 4$), and the use of the supervisor's network ($f = 4$). Additionally, trust in the relationship with the supervisor ($f = 2$) and workshops as a resource ($f = 2$) occurred infrequently. Workshops, timeline, and the use of the supervisor's network come from the experience and resource utilization category. A collegial relationship comes from the mentorship category while the practice of trust comes from the relationship development category. It is important to note that none of the least occurring supervisory practices were from the communication category. However, half of the least occurring supervisory practices came from the experience and resource utilization category.

Analysis of Research Question 1 represents a broad view of all reported supervisory practices from interviewees. Further analysis, including the supervisory practices viewed as most and least effective, was conducted to respond to Research Questions 2 and 3. It is important to examine at all of the reported supervisory practices in this section, as findings of Research Question 1 provide a comprehensive list of descriptors of the supervision that was experienced by the candidates and recent graduates who were interviewed.

Research Question 2

What do professional doctoral candidates and recent graduates perceive to be less effective, and more effective, supervisory practices for guiding professional doctoral candidates towards successful degree completion?

After reviewing the comments made by interviewees on the experienced supervisory practices, the researcher analyzed the comments made indicating the supervisory practices viewed as effective in guiding candidates to successful degree completion. Initially, the researcher intended to also examine comments made that indicated the supervisory practices viewed as less effective, however, no comments of this nature were made. Instead, interviewees spoke about supervisory practices that they believed were missing from their own experiences, or that were lacking overall from their experiences with a doctoral supervisor.

Effective Supervisory Practices

In reviewing each comment made by the interviewees, and the concepts and categories to which they belong as per Research Question one, some trends among the

supervisory practices seen as more effective began to emerge. The effective supervisory practice most often discussed by interviewees was the sense of a personal connection ($f = 13$) between supervisor and candidate. When discussing personal connection, one interviewee explained, “So I chose a faculty member that [had] the same interest as myself” (USDPT2). Personal connection was noted by 13 of the 18 interviewees (72 percent). Additionally, 9 of 18 (50 percent) interviewees reported the mode of communication and the existing expertise of their supervisors as being effective elements of their supervisory experiences. When discussing mode of communication, it was said, “So my professor that I worked with was really good. He was always just an email away, or just go to his office and ask him any questions” (USDPT1). Additionally, when discussing existing expertise, it was explained that, “I would say his knowledge of research practices was number one. He knew his stuff, he knew all of his theory” (USCurriculum1). The frequency, 9 of 18 interviewees, was the same for both of the concepts.

Finally, 8 of 18 (44 percent) interviewees discussed encouragement as well as guidance as effective parts of their supervisory experience. Encouragement was described as the supervisor providing motivation and positive words to keep candidates moving forward. Guidance was described as the supervisor being able to assist candidates with things like program selection, course selection, and research selection. Each of the four categories was represented in the top five most effective practices. Mode of communication came from the communication category, personal connection and encouragement and support came from the relationship development category, guidance came from the mentorship category, and existing expertise came from the experience and research utilization category.

Tables 11 and 12 highlight concepts that were seen as effective by interviewees. An X indicates that the listed supervisory practice was mentioned by the interviewee as contributing to success in their program. Table 13 provides supporting comments for the concepts that were identified as effective by interviewees. Every supervisory practice, 19 out of 19, was substantiated by at least one comment from one of the interviews. Each table includes the interviewee's alphanumeric code to assist with understanding.

Table 12

Categories of Communication and Relationship Development: Effective

Concepts/Supervisory Practices ($N = 18$)

Interviewee	Communication Concepts					Relationship Development Concepts				
	Frequency	Quality	Mode	Accessibility/ Availability	Feedback	Personal Connection	Enthusiasm	Candor	Trust	Encouragement/ Support
USCTEd1						X	X	X		
USHE1						X			X	X
USSM1									X	
USDPT1			X	X		X	X			X
USDPT2			X	X	X	X		X		
USDPT3				X		X	X	X		X
USCurriculum1						X		X		
USCurriculum2			X	X			X			
USEdLead1	X	X				X				X
USEdLead2					X	X				X
USEdLead3	X			X	X	X				
USEdLead4			X		X	X		X		
USIT1		X	X		X			X		X
USIT2			X			X				X
USIT3					X	X	X			
USNurse1			X	X			X			X
USNurse2			X	X		X				
USNurse3			X	X	X					
Total	2	2	9	8	7	13	6	6	2	8

Table 13

Categories of Mentorship and Experience and Resource Utilization: Effective
 Concepts/Supervisory Practices ($N = 18$)

Interviewee	Mentorship Concepts				Experience and Resource Utilization Concepts				
	Autonomy	Guidance	Advisement	Collegial Relationship	Articles/Research	Timeline	Existing Expertise	Workshops	Network
USCTEd1	X	X			X				
USHE1	X							X	
USSM1			X				X		
USDPT1	X	X	X				X		
USDPT2		X			X				X
USDPT3					X				
USCurriculum1		X	X				X		
USCurriculum2				X	X		X		
USEdLead1	X						X		
USEdLead2			X						
USEdLead3	X	X					X		X
USEdLead4									
USIT1		X	X						
USIT2					X				X
USIT3			X				X		
USNurse1			X	X			X		X
USNurse2		X					X		
USNurse3		X		X					X
Total	5	8	7	3	5	0	9	1	5

Table 14

Effective Supervisory Practices: Sample Supportive Comments ($N = 18$)

Category	Concept	Sample Comments
Communication	Frequency	“We meet, typically now, once to twice a week,” (USDPT2).
	Quality	“What made her awesome was when I was in her office, I was the center of her world,” (USIT1).
	Mode	“He was always just an email away, or just go to his office and ask him any questions,” (USDPT1).
	Accessibility & Availability	“Being available to answer questions, or when you just felt out of control she was there to help you,” (USEdLead3).
Relationship Development	Feedback	“Well constructive criticism, you know, he was very good at being constructive; the feedback was always meaningful and intended to grow me,” (USEdLead2).
	Personal Connection	“So I chose a faculty member that was also the same interest as myself,” (USDPT2).
	Enthusiasm	“She was interested in the topic that I studied, and she was responding on a timely basis,” (USIT3).
	Candor	“I can be very honest with her. As far as on a personal,” (USCTEd1).
Mentorship	Trust	“His response was, well you are the expert so if you don’t have the data, then that is okay,” (USSM1).
	Encouragement & Support	“So he was actually very supportive - I guess you could say he was a cheerleader,” (USDPT3).
	Autonomy	“I think she tried to really tell us to take ownership where there were decision points to be made,” (USEdLead1).
	Guidance	“Well she guided me to the right classes. Obviously beyond the typical transcripts,” (USCTEd1).
Experience & Resource Utilization	Advisement	“When we did [meet] it was an opportunity for me to sit down and show her what I was currently working on and get her advice on how to proceed,” (USIT1).
	Collegial relationship	“So we kind of grew in our relationship, as colleagues, that we started chatting more on a colleague-to-colleague level than a student to a teacher,” (USCurriculum2).
	Articles/ Research	“I think of his connections and his ideas of what else I could be looking at. Other topics, other magazines, other scholarly journals,” (USCurriculum2).
	Existing Experience	“I would say his knowledge of research practices was number one. He knew his stuff, he knew all of his theory,” (USCurriculum1).
	Workshops	“And so they would offer different writing workshops if we needed them,” (USHE1).
	Network	“And then, like I said, the contacts that she had worked with before, her dissertation helped me model mine, and so I was able to contact her to use one of her assessment techniques,” (USIT2).

Lacking and Missing Supervisory Practices

As previously mentioned, there were no concepts that interviewees described as being ineffective. Interviewees did, however, explain that they hoped to experience supervision that included elements that were either lacking or missing entirely from their experience. The concepts were discussed less frequently, but in reviewing the comments made by the interviewees, the researcher identified trends that emerged from the interviews.

Overwhelmingly, 11 of 18 (61 percent) interviewees explained that the frequency in communication was lacking from their supervisory experience. One interviewee explained, “Then again, he is very bad about getting back to you. So I could send him something and not hear from him for like a month” (USSM1). Frequency of communication was the single most discussed concept, and the concept described as most frequently lacking from the perspective of candidates. The only other concept to be discussed as missing or lacking from the supervisory experience by more than two interviewees was existing expertise, mentioned as missing or lacking by four of the interviewees. Contrary to existing expertise being discussed as an effective practice of supervision, when discussed as lacking or missing from the experience, interviewees explained that their supervisors either lacked expertise in research methods, or more specifically to the topic of their study.

Tables 14 and 15 highlight concepts that were seen as missing or lacking from the supervisory experience by interviewees. An X indicates that the listed supervisory practice was identified as lacking, by the interviewee. Table 16 provides comments from the interviewees on the different supervisory practices that were seen as lacking or missing from the experience. Only 5 of 19 (26 percent) experienced supervisory practices were mentioned

as lacking a specific element. Each table includes the interviewee's alphanumeric code to assist with understanding.

Table 15

Categories of Communication and Relationship Development: Missing Concepts/Supervisory Practices ($N = 18$)

Interviewee	Communication Concepts					Relationship Development Concepts				
	Frequency	Quality	Mode	Accessibility/ Availability	Feedback	Personal Connection	Enthusiasm	Candor	Trust	Encouragement/ Support
USCTEd1	X	X								
USHE1	X									
USSM1	X		X							
USDPT1										
USDPT2	X									
USDPT3	X									
USCurriculum1	X									
USCurriculum2	X									
USEdLead1										
USEdLead2										
USEdLead3										
USEdLead4	X									
USIT1										
USIT2	X			X						X
USIT3	X									
USNurse1		X								
USNurse2	X									
USNurse3										
Total	11	2	1	1	0	0	0	0	0	1

Table 16

Categories of Mentorship and Experience and Resource Utilization: Missing

Concepts/Supervisory Practices (*N* = 18)

Interviewee	Mentorship Concepts				Experience and Resource Utilization Concepts				
	Autonomy	Guidance	Advisement	Colleagial Relationship	Articles/Research	Timeline	Existing Expertise	Workshops	Network
USCTEd1						X			
USHE1							X		
USSM1		X							
USDPT1	X								
USDPT2							X		
USDPT3									
USCurriculum1									
USCurriculum2									
USEdLead1		X					X		
USEdLead2									
USEdLead3						X			
USEdLead4							X		
USIT1									
USIT2									
USIT3									
USNurse1									
USNurse2									
USNurse3									
Total	1	2	0	0	0	2	4	0	0

Table 17

Missing Supervisory Practices: Sample Supportive Comments ($N = 18$)

Category	Concept	Sample Comments
Communication	Frequency	“Then again, he is very bad about getting back to you. So I could send him something and not hear from him for like a month,” (USSM1).
	Quality	“Okay, so something she does is we get a good idea and she... like before the project... you know, it is just in the beginning steps she will tell the whole practice ‘hey we are doing this’ and there is, I think, a negative light to doing that because... until all the little fine details are figured out she will share what the project is,” (USNurse1).
	Mode	“Like if I had to do it over again and could have afforded it I would have gone straight through after my masters and just done it face-to-face because online it is a lot more obviously self-motivation and it is what you want to get out of it,” (USSM1).
	Accessibility & Availability	“I was assigned my advisor so I didn’t really know her until I met with her in person. The process was so fast... And her schedule wasn’t very flexible for meetings,” (USIT2).
Relationship Development Mentorship	Encouragement & Support	“I guess I expected a little but more support and one-on-one time than I got,” (USIT2).
	Autonomy	“Maybe try to get him involved in our actual project... we really took the reins on everything and he knew how everything worked, but he didn’t know as many specifics as we did. Because it was really like, ok you guys do this... So maybe try to get him more involved with our actual research instead of just the statistical information which is what he really helped us on,” (USDPT1).
	Guidance	“I guess my expectations changed in that I thought there would be more, a little more hand-holding or directive from the supervisor in terms of ‘you should do it this way, you should do it that way,’” (USEdLead1).
Experience and Resource Utilization	Timeline	“She never really gave me concrete deadlines to follow. So maybe that would have helped, having some sort of deadline,” (USCTEd1).
	Existing Experience	“My relationship with him was fine, and I don’t think I would have changed too much, other than probably finding someone to be more verse in my topic,” (USHE1).

Research Question 3

What similarities exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?

In reviewing the comments made by each interviewee on the concepts and supervisory practices they represent, trends emerged that showed which practices were similarly represented by both doctoral candidates and the recent graduates of professional doctoral programs. It is important to note that based on the analysis of Research Question two, there were no comments made about practices that were less effective in supervision. With this in mind, all comments represented in Research Question one were used in the analysis of Research Question three. The analysis examined the percentage of each sample that discussed an individual concept. There were three candidates and 15 recent graduates in each respective sample. The three concepts discussed frequently by both candidates and recent graduates were frequency of communication ($n = 14$), personal connection ($n = 14$), and advisement ($n = 11$). The concepts that were discussed less frequently by candidates and recent graduates alike were: quality of communication ($n = 5$), accessibility ($n = 8$), trust ($n = 2$), autonomy ($n = 5$), a collegial relationship ($n = 3$), timelines ($n = 1$), workshops ($n = 1$), and the supervisor's network ($n = 3$).

The following concepts were discussed more frequently by both candidates and recent graduates. From the category of communication, frequency of communication was mentioned by 100% ($n = 3$) of candidates and by 73% ($n = 11$) of recent graduates. From the category of relationship development, personal connection was also mentioned by 100% ($n = 3$) of candidates, and by 73% ($n = 11$) of recent graduates. Finally, from the category of

mentorship, advisement was discussed by 67% ($n = 2$) of candidates and by 60% ($n = 9$) of recent graduates. These were the only three concepts discussed by more than 50% of both sample groups.

Comparatively, a set of concepts emerged as being discussed less frequently by both populations. From the category of communication, quality of communication was discussed by 33% ($n = 1$) of candidates and by 27% ($n = 4$) of recent graduates. Also from the category of communication, accessibility was discussed by 33% ($n = 1$) of candidates, and by 47% ($n = 7$) of recent graduates. From the category of relationship development, trust was discussed by no candidates, and by 13% ($n = 2$) of recent graduates. From the category of mentorship, autonomy was discussed by 33% ($n = 1$) of candidates, and by 27% ($n = 4$) of recent graduates. Also from the category of mentorship, the existence or development of a collegial relationship was discussed by 0 candidates, and by 20% ($n = 3$) of recent graduates. Within the category of experience and resource utilization, timelines were discussed by 33% ($n = 1$) of candidates, and by no recent graduates. Workshops were discussed by no candidates, and 7% ($n = 1$) of recent graduates. Finally, the network of the supervisor was discussed by 33% ($n = 1$) of candidates, and by 13% ($n = 2$) of recent graduates.

Table 17 shows the percentage of each sample, candidates and recent graduates, who discussed each concept at least once in the interview. The percentages showcase which concepts were discussed at a similar or dissimilar frequency within each sample.

Table 18

Percentages of Interviewees Who Discussed Each Concept by Academic Status ($N = 18$)

Category	Concept/Supervisory Practice	Candidates	Recent Graduates
		($n = 3$) f (%)	($n = 15$) f (%)
Communication	Frequency	3 (100%)	11 (73%)
	Quality	1 (33%)	4 (27%)
	Mode	3 (100%)	8 (53%)
	Accessibility/Availability	1 (33%)	7 (47%)
	Feedback	2 (67%)	5 (33%)
Relationship Development	Personal Connection	3 (100%)	11 (73%)
	Enthusiasm	2 (67%)	3 (20%)
	Candor	2 (67%)	3 (20%)
	Trust	0	2 (13%)
	Encouragement/Support	0	8 (53%)
Mentorship	Autonomy	1 (33%)	4 (27%)
	Guidance	2 (67%)	6 (40%)
	Advisement	2 (67%)	9 (60%)
	Collegial Relationship	0	3 (20%)
Experience and Research Utilization	Articles/Research	2 (67%)	3 (20%)
	Timeline	1 (33%)	0
	Existing Experience	1 (33%)	9 (60%)
	Workshops	0	1 (7%)
	Network	1 (33%)	2 (13%)

Research Question 4

What differences exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?

In contrast to concepts and supervisory practices that were discussed at similar frequencies by both candidates and recent graduates, some concepts were discussed much more frequently by only one of the two sample groups. Like Research Question three, there were 3 candidates and 15 recent graduates analyzed in each respective sample. Candidates

discussed mode of communication, feedback, enthusiasm, candor, guidance, and the use of articles and research noticeably more frequently than recent graduates, while recent graduates discussed encouragement and support, and existing experience noticeably more frequently than candidates did.

The following concepts were discussed more frequently by candidates and less frequently by recent graduates. From the category of communication, mode of communication was discussed by 100% ($n = 3$) of candidates, compared to only 53% ($n = 8$) of recent graduates. Also from the category of communication, feedback was discussed by 67% ($n = 2$) of candidates, compared to only 33% ($n = 5$) of recent graduates. From the category of relationship development, enthusiasm from the supervisor was discussed by 67% ($n = 2$) of candidates, compared to only 20% ($n = 3$) of recent graduates. Also from the category of relationship development, candor was also discussed by 67% ($n = 2$) of candidates but by only 20% ($n = 3$) of recent graduates. From the category of mentorship, guidance was discussed by 67% ($n = 2$) of candidates, but only by 40% ($n = 6$) of recent graduates. Finally, from the category of experience and resource utilization, articles and research provided by the supervisor were discussed by 67% ($n = 2$) of candidates, but only by 33% ($n = 3$) of recent graduates.

Similarly, there were some concepts that were discussed more frequently by recent graduates than by candidates. From the category of relationship development, encouragement and support were discussed by 53% ($n = 8$) of recent graduates, but by no candidates. Additionally, existing expertise or the supervisor from the resource utilization and

development category was discussed by 60% ($n = 9$) of recent graduates, but by only 33% ($n = 1$) of candidates.

Table 18 shows what percentage of each sample, candidates and recent graduates, discussed each concept at least once in their interview. The percentages showcase which concepts were discussed at noticeably different frequencies by each sample, candidates and recent graduates.

Table 19

Percentages of Interviewees Who Discussed Each Concept by Academic Status ($N = 18$)

Category	Concept/Supervisory Practice	Candidates ($n = 3$)	Recent Graduates ($n = 15$)
Communication	Frequency	3 (100%)	11 (73%)
	Quality	1 (33%)	4 (27%)
	Mode	3 (100%)	8 (53%)
	Accessibility/Availability	1 (33%)	7 (47%)
	Feedback	2 (67%)	5 (33%)
Relationship Development	Personal Connection	3 (100%)	11 (73%)
	Enthusiasm	2 (67%)	3 (20%)
	Candor	2 (67%)	3 (20%)
	Trust	0	2 (13%)
	Encouragement/Support	0	8 (53%)
Mentorship	Autonomy	1 (33%)	4 (27%)
	Guidance	2 (67%)	6 (40%)
	Advisement	2 (67%)	9 (60%)
	Collegial Relationship	0	3 (20%)
Experience and Research	Articles/Research	2 (67%)	3 (20%)
	Timeline	1 (33%)	0
Utilization	Existing Experience	1 (33%)	9 (60%)
	Workshops	0	1 (7%)
	Network	1 (33%)	2 (13%)

Research Question 5

How do perceptions of professional doctoral candidates and recent graduates across multiple disciplines compare related to practices in professional doctoral supervision?

In reviewing the comments made by each interviewee on the concepts and supervisory practices they represent, trends emerged that showed which practices were discussed largely by only one discipline. All comments represented in Research Question one were used in the analysis of Research Question five. The analysis looked at what percentage of each sample discussed each concept. Ultimately, 209 comments, made by interviewees from eight different disciplines were included in this analysis. The disciplines included were: Career and Technical Education, Higher Education, Sports Management, Physical Therapy, Curriculum Development, Educational Leadership, Instructional Technology, and Nursing.

The eight concepts that had more than 50% of comments from a single discipline were: quality of communication, accessibility, feedback, enthusiasm, trust, collegial relationships, timelines, and workshops. The concepts of quality of communication, accessibility, and feedback come from the communication category. A total of 50% of the comments made about the quality of communication of a supervisor came from the discipline of Nursing. The remaining comments were more evenly spread amongst Career and Technical Education, Educational Leadership, and Instructional Technology.

A total of 59% of the comments made about accessibility came from the discipline of physical therapy. The remaining comments were spread out more evenly between Curriculum Development, Instructional Technology, and Nursing.

A total of 55% of the comments made about feedback came from the discipline of Educational Leadership. The remaining comments were spread more evenly from the disciplines of Physical Therapy, Instructional Technology, and Nursing. The concepts of enthusiasm and trust both come from the relationship development category.

Fifty percent of the comments on enthusiasm were made by interviewees of the Physical Therapy discipline. The remaining comments were spread more evenly between the disciplines of Career and Technical Education, Curriculum Development, and Instructional Technology. A total of 50% of the comments made on trust came from Higher Education, and the other 50% came from Sports Management.

The concept of the existence of a collegial relationship comes from the category of mentorship. Half (50 percent) of the comments came from the discipline of Curriculum Development. The other 50% came from the discipline of Nursing.

Finally, the use of timelines and workshops both come from the experience and resource development category. All comments made about timelines came from the discipline of Career and Technical Education. All of the comments made about workshops came from the discipline of Higher Education. Seven of eight (88 percent) represented disciplines had at least one concept that was discussed 50% of the time by the discipline's respective interviewees.

The remaining 11 concepts were discussed more evenly by the different disciplines. Frequency of communication, from the communication category, was the only concept discussed by interviewees of all eight disciplines. Mode of communication, also from the communication category, was discussed somewhat evenly by the disciplines of Career and

Technical Education, Sports Management, Physical Therapy, Curriculum Development, Educational Leadership, Instructional Technology, and Nursing.

Having a personal connection with the supervisor, from the relationship development category, was discussed somewhat evenly by the disciplines of Career and Technical Education, Higher Education, Physical Therapy, Curriculum Development, Educational Leadership, Instructional Technology, and Nursing. The concept of candor, also from the relationship development category, was also discussed somewhat evenly by the disciplines of Career and Technical Education, Physical Therapy, Curriculum Development, Educational Leadership, and Instructional Technology. Additionally, the concept of encouragement, from the relationship development category, was discussed somewhat evenly by the disciplines of Higher Education, Physical Therapy, Educational Leadership, Instructional Technology, and Nursing.

The concept of autonomy, from the mentorship category, was discussed somewhat evenly by the disciplines of Career and Technical Education, Higher Education, Physical Therapy, and Educational Leadership. The concept of guidance, from the mentorship category, was discussed somewhat evenly by the disciplines of Career and Technical Education, Sports Management, Physical Therapy, Educational Leadership, Instructional Technology, and Nursing. The concept of advisement, also from the mentorship category, was discussed somewhat evenly by the disciplines of Sports Management, Physical Therapy, Curriculum Development, Educational Leadership, Instructional Technology, and Nursing.

The concept of supervisors using articles and research, from the experience and resource utilization category, was discussed somewhat evenly by the disciplines of Career

and Technical Education, Physical Therapy, Curriculum Development, and Instructional Technology. The concept of existing expertise, also from the experience and resource utilization category, was discussed somewhat evenly by the disciplines of Higher Education, Sports Management, Physical Therapy, Curriculum Development, Educational Leadership, and Nursing. Finally, the concept of the network of the supervisor, from the experience and resource utilization category, was discussed somewhat evenly by the disciplines of Physical Therapy, Educational Leadership, Instructional Technology, and Nursing.

Table 19 depicts the percentages that represent how many comments were made about each concept, organized by the disciplines from which they were made. The table includes each category, concept, discipline, and the respective percentage of respondents mentioning each. The table disaggregates the qualitative data for Research Question five.

Table 20

Percent of Comments Made, by Concept and Participant Discipline ($N = 18$)

Category	Concept/ Supervisory Practice	Discipline							
		Career and Technical Education <i>f</i> (%)	Higher Education <i>f</i> (%)	Sports Management <i>f</i> (%)	Physical Therapy <i>f</i> (%)	Curriculum Development <i>f</i> (%)	Educational Leadership <i>f</i> (%)	Instructional Technology <i>f</i> (%)	Nursing <i>f</i> (%)
Communication	Frequency	1 (4%)	2 (7%)	2 (7%)	5 (18%)	6 (21%)	5 (18%)	6 (21%)	1 (4%)
	Quality	1 (17%)	0	0	0	0	1 (17%)	1 (17%)	3(50%)
	Mode	1 (7%)	0	4 (27%)	2 (13%)	1 (7%)	1 (7%)	3 (20%)	3(20%)
	Accessibility/ Availability	0	0	0	10 (59%)	2 (12%)	0	1 (6%)	4 (24%)
	Feedback	0	0	0	1 (9%)	0	6 (55%)	3 (27%)	1 (9%)
Relationship Development	Personal Connection	1 (5%)	1 (5%)	0	4 (20%)	2 (10%)	7 (33%)	5 (24%)	1 (5%)
	Enthusiasm	1 (17%)	0	0	1 (50%)	1 (17%)	0	1 (17%)	0
	Candor	1 (17%)	0	0	1 (17%)	2 (33%)	1 (17%)	1 (17%)	0
	Trust	0	2 (50%)	2 (50%)	0	0	0	0	0
	Encouragement /Support	0	1 (10%)	0	1 (10%)	0	4 (40%)	3 (30%)	1(10%)
Mentorship	Autonomy	3 (20%)	4 (27%)	0	3 (20%)	0	5 (33%)	0	0
	Guidance	1 (11%)	0	1 (11%)	1 (11%)	0	2 (22%)	1 (11%)	3(33%)
	Advisement	0	0	1 (6%)	4 (22%)	2 (11%)	3 (17%)	5 (28%)	3(17%)
	Collegial Relationship	0	0	0	0	1 (50%)	0	0	1(50%)
Experience and Research Utilization	Articles/Researc h	1 (17%)	0	0	2 (33%)	1 (17%)	0	2 (33%)	0
	Timeline	1 (100%)	0	0	0	0	0	0	0
	Existing Experience	0	3 (18%)	1 (6%)	1 (6%)	3 (18%)	5 (29%)	0	4(24%)
	Workshops	0	1 (100%)	0	0	0	0	0	0
	Network	0	0	0	1 (25%)	0	1 (25%)	1 (25%)	1(25%)

Additional Findings

After a careful analysis of the interviews with candidates and recent graduates, additional themes emerged outside of supervisory practices that were seen by participants as critical to degree completion. The three additional themes discussed most frequently by the interviewees were: the cohort and classmates ($f = 7$), committee structure and assembly ($f = 4$), and the flexibility of program courses ($f = 2$). Table 20 includes a list of the additional themes that were discussed by more than two of the interviewees. In speaking about the cohort model, interviewees discussed the benefit of studying with colleagues and having a built in academic support system. In discussing committee structure, interviewees commented on the difficulty that can be experienced in selecting committee members and the assistance they were hoping for from their supervisors. Finally, in discussing the flexibility of the program, interviewees commented on flexible course scheduling being a necessity for them to complete their programs at all.

Table 21

Additional Themes Discussed by Interviewees ($N = 18$).

Theme	Interviewees who discussed theme
Cohort model and classmates	USHE1 USDPT2 USEdLead1 UDEdLead2 USEdLead4 USIT1 USIT2
Flexibility of Program	USCurriculum1 USCurriculum2 USEdLead4 USIT3
Committee structure and assembly	USCTEd1 USHE1

Cohort Model and Classmates

In discussing the cohort model and their classmates, those who discussed this theme talked about it in such a way that indicated that it was an additional contribution to their success in their doctoral program. Comments about the cohort model and classmates mentioned that the teamwork and collaboration that was fostered encouraged success in the program. One interviewee suggested, “In terms of the classes, one of the things that I enjoyed most was the cohort model so we were all in the same classes at the same time, going through the same things so there was an ability to sort of work off of each other, experience the same things,” (USHE1). Table 21 showcases the comments made by the eight interviewees who mentioned it, organized by alphanumeric code.

Table 22

Cohort Model and Classmates (*f* = 7)

Interviewee	Comments
USHE1	“In terms of the classes, one of the things that I enjoyed most was the cohort model so we were all in the same classes at the same time, going through the same things so there was an ability to sort of work off of each other, experience the same things.”
USDPT2	“I would say the number one factor for me is for our class to be successful is the collaboration with students above us.”
USedLead1	“I think the teamwork aspect of the program was hallmarked. Forcing people to work together in a team as you normally would in a real world job-type experience.”
USEdlead2	“I would say peer support. In my cohort, I was able to identify someone, I felt fortunate to identify someone in my cohort who had, because I was able to find someone in my cohort who held a similar or the same type position so they had some of the same challenges to overcoming time management.”
USEdLead4	“It would really be nice if would have peer groups that help us with the chapters that we are working on, if there’s has already been complete.”
USIT1	“I really appreciated being a part of a cohort program. I know not everybody goes through cohorts, but I really liked that and I think that was a key part of my success in this program.”
USIT2	“My cohort because they really encouraged me to stay with it. I wanted to quit the first semester, I hated it, but just from the peer pressure to stick with it and that we could all get this done together – that was definitely very helpful.”

Flexibility of Program

In discussing the course work, four interviewees identified the flexibility, and the mode of their coursework as contributing to their success in their programs. The comments on flexibility indicated that sometimes things like cost, virtual offerings, and flexible

scheduling were essential in professional doctoral programs, as most candidates were also working full-time. One interviewee explained, “The coursework had to be rigorous and yet something I was able to manage given that I had a full time job. The classes and so on had to be kind of convenient for my life, that I was able to attend the classes,” (USCurriculum2).

Table 22 showcases the comments made by the four interviewees on the flexibility of their programs, organized by alphanumeric code.

Table 23

Flexibility of the Program ($f = 4$)

Interviewee	Comments
USCurriculum1	“I think for us, our children were still small when we started, and of course we had work so the fact that the classes were help one night a week and it was like a pretty big span, they do them back to back.”
USCurriculum2	“The coursework had to be rigorous and yet something I was able to manage given that I had a full time job. The classes and so on had to be kind of convenient for my life, that I was able to attend the classes.”
USEdLead4	“I was accepted into both programs, the virtual and brick and mortar, and I ultimately, chose the virtual program due to the flexibility and cost too.”
USIT3	“Before online education, you had to go to school for every course, right now you don’t have to. So just once a week it’s manageable and like I said I was able to keep my full time job.”

Committee Structure and Assembly

Finally, in discussing major contributors to the success of their work in their programs, two interviewees identified assistance in structuring the committee as very important. In discussing committee structure, interviewees felt that they could have used more assistance in this part of the program. One interviewee said, “There is one thing, I don’t know if it’s different at your university, but the committee itself is a really big part and regarding my chair, I felt like I could have used maybe more help from her when it came to forming the committee,” (USCTEd1). Table 23 showcases the comments made by interviewees about committee structure and assembly organized by alphanumeric code.

Table 24

Committee Structure and Assembly ($f = 2$)

Interviewee	Comments
USCTEd1	“There is one thing, I don’t know if it’s different at your university, but the committee itself is a really big part and regarding my chair, I felt like I could have used maybe more help from her when it came to forming the committee.”
USHE1	“The committee structure was very strict. There had to be X amount of people, I think there were four...They did provide us a list of people, they gave us access to files of folks who had worked with them before. And as time kept progressing and people were putting their committees together I thought I wasn’t going to have a committee if I didn’t get this together so I really just had to, at the last minute, decide that I would have to go with the person because they had worked with her in the past and she’s always been really good with the program.”

Proposed Theory

Using grounded theory in qualitative analysis concludes with constructing a theory based on the comparisons drawn between concepts and categories (Moustakas, 1994, p. 4). Given the supervisory practices discussed by current candidates and recent graduates, and the reflection provided by these interviewees, the researcher theorizes that a focus on doctoral faculty development, and a combination of candidate and supervisor reflection, would lead to more positive and collaborative supervisory experiences, and an increase in successful doctoral degree program completion. Supervisory practices including frequency of communication, feedback, accessibility, and personal connection carry significant weight for candidates, and doctoral faculty should be prepared with this knowledge to work with candidates in ways that their supervisees see as effective in reaching degree completion. Further, reflecting on their practices, and encouraging discussion with their recently graduated students will allow faculty to keep their supervision relevant and specific to their candidate's needs.

Summary

Chapter Four began with an introduction that revisited the purpose of this study and the research questions that guided it. The findings of the study were presented, beginning with research question one that analyzed the comprehensive list of experienced supervisory practices by the combined 18 doctoral candidates and recent graduates. This analysis produced a total of 19 experienced supervisory practices across seven disciplines. The supervisory practices, referred to as concepts, were divided into four categories for further

analysis with the remaining research questions. The categories were labeled: communication, relationship development, mentorship, and resource utilization and experience.

The findings for Research Question two were then presented. Research Question two analyzed which supervisory practices were seen as effective in helping students succeed in their programs and which were less effective. After an analysis of the comments made by each interviewee, certain supervisory practices were seen as effective, but very little was said about supervisory practices that were ineffective. Instead, interviewees discussed which supervisory practices they felt were lacking or missing from their experience.

Results for Research Questions three and four provided an analysis of the similarities and differences in perceptions on supervisory practices between candidates and recent graduates. This analysis showcased that some supervisory practices were viewed similarly by both recent graduates and current doctoral candidates. Further, the analysis highlighted that there were some key differences in how recent graduates and candidates reflected on their experienced supervision.

The analysis for Research Question five identified similarities, or key differences, that existed in supervisory experiences across multiple disciplines. This analysis highlighted which supervisory practices were similar across multiple disciplines, and which supervisory practices were more exclusive to only one or two disciplines. Finally, additional findings were listed to highlight other themes that emerged from the interviews that were not specific to supervision and supervisory practices. The following chapter will discuss the findings, their implications for practice, and suggestions for future study on doctoral supervision in professional doctoral programs.

CHAPTER FIVE: SUMMARY, DISCUSSION, AND CONCLUSIONS

Introduction

In the previous chapter, the qualitative data from interviews were analyzed and discussed as it pertained to the research questions. Chapter 5 includes a study summary as well as a discussion of the findings, by research question. Following are implications for practice in the supervision of professional doctoral candidates and recommendations for further study. This chapter concludes with final thoughts.

Summary of the Study

The problem to be considered in this study was the limited amount of available data and literature from the U.S. on the perceptions of professional doctorate candidates and recent graduates related to doctoral supervision during their program and the research process (Fillery-Travis, 2014; Fenge, 2009; Walker, 2008). Some research exists on the supervisory experience of philosophical doctoral candidates and also on the developments of professional doctoral programs around the world; however almost no research exists on U.S. based professional doctoral programs and the candidates experienced supervision (Fillery-Travis, 2014; Fenge, 2009; Walker, 2008). With this in mind, the purpose of this study was to collect and examine reported supervisory practices experienced by candidates and recent graduates from across multiple disciplines, specifically in the U.S.

In total, five research questions directed the study. The first research question findings resulted in a comprehensive list of 19 supervisory practices reported as having been

experienced by candidates and recent graduates during a total of 18 interviews: “What are the supervisory practices that professional doctoral candidates and recent graduates report experiencing?” The second research question responses provided data to be analyzed related to which of the 19 reported supervisory practices were perceived as more and less effective by candidates and recent graduates: “What do professional doctoral candidates and recent graduates perceive to be less effective and more effective supervisory practices for guiding professional doctoral candidates towards successful degree completion?” The third and fourth research questions’ results compared the similarities and differences that exist between the perceptions of candidates and recent graduates when reflecting on their supervisory experience and its effectiveness: “What similarities exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?” and “What differences exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?” Finally, Research Question five sought analysis of how the perceived effectiveness of different supervisory practices compared across various disciplines: “How do perceptions of professional doctoral candidates and recent graduates across multiple disciplines compare related to practices in professional doctoral supervision?”

In developing the methodology, this study used qualitative data collected from 18 interviews conducted with 15 recent graduates within three years of degree completion, and 3 current doctoral degree candidates in the final year of doctoral study. The interviews were conducted with individuals from universities around the U.S. and across multiple disciplines. The population of study for this analysis was professional doctorate candidates and recent

graduates of professional doctoral programs who completed programs in the U.S. Ultimately, this purposive sample of 18 was contacted from a set of candidates and recent graduates who previously expressed interest in participating in the study at professional conferences or who were either a part of the professional network of the researcher or who had doctoral supervisors interviewed for a similar companion study. The interviewees were only identified by their program discipline, their current student status, and the order in which they were interviewed.

The interview items asked of each interviewee can be found in Appendix C. The responses to the interview items were analyzed using grounded theory (Glaser & Strauss, 2008). The transcripts were analyzed for concepts, or supervisory practices, that interviewees discussed as having experienced. The concepts were categorized by overarching themes based on their similarities to one another. In analyzing the concepts and their respective categories, the use of the grounded theory method of analysis allowed the researcher to define propositions or connections, between the concepts and categories, along with their perceived effectiveness in helping candidates complete their degree programs (Glaser & Strauss, 2008). These trends helped answer the five research questions that structured this study and developed the proposed theory from Chapter 4 (Glaser & Strauss, 2008). The proposed theory from this study addresses the idea that an increase in supervisor reflection on supervision through open dialogue with candidates, and a need for doctoral programs to supply supervisors with preparation and relevant research on supervision, will lead to an increase in candidate program completion.

Discussion of the Findings

The goal of this study was to determine the perceived effectiveness of different experienced supervisory practices by professional doctoral candidates and recent graduates in the U.S. This section analyzes the perceived effectiveness of the supervisory practices based on the five research questions. Research Questions one and two are discussed together.

Research Question One

What are the supervisory practices that professional doctoral candidates and recent graduates report experiencing?

Research Question Two

What do professional doctoral candidates and recent graduates perceive to be less effective and more effective supervisory practices for guiding professional doctoral candidates towards successful degree completion?

The findings for Research Questions one and two show that there are at least 19 different elements that professional doctoral candidates experience as they engage with their supervisors. The 19 elements are: frequency of communication, quality of communication, mode of communication, accessibility, feedback, the use of articles and research, the use of a timeline for candidates, utilization of the supervisor's existing expertise, offering workshops, use of the supervisor's network, building a personal connection, showing enthusiasm, candor, trust, encouragement, autonomy, guidance, providing advice academically, and developing a collegial relationship. It is important to note that these were the 19 concepts that were generated authentically through thematic coding of the interviews with candidates and recent

graduates that the researcher conducted. Other supervisory practices likely exist, but these were the ones that were discussed most often by this sample.

Discussed more than any other supervisory practice was the frequency of communication ($f = 28$) experienced between candidate and supervisor. Those that spoke about it positively felt that they had very consistent communication with their supervisor and that it was often enough for their studies to not become delayed. Comparatively, when discussed as a supervisory practice that had opportunity for growth, interviewees felt that the communication with their supervisor was so infrequent that their studies were delayed and that they failed to connect on a personal level with their supervisor. In line with this thought, the second most discussed supervisory practice by candidates and recent graduates was the personal connection ($f = 21$). Candidates and recent graduates that felt they had a personal connection felt like they had a stronger relationship with their supervisor that benefited their progress in their respective program. Those that did not feel that they connected on a personal level with their supervisor felt that this lack of a connection hindered their progress because the supervisor was either detached from the study or seemed uninterested in the candidate's work. These supervisory practices were seen as carrying the most weight in helping candidates reach their programs point of completion. The three most infrequently discussed supervisory practices were use of workshops ($f = 2$), use of timelines ($f = 2$), and trust ($f = 4$). Workshops and trust, though discussed infrequently, were significant enough to some candidates and recent graduates for them to discuss them as having impacted their success in their programs. Timelines, also discussed infrequently, were seen by some candidates as having the potential to keep them focused and prepared for program

completion. Ultimately, knowing which supervisory practices are being discussed most frequently, and also being aware of those discussed less frequently but carrying impact, can help supervisors model their supervision based on the needs of today's candidates.

The 19 concepts, upon further thematic analysis, were organized into four categories based on similar elements in the discussions. The four categories and the concepts within were communication (concepts: frequency, quality, mode, accessibility and feedback), resource utilization and development (concepts: articles, timeline, existing experience, workshops, and network), relationship building (concepts: personal connection, enthusiasm, candor, trust, and encouragement, and mentorship (concepts: autonomy, guidance, advisement, and a collegial relationship).

In the category of communication, the overwhelming concept discussed was frequency of communication. Frequency of communication was then followed by mode of communication, feedback, accessibility, and finally quality of communication. This indicates that candidates and recent graduates alike put a great deal of emphasis on how often they are able to speak with their supervisor about the work they are conducting and also in what ways they are able to communicate with their supervisors. Accessibility and quality were still significant, but less so than frequency and mode, which may make up for less accessibility or the sense of lower quality communication.

Relationship development was discussed most largely in terms of the existence of a personal connection and encouragement received from the supervisor. Enthusiasm, candor, and trust were the third, fourth, and fifth most frequent concepts from the relationship development category, in that order. This highlights the importance of the relationship

feeling both professional and personal, as well as the value that candidates and recent graduates put on feeling encouraged and supported. Candidates want to feel cared about in addition to feeling trusted by their supervisor.

Mentorship focused largely on advisement and autonomy. These two concepts were discussed at more frequent rates than guidance and the development of a collegial relationship. The frequency at which advisement and autonomy were discussed established the need for candidates to receive academic advisement from their supervisor followed by their need to conduct their own work as developing researchers.

Finally, in analyzing the comments made about resource utilization and development, the use of the supervisor's existing expertise and experience was important for candidates and recent graduates. This indicated that, while still seeking autonomy in their work, they view the supervisor as the expert and they value the input and guidance provided to them through the supervisory relationship. The use of articles, timelines, the supervisor's network, and workshops were each discussed less frequently, but do a good job of helping round out the expectations that candidates hold of their supervisors in terms of the resources they found most important to their success.

In seeking answers to Research Question two, the researcher was able to thematically analyze the statements made by each interviewee to determine if they believed that each of the practices was either effective or ineffective in preparing them for successful completion of their programs. Upon analysis, it was discovered that none of the interviewees identified any of the 19 concepts as ineffective. Instead, they discussed the concepts as either existing in their supervisory experience and being effective in guiding them towards success, or

lacking from their supervisory experience but being something that would have helped them in proceeding towards degree completion. All but one of the concepts was discussed as existing and effective in the supervisory relationship. The one that was never mentioned as existing, and in turn effective, in the supervisory relationship was the use of a timeline with candidates. This finding may indicate that candidates are seeking out a firmer set of deadlines in working towards degree completion.

The most frequently discussed concepts perceived as existing in supervisory relationships and as effective, were: mode of communication, accessibility, feedback, personal connection, encouragement, guidance, advisement, and the use of the supervisors' existing expertise. Each of these was discussed by at least seven of the interviewees. Mode of communication, accessibility, and feedback, all belonging to the communication category, indicates candidate's preference for flexible and productive conversations with their supervisors. Personal connection and encouragement, from the relationship-building category, being discussed in this manner indicates candidates' desire for an authentic relationship with their supervisor that stretches beyond just research. Guidance and advisement, belonging to the mentorship category, being discussed as effective indicates that candidates are also seeking out professional growth experiences in addition to their formal coursework and dissertation research experience as an element of their supervision. Finally, candidates' discussion of the use of existing expertise from their supervisor indicates the need for the supervisor to be invested in and familiar with the research the candidate is conducting.

In reflecting on lacking supervisory practices, candidates overwhelmingly discussed frequency of communication and existing expertise, again, as the two most critical elements missing from their supervision. Eleven candidates indicated that the frequency of the communication they had with their supervisor was less than they expected and less than was optimal for the success of their program completion. Additionally, four candidates discussed existing expertise as an area that was lacking from their supervision. In discussing the concept of expertise as lacking, candidates indicated that their research did not align with their supervisor's expertise or interests and hindered their progress in the program. Ultimately, in analyzing the supervisory practices candidates were enthusiastic about experiencing as well as supervisory practices which they were seeking out, but did not experience, can help supervisors in developing strategies for working collaboratively with candidates in designing future supervision to support candidates' successful completion of their programs.

While there is a limited amount of literature available on supervisory practices within doctoral programs in the U.S. (Walker, 2008), specifically professional doctoral programs, the existing research does support several of the concepts and categories from this study as significant in the supervisory experience. The research of Annette Fillery-Travis (2014) asserts that the relationship between supervisor and candidate should be collaborative, where the supervisor works as a coach, or mentor (p. 616). Further, researchers Anita Franke and Barbro Arvidsson (2011) further substantiate the importance of mentorship as a part of the supervisory relationship, and also suggest that said mentorship might become increasingly more personal, developing a more a personal connection (p. 14). Additionally, the research

conducted by Anne Lee (2008) suggests that one of the goals of doctoral supervision is to further develop the candidate into a “member of an academic discipline” (p. 272) supporting the concept of the development of a collegial relationship as being significant. Anne Lee also asserts that autonomy, or the emancipation of the candidate as his or her own, stand-alone, researcher as being important to the supervisory experience (2008, p. 274). Relationship development is another category supported by the research of Anne Lee. She listed it as one of her five approaches to supervision, supported by candidates who emphasized their supervisors’ ability to work as more than mentors, appreciating their efforts in build relationships with their candidates (2008, p. 275). Finally, the category of communication is supported by research conducted by Kirsi Pyahlto, Jenna Vekkaila, and Jenni Keskinen (2015), as well as by Kelsey Halbert (2015). Pyahlto and associates (2015) found that candidates who felt like they were communicating regularly with their supervisors were less likely to delay their studies (p. 14). Halbert (2015) supports this in her research in discussing supervision with candidates who reported differentiated ways of working and communicating with their supervisor as being beneficial to their work as doctoral candidates. The following research questions analyze the perceptions of professional doctoral candidates based on the samples of academic standing and discipline, of which the researcher was unable to find existing research or literature.

Research Question Three

What similarities exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?

The research findings based on question three reveal that there were some supervisory practices that were discussed frequently by both candidates and recent graduates alike, and that there were some supervisory practices that were discussed less frequently by candidates and recent graduates alike. This study found that the more frequently an interviewee discussed a supervisory practice, the more strongly they made attributions about its contribution, or potential contribution, to success in their program. The similarities between the samples were drawn based on both the frequency of comments made, but also the content of the comments that were made.

In examining supervisory practices that were heavily discussed by both groups, there were three that were spoken about by more than 50% of both candidates and recent graduates. This means that more than half of each sample found that each respective supervisory practice was significant in their supervisory experience. The three supervisory practices are: frequency of communication from the communication category, personal connection from the relationship development category, and advisement from the mentorship category. This may indicate that in reflecting on the experience, both during and after the supervisory experience ends, which candidates are looking for consistent communication with their supervisors. It may also lead to the development of the personal connection that was discussed frequently by each of the samples. The personal connection may also survive the completion of the degree, as it is something that recent graduates also felt strongly about. The candidates felt that the personal connection was helping move them towards degree

completion, and the recent graduates felt that the personal connection led to a maintained relationship beyond program completion. These recent graduates went on to publish research with their former supervisors, present at conferences together, and receive letters of recommendation for future employment. Advisement may indicate that candidates found that their supervisor's role is providing general advice on how to move forward with their research, or in hiring an editor, was critical to their success in their program. The three supervisory practices all seem to become significant during candidacy and remain significant after successful degree completion.

In examination of the supervisory practices that were less frequently discussed by each group, there were eight that were discussed by less than 50% of interviewees in each population. The eight supervisory practices were: quality of communication and accessibility from the communication category, trust from the relationship development category, autonomy and the development of a collegial relationship from the mentorship category, and the use of timelines, workshops, and the supervisor's network from the resource utilization and development category. In examining the communication category, quality of communication and accessibility being discussed less frequently by both populations may further substantiate the significance of frequency of communication. Quality and accessibility may not mean as much if the communication overall is not frequent enough for the candidate to feel like they are succeeding. In examining the relationship development and mentorship categories, for trust and autonomy to both be discussed infrequently may mean that these were either a more natural part of the supervisory experience for some candidates, or that many found that trust generally leads to autonomy and so each was discussed less

frequently as separate ideas. Exploring just the development of a collegial relationship from the mentorship category, it appears that this may be more significant based on discipline as opposed to academic standing. Finally, analyzing the resource utilization and development category, for timelines, workshops, and the supervisor's network, three of the five concepts in the resource utilization and development category, to each be discussed less frequently by both populations may either indicate that resource utilization and development is a weaker category overall in analyzing doctoral supervision or that these three concepts specifically were not seen as major contributors to the success of candidates, and may instead have been useful to specific candidates based on their personality or fit within their program.

Ultimately, this data distinguishes supervisory practices that retain their significance after program completion, and also which supervisory practices are consistently viewed as less significant by both candidates and recent graduates. Personal connection as a supervisory practice that retains its significance from candidacy to degree completions ties back directly to the research of Franke and Arvidsson (2011) who reported that mentorship as a part of supervision was frequently something that became personal for both supervisor and candidate. This does not signify that any of the less frequently discussed supervisory practices are not major contributors to the success of certain candidates, but they are not seen as significant by the larger population of professional doctoral candidates. Research Question four will address more specifically at differences in perception when examining supervisory practices between the same two groups.

Research Question Four

What differences exist in the perceptions of professional doctoral candidates and recent graduates related to professional doctoral candidate supervision?

The findings based on Research Question four indicate which of the 19 supervisory practices seem more significant to candidates currently in their professional doctorate programs and which supervisory practices seem more significant as recent graduates reflect on their former experience as professional doctorate candidates. Each of the supervisory practices, with the exception of one, was discussed by more than 50% of the interviewees in one sample, but by less than 50% of the interviewees in the second sample. Research Question four looks at which supervisory practices were more significant to candidates first, and which were more significant to recent graduates.

When examining which supervisory practices were seen as more significant to candidates as opposed to graduates, six supervisory practices were discussed by more than 50% of candidates, but by less than 50% of recent graduates, with the exception of one. The exception is the mode of communication from the communication category, which was discussed by 100% of candidates and by 53% of recent graduates, still a significant difference. The other supervisory practices seen as more significant by candidates include: feedback from the communication category, enthusiasm and candor from the relationship development category, guidance from the mentorship category, and the use of articles and research from the resource utilization and development category.

In analyzing the communication category specifically, mode of communication and feedback may be more important to candidates and less important to recent graduates as candidates are currently meeting with their supervisors, face-to-face and through a variety of

virtual options, and are also currently receiving feedback from their supervisors. On the other hand, recent graduates are no longer factoring these elements into their daily lives and so may not remember being as significantly impacted by the supervisory practices. Enthusiasm and candor, from the relationship development category, being more significant to the candidates and less significant to recent graduates may again indicate that candidates are discussing these practices because they are currently experiencing them, however recent graduates do not look back on their supervisory experience and reflect on their supervisor's enthusiasm for their research or their candor in their relationship. Guidance, from the mentorship category, is similar in that it represents the academic guidance that supervisors provide candidates in things like selecting courses and developing timelines for candidates. It is likely that this is more significant to candidates because, again, they are currently seeking guidance from their supervisors whereas recent graduates are not. Finally, the use of research and articles from the resource utilization and development category may represent a similar trend for candidates and recent graduates. Candidates currently rely on their supervisors to assist them with locating research and articles as it pertains to their coursework or to their study, but recent graduates may not reflect on research that no longer is a part of their everyday experience.

The two supervisory practices that were seen as more significant to recent graduates but less significant to candidates were encouragement and support from the relationship development category, and the use of the supervisor's existing expertise from the resource utilization and development category. This means that these supervisory practices were discussed by less than 50% of candidates, but by more than 50% of recent graduates

interviewed. Encouragement and support from the supervisor may carry more significance with recent graduates as they reflect on their supervisory experience because it may be something they look back fondly on. The supervisory practices that are seen as more significant by candidates tend to look at the more formal role of the supervisor, whereas encouragement and support is a less formal role of the supervisor. It may also indicate that the supervisor's support, and not necessarily their enthusiasm, is something that recent graduates are more likely to reflect on. Finally, understanding the use of the existing expertise of the supervisor as a more significant supervisory practice to recent graduates may indicate that recent graduates see, in reflection, how the expertise of their supervisor helped them successfully complete their program, whereas candidates may not yet see this as a part of the big picture. Annette Jayne Fillery-Travis discussed encouragement and support as well as facilitating research as significant roles of the supervisor (2014). These two supervisory practices being significant to recent graduates reflecting on their supervisory experiences substantiates her research on their value to doctoral supervision (2014).

It is important to note with Research Question four that all of the discussed supervisory practices were seen as significant by at least one of the interviewees. This indicates that to at least a portion of professional doctoral candidates, each of the supervisory practices is important to be aware of. The data helped to distinguish which samples of candidates may be most impacted by certain supervisory practices, and Research Question five will take a similar approach to analysis while examining samples by discipline instead of by academic standing.

Research Question Five

How do perceptions of professional doctoral candidates and recent graduates across multiple disciplines compare related to practices in professional doctoral supervision?

The findings based on Research Question five indicate which of the 19 supervisory experiences are seen as more significant by certain disciplines, and perhaps less significant by other disciplines. Data was analyzed by identifying what percentage of the comments made about each supervisory practice came from each discipline. Eight supervisory practices emerged as having at least 50% of their comments made coming from a single discipline. Fifty percent of the comments made about quality of communication, from the communication category, came from the Nursing discipline. Additionally, 50% of the comments made about the development of a collegial relationship, from the mentorship category, also came from Nursing. The other 50% of comments made about the development of a collegial relationship came from Curriculum Design. More than 50% of the comments made about the use of workshops, from the resource utilization and development category came from the Higher Education discipline. Further, 50% of the comments made about trust, from the relationship development category, also came from the Higher Education discipline. The other 50% of the comments made about trust came from the Sports Management discipline. More than 50% of the comments made about feedback, from the communication category, came from the Educational Leadership discipline. More than 50% of the comments made about the use of timelines, from the resource utilization and development came from the Career and Technical Education discipline. More than 50% of the comments made about accessibility, from the communication category, and 50% about enthusiasm, from the

relationship development category, came from Physical Therapy. There were no supervisory practices discussed most heavily by the Instructional Technology discipline.

In discussing quality of communication and the development of a collegial relationship, interviewees in the discipline of nursing have some specific thoughts on each of these practices. One nursing interviewee in particular noted an experience where her supervisor relayed information about her study to the team of nurses they were working with, before final details had been set (USNurse1). The interviewee in this case felt that the quality of communication might have lacked clarity in some instances with her supervisor. When studying experiences like this, the majority of the comments coming from the nursing discipline may indicate that their communication happens in different environments and so extra care must be paid to having clear lines of communications and expectations.

Additionally, in talking about the development of collegial relationships, another nursing interviewee explained that she originally felt intimidated when the relationship felt “very student-to-instructor,” but that she got increasingly more comfortable when she felt she was “being treated as a colleague instead of just a student” (USNurse3). Again, taking into account the environments in which candidates in Doctorates of Nursing Practice work in with their supervisors, this may indicate that they are looking to be seen as colleagues when working in medical facilities.

Also in discussing the development of collegial relationships, candidates in the discipline of curriculum development had their own thoughts on the significance of this supervisory practice. One interviewee, when asked about what they enjoyed about the supervisory relationship, explained, “I guess just the fact that he treated me as a colleague, I

felt that I was doing something productive and it wasn't just passing the time" (USCurriculum2). With the mention of productivity, the discussion of the collegial relationship may indicate that candidates see a connection between how their supervisor views them and the quality of the work they are producing. Development of a collegial relationship could have further implications on the quality of the work they produce and their enthusiasm for the work they are doing.

Talking about the the use of workshops and building trust as supervisory practices, the interviewee from the discipline of Higher Education discussed their experiences. They explained that "it was a small cohort, so you have 28 students, all going through the same process, their goal was to make sure that everyone made it. And so they would offer different workshops if we needed them..." (USHigherEd1). This positive reflection of the additional support may not be specific to the discipline of Higher Education, but it may indicate a practice that other disciplines would benefit from should their students have the option to attend similar workshops. In terms of trust as a part of the supervisory relationship, the interviewee went on to explain,

I would say he was hands off, but he cared. He wanted me to succeed of course, but he wasn't one to micromanage what I was doing. By the time I had gotten to the committee lever he was so trusting of the other committee members that the feedback they were giving me was good as well, and so he would just take a look at the feedback and say 'yeah, that's good, go with that' or 'you know, I might disagree with that faculty member so you might want to go in this direction.' But overall a very positive experience, but kind of hands off as well. (USHigherEd1)

Trust is spoken about at different levels. The supervisor trusted the candidate to conduct his research and also trusted the fellow committee members, leading to a more hands off role in the supervision. The candidate details it as a positive experience overall, but that it felt hands off. This may indicate a desire for the supervisor to be slightly more hands on in their approach, to some degree. The interviewee indicated that the supervisor cared, but in a later comment explained, “I probably should have chosen someone who had more expertise in my topic so they could have helped me a little but more on things with my topic” (USHigherEd1). Qualifying the idea of trust and a “hands-off supervisor” with this statement may indicate that the supervisor trusted the interviewee, and other committee members, based on their expertise with the study. Ultimately, a trusting supervisor with more engagement may be the ideal fit.

Trust was also a topic largely discussed by a Sports Management interviewee. A similar take on trust was expressed in this interview. The interviewee explained, when discussing his research, that his supervisor said, “you are the expert so if you don’t have the data, then that is okay.’ And that is something I wish... I stressed over that, and wished they would have been a little more involved in that from the beginning” (USSM1). The discussion of believing the supervisor was hands-off in their approach to supervision. While, again, it seems that the trusting element of supervision was appreciated, it appears that candidates believe that this level of trust may inadvertently lead to a lack of involvement in their studies overall for the disciplines of both Sports Management and Higher Education.

Interviewees from the discipline of Educational Leadership more frequently discussed feedback than other disciplines. One interviewee explained “Constructive criticism, you

know, he was very good, to be constructive, when the feedback was meaningful and intended to grow me, you know, to move me forward in a positive direction” (USEdLead2), while another detailed,

She was very knowledgeable, like when she gave feedback it was, it was good, it just didn't feel... you know, sometimes you feel like professors like they have to give you feedback because that's their job because otherwise you can't get through the first, second, third program, but for her it didn't feel that way. (USEdLead3)

This positive discussion of feedback may play on the nature of the work that candidates in Educational Leadership Ed.D. programs are involved with. As educators, they are accustomed to leaving feedback, and may inherently be seeking feedback from their own supervisors as a means of development.

The use of timelines, as a supervisory practice, was largely discussed by the interviewee from the discipline of Career and Technical Education. They explained that, “I wish there was more of a timeline we could have stayed on, you know, a track we could have stuck to instead of me still sitting here, not finished,” (USCTEd1). With this comment it may be inferred that this program in particular did not have an established timeline, or set of courses for their candidates to complete. It may have also lacked firm deadlines. While it may not be specific to the discipline of Career and Technical Education, it is important for programs to take into account the significance that a plan, or timeline, can have for some candidates.

Finally, interviewees from the discipline of physical therapy were those who more frequently discussed the supervisory practices of accessibility and enthusiasm. In referencing

accessibility, one interviewee explained “My supervisor was always just an email away or [I could] just go to his office and ask him any questions” (USDPT1) while another said “Our professors don’t really have office hours, because their office is pretty much always open, so I think that has also had a huge impact on our success” (USDPT2) The notes about having supervisors who were easily accessible indicated that candidates were looking to reach their supervisors with questions frequently, but perhaps with less focus on the mode of communication. With candidates in physical therapy, they were often times working in fitness environments for their final projects (USDPT2) so it may be more in the nature of supervisors in Doctorates of Physical Therapy to be more readily available on campus or on site, but this accessibility is likely translatable to all disciplines. In discussing enthusiasm for the work candidates were completing, one interviewee stated “So I feel like our professors are way more engaged with our students versus other friends that I’ve heard from at other schools” (USDPT2) while another interviewee explained “He was actually very supportive, I guess you could say he was a cheerleader” (USDPT3). This level of enthusiasm and support for the candidates may be similar to accessibility with physical therapy. The nature of the work being completed, and the alignment it must have with the supervisor, being in fitness centers and in direct contact with clients, may build a natural sense of enthusiasm from the supervisor. A desire for enthusiasm and support is also likely translatable to other disciplines as well though.

Additional Findings

The emergence of three additional elements that candidates and recent graduates saw as significant to their successful completion of their programs indicated that success was not defined exclusively by experienced supervision, but by an amalgam of elements in addition to supervision. The discussion of the cohort model and their classmates by some interviewees may indicate an additional level of support from their colleagues that contributed to their success. Of those who discussed the cohort model, many felt that navigating the coursework and research process with the same group of people benefited them largely in having a built-in group of supports with relevant experience. Some who did not experience a cohort model in their professional doctoral programs mentioned a desire to have experienced it looking back. The remarks made about the flexibility of the program as a contributor to a candidate's success speaks to the design and purpose of a professional doctorate. Professional doctoral candidates are typically working in their fields and, in turn, have very busy schedules that they are trying to build their courses and research into. The flexibility of their program was seen as essential to them being able to be physically present and able to do the work. Finally, the discussion of committee structure may indicate uneasiness in candidates being able to select the right members of their committee, and a desire for their supervisor to be an active part of the selection process. Both of the interviewees who discussed committee structure mentioned a need for more guidance in this area of their program, potentially from their supervisor. Ultimately, the additional findings indicate that when examining how best to serve candidates supervisors, and programs in general, have a series of factors to consider when designing program structure and establishing supervision practices.

Implications for Practice

With the conclusion of the analysis of the data and findings for this study, potential implications for the field of doctoral supervision emerged. These will be outlined from two different populations: doctoral supervisors and doctoral programs.

Implications for Doctoral Supervisors

Doctoral supervisors should reflect on their current practices in supervision and consider holding exit interviews with candidates who successfully complete the program based on their perceptions of the experienced supervision. They will want to speak with their recent graduates about the actions and aspects of supervision that were most helpful in getting them to successfully complete their degrees, and which may not have been as helpful. It would also be helpful to ask their candidates and recent graduates about what else they may need, or have needed, from their supervisor. With this in mind, supervisors may also want to look at holding meetings with their candidates early on in the supervisory relationships to outline mutual expectations to help shape the oncoming supervision. The 19 supervisory practices discussed in this study are a good place to start with reflection for supervisors, but other practices may exist in other disciplines and at different universities and settings. Based on this study alone, doctoral supervisors should focus their attention on supervisory practices including: frequency of communication, developing a personal connection with their candidates, and showing enthusiasm and support for the research being conducted. Specifically, the frequency in communication should be consistent, and often.

Further, candidates prefer face-to-face communication as they view this as the best way to build the personal connection and supportive environment that they are looking for.

Implications for Doctoral Programs

Doctoral program faculty may want to evaluate how they prepare doctoral supervisors for taking on candidates. Preparation that includes focus on the 19 supervisory practices detailed in this study may prove beneficial in the development of the doctoral supervisors of the next generation. Universities and institutions could look into professional development series and preparation programs that ensure that supervisors, new and veteran, are equipped with the necessary training to supervise candidates. Doctoral programs may also want to look at their current structure and the resources provided to candidates based on the feedback provided by candidates here and by their own candidates upon degree completion. For example, candidates highlighted that their relationships were stronger with their supervisors when they were able to select them on their own. When they were assigned a supervisor they felt that it was more difficult to develop a personal connection and the supervisor often times felt less connected to the research. With this kind of information, doctoral programs can find the right structures for the candidates they support.

Recommendations for Further Research

The recommendations for additional research rooted in this study belong to two separate categories: limitations and suggestions for replication studies and potential research topics related directly to this study.

Limitations and Suggestions for Replication Studies

This study was successful in establishing which supervisory practices were being experienced by professional doctoral candidates, and analyzing these practices and their perceived effectiveness based on different samples from the population. However, based on the limitations impacting this study, the generalizability of the findings was narrow. If the study were to be replicated the following suggestions may increase its generalizability:

1. Collect data from a larger number of candidates and recent graduates from a wider array of universities around the country. This would make the study more generalizable to the United States.
2. Ensure that all disciplines with professional doctoral programs were represented in interviews. This would make the study more generalizable to all professional doctoral programs.
3. Collect data from candidates and recent graduates of philosophical doctorates. This may make the findings of the study generalizable to philosophical doctorates as well.

Researchable Topics Related to the Study

Possible topics related to this study emerged as the comments made by candidates and recent graduates were analyzed. Each of the four categories could be analyzed individually to see their specific impact on successful completion of professional doctoral programs. Certain categories seemed to be more significant than others in this study. Additionally, research could be conducted on virtual doctoral programs and their supervision versus face-to-face doctoral programs and their supervision. Some of the interviewees in this

study were in virtual doctoral programs, however the data was not disaggregated with this in mind. Further, research could be conducted on the differences in supervision between public and private institutions. Though the data were not separated by these groupings, they may reveal important differences in supervision in each type of institution. Data could also be grouped by generation to see if differences exist, for example, in how generation X candidates react to supervision and how millennial candidates react to certain supervisory practices. Finally, structure of doctoral programs and their impact on candidate success could be researched. Some of the additional findings, and some of the supervisory practices, were tied to the structure of certain programs. The impact of these elements of successful program completion may also prove significant for candidates.

Conclusions

The data presented in this study provided clear indications: doctoral candidates are aware of the supervision they are experiencing and perceived some supervisory practices as having a larger impact on their success over others, candidates and recent graduates viewed certain experienced supervisory practices similarly while viewing other experienced supervisory practices very differently, and candidates of specific disciplines experienced some supervisory practices differently than their counterparts of other disciplines. Doctoral supervisors should spend time reflecting on their supervision and engage candidates who have successfully completed their programs in a dialogue about their perceptions of the impact on the supervision they received. Doctoral programs should evaluate their structure and the potential impacts it has on the success of their candidates. Finally, further research on

doctoral supervision in professional doctoral programs could include widening the generalizability of this study through a larger sample size or could look at similar research topics like specific supervisory practices, different modes of doctoral study and supervision, and doctoral program structure and its impact on candidate success.

APPENDIX A: UNITED STATES INTERVIEW PROTOCOLS

United States Interview Protocols

Ethical requirements

1. The interviewer will follow all protocols as outlined by the UCF IRB.
2. The interviewer will obtain recorded oral permission from participants.
3. The interviewer will keep all data gathered confidential and in a secured place.

Place, Space, Time, and Record

1. Interviews will be conducted to meet the participant's needs as much as possible.
2. Participants will be current doctoral candidates or recent doctoral graduates within the last three years.
3. Participation is on the basis that the interview can be recorded electronically or in written form with participant's permission.
4. Interviews can take place on the phone, through video conferencing, and/or face to face.
5. If face-to-face interviews are conducted, effort must be made to ensure the location is most convenient for the participant and within reason for the interviewer and be safe for both.
6. Interviews can last for 30 minutes to one hour with the time negotiated at the outset and renegotiated if the participant wishes to reduce the time or expand the time within a reasonable frame.

APPENDIX B: ERASMUS CONSORTIUM ON MODERN DOCTORATES INTERVIEW
PROTOCOLS

Erasmus Consortium on Modern Doctorates Interview Protocols

Ethical requirements

1. All interviews will be conducted following research ethics codes of
 - a. conduct and practice and codes of ethics and practice of institutions or organisations of any participant who has agreed to be interviewed.
2. Interviewers will obtain copies of their institutions guidelines for research.
3. Interviewers will obtain permission of their institutions if conducting research with members of candidates of their own institutions.
4. Interviewers will ensure they have signed permission for the participation of individuals and where relevant the signed permission of employers (in the case of workplaces for example) to interview any participants.
5. Interviewers will use the ‘invitation to participate letter’ sheet and research information sheet and agreement to participate form in Appendix 1.
6. Interviewers can obtain recorded oral permission from participants – wording in Appendix 1.
7. Interviewers must keep all data gathered confidential and in a secured place. Full criteria in Appendix 2.
8. Interviewers must sign an ‘Agreement to comply’ with ethical requirements Appendix 3.

Place, Space, Time and Record

1. Interviews will be conducted to meet the participants’ needs as much as possible.

2. Participation is on the basis that the interview can be recorded electronically or in written form.
3. Interviews can be recorded in the language of the participant and translated for the analysis Phase 3.
4. Interviews can take place on the phone, on Skype, and face to face.
5. If face-to-face interviews are conducted, effort must be made to ensure the location is most convenient for the participant and within reason for the interviewer and be safe for both.
6. Interviews can last for 30 minutes to one hour with the time negotiated at the outset (Appendix 2) and renegotiated if the participant wishes to reduce the time or expand the time within a reasonable frame.

APPENDIX C: DOCTORAL CANDIDATE AND RECENT GRADUATE INTERVIEW
ITEMS (UNITED STATES)

Doctoral Candidate and Recent Graduate Interview Items (United States), Prior to interview
(United States)

If required by IRB, a signed consent form before interview begins and/or record permission to record interview

Basic information:

Identity of doctoral candidate or recent graduate

If candidate, how long in program? Current stage of program? (Researching, writing dissertation, defending dissertation)

If recent graduate, how long ago since completion?

Discipline

Institution

Full time/part time in school

Interview Items

Q = Question, P = Probes

Q1: What do you enjoy about doctoral level study?

P: Continuous learning, growth, development, relationships with colleagues?

Q2: Why did you pursue a doctorate?

P: Work advancement, advance professional practice? What skills/attributes do you hope to develop in pursuing a doctorate?

Q3: How would you describe your relationship with your supervisor(s)?

P: (critical friend, disinterested/alooof); did you and your supervisor(s) agree on how you wanted to work at the beginning? (Formal written contract, oral agreement?); How do you communicate with your supervisor, and how often?

RQ2, RQ3

Q4: Can you identify any specific practices that your doctoral supervisor employed to help you succeed in your program?

P: Mentoring, coaching, personal relationship building, research practices development, writing/editing assistance, publication assistance, networking.

RQ1

Q5: What do/did you enjoy about your relationship with your doctoral supervisor?

P: What are/were some of the most effective or meaningful things your supervisor did to ensure your success? Mentoring? Coaching? Constructive criticism? Publication assistance?

(Of the above mentioned in Question 3)

RQ1, RQ2, RQ3, RQ4

Q6: What parts of the supervisory relationship would you change/have changed?

P: Is/was there anything they did that did not further advance your work or success in the program? Lack of mentoring? Coaching? Timeliness of communication? Constructive criticism? Publication assistance? (Of the above mentioned in Question 3)

RQ1, RQ2, RQ3, RQ4

Q7: Did your expectations for the supervisory relationship with your doctoral supervisor change from when you were a candidate to your graduation? If so, how did the relationship change?

P: Mentoring versus directing, supervising versus delegating, constructive versus directive

RQ3, RQ4

Q8: What makes/made your doctoral supervisor a good supervisor?

P: Their experience, networking assistance, research assistance, publishing assistance, development of the relationship, accountability?

RQ2, RQ4

Q9: What conditions were/are necessary for you success in your program?

P: Trust, collaboration, reliability, quality assurance, peer support, networking, being well informed in literature, research assistance, publication assistance.

RQ2, RQ3, RQ4

Q10: At any point did you consider withdrawing from your program? Tell me about that.

P: Supervisors' coaching, personal circumstances, situational reasons, supervisor intervention
Do you know anyone who did withdraw?

RQ3 & RQ4

Q11: Is there anything I have not asked that you would like to add to the interview?

P: Program/college/university related, support out of the classroom?

APPENDIX D: DOCTORAL CANDIDATE AND RECENT GRADUATE INTERVIEW
ITEMS (EUROPEAN UNION)

Doctoral Candidate and Recent Graduate Interview Items (European Union)

Prior to interview

Signed consent before interview begins or record Oral Agreement at beginning of interview.

Basic information:

Doctoral candidate or recent graduate

If candidate, how far along in program? (research stage - training/fieldwork/final, number of years)?

If recent graduate, how long ago?

Discipline

Institution

Full time/part time in school

Citizenship

Number of supervisors - industry/academia/other

Interview Items

Q = Question, P = Probes

Q1: What do you enjoy about doctoral level study?

P: Continuous learning, growth, development, relationships with colleagues?

Q2: Why did you pursue a doctorate?

P: Work advancement, advance professional practice? What skills/attributes do you hope to develop in pursuing a doctorate?

Q3: How would you describe your relationship with your supervisor(s)?

P: (critical friend, disinterested/aloof, dictator...); did you and your supervisor(s) agree on how you wanted to work at the beginning? (Formal written contract?); How do you liaise with your supervisor, and how often? Did you agree with the content and methodology of the research at the beginning? With all partners if applicable?

Q4: Can you identify any specific practices that your doctoral supervisor employed to help you succeed in your program?

P: Mentoring, coaching, personal relationship building, research practices development, writing/editing assistance, publication assistance, networking.

Q5: What do/did you enjoy about your relationship with your doctoral supervisor?

P: What are/were some of the most effective or meaningful things your supervisor did to ensure your success? Mentoring? Coaching? Constructive criticism? Publication assistance? (Of the above mentioned in Question 3)

Q6: What parts of the supervisory relationship would you change/have changed?

P: Is/was there anything they did that did not further advance your work or success in the program? Lack of mentoring? Coaching? Timeliness of communication? Constructive criticism? Publication assistance? (Of the above mentioned in Question 3)

Q7: Did your expectations for the supervisory relationship with your doctoral supervisor change from when you were a candidate to your graduation? If so, how?

P: Mentoring versus directing, supervising versus delegating, constructive versus directive

Q8: What makes/made your doctoral supervisor a good supervisor?

P: Their experience, networking assistance, research assistance, publishing assistance, development of the relationship, accountability?

Q9: What conditions were/are necessary for you success in your program?

P: Trust, collaboration, reliability, quality assurance, peer support, networking, being well informed in literature, research assistance, publication assistance.

Q10: At any point did you consider withdrawing from your program? If so, what prevented you from withdrawing? If not, did a colleague withdraw from the program?

P: Supervisors coaching, open discussion about situational reasons, supervisor intervention

Q11: Is there anything I have not asked that you would like to add to the interview?

P: Program/college/university related, support out of the classroom?

APPENDIX E: INSTITUTIONAL REVIEW BOARD APPROVAL

Institutional Review Board Approval



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Exempt Human Research

From: UCF Institutional Review Board #1
FWA00000351, IRB00001138

To: Colton James Tapoler

Date: December 04, 2015

Dear Researcher:

On 12/04/2015, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review:	Exempt Determination
Project Title:	Doctoral Supervision: An Analysis of Doctoral Candidates' and Graduates' Perception of Supervisory Practices
Investigator:	Colton James Tapoler
IRB Number:	SBE-15-11784
Funding Agency:	
Grant Title:	
Research ID:	N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

A handwritten signature in black ink that reads "Joanne Muratori".

Signature applied by Joanne Muratori on 12/04/2015 03:51:07 PM EST

IRB Manager

APPENDIX F: ERASMUS CONSORTIUM ON MODERN DOCTORATES

Erasmus Consortium on Modern Doctorates

The researcher's interview transcriptions were provided through funding from 1st October 2014 to the 30th September 2017 through the Erasmus + programme RA2 project number: 2014-1-UK01-KA203-001629 (Erasmus Consortium on Modern Doctorates).

REFERENCES

- Baumard, P. (1999). *Tacit knowledge in organizations*. London: Sage Publications.
- Boehrer, J., & Sarkisian, E. (1985). The teaching assistant's point of view. , 1985(22), 7-20.
doi: 10.1002/tl.37219852203
- Bowen, G.A. (2009). Document analysis as a quantitative research method. *Qualitative Research Journal*, 9, 27-40.
- Cakmak, E., Isci, S., Uslu, F., Oztekin, O., Danisman, S., & Karadag, E. (2015).
Overview of the dissertation process within the framework of flow theory: A
qualitative study. *Educational Sciences: Theory & Practice*, 15(3), 607-620.
doi:10.12738/estp.2015.3.2606
- Carr, S. M., Lhussier, M., & Chandler, C. (2010). The supervision of professional doctorates:
Experiences of the processes and ways forward. *Nurse Education Today*, 30(4), pp.
279-284.
- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and
evaluative criteria. *Qualitative Sociology*, 13(1), 3-21.
- Costley, C., & Lester, S. (2012). Work-based doctorates: Professional extension at the
highest levels. *Studies in Higher Education*, 37(3), 257-269.
doi:10.1080/03075079.2010.503344
- Danby, S., & E. McWilliam. (2005) Respecting and challenging the candidate: Some
developments in program design. In T.W. Maxwell, C. Hickey, & T. Evans (Eds.),
Working Doctorates: The Impact of Professional Doctorates in the Workplace and

- Professions* (pp 35-46). Revised papers from the 5th International Professional Doctorates Conference, Deakin University.
- Downs, F. S. (1989). Differences between the professional doctorate and the academic/research doctorate. *Journal of Professional Nursing*, 5(5), 261-265.
doi:10.1016/8755-7223(89)90036-7
- Edwardson, R.S. "Nursing education and doctoral study in the United States."
Doctoral education and professional practice: The next generation. Armidale: Kardoorair Press, 2001. 83–106.
- Fenge, L. (2009). Professional Doctorates—A Better Route for Researching Professionals? *Social Work Education*, 28(2), 165-176.
- Fereday, J. & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5 (1), 80–92.
- Fillery-Travis, Annette. "Erasmus+ Application Form." N.p., 29 Apr. 2014. Web. 12 Sept. 2015.
- Fillery-Travis, A. J. (2014). The framework of a generic DProf programme – a reflection on its design, the relational dimension for candidates and advisers and the potential for knowledge co-creation. *Studies in Higher Education*, 39(4), 608-620.
- Flick, U., Kardorff, E. V., & Steinke, I. (2004). *A companion to qualitative research*. London: Sage Publications.
- For Improvement in Research Supervision and Training (fIRST) (2007). Homepage. From <http://www.first.edu.au>

- Fox, A., & Slade, B. (2014). What impact can organisations expect from professional doctorates? *Professional Development in Education*, 40(4), 546-560.
doi:10.1080/19415257.2013.843579
- Fraenkel, J. R., & Wallen, N. E. (2009). *How to design and evaluate research in education*. New York: McGraw-Hill.
- Franke, A., & Arvidsson, B. (2011). Research supervisors' different ways of experiencing supervision of doctoral students. *Studies in Higher Education*, 36(1).
- Fulton, J., Kuit, J., Sanders, G., & Smith, P. (2012). The role of the professional doctorate in developing professional practice. *Journal of Nursing Management*, 20(1), 130-139.
doi:10.1111/j.1365-2834.2011.01345.x
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction*. White Plains, NY: Longman Publishers USA.
- Guerin, C., Kerr, H., & Green, I. (2015). Supervision pedagogies: Narratives from the field. *Teaching in Higher Education*, 20(1), 107-188.
- Halbert, K. (2015). Students' perceptions of a 'quality' advisory relationship. *Quality in Higher Education*, 21(1), pp. 26-37.
- Halse, C. & Malfroy, J., 2010, 'Rethorizing doctoral supervision as professional work', *Studies in Higher Education*, 35(1), pp. 79-92.
- Heath, T., 2002, 'A quantitative analysis of PhD students' views of supervision', *Higher Education Research & Development*, 21(1), pp. 41-53.
- Herman, C. (2012). The Purpose of the Ph.D. — A South African perspective. *Higher Education Policy*, 25(1), pp. 1-18.

- Kiley, M., 2011, 'Government policy and research higher degree education', *Journal of Higher Education Policy and Management*, 33(6), pp. 629–640.
- Klenowski, V., & Lunt, I. (2008). Enhancing learning at doctoral level through the use of reflection? *Assessment & Evaluation in Higher Education*, 33(2), pp. 203-217.
- Kot, F. C., & Hendel, D. D. (2012). Emergence and growth of professional doctorates in the United States, United Kingdom, Canada and Australia: A comparative analysis. *Studies in Higher Education*, 37(3), 345-364.
- Kumar, S., & Dawson, K. (2013). Exploring the impact of a professional practice education doctorate in educational environments. *Studies in Continuing Education*, 35(2), 165-178. doi:10.1080/0158037x.2012.736380
- Kwan, B. S. (2013). Facilitating novice researchers in project publishing during the doctoral years and beyond: A Hong Kong-based study. *Studies in Higher Education*, 38(2), 207-225. doi:10.1080/03075079.2011.576755
- Lee, A. (2008). How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education*, 33(3), 267-281. Retrieved June 29, 2015.
- Lee, A., B. Green, & M. Brennan. "Organizational knowledge, professional practice and the professional doctorate at work." *Research and Knowledge at Work: Perspectives, Case Studies and Innovative Strategies*. London: Routledge, 2000 117-36.
- Lee, A., & Boud, D. (2012). Framing doctoral education as practice. In *Changing Practices of Doctoral Education* (pp. 10-25). Abingdon, Oxon: Routledge.
- Lee, A., & Kamler, B. (2008). Bringing pedagogy to doctoral publishing. *Teaching in Higher Education*, 13(5), pp. 511-523.

- Lei, S.A. (2008). Factors changing attitudes of graduate school students toward an introductory research methodology course. *Education*, 128(4), pp. 667-685.
- Lei, S. A., & Chuang, N. (2009). Research collaboration and publication during graduate studies: Evaluating benefits and cost from students' perspectives. *College Student Journal*, 43(4).
- Lester, S., & C. Costley. 2010. Work-based learning at higher education level: Value, practice and critique. *Studies in Higher Education* 35(5), pp. 561–75.
- Linden, J., Ohlin, M., & Brodin, E. (2013). Mentorship, supervision and learning experience in PhD education. *Studies in Higher Education*, 38(5), 639-662. Retrieved July 10, 2015.
- Lunenburg, F. C., & Irby, B. J. (2008). *Writing a successful thesis or dissertation: Tips and strategies for students in the social and behavioral sciences*. Thousand Oaks, CA: Corwin Press.
- Maguire, K. (2015). *Interview schedules guidelines protocols samples and questions*. London.
- Merriam, S. B., & Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.
- Moustakas, C. 1994. Phenomenological research methods. Thousand Oaks, Ca: Sage.
- Mowbray, S., & Halse, C. (2010). The purpose of the PhD: Theorising the skills acquired by students. *Higher Education Research & Development*, 29(6), 653-664.
- Murphy, N., Bain, J. D., & Conrad, L. (2007). Orientations to research higher degree supervision. *Higher Education*, 53, 209-234.

- National Research Foundation (NRF). (2007) *Institutional Research Development Programme, IRDP*(Programme Framework 2007-2011), Pretoria: NRF.
- Neumann, R. (2005). Doctoral differences: Professional doctorates and PhDs compared. *Journal of Higher Education Policy and Management*, 27(2), 173-188.
doi:10.1080/13600800500120027
- Pyhältö, K., Vekkaila, J., & Keskinin, J. (2015). Fit matters in the supervisory relationship: Doctoral students and supervisors perceptions about the supervisory activities. *Innovations in Education and Teaching International*, 52(1).
doi:10.1080/14703297.2014.981836
- Robinson, T. E., & Hope, W. C. (2013). Teaching in higher education: Is there a need for training in pedagogy in graduate degree programs? *Research in Higher Education Journal 1*, 21, 1-11.
- Salter, D. W. (2013). One university's approach to defining and supporting professional doctorates. *Studies in Higher Education*, 38(8), 1175-1184.
- Schein, E. H. (1978). *Career dynamics: Matching individual and organizational needs*. Reading, MA: Addison-Wesley Pub.
- Shulman, L.S., C.M. Golde, A.C. Bueschel, & K.J. Garabedian. 2006. Reclaiming education doctorates: a critique and a proposal. *Educational Researcher* April: 25–32.
- Sinclair, J., Barnacle, R., & Cuthbert, D. (2014). How the doctorate contributes to the formation of active researchers: What the research tells us. *Studies in Higher Education*, 39(10), 1972-1986.

- Smock, R., & Menges, R. (1985). Programs for TAs in the context of campus policies and priorities. *New Directions for Teaching and Learning*, 1985(22), 21-33.
- Stubb, J., Pyhalto, K., & Lonka, K. (2011). Balancing between inspiration and exhaustion: PhD students' experienced socio-psychological well-being. *Studies in Continuing Education*, 33(1), 33-50. doi:10.1080/0158037X.2010.515572
- Tessier, S. (2012). From field notes, to transcripts, to tape recordings: Evolution or combination? *International Journal of Qualitative Methods*, 11(4), 446-460.
- Walker, G. (2008). Doctoral education in the United States of America. *Higher Education in Europe*, 33(1), 35-43. doi:10.1080/03797720802228142
- Wildy, H., Peden, S., & Chan, K. (2014). The rise of professional doctorates: Case studies of the Doctorate in Education in China, Iceland and Australia. *Studies in Higher Education*, 40(5), 761-774. doi:10.1080/03075079.2013.842968