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Entry-Level Occupational Therapy Doctoral Students' Self-efficacy for the Doctoral Capstone Experience: A Mixed Methods Analysis

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ENTRY-LEVEL OCCUPATIONAL THERAPY DOCTORAL STUDENTS' SELF-EFFICACY FOR THE DOCTORAL CAPSTONE EXPERIENCE: A MIXED METHODS ANALYSIS

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By

Ann B. Cook

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FOR THE DOCTORAL CAPSTONE EXPERIENCE:

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Approved March 5, 2021

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ABSTRACT

ENTRY-LEVEL OCCUPATIONAL THERAPY DOCTORAL STUDENTS' SELF-EFFICACY FOR THE DOCTORAL CAPSTONE EXPERIENCE:
A MIXED METHODS ANALYSIS

By

Dr. Ann B. Cook

May 2021

This dissertation was supervised by Dr. Connie Moss.

The purpose of this mixed-methods study was to examine factors that influence occupational therapy doctoral students' self-efficacy for the Doctoral Capstone Experience (DCE). Six doctoral students enrolled in an entry-level occupational therapy doctoral program at a private university were recruited to participate. Students completed a four-item self-efficacy rating scale prior to and several times throughout their DCE. Participants also participated in semi-structured phone interviews regarding their relationship with their Site Mentor after completing the DCE.

Quantitative data was analyzed using descriptive statistics and Kruskal-Wallis H tests. The quantitative analysis determined that there were no significant differences in self-efficacy for students who had previous experience in a setting similar to their DCE setting compared to those without, for students who had previous experience with a population similar to the

population at their DCE compared to those without, nor for students who were mentored by an occupational therapist compared to those who were not. Yet as a whole, there was a significant change in the mean self-efficacy rating score for participants pre- to post- DCE.

Qualitative data was analyzed through individual case studies and coding for themes. Qualitative analysis resulted in six themes regarding the mentorship relationship and factors that influenced students' efficacy beliefs. Each theme is discussed in relation to the theoretical framework with supporting quotes from participants included.

Limitations of the study, implications for Capstone Coordinators for effective administration of the Doctoral Capstone Experience, and implications for future research are shared.

DEDICATION

This dissertation is dedicated to the graduates of the entry-level occupational therapy doctoral program. It has been my pleasure to learn with each of you.

ACKNOWLEDGEMENT

First and foremost, thank you, God, for the ability to continue to learn and grow as an educator. When I began my career teaching in higher education, I believed it to be my "dream job." While that was true and still is true today, I will admit I was naïve regarding what it means to be an effective educator. I have faced many challenges in my role as the Capstone Coordinator of an entry-level occupational therapy doctoral program, and this degree has strengthened my ability to tackle those challenges head-on with evidence and to begin a line of research to benefit other Capstone Coordinators and entry-level occupational therapy programs across the nation.

Thank you, Drs. Moss, Parke, Mattila, and Kanyongo. I wouldn't be here without your guidance and support. I learned from each of you what it means to be a true educational leader. Dr. Parke, as my former chair, you helped me begin this process and guide me through to the proposal, and I am so thankful for your direction in helping me to narrow my problem of practice! Dr. Kanyongo, your input on my quantitative analysis was direct and exactly what I needed! Dr. Mattila, your input from the occupational therapy educator lens was vital to this dissertation, and I hope we can continue to collaborate as colleagues in the future. Dr. Moss, as my chair, I am so grateful for the time, thought, and effort you put into helping me be successful. You're truly a self-efficacy guru! I hope you enjoy every minute of your retirement.

To my colleagues in the occupational therapy department, thank you for your support, for your flexibility, and for encouraging me along this journey. I have learned from each of you, I enjoy working with each of you, but even more, I love calling you my "OT family."

Thank you to my cohort. I already miss our Saturdays in Canevin Hall. Over the past three years, I made some friends that will last a lifetime. Becky, I'm forever grateful for our candid conversation, our runs to stave off the stressors of life, and for the copious amounts of

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Thanks to my family for their unwavering support. Evie, I remember being pregnant with you when I applied to the Ed.D. in Educational Leadership program and starting classes when you were only eight weeks old. I can't believe you are now three! Kevin, thank you for spending quality daddy time with E while I was in class, working from coffee shops pre-COVID, and writing from our kitchen table over the past three years. Thank you, Kevin and Evie. You're the loves of my life!

Thank you, Mom and Dad, for entertaining Evie overnight any time I needed time to focus on my work. Thank you for supporting me always, for being my biggest cheerleaders. Thank you, Mary and Alexx, Zach and Stacie. Your love and support, even from a distance (and especially through family group texts) helped me to push through and always put a smile on my face. I love you.

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LIST OF ABBREVIATIONS

Accreditation Council for Occupational Therapy Education (ACOTE®)

American College Testing (ACT)

American Occupational Therapy Association (AOTA)

Doctoral Capstone Experience (DCE)

Fieldwork (FW)

Occupational Therapy (OT)

Occupational Therapy Doctorate (OTD)

Participant (P)

Quality Point Average (QPA)

Scholastic Assessment Test (SAT)

World Federation of Occupational Therapy (WFOT)

Entry-Level Occupational Therapy Doctoral Students' Self-Efficacy for the Doctoral Capstone Experience: A Mixed Methods Analysis

CHAPTER ONE:

STATEMENT OF THE PROBLEM

Social, Cultural, and Historical Perspectives on the Problem

Occupational therapy (OT) educational standards have been in existence since the early 1900s. The first professional organization, The Society for the Promotion of Occupational Therapy, emerged in 1917 (American Occupational Therapy Association [AOTA], n.d.c.). Its name changed to the American Occupational Therapy Association in 1921, and AOTA became the body responsible for the accreditation of occupational therapy education programs.

The first occupational therapy educational programs were established in the 1920s and 1930s. With the complexity of patient cases rising during and after World War II, the need for more education of occupational therapists was apparent. The 1940s brought about the first bachelor's degree programs with increased educational standards (AOTA, n.d.c.).

With medical advances and changes in healthcare, the profession transitioned to requiring a master's degree for entry-level practice in the 1990s (AOTA, n.d.c.). In 1994, the AOTA Accreditation Committee changed its name to the AOTA Accreditation Council for Occupational Therapy Education (ACOTE®) and became operational as an accrediting agency. At the 1999 AOTA Annual Conference, a resolution was passed that called for the eventual installation of a postbaccalaureate requirement for entry-level occupational therapy education (AOTA, n.d.c.).

In 2006, ACOTE® formally adopted new *Accreditation Standards for Master's-Degree-Level Educational Programs for the Occupational Therapist* as well as *Accreditation Standards for a Doctoral-Degree-Level Educational Program for the Occupational Therapist* (AOTA,

n.d.c.). Both degrees met the requirements for entry-level practice; however, having dual entry-level degrees did cause some confusion within the profession. For several years following the adoption of the accreditation standards, there was discourse amongst the profession regarding the outcomes of the advanced degree, the demand for it, and the feasibility of offering it at many universities across the United States (AOTA, n.d.c.).

In 2017, ACOTE® announced a mandate that a doctoral degree would be needed for entry-level occupational therapy practice by 2027 (AOTA, 2017b). Yet again, after much discourse, it was later announced that this mandate would be placed in abeyance, and two entry-level degrees would continue to be recognized as sufficient for practice (AOTA, n.d.c.). However, the suggested mandate prompted many occupational therapy educational programs to begin the transition to offering the entry-level doctoral degree.

As of December of 2020, there were 38 fully accredited entry-level occupational therapy doctoral programs across the United States, four of them in Pennsylvania (AOTA, n.d.b.). In addition, there were 77 programs in the applicant phase (intent declared), 55 programs in the candidacy stage (student admittance permitted), and nine programs in pre-accreditation phase (AOTA, n.d.b.). Within Western Pennsylvania alone, there were two accredited entry-level occupational therapy doctoral programs, one in the applicant phase, one in the candidacy stage, and one in the pre-accreditation phase (AOTA, n.d.b.).

Entry-level occupational therapy doctoral accreditation standards outline basic requirements for coursework beyond the master's level. This includes the administration and content objectives of the Doctoral Capstone Experience (DCE), a 14-week minimum, full-time experience in which the student gains in-depth skills in one or more focus areas (ACOTE®, 2018). These focus areas include clinical practice skills, research skills, administration,

leadership, program and policy development, advocacy, education, and theory development (ACOTE®, 2018).

The faculty member charged with the administration of this Experience is titled the Capstone Coordinator. Accreditation standards outline specifics regarding the Capstone Coordinator's responsibilities (ACOTE, 2018). This role includes but is not limited to collaborating with students to determine their focus area(s) of interest, vetting sites and Site Mentors for the Doctoral Capstone Experience, clearly communicating with all parties regarding their roles and responsibilities during the experience, and ensuring there is a signed memorandum of understanding that includes this pertinent information. In addition, the Capstone Coordinator oversees the DCE course itself, ensuring that the student is formally evaluated by the Site Mentor and that the student completes a culminating capstone project that demonstrates synthesis and application of knowledge gained during the experience (ACOTE®, 2018).

Local Contextual Perspective on the Problem

As both the master's and doctoral degrees are accepted for entry-level occupational therapy practice, Bluff University (pseudonym) offers both. Bluff University's occupational therapy doctoral program earned maximum initial accreditation in 2016. Regardless of the degree, all occupational therapy graduates must complete several fieldwork experiences, a requirement for entry-level practice (ACOTE, 2018). Students pursuing the doctoral degree must complete an additional experiential component, the Doctoral Capstone Experience (ACOTE®, 2018).

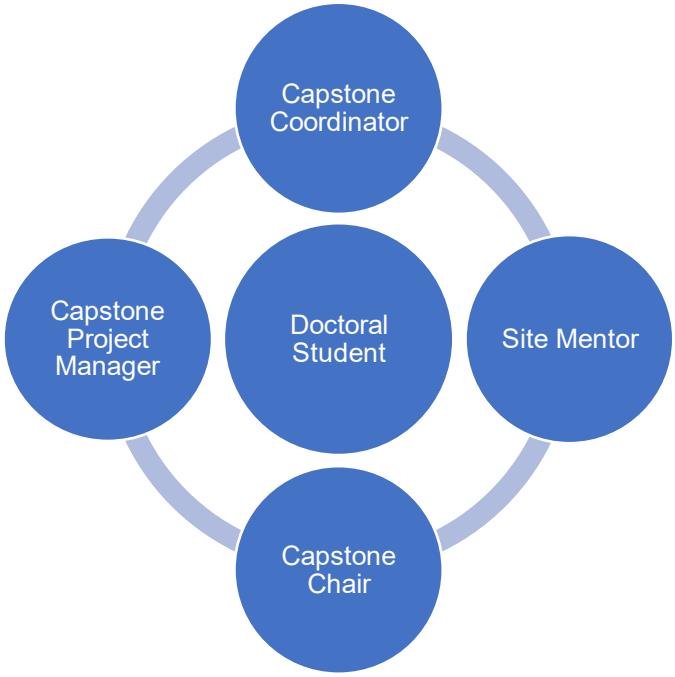
Each doctoral student is supported by a capstone committee (See Figure 1.1). The committee members and their responsibilities are as follows:

- Capstone Coordinator: the individual responsible for the administration of the DCE, including collaborating with the student to plan the DCE, securing the capstone site, ensuring an affiliation agreement exists with the site, identifying the Site Mentor, and supporting all parties involved during the completion of the DCE and a culminating capstone project
- Capstone Project Manager: the faculty member who oversees the student's capstone project course, including the writing of the capstone report and defense of the project
- Capstone Chair: the faculty member in the occupational therapy department who serves as a support to the doctoral capstone student throughout the DCE, typically with some expertise in the student's focus area
- Site Mentor: the individual(s) at the DCE site with expertise in the student's chosen area of focus, responsible for mentoring the student during the DCE

At times, a doctoral student may choose to have an additional mentor, especially if the Site Mentor and/or Capstone Chair does not have expertise in all identified learning objectives for the DCE. This individual may be called the External Mentor or Expert Mentor.

Figure 1.1

The Capstone Committee



The Researcher's Leadership Perspectives on the Problem

As the Capstone Coordinator of Bluff University's Occupational Therapy Doctoral Program, the author is responsible for the administration of the Doctoral Capstone Experience. The author has experienced first-hand the challenges presented with overseeing an experience that is individualized to the student's focus area(s) of interest and with the intent to gain in-depth skills in one or more focus areas. As the occupational therapy profession itself is much less familiar with the roles, responsibilities, and the capabilities of the doctoral capstone student, the author has had to problem-solve and use trial-and-error to learn the best practices for organizing and overseeing the DCE.

The American Occupational Therapy Association's website, a national resource for occupational therapy practitioners, educators, and students, has a section devoted to fieldwork

(AOTA, n.d.a.). The section provides information regarding the purpose of fieldwork, the roles and responsibilities of the student and the fieldwork supervisor, and even offers information on a two-day certificate training for fieldwork supervisors (AOTA, n.d.a.). The site also provides a national email list-serv for academic fieldwork coordinators. Unfortunately, similar resources are not readily available for practitioners, educators, and students regarding the Doctoral Capstone Experience.

Much of the support and collaboration that occurs for Capstone Coordinators is informal through peer-to-peer mentoring. The author has benefitted from collaborating with more experienced Capstone Coordinators and has also served as a mentor to other Capstone Coordinators in programs that are newly accredited or in the application phase of accreditation. Best practices for the DCE are not well known; therefore, more research needs to be completed in order for such practices to be shared with confidence and with assurance of their veracity and practical application.

As a Capstone Coordinator, the author is responsible for a large portion of the doctoral phase of the curriculum. Approximately one-third of the credits taken during the doctoral phase are allocated to the Doctoral Capstone Experience course, and several of the other courses are in preparation for and dissemination of the DCE and capstone project. The author intends to not only meet the ACOTE® (2018) standards for the Doctoral Capstone Experience but hopes to further her understanding of best practices for administration of the DCE. In order to do so, the author needs to better understand the factors that impact occupational therapy doctoral capstone students' Doctoral Capstone Experience.

The author intends to utilize this study and its findings to inform the creation and implementation of evidence-based, highly effective practices for the administration of the

Doctoral Capstone Experience. The evidence collected can serve to increase her role competence as the Capstone Coordinator in the entry-level occupational therapy doctoral program at Bluff University, and perhaps most importantly, directly benefit the students within the program. Finally, the study can contribute a relevant literature review and evidence-based support to other Capstone Coordinators in entry-level occupational therapy doctoral programs across the nation.

The Specific Problem of Practice Addressed by the Study

The researcher has noticed within her role as the Capstone Coordinator that doctoral capstone students have difficulty asserting themselves as entry-level occupational therapists while completing their DCE, directing their own learning, and initiating and integrating feedback during their DCE. ACOTE® (2018) standards state that the student is to be mentored, not supervised, by an individual with expertise in their chosen focus area(s). This shift from supervision by an occupational therapist during six months of Level II Fieldwork experiences to less direct guidance through mentorship by an individual who may or may not be an occupational therapist proves challenging for many students.

The researcher has been the Capstone Coordinator of Bluff University's entry-level occupational therapy doctoral program since the program was accredited and has overseen five cohorts of doctoral students successfully complete their DCE. Across five years, cohorts have varied in size from two students to 10 students. It is crucial that students are confident in their skills and abilities, can be self-directed, and can seek feedback when appropriate during their Doctoral Capstone Experience. Therefore, it is crucial to examine the influence of the mentors who play a significant role during the 14-week Doctoral Capstone Experience on the confidence levels of the students.

Data from Relevant Stakeholders Regarding the Problem of Practice

The Capstone Coordinator routinely collects data from both the occupational therapy doctoral students as well as their Site Mentors regarding their performance during the Doctoral Capstone Experience. This information is collected and documented as evidence that the course meets various accreditation standards, helps to support refinement of the DCE course itself, and contributes to overall curricular changes that serve to better prepare students for the demands of the DCE. Important qualitative information has been gathered to understand students' difficulties with being self-directed, and some of the most recent and relevant data will be shared below.

Data from the Occupational Therapy Doctoral Students

During the 14-week Doctoral Capstone Experience course, students are assigned online discussion board prompts and journal reflections that explore various topics including their mentorship experience and their understanding of the role of occupational therapy at their site. In 2019, several students shared information that reflected how mentorship and the view of the role of occupational therapy at their site impacted them during the DCE. Direct quotes from several students are included here to represent the variety of experiences that students encounter and their perceptions of their own confidence.

Regarding the role of occupational therapy, one student said,

> *However, at this site, there are no other OTs, so it is up to only me to share what I know, and because of that, it has almost forced me (in a good way) to step into that role and in turn I have become more confident, assertive, and knowledgeable.*

Because this student was at a site with no occupational therapists, she felt she was able to confidently assert the role of occupational therapy to benefit the site.

One student shared information about her relationship with her Site Mentor, who was not an occupational therapist. The student was also at a site where no therapists were employed. *"I am finding it more difficult to ask for help at my site because my mentor is not an OT, so we have a different relationship."* This student sought feedback from both the Capstone Coordinator and her Capstone Chair, both of whom were occupational therapists, as well as faculty within the department to guide her from an occupational therapy lens during her Doctoral Capstone Experience.

Another student shared a self-directed orientation that included requesting constructive feedback from her Site Mentor. She stated,

> *Something that has helped me in seeking feedback is first completing a self-assessment of my clinical strengths, areas that I am actively working on improving, and areas where I feel I could use more growth. In my opinion, getting these down on paper helped make the process of seeking feedback more smooth*.

This student's Site Mentor was an occupational therapist who could speak knowledgeably to the student's clinical skills.

Another student who had a Site Mentor who was not an occupational therapist shared her experience with seeking feedback. *"I have been fairly independent, especially since I am the 'OT expert' at my site, so she [Site Mentor] really only offers feedback when I approach her; as you stated, I have more responsibility to initiate these conversations."* This statement appears to demonstrate the student's awareness of the importance of directly requesting feedback from her Site Mentor as needed in order to progress, rather than waiting for direction that may not otherwise be provided.

One doctoral student reflected on a previous experience during Level II Fieldwork when she did not receive helpful feedback from her supervisor. She shared,

> *With my one [fieldwork educator] at my [site], every time she would ask how I thought I did, then I would say 'good,' and she would say she agreed. She never gave any real feedback until I explicitly asked. That was frustrating because I felt like she had the opportunity to tell me then, but she never would… We've [my Site Mentor and I] also talked about my one [fieldwork educator] and so she knows that I want feedback.*

Having learned from this experience, the student was able to share with her Site Mentor that she appreciated regular and specific feedback during the Doctoral Capstone Experience.

The quotes included above, seem to indicate that the occupational therapy doctoral capstone students' relationships and communications with their Site Mentors may impact their self-directedness during the DCE. In addition, it highlights that the varying roles of occupational therapy that are established and roles that are not established at the DCE site may influence the student's confidence in asserting their role as occupational therapists. The present study is designed to explore these factors to inform aspects of program improvement.

Data from the Site Mentors

During the Doctoral Capstone Experience, students are evaluated by their Site Mentor on 14 or more learning objectives (Appendix A). The Site Mentor rates the student's performance at the midterm point (approximately 7 weeks into the experience) and final point (typically week 14) on a Likert scale ranging from 1 ("Needs Attention") to 5 ("Exceeding Expectations"). In addition to the rating, Site Mentors are asked to provide rationales for their ratings in the form of comments. Particularly relevant to this study, learning objective nine targets the student's application of knowledge with guidance from their Site Mentor. It states, "Student will learn,

practice, and apply knowledge from the classroom and practice settings at a higher level than prior fieldwork experiences, with simultaneous guidance from Site Mentor and OT Faculty." While students' scores from the graduating cohort of 2019 were consistently a 4 ("Met Expectations") or 5 ("Exceeding Expectations") at the time of the final evaluation, it was Site Mentors' comments that provided the most insight into students' performance.

Regarding applying the role of occupational therapy at the site, one Site Mentor wrote, *"[Student] took the lead therapist role on a case without a local therapist and demonstrated her knowledge in a specialized practice area through completion of a doctoral capstone component and scholarly project."* This quote is reflective of the student's ability to demonstrate occupational therapy's distinct value at a non-traditional site that had no formal role for an occupational therapist.

Self-initiation and communication skills were commented on by several Site Mentors. One Site Mentor wrote of how a student needed to advocate for herself. *"It is recommended that [student] always remember to advocate for herself when she feels she needs guidance from mentors or other staff members in the future, and that she readily pursues opportunities to improve her clinical skills…"* This can be difficult for some doctoral students as they transition from working under close supervision on fieldwork to mentorship on the DCE. On a related note, this was a strength for another student whose Site Mentor wrote, *"Consistent communication while maintaining some autonomy has been a strength of [student]."* Another Site Mentor to a student who was at a non-traditional site wrote, *"[Student] has been able to share the theory behind what she is doing and to demonstrate the practical application to the client's life skill need. She requires little supervision in this process."*

Clearly there are differences among entry-level occupational therapy doctoral students in their ability to gain in-depth skills while seeking appropriate mentorship as needed during the Doctoral Capstone Experience. While some students appear to be able to self-direct, initiate, and expand upon existing knowledge, others have difficulty asserting themselves and applying their knowledge, needing increased support from their Site Mentor and/or the faculty in the occupational therapy program.

Purpose of the Study and Central Research Questions

It is crucial that Capstone Coordinators understand variables that impact entry-level occupational therapy doctoral students' performance on the Doctoral Capstone Experience. The purpose of the study is to examine variables that may specifically impact student self-efficacy for the DCE. The study is framed by the following four research questions:

1. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience in a similar setting to that of their Doctoral Capstone Experience site compared to those without (independent variable)?
2. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience with a similar population to the population at their Doctoral Capstone Experience site compared to those without (independent variable)?
3. Is there a significant difference in self-efficacy (dependent variable) between occupational therapy doctoral students who were mentored by an occupational therapist during the Doctoral Capstone Experience versus those who were not (independent variable)?

4. What is the impact of the mentoring relationship (independent variable) on student self-efficacy (dependent variable) while completing the DCE?

Significance of the Study

First and foremost, the findings of the study will inform the researcher's administration of the Doctoral Capstone Experience with a direct impact on future occupational therapy doctoral students in Bluff University's occupational therapy program and the stakeholders involved in their Doctoral Capstone Experiences. The results of the study also have the potential to impact Capstone Coordinators and faculty who teach in other entry-level occupational therapy doctoral programs, the students in those programs, and the larger profession of occupational therapy through dissemination of the results.

Insights from the study will enable the researcher to better collaborate with students to make informed and intentional decisions regarding the placement of students at their DCE site and the DCE Site Mentor's area of expertise that might best support their growth. The results may provide information about the most appropriate settings, populations, and the expertise of the Site Mentors needed to increase students' self-efficacy for the DCE. Students may also be able to self-author their own learning by seeking out experiences and challenges that will increase their knowledge and skills in their particular focus area(s), which is the ultimate purpose of the Doctoral Capstone Experience.

Finally, the findings of the study may inform other stakeholders including but not limited to Capstone Coordinators in other occupational therapy doctoral programs, their students, and the DCE Site Mentors. As Capstone Coordinators become more informed about the impact that the mentor-mentee relationship has on occupational therapy doctoral students' self-efficacy for the DCE, they may make more informed decisions regarding who the Site Mentor should be for each

student. They may also use this information to facilitate the types of interactions and experiences that have the greatest potential to increase student self-efficacy. In addition, if students are able to self-direct during the DCE, the lesser the demand on the doctoral capstone committee for feedback and guidance.

CHAPTER TWO

REVIEW OF KNOWLEDGE FOR ACTION

Occupational Therapy Education

Occupational therapy is defined as "the therapeutic use of everyday life occupations with persons, groups, or populations (i.e., the client) for the purpose of enhancing or enabling participation" (AOTA, 2020, p. 1). According to the World Federation of Occupational Therapy (WFOT),

> In occupational therapy, occupations refer to the everyday activities that people do as individuals, in families, and with communities to occupy time and bring meaning and purpose to life. Occupations include things people need to, want to and are expected to do. (WFOT, 2012, para. 2)

In order to practice as an occupational therapist in the United States, one must graduate from an accredited entry-level master's or entry-level OT doctoral program (AOTA, 2019).

Bluff University's occupational therapy program had been in existence for approximately 25 years. In 2015, the program transitioned from offering an entry-level master's degree to offering both the entry-level master's and the entry-level doctoral degrees and accepted the first cohort of five doctoral candidates to the entry-level doctoral degree program. In 2021, the program had graduated five cohorts of doctoral-level occupational therapists.

At the time of the study, the OT program offered both a five-year entry-level master's degree and a six-year entry-level doctoral degree. Students who intend to pursue the advanced degree are required to declare their intent in the fourth year of the program. Students who choose to pursue the entry-level occupational therapy doctorate (OTD) degree are required to take an

additional 31 credits over an 11-month period, which includes the Doctoral Capstone Experience (DCE) course.

Occupational therapy education includes both didactic and experiential learning. Much of what is learned in the classroom is applied in real-life experiences. It is important for readers to understand the significance of experiential learning for students' knowledge and skill building within occupational therapy curricula. Kolb (1984) emphasizes the importance of experiential learning as a holistic approach to learning that includes the learner's experience, perception, cognition, and behavior. The experiential portion of occupational therapy curricula coincides with this theory. Three levels of experiential learning required for the entry-level doctoral degree will be outlined. Next, two variables — the level of supervision provided during such experiences and the type of setting in which these experiences occur — will be described.

Fieldwork and the Doctoral Capstone Experience

Experiential learning is a critical portion of OT educational curricula. There are two levels of fieldwork (FW) required in occupational therapy programs accredited by the Accreditation Council for Occupational Therapy Education (ACOTE®): Level I and Level II Fieldwork (ACOTE®, 2018). Accreditation Standard C.1.0 states,

> The fieldwork experience is designed to promote clinical reasoning and reflective practice, transmit the values and beliefs that enable ethical practice, and develop professionalism and competence in career responsibilities. Fieldwork experiences should be implemented and evaluated for their effectiveness by the educational institution. The experience should provide the student with the opportunity to carry out professional responsibilities under the supervision of qualified personnel serving as a role model. (ACOTE®, 2018, p. 39)

While the intent of Level I FW is to "introduce students to fieldwork, apply knowledge to practice, and develop understanding of the needs of clients" (ACOTE®, 2018, p. 41), the goal of Level II FW is to develop "competent, entry-level, generalist occupational therapists" (ACOTE®, 2018, p. 42). Students are expected to be able to evaluate clients with a variety of diagnoses, deliver appropriate and effective interventions, and assess the outcomes of such interventions. In addition, students are expected to demonstrate competence in the administration and management of occupational therapy services (e.g., documentation, interprofessional collaboration, discharge planning, etc.). Level II FW needs to be a minimum of 24 weeks, full-time in more than one practice area (e.g., inpatient, outpatient, school-based, etc.) (ACOTE®, 2018).

Within the entry-level occupational therapy doctoral curriculum, the Doctoral Capstone Experience is a required 14-week minimum, full-time experience that occurs after Level I and Level II FW (ACOTE®, 2018). While Level II FW is meant to prepare students for general practice, the goal of the DCE is "to provide in-depth exposure to one or more of the following: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, and theory development" (ACOTE®, 2018, p. 44). In addition to the Doctoral Capstone Experience, students are required to complete a capstone project to demonstrate synthesis and application of knowledge gained during the experience (ACOTE®, 2018).

Traditional Versus Non-traditional Experiences

Fieldwork and the Doctoral Capstone Experience can take place in both traditional and non-traditional, role-emerging settings. Role-emerging experiences take place in settings that promote occupational therapy but do not have an established or defined role for OT (Mulholland

& Derdall, 2005; Thew et al., 2011). Examples of role-emerging settings are neighborhood and community centers, shelters for individuals experiencing homelessness, hospice settings, and after-school youth programs. While some students choose to complete their Doctoral Capstone Experience in a traditional setting (e.g., a hospital, school, outpatient clinic, etc.), others choose to complete their in role-emerging settings where the role of occupational therapy is not yet established.

Supervision Versus the Mentorship Model

The DCE differs from Level II FW in several ways. First, with Level II FW, the student is supervised by an occupational therapist. Standard C.1.13 states that Level II FW supervision is required to be "direct and then decreases to less direct supervision as appropriate for the setting, the severity of the client's condition, and the ability of the student to support progression toward entry-level competence" (ACOTE®, 2018, p. 43). In contrast with the Doctoral Capstone Experience, the student is to be mentored by an individual with expertise in their in-depth area of focus (ACOTE®, 2018). This person may or may not be an occupational therapist. In fact, students may choose to complete their experience and project at a role-emerging site where there is no occupational therapist on staff.

Due to the differences between fieldwork and the DCE, it may be difficult for students to transition from the role of a FW student to that of a doctoral capstone student. In the role of a Level II FW student, they experience an apprenticeship model of supervision and are supervised directly onsite by an OT practitioner (Hanson & DeIuliis, 2015; Mattila & Dolhi, 2016). An apprenticeship model relies on the skills, expertise, and modeling by the supervisor for student learning (Mulholland & Derdall, 2005). A quality FW experience is expected to include detailed and clear expectations of the student, quality feedback from the supervisor, and a structured

learning environment (Rodger et al., 2011). Interestingly, this type of one-to-one supervision can actually impede students from developing critical thinking and problem-solving due to reliance on their fieldwork supervisor for direction (Copley & Nelson, 2012).

Mentorship expectations are not as straightforward for the DCE, due to the individualized nature of the Doctoral Capstone Experience and project, as well as the professional background and area of expertise of the Site Mentor. Unlike the supervision provided on FW, feedback and input from the Site Mentor is often provided when solicited by the student, and while the Site Mentor may be skilled in the student's area of focus, the input provided may not necessarily be from an occupational therapy perspective. It is important to better understand nuances of the mentoring relationship and how this impacts the doctoral capstone student's performance during the experience.

In order to do so, the next section reviews relevant theoretical perspectives that form the theoretical framework for the study. This framework is designed to address the research questions and inform program improvement.

Theoretical Framework

The Role of Self-efficacy in the Doctoral Capstone Experience

Preparation for Level II Fieldwork is the culmination of the student's occupational therapy education up to that point. However, preparation for the doctoral capstone project includes the completion of "a literature review, needs assessment, goals/objectives, and an evaluation plan" (ACOTE®, 2018, p. 45). Completion of these tasks is to take place prior to commencement of the experience. Thus, the onus is on the student to be the expert of the evidence-based literature in their specific chosen area of focus as it relates to their doctoral site and population. With this preparation, the OTD student is expected to have confidence in their

knowledge and skills to design and execute a capstone project that meets an identified need at their DCE site.

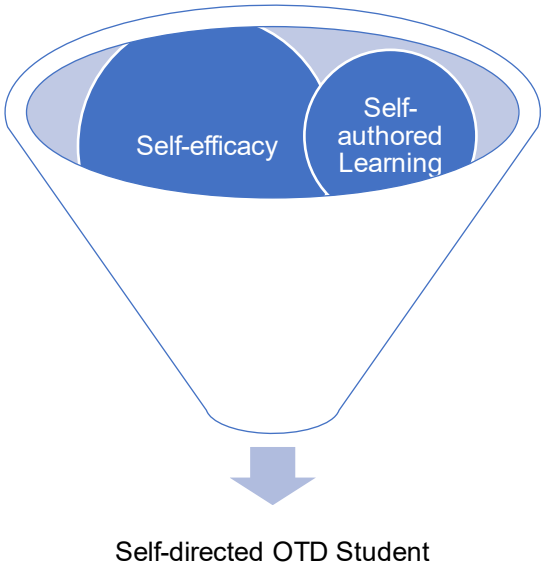
As the Capstone Coordinator of Bluff University's occupational therapy program, the researcher has experienced differences related to doctoral students' confidence in their skills and abilities to be successful on the DCE. Some students embrace the challenges presented and are able to effectively communicate and seek feedback from their Site Mentor, problem-solve to find effective solutions, and seek out learning experiences that will advance their knowledge and skills. Some students are able to critically reflect on past performances, assess their performance, and use this knowledge to execute a similar task accordingly. However, some students demonstrate a lack of confidence in their skills as occupational therapists, seeking validation in regard to their clinical decisions. Many have difficulty structuring their time to manage their project while also engaging in learning experiences to advance their skills. Others display uncertainty when faced with a problem or decision on which they need to seek their Site Mentor's input. Some see critical feedback as negative rather than constructive, and they are unable to use feedback as a positive motivator for change. Therefore, while some occupational therapy doctoral students are demonstrating self-directedness, initiating learning experiences and conversations, and the self-motivation to be successful in completing their DCE and capstone project, others are requiring additional support, coaching, and supervision beyond that of a traditional mentoring relationship.

The study, therefore, explores the following theories and their combined influence on self-directed learning for the OTD student (Figure 2.1). The theories comprising the theoretical framework – self-efficacy, self-regulation, and self-authored learning – are examined

individually followed by a discussion of how the theories work in concert to influence self-directed learning.

Figure 2.1

Illustration of the Theoretical Framework that Leads to A Self-Directed Student



Social Cognitive Theory and Self-efficacy

Albert Bandura's Social Cognitive Theory postulates that cognitive processes play a large role in one's ability to develop and retain new behaviors (Bandura, 1977). Bandura (1977) uses the term self-efficacy or efficacy expectations to refer to a person's belief in his or her performance capabilities with respect to a specific task or situation. "An efficacy expectation is the conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977, p. 193). An individual may believe that a particular course of action will produce a particular result; however, they must also believe that they have the skills needed to navigate that course. Otherwise, they may not attempt to overcome the challenge or use their skills and abilities to cope. Individuals with high perceived self-efficacy and the skills needed for

a particular task are more self-motivated to overcome challenges to produce the targeted outcome in the particular context.

Efficacy expectations vary in magnitude, generality, and strength (Bandura, 1977). These expectations are tied to both the context and the specific task. Regarding magnitude, an individual may have efficacy expectations for both specific simple and complex tasks within a context. A simple example of strong magnitude expectation within the specific context of clinical intervention would be a doctoral student who believes that they can provide effective intervention to a single client with a straight-forward diagnosis and also believes they can run effective group therapy with a number of clients with complex diagnoses. Yet another individual may experience efficacy expectations only for simple to moderate tasks. In relation to the previous example, a doctoral student may only have expectations that they can provide intervention to a client with a straight-forward diagnosis, with very little or weaker expectations regarding their ability to provide effective concurrent or group therapy.

In regard to generality, mastery experiences may result in efficacy beliefs for the specific task that was successfully completed and may also result in a broader sense of efficacy that is applied to other similar situations. For example, a doctoral student who has easily built rapport with their first client during the Doctoral Capstone Experience might only believe that they will be able to continue this rapport with this specific client in the future. On the other hand, another student may believe they will be able to build rapport with their other clients just as easily as they did with their first client.

Strength of expectation can vary as well. Individuals with strong efficacy expectations, may persevere despite disconfirming experiences, but individuals with weak expectations may easily lose motivation. Consider as an example a doctoral student who demonstrates strong

efficacy expectations for their ability to recruit participants for their capstone project. This student will not be easily deterred when their first attempts at recruitment only result in a small number of participants and will persist based on the strength of their efficacy expectations for recruitment. Conversely, a doctoral student with a weak efficacy expectation for recruitment might easily give up further attempts at recruitment when their first attempts do not produce the desired outcome.

These variances in efficacy expectations are further influenced by the sources of perceptions of self-efficacy. What follows is an explanation of Bandura's four sources of self-efficacy.

Albert Bandura's Four Sources of Self-efficacy

Bandura (1977) posited that expectations of self-efficacy are based on four major sources of information listed here in the strength of their impact: performance accomplishments (mastery experiences), vicarious experience (inferences from social comparison or modeling), verbal persuasion (suggestions that one can cope), and physiological states (emotional arousal levels). Bandura theorized that enactive mastery experiences are the most influential source that both develops and supports a strong sense of self-efficacy while physiological states are least influential (Bandura, 1977). Each source will be explored in turn, beginning with the source with the least impact, to better understand the four sources of self-efficacy as well as the impact each has to influence an individual's perceived self-efficacy.

Physiological States. Physiological states or emotional arousal levels are the least influential source of individual perceptions of self-efficacy (Bandura, 1977). An individual's emotions, such as stress, anxiety, and depression, can influence the way they behave. Physical states such as fatigue and pain also impact how an individual may approach a task or their belief in their ability to accomplish a task. Occupational therapy doctoral students may be impacted by

feelings of anxiety and stress leading up to and throughout the Doctoral Capstone Experience. Yet, these feelings may or may not continue based on their actual experiences. For example, a doctoral student may experience anxiety if they must approach their Site Mentor to request feedback. That anxiety, however, will increase or lessen depending on the Mentor's reaction to the request. Physiological states are a start, but they can be easily overridden by experience or by someone – another student or a faculty member – talking to the student and encouraging them to reach out to their Mentor.

Verbal Persuasion. Verbal persuasion, one of the most often used approaches to influence an individual's self-efficacy, is also one of the least impactful sources (Bandura, 1977). While it is relatively easy to talk to someone about their capabilities, to encourage them, and to assure them that they have the skills and knowledge needed to complete a task, these statements of encouragement are only beneficial if the individual does experience success that convinces them that they possess the skills and knowledge to be successful. What's more, the person providing the verbal persuasion must be respected and valued by the person receiving it. Verbal persuasion, therefore, actually has more impact if it occurs in combination with other sources that influence self-efficacy. Regarding the occupational therapy doctoral student, the encouraging statements of their Site Mentor and Capstone Chair, if respected and trusted by the student, could impact their efficacy beliefs. But, if the student does not meet success with the situation, the encouragement of even the most trusted mentor will actually have a negative impact on the student. In other words, the student may be left thinking that they are not able to enact the steps that the mentor suggested because they are incapable.

Vicarious Experiences. Modeling, or vicarious experiences, are relatively influential to an individual's perceptions of self-efficacy for a particular task (Bandura, 1977). If an individual

observes another person who they view as having similar skills or abilities, the person they observe becomes a model and increases the person's belief that they can accomplish the particular task that the model completed. The observation of capable models who also represent the skills and knowledge that the observer possesses can increase the observer's belief that they, too, can do the task. Observation, however, cannot increase perceptions of self-efficacy if the observer believes the model's skills are not comparable to their own or even achievable for themselves in the specific situation. Observation of a model who is not seen as representing the observer could actually produce a negative influence on perceived self-efficacy. An occupational therapy doctoral student, for example, might observe their Site Mentor successfully execute an advanced therapeutic technique. Their beliefs about their own ability to perform the therapeutic technique will increase if they believe they have similar skills and abilities. If, however, they see their mentor as having much more sophisticated skills than they possess themselves, they will conclude that successfully employing the technique lies outside of their own capabilities.

Enactive Mastery. Finally, the most influential source of self-efficacy by far is enactive mastery (Bandura, 1977). Previous accomplishments, successful task practice, and the belief that one can generalize the skills used to successfully complete one task to another similar task is the most impactful source of self-efficacy. Repeated experiences of successful task completion lead to increases in perceptions of self-efficacy for that specific task, while repeated failures lead to decreased self-efficacy for that particular task. "This robust sense of self-efficacy is not created by easy success; it requires experience in overcoming obstacles and difficult situations through maintained effort and persistence" (van Dinther et al., 2011, p. 97). It also requires that the student be able to monitor and assess their own performance to conclude that it was their actions and their decisions that led to their success. In other words, the student concludes that they are

capable of succeeding again because their own actions produced past success. This means that an occupational therapy doctoral student has a strong likelihood to experience increased efficacy expectations for a specific task like recruiting clients, if they had already successfully recruited clients. They might even approach a similar but more challenging level of client recruitment based on their belief that what worked in one situation might work for them in general. For example, if the student was able to use humor and reassurance with one client, the student may try to use those same strategies even in a situation where the person they are recruiting is more resistant.

Combined with magnitude, generality, and strength of efficacy expectations, the aforementioned sources of self-efficacy combine to influence an individual's motivation and behaviors. Understanding these influences can help coordinators design experiences that promote self-efficacy and enable self-regulation.

Self-Efficacy as a Formative Process

While it may appear to be a relatively simple progression that successful endeavors will lead to increased self-efficacy and unsuccessful attempts will lead to decreased self-efficacy for a particular task, nothing could be further from fact. Positive perceptions of self-efficacy do not happen immediately or in isolation but are embedded in self-regulation (Zimmerman, 1986). In order to experience stronger positive perceptions of self-efficacy, an individual must be able to critically reflect, monitor, and assess their own performance and determine what contributed to the outcome. These actions are part of a formative assessment process that is ongoing and can lead to summative conclusions regarding self-efficacy. Moss and Brookhart (2019) define formative assessment as "an active and intentional learning process that partners the teacher and the students to actively and intentionally gather evidence of learning with the express goal of

raising student achievement" (p.6). In terms of the setting of the doctoral capstone experience and the mentoring relationship at the heart of the present study, the role of the teacher is represented by the Mentor and can also include the Coordinator.

In order for an individual student to successfully conclude that it was their skills, decisions, and actions that led to their success, each student must understand what must be mastered (a learning target), what they will have to do to demonstrate that mastery (performance of understanding), and how well they are expected to do it (success criteria). Success criteria–descriptions of excellence for the particular task to be aimed for and completed–allow students to visualize the task, and to monitor and adjust their learning and behavior to identify if and when they are successful in meeting those criteria. Moss and Brookhart (2012) discuss the importance of learning targets for students to be able to understand what they are expected to learn and sum up the influence of the process in their Learning Target Theory of Action. The theory states "the most effective teaching and the most meaningful student learning happen when teachers design the right learning target…and use it along with their students to aim for and assess understanding" (p. 2). Much more than statements of a goal, a learning target describes exactly what the student is supposed to learn using words, pictures, actions or some combination of the three. What's more, that description must contain clear descriptions of what mastery will look like. These descriptions of an effective performance are known as success criteria and describe for the student how well they will be expected to perform in order to support a conclusion that they have met the learning target. The success criteria provide the student with ways to monitor and adjust their performance as they are learning and performing (Moss & Brookhart, 2012, 2019). Success criteria describe exactly what success looks like, for that particular learning target. Having success criteria enables students to compare their performance against

descriptions of excellence (the success criteria) to promote evidence-based decisions about which of their behaviors should be repeated, replaced, or improved to strengthen their actions, and strategically advance them toward future successes. These aspects of formative assessment and a Learning Target Theory of Action can be applied to occupational therapy doctoral students' Doctoral Capstone Experiences and to the program as a whole. While the students have learning objectives for the DCE, they do not have learning targets. Some objectives can incorporate several specific targets and specific targets should include companion success criteria. This would promote critical self-assessment and encourage the students to reflect on their own skills and abilities and come up with strategic ways to improve in order to reach that target outcome.

Promoting Self-Efficacy That Is Task- and Context- Specific

It is important to understand that self-efficacy is both task- and context- specific. Generalized self-efficacy is a concept that Bandura's (1977) theory and subsequent research does not support. Self-efficacy beliefs are constructed by individuals in consideration of a specific task and context in order for the individual to truly judge their ability to be successful. One cannot accurately measure general self-efficacy, because the definition itself refers to a task- and context- specific belief. Therefore, it is important to consider unique tasks and contexts as well as the four sources of self-efficacy and the impact they have on efficacy beliefs.

Occupational therapy doctoral students complete their Doctoral Capstone Experiences and projects in a variety of settings, both traditional and role-emerging, and with mentorship from a variety of professionals. The tasks that they are required to accomplish are impacted by these variables, as well as many others experienced during the course of the 14 weeks.

Research suggests that it is possible to influence students' self-efficacy in higher education (van Dinther et al., 2011). In fact, interventions based on Social Cognitive Theory have been proven to be more effective than those based on other theories for increasing self-efficacy. Research rooted in Bandura's (1977) Social Cognitive Theory has been utilized in occupational therapy education, and specifically in regard to student's fieldwork experiences (Andonian, 2013, 2017). Fieldwork is a prerequisite to the Doctoral Capstone Experience; therefore, it is important to explore the literature surrounding students' efficacy beliefs and factors that impact self-efficacy for experiential learning.

Mentoring and Supervisory Relationships: Verbal Persuasion and Modeling

Bandura (1977) claims that modeling from others as well as verbal persuasion can impact self-efficacy, but that these are the least impactful to efficacy beliefs. This would suggest that the mentorship the student experiences during the DCE may have an impact their self-efficacy. A Site Mentor who provides role modeling behaviors for the student and suggestions that the student has the skills to be successful during their Doctoral Capstone Experience could positively impact the student's efficacy beliefs. It is important to keep in mind that the student must buy in to this persuasion and believe that they do have the skills that are being modeled and verbally reinforced to be successful. What would make the verbal persuasion more impactful is if it were given using the language and specificity of specific success criteria designed to flesh out specific learning targets (Moss & Brookhart, 2012, 2019)

What's more, Andonian (2017) found a positive correlation between a supportive supervisory relationship (i.e., open and warm communication, supportiveness and responsiveness from the supervisor) and higher rates of student self-efficacy during fieldwork experiences. In addition, the meaningfulness of the experience (e.g., the supervisor providing opportunities for

personal growth of the student) was linked with higher self-efficacy based on the *Student Confidence Questionnaire* (Derdall et al., 2002). This questionnaire will be further described in Chapter Three. Andonian (2017) suggests that occupational therapy educators should cultivate student self-efficacy in order to help them integrate feedback and participate in their Level II Fieldwork supervisory relationship as students with higher self-efficacy may better be able to view even critical feedback as supportive. That impact is further enhanced when students, occupational therapy educators, and mentors agree on the targets to be accomplished and what will count as evidence of mastery (success criteria).

Occupational therapy doctoral students' self-efficacy for the Doctoral Capstone Experience is of utmost importance, as students are challenged to move beyond generalist occupational therapy skills to gain in-depth skills in one or more focus area(s) while also completing a doctoral capstone project that is student driven. Students' previous clinical experiences, their relationships with their supervisors, and their experiences of what led to their success or failure in overcoming challenges during Level II Fieldwork could impact their self-efficacy for the challenging tasks presented during their DCE. To date, there has been no literature published regarding the impact of these factors specific to entry-level occupational therapy doctoral student self-efficacy.

Previous Experiences as a Source of Self-efficacy

Andonian (2017) also studied the relationship between occupational therapy students' demographics and perceived self-efficacy while on Level II Fieldwork. Demographic questions asked about their fieldwork experiences including expectations, their relationships with their supervisors, and the types of decisions they were required to make during the experience. The

Student Confidence Questionnaire (Derdall et al., 2002) was utilized to measure student self-efficacy.

Andonian (2017) found that student self-efficacy for Level II Fieldwork was related to their prior supervisory relationships, professional experiences, and the meaningfulness of the fieldwork to the student. Students with previous clinical experience in a similar setting had higher self-efficacy for their Level II Fieldwork; however, no significant relationship was found between students' self-efficacy and the setting, population, or the students' choice in the fieldwork setting (Andonian, 2017).

Enactive Mastery as a Source of Self-efficacy

Relative to occupational therapy, Level II Fieldwork experiences provide a platform for students to enact mastery. In other words, students who overcome challenges during FW experiences may have higher self-efficacy for new- yet- similar clinical experiences than those who do not overcome challenges or who feel unsuccessful upon completion of FW. Andonian (2013) states,

> The interaction between knowledge, skills, and self-efficacy explains why some occupational therapy students do very well in course-work and then have difficulty passing their fieldwork. Self-doubt may impair skills so that even highly capable individuals may not be able to perform under circumstances that undermine their beliefs in themselves. (p. 203)

According to Andonian (2013), mastery experiences altered subjects' sense of personal self-efficacy rather than merely providing behavioral cues for judgments of self-efficacy. However, efficacy judgments proved to be good predictors of the degree of behavioral change resulting from partial mastery experiences. Perceived self-efficacy proved to be a better predictor

of behavior toward unfamiliar threats than did past performance (Andonian, 2013). In addition, self-efficacy derived from partial enactive mastery during the course of treatment predicted performance on stressful tasks that the individuals had never done before. This would support the idea that students who derived self-efficacy from successful fieldwork completion could possibly have higher self-efficacy for the Doctoral Capstone Experience than those who did not. Yet it is important to keep in mind that these experiences are different, and efficacy beliefs are context- and task-specific and require that students have a means (success criteria) that enables them to both monitor and improve their own performances. The Doctoral Capstone Experience requires students to overcome a different set of challenges than those presented on fieldwork while also gaining more in-depth skills in their chosen focus area(s).

While Adonian's (2013, 2017) research explored variables that impact students' self-efficacy for fieldwork, a gap in the literature exists in relation to this type of information for doctoral students' self-efficacy for the Doctoral Capstone Experience. There have been no studies to determine how students' previous clinical experiences including the setting, population served, and the students' choice in the placement, nor how their relationship with their Site Mentor impacted their self-efficacy for the challenges presented during the DCE.

With the transition of Bluff University's OT program to offering both the entry-level master's and the entry-level doctoral degrees, it is of utmost importance that faculty understand how to best prepare students for success on the Doctoral Capstone Experience. This in-depth experiential component of the curriculum requires the student to be more self-directed and autonomous than previous clinical experiences. Despite curricular changes as an attempt to better prepare students, the literature suggests that simply adding additional doctoral courses to

the curriculum in an attempt to prepare students for the Doctoral Capstone Experience is not effective in meeting this need (Case-Smith et al., 2014).

Faculty in the occupational therapy program, and especially the Capstone Coordinator, need to understand how these factors impact student self-efficacy for the DCE. There are implications for planning students' site placements and the populations with which they will work during the DCE, as well as who their DCE Site Mentors should be based on their efficacy beliefs. As the DCE is to be a student-driven experience, students' self-efficacy, or their own belief in their abilities, relates to their abilities to direct and regulate their own learning. Both the Self-authored Learning Theory and Self-regulated Learning Theory will be discussed as supplements to Bandura's (1977) framing theory.

Self-authored Learning Theory

Baxter-Magolda's (2008) article regarding Self-authored Learning Theory states that self-authorship is the internal capacity to define one's beliefs, identity, and social relations. It is a developmental capacity that helps meet the challenges of adult life, including engaging with diverse others as well as undergoing transformational learning. Students in higher education must be able to self-author their learning, yet often are unprepared to do so (Baxter-Magolda, 2007). This is evident in many of the OTD students as they struggle to assert their knowledge and beliefs as well as interact effectively and productively with their capstone committee and Site Mentor.

It is encouraging that self-authorship can be fostered by educators through an effective curriculum design, within classroom experiences, and through the advising and mentoring of students by those who have also been able to self-author their own learning (Baxter-Magolda, 2007, 2008). This is in agreement with Bandura's (1977) suggestion that mastery and vicarious

experiences, role modeling behaviors, and verbal persuasion are factors that impact efficacy beliefs.

Baxter-Magolda (2004) developed the Learning Partnerships Model, which emphasized a relationship between the mentor and mentee, the teacher and student, or when applied to this dissertation, the Site Mentor and the doctoral capstone student. The Learning Partnerships Model,

> introduces learners to these expectations [self-authorship] by portraying learning as a complex process in which learners bring their own perspectives to bear on deciding what to believe and simultaneously share responsibility with others to construct knowledge. Because this vision of learning is a challenge to authority-dependent learners, the Learning Partnerships Model helps learners meet the challenge by validating their ability. (Baxter-Magolda, 2004, p. xviii)

Three principles for educational practice that promote self-authorship include validating the learner's capacity to know, situating learning in the learner's experience, and mutually constructing meaning (Baxter-Magolda, 2004). Validating the learner's capacity to know is enacted when the student is invited to share their knowledge, and others convey that their ideas are welcomed and respected. Situating learning in the learner's experience occurs when previous experiences and existing knowledge are drawn upon for continued learning. Mutually constructing meaning occurs when others connect their knowledge to the students' knowledge to help them clarify their own perspectives. "The data from which the Learning Partnerships Model were constructed suggest that it is most effective when the assumptions and principles are used intentionally to create learning partnerships" (Baxter-Magolda, 2004, p. 43).

Such principles can feasibly be enacted during the student's clinical experiences, and more specifically, during the Doctoral Capstone Experience when the doctoral student experiences the transition from engaging in a supervisory relationship to that of a mentoring relationship. Whereas on Level II Fieldwork, students were required to receive some direct on-site supervision from an occupational therapist (ACOTE®, 2018), they are expected to be more self-directed on the Doctoral Capstone Experience with a Site Mentor who may or may not be an occupational therapist. It is feasible that the Site Mentor could support the doctoral student's self-authorship through behaviors similar to those presented in the Learning Partnership Model. Demonstrating respect of the student's knowledge of occupational therapy as well as their previous learning and clinical experiences, while also allowing and encouraging the student to engage in new experiences and challenges, will support student growth and their desire to learn.

Self-regulated Learning

Self-regulation refers to self-generated thoughts, feelings, and actions that are planned and adapted to the achievement of personal goals (Zimmerman, 1986; 2000). Key self-regulatory processes include:

> (a) setting specific proximal goals for oneself, (b) adopting powerful strategies for attaining the goals, (c) monitoring one's performance selectively for signs of progress, (d) restructuring one's physical and social context to make it compatible with one's goals, (e) managing one's time use efficiently, (f) self-evaluating one's methods, (g) attributing causation to results, and (h) adapting future methods. (Zimmerman, 2000, p. 66)

According to Hiemstra and Van Yperen (2015), self-regulated learning strategies refer to self-controlled actions, such as self-evaluation, self-reflection, goal-selection, planning, and self-monitoring, that individuals take to acquire skills and knowledge and to optimize their learning.

It was found that students who used self-regulated learning strategies that were strengths-based rather than deficits-based had higher perceived competence, intrinsic motivation, and effort intentions for the task at hand (Hiemstra & Van Yperen, 2015). This is in agreement with Bandura's (1977) theory and Moss et al.'s (2011) work that emphasizes the importance of the opportunity for self-assessment.

Self-regulated Learning Theory (Zimmerman, 2000) has implications for doctoral students as they prepare for and engage in the DCE. Students are asked to create an action plan in which they list their learning objectives for the DCE and outline actionable steps to achieve them. Focusing on their strengths and utilizing those strengths to meet objectives on the DCE may impact their perceived abilities to be successful.

While on the DCE, students are asked to critically reflect on and evaluate their own performance at both the midterm and final period prior to meeting with their Site Mentor. Students then share their self-evaluations with their Site Mentor before the Site Mentor discusses their own evaluation of the student's performance. This process is intended to promote open conversation about the student's strengths and areas for growth, but also promotes self-awareness and regulation.

The physical setting of the DCE site and the student's relationship with their Site Mentor impacts their self-motivation. External encouragement and guidance of the student has been found to improve their motivation and their ability to self-regulate (Zimmerman, 2000). Therefore, Site Mentors of occupational therapy doctoral students have the potential to impact students' ability to self-regulate their learning during the Doctoral Capstone Experience. This real-life, experiential learning provides a platform for critical self-reflection as students are required to design and evaluate their capstone project.

Each of these three theories provides a framework for the author's problem of practice: occupational therapy doctoral students often struggle to successfully self-direct their Doctoral Capstone Experiences. Bandura's (1977) Social Cognitive Theory provides an encompassing framework for understanding students' self-efficacy for the DCE. Baxter-Magolda's (2007) theory provides information relative to students' self-authorship of learning, and Zimmerman's (2000) theory describes factors impacting students' self-regulation while on the DCE. Factors influencing OTD students' ability to self-direct their Doctoral Capstone Experience may be impacted by several factors, including their previous experiences, their ability to self-reflect and self-regulate, as well as their relationship with their Site Mentor. See Figure 2.1 for a visual depiction of the theoretical framework as it relates to the author's problem of practice.

Summary

With Bluff University's occupational therapy program transitioning to offering the entry-level occupational therapy doctoral degree and the inclusion of the Doctoral Capstone Experience to the curriculum, students who choose to pursue the entry-level doctoral degree are required to gain in-depth skills in one or more focus area(s) and also complete a culminating capstone project. Several factors may impact a student's self-efficacy, or the belief that they can be successful during this experience, including their previous experiences, their relationship with their Site Mentor, and whether their site is traditional or role-emerging. It is crucial that educators, and especially Capstone Coordinators in entry-level occupational therapy doctoral programs, understand if and how these factors impact student self-efficacy for the DCE. This knowledge could inform effective practices regarding student preparation, site and Site Mentor selection, and student and Site Mentor support from the Capstone Coordinator prior to and during the DCE.

CHAPTER THREE

METHODS AND DESIGN FOR ACTION

Introduction

Occupational therapy (OT) doctoral capstone students are required to engage in a 14-week Doctoral Capstone Experience (DCE) and complete a capstone project that meets a need of the DCE site. Students' previous clinical experiences during Level II Fieldwork provided them with supervision by an occupational therapist. However, students on the DCE are mentored by an individual who may or may not be an occupational therapist. Several factors may impact a student's self-efficacy, or the belief that they can successfully complete this experience, including their previous experiences, their relationship with their Site Mentor, and whether their site is traditional or role-emerging. It is critical that the impact of such variables on student self-efficacy for the DCE are better understood in order to inform faculty in entry-level occupational therapy doctoral programs regarding best practices for designing and supporting students during the DCE. The following methodology was designed to address this need.

Overview and Setting

Description of the Occupational Therapy Program

The university at which the study took place was a private, Catholic institution and the only Spiritan institution of higher education in the United States. Located in Blufftown (pseudonym), Pennsylvania, Bluff University had nine schools offering degrees from the baccalaureate to the doctoral level.

The occupational therapy program was housed in the School of Health Sciences. The program was primarily freshman-entry, and students were able to earn an entry-level master's or

entry-level doctoral degree. Entry-level class sizes averaged 30 students, though the doctoral cohorts had ranged in size from two to 10 students.

At the time of the study, Bluff University's OT programs were accredited by the Accreditation Council for Occupational Therapy Education (ACOTE®) of the American Occupational Therapy Association (AOTA). ACOTE® accredited Bluff's OT programs for the maximum initial accreditation periods on August 5, 2016. The entry-level master's program required five years of study, and the entry-level doctoral program required an additional 11 months of study.

Bluff's curriculum contained the following six threads:

1) Practice Foundations
2) Person-Occupation-Environment Interaction and Performance Across the Life-Span
3) Health Care Delivery Systems and Population-Focused Services
4) Practice-Scholarship
5) Community Engaged Learning, Fieldwork Education, and Doctoral Capstone Experience
6) Servant Leadership, Specialty Roles, and Functions

Curriculum thread five was composed of learning experiences in which students engaged in the application of didactic learning in real-life settings with clients from diverse backgrounds. This was considered the "doing" aspect of the program. Students who pursued an entry-level master's degree engaged in learning across each of the six threads with the exception of the Doctoral Capstone Experience. Only students who earned the entry-level doctoral degree completed this in-depth learning experience.

Faculty and Staff

Bluff's occupational therapy faculty and staff included 13 individuals. The curriculum was delivered by 11 faculty, 10 of whom had doctoral degrees. Two administrative assistants were in charge of overall program management with day-to-day tasks that included tracking program outcomes for accreditation, managing student clearances for clinical experiences, and regularly assisting faculty with any needed administrative tasks.

Faculty members taught courses that aligned with their area(s) of expertise, such as pediatrics, adult rehabilitation, psychosocial, and healthcare administration. Some faculty taught across the curriculum, from undergraduate through to the doctoral phase of the curriculum, while others taught only across one or two years of the program. However, all had involvement in the doctoral phase of the curriculum. At some point, all faculty had served as Capstone Chairs and/or capstone committee members for doctoral students based on their workload and their area(s) of expertise.

Occupational Therapy Students

Arguably the most important stakeholders were the occupational therapy doctoral students themselves. Admission to the occupational therapy program was highly competitive, and students must have had a minimum quality point average (QPA) of at least a 3.0, a composite math and verbal scholastic assessment test (SAT) score of at least 1,170, or a composite American College Testing (ACT) score of at least 24 (admitted freshman usually had test scores higher than the minimum). Students must have had a minimum of seven units of math and science, evidence of extracurricular activity during high school, and knowledge of the occupational therapy profession.

Bluff University's occupational therapy program boasted small class sizes of approximately 30 students. Though the entry-level doctoral degree had been offered since 2016, at the time of this dissertation, the majority of students graduated with their entry-level master's degree. Given the choice to continue their education, only a small portion (two to 10 students each year) had chosen to remain in the program to earn the entry-level doctoral degree. At the time of acceptance into the program, students were typically in their late teens, and the majority were Caucasian females. Therefore, during their doctoral year of the program, students were typically in their early 20s. Many students were local to the Blufftown area. However, others moved from New York, New Jersey, Ohio, and other areas throughout the United States. Rarely, the program had an international student enroll, and at the time of this dissertation, only one international student had earned the entry-level doctoral degree.

In order to continue to the doctoral phase of the program, students had to maintain a cumulative GPA of 3.0 in the math and science courses. They were asked to declare their intent to continue their education beyond the master's degree in their fourth year of the program. This included two written letters of reference and a letter of intent outlining their chosen focus area(s) for the Doctoral Capstone Experience.

Goals of the Study

It was crucial and continues to be crucial, that Capstone Coordinators understand variables that impact occupational therapy doctoral students' performance on the Doctoral Capstone Experience. The goal of the study was to examine several variables that impact students' self-efficacy. In order to better understand this, the study sought to answer the following research questions:

1. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience in a similar setting to that of their Doctoral Capstone Experience site compared to those without (independent variable)?
2. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience with a similar population to the population at their Doctoral Capstone Experience site compared to those without (independent variable)?
3. Is there a significant difference in self-efficacy (dependent variable) between occupational therapy doctoral students who were mentored by an occupational therapist during the Doctoral Capstone Experience versus those who were not (independent variable)?
4. What is the impact of the mentoring relationship (independent variable) on student self-efficacy (dependent variable) while completing the DCE?

A mixed-method study was conducted. Both quantitative and qualitative data contributed to a broad, yet deep understanding of the information obtained. Quantitative data gathered included students' demographics and ratings of their self-efficacy. Qualitative methods were used to gather information regarding the lived experiences of the students while completing the Doctoral Capstone Experience, with a particular focus on their relationship with their Site Mentor.

Sample

Purposeful sampling was utilized in order to target participants who were enrolled in the entry-level occupational therapy doctoral program at Bluff University. Potential participants in

the study were all students enrolled in the entry-level occupational therapy doctoral program. Participants were from the graduating doctoral cohort of 2020. At the time of the study, participants had already completed their Level II Fieldwork experiences, but they had not completed the Doctoral Capstone Experience. The participant pool included seven doctoral students.

Participants were recruited beginning in the summer semester of 2020 in order to have them complete the initial self-efficacy survey prior to the start of the DCE. An email was sent to their university email address from one of two student research apprentices, asking for their participation in the study. Students were asked to complete journals, a requirement already embedded in the DCE course assignments, as well as take the survey of self-efficacy at the start of the DCE, week 3, week 6, week 9, week 12, and during the final week of the DCE. Following completion of the DCE in the fall of 2020, students were sent another email asking them for a follow-up phone interview. These methods will be further described below.

Instrumentation

Quantitative data was collected via an online survey. The survey requesting demographics and information related to their DCE and Site Mentor, as well as four items selected from the *Student Confidence Questionnaire* (Derdall et al., 2002) was administered through Qualtrics®, an online survey software program (Qualtrics®, 2019). An online survey was utilized, as the doctoral curriculum was administered online, and not all students were local for in-person methods of survey distribution.

The demographic section of the survey was loosely based off of a survey previously administered by Andonian (2017) as well as the American Occupational Therapy Association's (AOTA) Fieldwork Data Form (AOTA, 2017a). While the demographic information requested

by Andonian (2017) was relative to students on Level II Fieldwork, this research study targeted students pre- and post- DCE. Therefore, demographic information presented will relate to that experience specifically.

The *Student Confidence Questionnaire* is a survey that asks participants to rate their feelings of confidence in seven areas using a Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") (Derdall et al., 2002). The questionnaire in its entirety has a total of 40 items that are divided into the seven areas of self-efficacy. The areas evaluated include: *Risk Taking, Supervision, Communication, Adaptability, Innovation, Clinical Practice*, and *Professional Competence* (Derdall et al., 2002). Regarding reliability of the questionnaire, Derdall et al. (2002) stated,

> An item analysis which correlated each item with the total score (calculated with that item removed) showed a range from .38 to .86. Analysis of the internal consistency reliability of the 41 items in the Student Confidence Questionnaire indicated that this scale was highly homogeneous, with Cronbach's alpha = .96 (n = 27). (pp. 52-54)

Regarding validity,

> the results of the t-test and the variance of analyses (Table 2) indicated that there were no statistically significant differences among the groups. However, the small sample sizes may have provided little power for the tests to show significance if a difference truly existed. (Derdall et al., 2002, p. 53)

The four items selected for this study were from the areas found to have significant changes for DCE students from pre to post-DCE (Mattila et al., 2019). The survey also asked students to explain why they rated each of the four statements as they did. The purpose of this qualitative data was to better understand the students' reasoning for the ratings.

At the start of the summer semester of 2020, an email with an overview of the purpose of the study and a hyperlink to access the survey was sent to potential participants via their university email address. The survey included the consent to participate (see Appendix B for consent form) followed by the demographic survey and four items from the SCQ. A follow-up email reminding students to complete the survey was sent after one week.

Participants were reminded to complete the four items of the SCQ at regular intervals throughout the DCE. Please see Appendix C for the surveys. Following completion of the DCE in the fall, participants were sent an email with a request for a follow-up phone interview to further investigate their experiences during the DCE. The interview questions asked for information related to their DCE and their relationship with their Site Mentor.

Qualitative information was collected via semi-structured phone interviews. A semi-structured format was chosen to allow participants to share their own thoughts and feelings regarding their Doctoral Capstone Experience. Participants who agreed to participate in the semi-structured phone interview were contacted individually by one of the two student research apprentices via email to set up a time for the interview within two weeks following completion of the last survey. The interviews lasted approximately twenty minutes and were recorded for transcription through Otter Voice Meeting Notes (2019), a transcription service. Please see Appendix D for the interview protocol.

Data Analysis

Data Analysis began after participants completed the first survey (pre-DCE) in the summer of 2020. Data analysis continued into the fall of 2020 when the post-DCE surveys were completed and phone interviews were completed as well. Data analysis concluded in the spring

of 2021 when phone interview data had been completely analyzed. This will be further discussed in Chapter Four.

Demographic information and *Student Confidence Questionnaire* scores were downloaded from Qualtrics®. Research questions one, two, and three were addressed through analysis of quantitative data collected via the initial survey and the four survey items administered at week 3, week 6, week, 9, week 12, and at the conclusion of the DCE. Quantitative data was analyzed through IBM SPSS® Statistics software, version 26. Demographic questions were analyzed using descriptive statistics.

First, the shape of the distribution of self-efficacy scores were examined in order to determine if the data was normally distributed or skewed. In order to answer research questions one, two and three, differences in student self-efficacy (the dependent variable) based on the three different independent variables (previous experience in a setting similar to the DCE setting versus no previous experience in a setting similar to the DCE setting, previous experience with a population similar to the DCE population versus no previous experience with a population similar to the DCE population, and mentorship by an occupational therapist versus not mentored by an occupational therapist) were analyzed through descriptive statistics and a Kruskal-Wallis H test for each research question.

Research question four was addressed through an analysis of qualitative data collected via the post-DCE phone interview and the commentary that students provided to explain their self-efficacy ratings. Qualitative data was analyzed through a process of thematic analysis (Braun & Clarke, 2006). The researcher and two student research apprentices, who were trained in qualitative research methods, immersed themselves in the data, read the transcribed interviews multiple times, generated initial codes, searched for initial themes, and came together to finalize

the themes. Once the researcher and two research apprentices reached consensus, the themes were defined and supporting quotes selected. This process will be further described in Chapter Four.

Participant surveys were de-identified as each participant was assigned a random number for corresponding pre- and post-DCE survey data. The transcriptions of the phone interviews were also assigned corresponding participant numbers. The researcher and research apprentices referred to participants by their number identifiers when they completed the thematic analysis of the interviews.

Table 3.1

Design Alignment Tool (adapted from Kanyongo, 2017)

Research Question	Literature	Instrument	Analysis
1. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience in a similar setting (independent variable) to that of their Doctoral Capstone Experience site compared to those without?	• Andonian, 2017 • AOTA, 2017a • Bandura, 1977 • Derdall et al., 2002	• Demographic Survey • Student Confidence Questionnaire Likert Scale Responses	• Descriptive Statistics • Kruskal Wallis H test
2. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience with a similar population (independent variable) to the population at their Doctoral Capstone Experience site compared to those without?	• Andonian, 2017 • AOTA, 2017a • Bandura, 1977 • Derdall et al., 2002	• Demographic Survey • Student Confidence Questionnaire Likert Scale Responses	• Descriptive Statistics • Kruskal Wallis H test
3. Is there a significant difference in self-efficacy (dependent variable) between occupational therapy doctoral students who were mentored by an occupational therapist during the Doctoral Capstone Experience versus those who were not (independent variable)?	• Andonian, 2017 • AOTA, 2017a • Bandura, 1977 • Baxter-Magolda, 2004 • Derdall et al., 2002 • Zimmerman, 2000	• Demographic Survey • Student Confidence Questionnaire Likert Scale Responses	• Descriptive Statistics • Kruskal Wallis H test
4. What is the impact of the mentoring relationship (independent variable) on student self-efficacy (dependent variable) while completing the DCE?	• Bandura, 1977 • Baxter-Magolda, 2004 • Zimmerman, 2000	• Post-Doctoral Capstone Experience Interview • Student Confidence Questionnaire Likert Scale Responses and Comments	• Descriptive Statistics • Paired Samples t-test • Thematic analysis • Individual case studies

CHAPTER FOUR

DESCRIPTION OF FINDINGS

Research Questions

The researcher designed this study to address the following research questions:

1. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience in a similar setting to that of their Doctoral Capstone Experience site compared to those without (independent variable)?
2. Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience with a similar population to the population at their Doctoral Capstone Experience site compared to those without (independent variable)?
3. Is there a significant difference in self-efficacy (dependent variable) between occupational therapy doctoral students who were mentored by an occupational therapist during the Doctoral Capstone Experience versus those who were not (independent variable)?
4. What is the impact of the mentoring relationship (independent variable) on student self-efficacy (dependent variable) while completing the DCE?

COVID-19

In December 2019, a new coronavirus originated from Wuhan, China. This virus, named COVID-19, spread throughout the world and was considered a global pandemic by March of 2020 (World Health Organization, 2020). For individuals who transmitted the infectious disease, mild to moderate respiratory illness was to be expected. However, for some, it

resulted in serious illness and death (Centers for Disease Control and Prevention [CDC], 2020).

As a result, Bluff University moved to remote instruction in March of 2020. Courses were to be taught virtually, and COVID-19's impact on the summer semester was imminent. The Doctoral Capstone Experience was slated to begin in May. However, as more direction was provided from the CDC it was clear that the original outline of the Doctoral Capstone Experience course would need to change (CDC, 2020).

Each doctoral capstone student was impacted differently. Some students changed their timeline from the original 14-week experience to a delayed or an extended timeline. Some were forced to switch their doctoral capstone site completely, if not once, then several times in order to find a site that was fully open and operational, even if virtual. The impact on each student will be discussed in their individual case studies; however, the author wants to make clear that COVID-19 greatly impacted the participants in this study in ways that could not have been anticipated or avoided. The resultant limitations and implication for future research will be discussed in Chapter Five.

Process

The study was conducted in a manner similar to that described in Chapter Three. Due to the impact of COVID-19, certain aspects of the design were adjusted. A review of the process will be provided, and for clarity, any deviations from the original design will be described.

Purposeful sampling via email was utilized to recruit student participants. In the summer of 2020, an email from a student research apprentice was sent to the seven possible participants explaining the purpose of the study as well as the informed consent procedures (see Appendix B for the consent form). Six of the seven possible students consented to participate in the study.

Prior to the start of the Doctoral Capstone Experience, participants completed a demographic survey. Self-efficacy ratings for the Doctoral Capstone Experience and explanatory comments for the ratings were collected from participants prior to and regularly throughout the DCE. Please see Appendix C for the demographic survey and self-efficacy questionnaire. Not all participants were consistent in completing the self-efficacy questionnaire as scheduled throughout their Doctoral Capstone Experience. Despite regular email reminders, two of the four participants did not provide self-efficacy ratings at various points. This is noted in their individual case studies via Figures 4.1 through 4.6. Internal consistency of the four-item self-efficacy questionnaire based on statistical analysis using IBM SPSS® Statistics Software, version 26 (SPSS®) was .796, indicating that the data was reliable.

All participants rated each of the four statements chosen from the *Student Confidence Questionnaire* prior to the start of the Doctoral Capstone Experience. An average score for all participants fell between 4 ("agree") and 5 ("strongly agree") for each of the four statements. See Table 4.1 for details.

Table 4.1

Mean Self-efficacy Ratings of Participants Pre-DCE

Item Statistics

I am confident that I can:	*M*	*SD*	*N*
Handle challenges presented in this placement.	4.17	.753	6
Seek out information from appropriate resources	4.67	.516	6
Learn from my mistakes during this placement.	4.67	.516	6
Handle considerable autonomy in my work.	4.33	.516	6

The demographic survey was analyzed through descriptive statistics to provide an overview of the 6 participants and their experiences. Upon completion of the DCE, the self-efficacy ratings were analyzed through descriptive statistics and Kruskal-Wallis H tests using SPSS®. Microsoft® Excel for Mac, version 16.43 was used to create charts to display each participant's self-efficacy ratings per statement across the 14-week DCE. See Figures 4.1 through 4.6 for details.

In addition, following the completion of the DCE and submission of final grades for the course, participants were interviewed via telephone and recorded for transcription through Otter Voice Meeting Notes (2019). Please see Appendix D for the interview protocol. Interviews were conducted by one of two student research apprentices in order to prevent participant coercion as the author was the students' Capstone Coordinator and primary instructor for the course. The apprentices were trained in qualitative research methods and had practiced interviewing previously graduated doctoral capstone students to become familiar with the interview protocol.

Once all interviews were completed, the author and two student research apprentices met to code the interviews. A general interpretive process of close reading was used to analyze the data. The close reading process involved identifying patterns to discover regularities and uncover anomalies (Miles et al., 2014). This involved thematic coding and determination of categories. The three coders took several passes through the interview data and tested the trustworthiness of information. The three coders used emerging themes (Gibbs, 2007) determined through constant comparative analysis to examine the meaning within and across the statements to produce a comprehensive account of the findings. This included selecting quotes supporting the themes identified (Saldana, 2016).

Results

Participant Demographics

The participants were six Caucasian females, ages 22 (n = 3) and 23 (n = 3). Five of the six participants completed their Doctoral Capstone Experiences in non-traditional, role-emerging settings and were not mentored by an occupational therapist. One participant completed her DCE in a traditional setting and was mentored by an occupational therapist. Of the six, only one participant stated that she had neither previous experience in a setting similar to her DCE setting nor previous experience with a similar population. The other five participants had previous experience in a similar setting, with a similar population, or both. More details regarding each student's DCE site are provided in Table. 4.2.

Table 4.2

DCE Site Information

Participant	Site	Traditional vs. Non-traditional	Site Mentor Background
P1	Day program for adults with intellectual and developmental disabilities	Non-traditional	Social work
P2	Non-profit organization advocating for healthcare access for minority populations	Non-traditional	Clergy member
P3	Psychosocial clubhouse for adults	Non-traditional	M.Ed.
P4	Residential transitional housing for adults recovering from substance abuse	Non-traditional	Case manager
P5	University inclusive education program	Non-traditional	Ed.D.
P6	Preschool for typical, neurotypical and children with intellectual and developmental disabilities	Traditional	OT

Research Question 1

The first research question was, "*Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience in a similar setting to that of their Doctoral Capstone Experience site compared to those without (independent variable)?*" Because the independent variable consisted of two independent categorical groups (students with and students without experience in a setting similar to their DCE setting) and the dependent variable was ordinal (a Likert scale response), the author performed a Kruskal-Wallis H test. A Kruskal-Wallis H test does not assume that data is normally distributed. This test can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable (Cronk, 2018). See Table 4.3 for details.

Table 4.3

Self-efficacy Based on Experience with a Similar Setting

Kruskal-Wallis H Test Statistics

	Pre-DCE	Post-DCE
H	.202	1.000
df	1	1
p	.653	.317

There were no significant findings (H(1) = .202, p = .653) for the pre-DCE self-efficacy ratings across the two groups of participants: those with experience in a setting similar to their DCE setting and those without experience in a setting similar to their DCE setting. There were no significant findings (H(2) = 1.000, p = .317) for the post-DCE self-efficacy ratings across the two groups of participants: those with experience in a setting similar to their DCE setting and those without experience in a setting similar to their DCE setting. Both values are greater

than 0.05. It appears that previous experience in a setting similar to the DCE setting does not significantly impact student self-efficacy for the DCE.

Research Question 2

The second research question was, *"Is there a significant difference in self-efficacy (dependent variable) for the Doctoral Capstone Experience of occupational therapy doctoral students with previous experience with a similar population to the population at their Doctoral Capstone Experience site compared to those without (independent variable)?"* Because the independent variable consisted of two independent categorical groups (students with and students without experience with a population similar to their DCE population) and the dependent variable was ordinal (a Likert scale response), the author performed a Kruskal-Wallis H test. See Table 4.4 for details.

Table 4.4

Self-efficacy Based on Experience with a Similar Population

Kruskal-Wallis H Test Statistics:

	Pre-DCE	Post-DCE
H	.000	2.000
df	1	1
p	1.000	.157

There were no significant findings (H(1) = .000, p = 1.000) for the pre-DCE self-efficacy ratings across the two groups of participants: those with experience with a population similar to their DCE population and those without experience with a population similar to their DCE population. There were no significant findings (H(2) = 2.000, p = .157) for the post-DCE self-efficacy ratings across the two groups of participants: those with experience with a population similar to their DCE population and those without experience with a population similar to their

DCE population. Both values are greater than 0.05. Similar to setting, it appears that previous experience with a population similar to the DCE population does not significantly impact student self-efficacy for the DCE.

Research Question 3

The third research question was, *"Is there a significant difference in self-efficacy (dependent variable) between occupational therapy doctoral students who were mentored by an occupational therapist during the Doctoral Capstone Experience versus those who were not (independent variable)?"* Because the independent variable consisted of two independent categorical groups (students mentored by an occupational therapist and students mentored by a non-occupational therapist) and the dependent variable was ordinal (a Likert scale response), the author performed a Kruskal-Wallis H test. See Table 4.5 for details.

Table 4.5

Self-efficacy Based on Mentor's Profession

Kruskal-Wallis H Test Statistics

	Pre-DCE	Post-DCE
H	2.273	.200
df	1	1
p	.132	.655

There were no significant findings (H(1) = 2.273, p = .132) for the pre-DCE self-efficacy ratings across the two groups of participants: those mentored by an occupational therapist and those not mentored by an occupational therapist. There were no significant findings (H(2) = .200, p = .655) for the post-DCE self-efficacy ratings across the two groups of participants: those mentored by an occupational therapist and those not mentored by an occupational therapist. Both values are greater than 0.05. It appears that mentorship by an occupational

therapist versus a non-occupational therapist has little impact on student self-efficacy for the DCE.

Research Question 4

The fourth research question was, *"What is the impact of the mentoring relationship (independent variable) on student self-efficacy (dependent variable) while completing the DCE?"* This question was answered and described in the following ways:

1) through descriptive statistics,
2) through a paired samples t-test,
3) through a detailed case study of each participants' description of their experience of the mentoring relationship during their Doctoral Capstone Experience, and
4) through overall themes that emerged from the interviews.

Descriptive Statistics

Table 4.6

Pre-DCE Self-efficacy Across All Participants

Descriptive Statistics					
I am confident that I can:	*N*	*Min*	*Max*	*M*	*SD*
Handle challenges presented in this placement.	6	3	5	4.17	.753
Seek out information from appropriate resources.	6	4	5	4.67	.516
Learn from my mistakes during this placement.	6	4	5	4.67	.516
Handle considerable autonomy in my work.	6	4	5	4.33	.516

Table 4.6 depicts descriptive statistics across all groups. The four questions included in the Pre-DCE self-efficacy questionnaire received mean scores ranging from 4.17 (*SD*=0.753) to

4.67 (*SD*=0.516). Specifically, the second and the third questions were attributed the highest mean scores, while the lowest mean scores were attributed to the first question of the questionnaire.

To further describe this data, prior to the start of the Doctoral Capstone Experience, participants rated the statement, "I am confident that I can handle challenges presented at this placement," an average of 4.17 (with 4 representing "agree"), while the statements, "I am confident I can seek out information from appropriate resources" and "I am confident I can learn from my mistakes during this placement," an average of 4.67 (with 5 representing "strongly agree").

Table 4.7

Post-DCE Self-efficacy Across All Participants

Descriptive Statistics					
I am confident that I can:	*N*	*Min*	*Max*	*M*	*SD*
Handle challenges presented in this placement.	6	5	5	5.00	.000
Seek out information from appropriate resources.	6	5	5	5.00	.000
Learn from my mistakes during this placement.	6	5	5	5.00	.000
Handle considerable autonomy in my work.	6	4	5	4.83	.408

Table 4.7 depicts descriptive statistics across all groups. The four questions included in the Post-DCE self-efficacy questionnaire received high mean scores. All respondents answered 5 ("strongly agree") on the first three questions; therefore, there was no variability (*SD*=0.000). The fourth question was attributed the mean score of 4.83 (*SD*=0.408).

To further describe this data, after conclusion of the Doctoral Capstone Experience, participants rated the initially lowest rated statement, "I am confident that I can handle challenges presented at this placement" an average of 5 ("strongly agree"), and also rated the statements, "I am confident I can seek out information from appropriate resources" and "I am confident I can learn from my mistakes during this placement" an average of 5 ("strongly agree"). The only statement rated lower was, "I am confident I can learn from my mistakes during this placement" with an average of 4.83.

Paired Samples T-Test

Table 4.8

Change in Self-efficacy for All Participants

Paired Samples T-Test

	M	*N*	*SD*	*SE*
Pre-DCE	4.4583	6	.45871	.18727
Post-DCE	4.9583	6	.10206	.04167

Paired Samples Correlations

	N	*r*	*p*
Pre-DCE & Post-DCE	6	.222	.672

Paired Samples Test

	M	*SD*	*SE*	*t*	*df*	*p*
Pre-DCE – Post-DCE	-.50000	.44721	.18257	-2.739	5	.041*

*p<.05

Table 4.8 depicts a paired samples t-test. The test demonstrates that there was a significant change in self-efficacy, $t(5) = -2.74$, $p < .05$. Since the p value was less than .05, it

shows that there was a significant change in self-efficacy from pre- to post- DCE. While the change from pre-DCE (M = 4.46) to post-DCE (M = 4.96) does not appear to be a large difference, it is noteworthy that this is indeed a significant change. This means that despite variables (previous experiences and mentorship of the participants), participants' self-efficacy increased significantly from pre- to post- DCE.

Case Studies

Each participant's Doctoral Capstone Experience was unique, and the impact of the COVID-19 pandemic varied for each as well. Therefore, research question four, "*What is the impact of the mentoring relationship (independent variable) on student self-efficacy (dependent variable) while completing the DCE?"* was more thoroughly explored through individual case studies. Each case study includes a visual depiction of the participant's self-efficacy ratings across the Doctoral Capstone Experience, a brief description of their demographic survey as it relates to the DCE, and a narrative detailing the participant's phone interviews regarding their DCE and their relationship with their Site Mentor.

Participant 1.

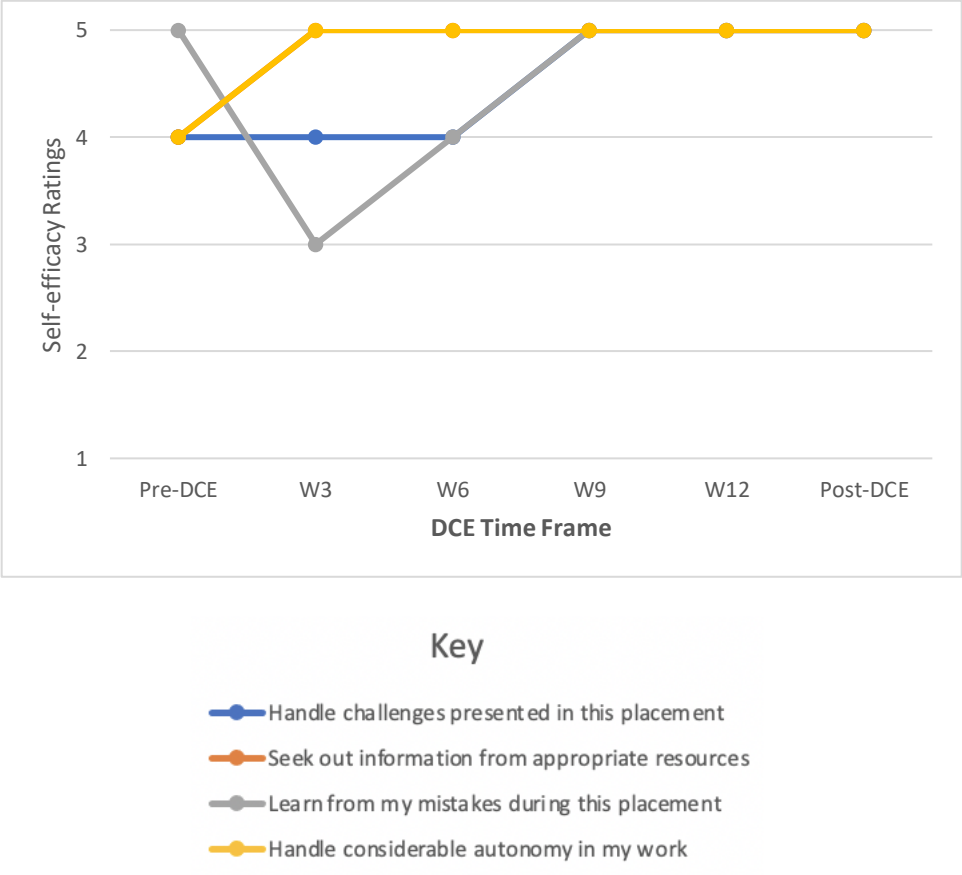
Participant 1 (P1) was a 22-year-old Caucasian female who completed her Doctoral Capstone Experience in a non-traditional, role-emerging community setting. The setting was an adult day program for individuals with intellectual and developmental disabilities (IDD). The student had previous experience in a different setting working with adults with IDD. Her Site Mentor was not an occupational therapist and had a background in social work.

P1's self-efficacy ratings (depicted in Figure 4.1) increased across the Doctoral Capstone Experience, with the exception of week 3, during which she rated the statement, "I am confident that I can learn from my mistakes during this placement" as a 3 ("neither agree nor disagree").

She provided the following explanation: "*For now, I am unsure the impact of learning from my mistakes as I am working online. Therefore, I do not have the opportunity to engage in those 'think on your feet' interactions with clients and staff."*

Figure 4.1

P1's Self-efficacy Ratings Across the DCE



P1 Interview.

P1's original DCE site cancelled her placement due to COVID-19. Within two weeks of the start of the DCE, she was placed with the adult day program, and was required to begin her

DCE fully online. Five weeks into the experience, she was able to go on-site following all recommended safety precautions. The shift in site and online initiation resulted in reliance on her Site Mentor. She shared,

> *I felt like I was really relying on my Site Mentor; like I talked to her every single day. Because I really had to rely on her to kind of guide me through. Like, say I wanted to work on this one area, well I hadn't even been to the site before, so I had to ask her like who to get in contact with and then she had to like actually connect us. So, in the beginning, I felt like our relationship was very, very direct, and like I was talking to her every day.*

Once on site, the relationship changed; she felt she was able to be more independent. P1 stated,

> *Since I was on site, I knew if I wanted to go talk to somebody, like I knew where to find them, and I could just go myself. I started to create my own relationships and kind of do my own thing, and our relationship, between my Site Mentor and me, turned more into like, we were just meeting once a week for updates.*

During the virtual component of the DCE, P1's communication exchanges with her Site Mentor were primarily through Zoom, a video conference platform (Zoom, 2019). Meetings were at a regular time, once each week, with emails and phone calls as needed in between. Once on site, meetings occurred in person on an as-needed basis.

Critical feedback, while desired by the student, was not readily provided by the Site Mentor. Because the Site Mentor was not an occupational therapist, and the Mentor trusted the student's knowledge of occupational therapy, the Mentor treated the student as a colleague. P1 shared,

I never really got like, constructive feedback in regard to like things to do better. My Site Mentor basically told me from the start, she's like, you know, you're from a different profession than me and from anybody at this site and you're also at a doctoral level, ... so like, you have the skills and the knowledge, we're just kind of here to learn from you.

Due to the shift in sites as a result of COVID-19, as well as the initial five weeks of the student's DCE being virtual, the student shared that she relied more heavily on her professors for direction. P1 reflected,

So, I guess in the beginning, I feel like I had to really kind of rely a little more on the professors, just because of the situation we were in. I didn't really know how to go about it. But then once I got a couple weeks in and I actually got on site, then I was like 100% self-directed.

This is reflected in P1's self-efficacy ratings for Q4, which stated, "I am confident that I can handle considerable autonomy in my work."

P1 felt that her Site Mentor positively impacted her self-confidence. The Site Mentor allowed her to make decisions and shared that she valued her contributions. P1 shared,

She really gave me the chance to do my own thing, find my research…she gave me the opportunity to really kind of grow in that sense, and show what an OT can do…she impacted my self confidence in a good way… So, I was really grateful for this experience. She actually asked me if I could kind of write something up about myself so that she could give that out to other people so that I can work with them. So, I think that really boosted my self confidence that you know, the program I made for my DCE meant something to them. And it has potential to help others, so I think that's probably the biggest thing that impacted my self-confidence.

P1 also shared that a good mentor is a "sounding board" or one who can relate their thoughts and advice to ideas shared by the mentee. P1 stated,

> *It's good to kind of have that balance of the mentor giving you, like, I guess, letting the student kind of guide the way of what they're thinking, and kind of what they want to do and what they think would be good to do. And then, you know, having the actual mentor be more of that sounding board of advice.*

Despite the changes as a result of COVID-19 and some uncertainty at the start of the DCE, P1 felt she experienced this preferred type of mentorship during her Doctoral Capstone Experience.

Participant 2.

Participant 2 (P2) was a 22-year-old Caucasian female who completed her Doctoral Capstone Experience in a non-traditional, role-emerging community setting. The setting was a non-profit organization that advocated for healthcare access for underserved, minority populations. The student had no prior experience in a similar setting or with a similar population prior to her Doctoral Capstone Experience. Her Site Mentor was not an occupational therapist and had a background as a clergy member.

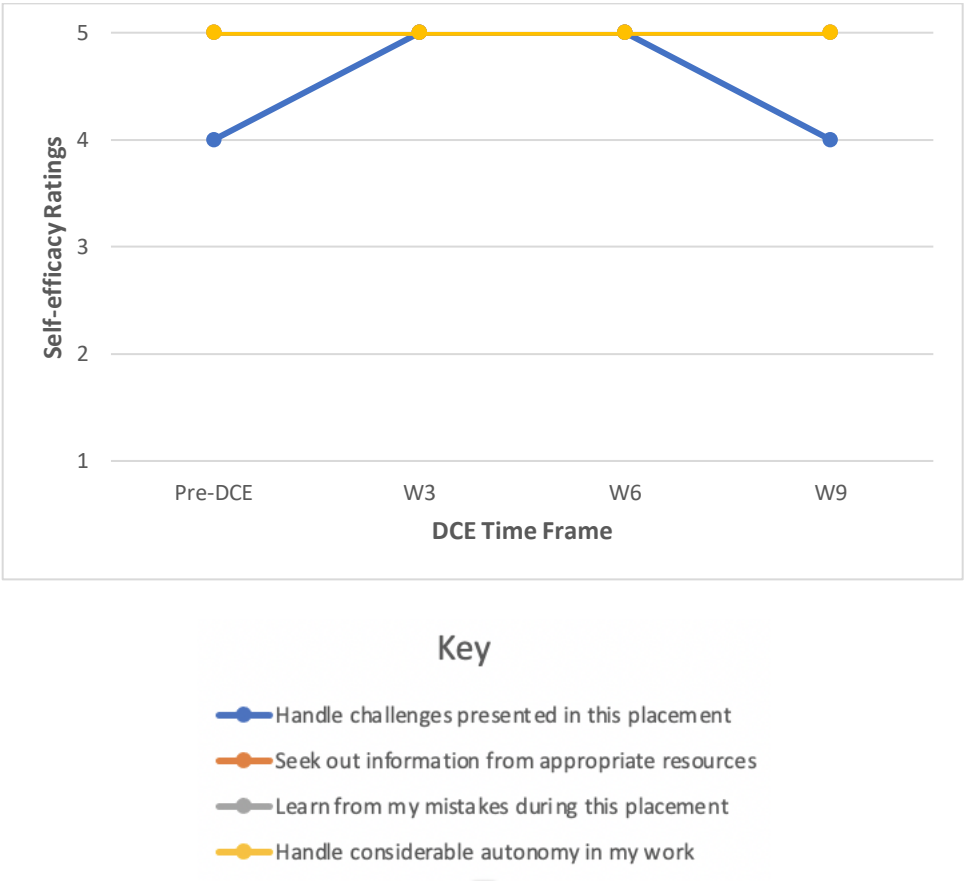
P2's self-efficacy ratings are depicted in Figure 4.2. P2's self-efficacy increased or remained the same, with the exception of one: "I am confident that I can handle challenges presented in the placement" was rated as a 4 ("somewhat agree") during week 9. The student explained,

> *In the past few weeks, I've learned of some deeper-rooted issues within the organization that are definitely out of my control. So, I do think that I can handle challenges presented, however there are some that are above my head and I am learning how to adjust.*

This student was referring to issues within the organization and with her Site Mentor that will be further discussed based on her post-DCE interview.

Figure 4.2

P2's Self-efficacy Ratings Across the DCE



P2 Interview.

P2 completed the Doctoral Capstone Experience at the original site intended. She also completed the DCE during the original timeframe. The changes that occurred due to COVID-19 restrictions were that the student completed her DCE virtually, from home. Meetings with her Site Mentor and all experiences engaged in, including capstone project completion, were done so virtually.

P2 described her relationship with her Site Mentor as "tricky." The relationship changed over the course of the DCE. Initially, she described her Site Mentor as,

> *...very supportive, very encouraging and very complimentary of my clinical skills, not to mention like my public speaking skills and my research skills, and that was like I said in the beginning. As time went on, I became more independent.*

Around the midterm timeframe, she noticed a difference in her interactions with her Site Mentor. It is important to note that this is when her self-efficacy rating decreased, as previously discussed. P2 shared,

> *She was my mentor the entire time technically, but she really didn't display the roles and responsibilities of a mentor. She was kind of just like a supervisor, like she would check in with me like every week or so and usually a mentor is supposed to like multiple times a day, you know, contact you and say, 'Hey, do you need help with this... Here's some, you know, constructive criticism regarding this.' She really didn't do that. So, on the bright side, I learned independence.*

Communication with her Site Mentor also varied. At the start, daily communication via email or text and a weekly phone call was the norm. However, during the second half of the DCE, P2 shared,

> *... it turned into like one email a week, or like one or two texts a week and she very frequently disregarded my calls. She actually forgot about our calls a couple of weeks. So, yeah, going with the independence aspect here. Yes, communication was great in the beginning, but after that unfortunately it kind of died down.*

P2 shared that due to lack of communication and specific feedback from her Site Mentor, she relied more heavily on faculty within the occupational therapy department for feedback.

"This experience taught me how to seek feedback, so I think I got really good at that during this and not only seeking feedback from my Site Mentor, but mainly seeking feedback from my capstone team and my professors."

While her Site Mentor was less collaborative during the second half of the DCE, P2 shared that she did feel that her experience with her Site Mentor positively impacted her self-confidence, though not as a result of role modeling or verbal persuasion. She said,

> *I think she helped me discover confidence in parts of myself that I didn't know I had. So, I mean, first and foremost, my confidence in turning a bad situation into a positive one. Also, my confidence in seeking feedback when you know it's not given to me, or you know, there could be a little more detail involved.*

P2 shared that she did seek feedback from other members of her Capstone Committee, and those individuals *"stepped in and took over the responsibilities that my Site Mentor kind of ignored or gave up."*

P2 shared several traits that she believed a good mentor should have. Regarding communication, P2 shared that a good mentor should demonstrate the following,

> *...open and facilitative interpersonal communication. Communication is key when it comes to this kind of relationship. And if you as a mentor aren't providing, you know, X, Y, and Z to your mentee, then they're going to suffer. And that's something that I first handedly experienced.*

P2 also identified the ability to role model as another trait of a good mentor. P2 stated,

> *I think as a mentee, you have their leadership style and their personality and their characteristics kind of ingrained in you during the process. And a lot of that is what your*

decisions as a mentee depend on. So, I think, you know, the idea of leading by example and just being a good role model in that position.

Last, P2 shared that it is important for the mentor to have the desire to be a mentor. She stated, *"Then, I guess, also just the want to be a mentor, like the desire to be a mentor and the desire to positively impact and influence a student."* Unfortunately, it appeared that P2 did not experience this type of mentorship during her Doctoral Capstone Experience.

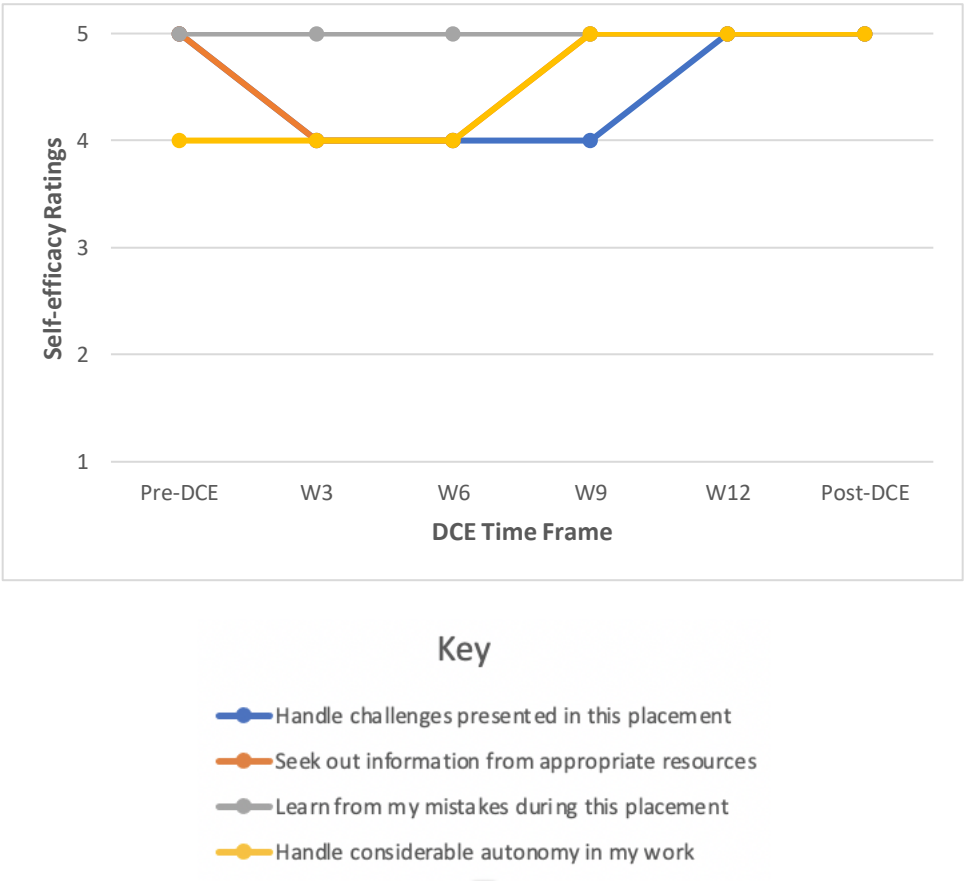
Participant 3.

Participant 3 (P3) was a 23-year-old Caucasian female who had originally intended to complete her DCE in Ecuador, in a hospital system serving minority populations. However, due to travel restrictions as a result of COVID-19, she completed her Doctoral Capstone Experience locally, in a non-traditional, role-emerging setting. The setting was a community psychosocial clubhouse for adults. The student had previous experience in the same setting and with the same population during her coursework. Her Site Mentor was not an occupational therapist; he had a master's degree in education and was a Certified Psychiatric Rehabilitation Practitioner.

P3's self-efficacy ratings are depicted in Figure 4.3. P3's self-efficacy ratings remained the same or increased with the exception of one: in week 3, the student rated the statement, "I am confident that I can seek out information from appropriate resources" as a 4 ("agree") rather than a 5 ("strongly agree"). She commented, "*Staff have shared with me some resources I can use to seek information, but I am trying to find more as I learn more about the clubhouse."* She later rated this item as a 5 ("strongly agree") in the remaining weeks.

Figure 4.3

P3's Self-efficacy Ratings Across the DCE



P3 Interview.

P3 shared that she experienced autonomy but also received regular feedback and communication from her Site Mentor. *"Even though he gave me a lot of autonomy and independence, we would basically touch base almost every day, in terms of what I was doing and how things were going. And he gives me feedback pretty consistently."*

Communication occurred face-to-face daily, and during the two weeks when the site had to operate virtually due to COVID-19, communication occurred regularly through email. P3 did not need much support from faculty. *"My mentor was so involved and was on site and communicating with me so consistently that I didn't really need their support quite as much."*

P3's Site Mentor gave her opportunities to make decisions. She shared,

> *As soon as I got there, he was pretty clear on like, you know, 'I trust that you're going to do what's right and what's best for the clients here', so he basically gave me the ability to make choices pretty early on.*

This verbal persuasion from her Site Mentor positively impacted her self-confidence to make decisions to positively impact the clients. Similarly, her Mentor persuaded her that she had the abilities to successfully run groups. *"I mentioned to him during my final evaluation how far I saw myself grow in confidence over the 15 weeks I was there. He trusted me to run groups, and I started to believe in myself more."*

P3 shared that, to her, a good mentor is one who is available, open, and genuinely interested in the student's project. She stated,

> *So, I think from my experience the most important thing for me was, I heard that other people's mentors were like non-existent, so I was happy I was able to see mine every day, face to face. And even if he was busy, he always would say, 'If you need anything shoot me an email or knock on my door.' So just being open was one of the most important things. And just like him being interested in what I was doing. Also, good communication skills and being trustworthy.*

It is clear that P3 experienced this type of open communication and genuine interest in her growth from her Site Mentor during her DCE.

Participant 4.

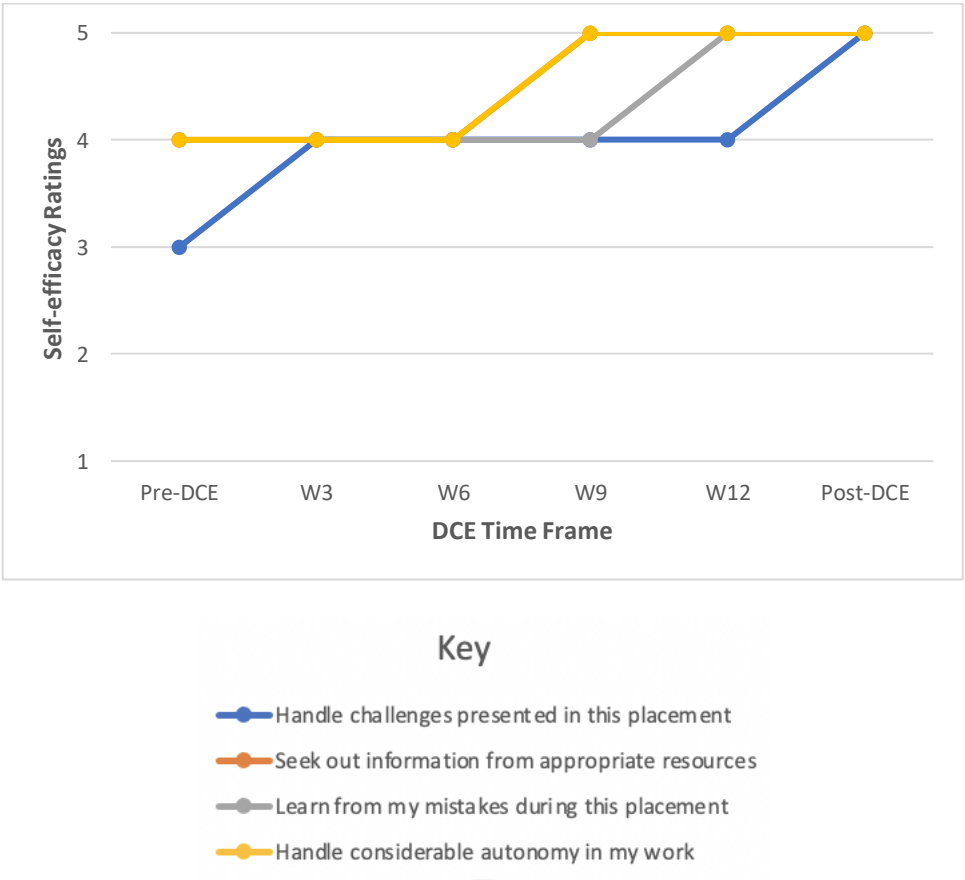
Participant 4 (P4) was a 22-year-old Caucasian female who completed her Doctoral Capstone Experience in a non-traditional, role-emerging setting. The setting was a residential transitional housing program for adults recovering from substance abuse. The student had some

previous experience with adults with substance abuse but not in a similar setting prior to the Doctoral Capstone Experience. Her Site Mentor was not an occupational therapist but was a case manager.

P4's self-efficacy ratings are depicted in Figure 4.4. P4's self-efficacy increased across the Doctoral Capstone Experience. The lowest rated statement occurred prior to the DCE, "I am confident that I can handle challenges presented in this placement;" she rated this statement as a 3 ("neither agree nor disagree"). This may have been due to a shift in the community organization that she had originally planned to work with due to COVID-19.

Figure 4.4

P4's Self-efficacy Ratings Across the DCE



P4 Interview.

P4 was originally placed at another community site for her DCE, one with a different population. She decided to delay the start of her DCE, in hopes that restrictions from COVID-19 would be waived, and she could then participate on-site. She shared,

> *I waited a little longer, and I was able to go on site full time… And I'm glad that I was able to go on site and learn that way because I'm a very hands-on observation-based person. So, I think that that really helped me.*

P4 shared that her Site Mentor was very accessible during her DCE. They shared a workspace and were able to meet face-to-face often. Yet she felt she had a good deal of autonomy. This particular Site Mentor had mentored an occupational therapy doctoral student from Bluff University the year prior. P4 shared, *"He was familiar with the process of supervising a student. So, he really gave me a lot of autonomy in what I was able to do."*

Communication between P4 and her Site Mentor was informal and as needed. *"We didn't have a lot of scheduled meetings just because we shared an office space…"* When P4 asked for feedback, rather than providing supervision and direction, he provided guidance and advice based on his experiences.

Because her Site Mentor was not an occupational therapist, P4 also received mentorship from her Capstone Chair. She stated,

> *I think that with COVID, and all the confusion and just uncertainty that our DCE had in general, it was really important for me to stay in pretty consistent communication with him at least once a week. We would either email or check in through Zoom, just to make sure that I was doing everything I needed to do, understanding the process, and just kind of making sure I was on track and felt confident in what I was doing.*

P4's Site Mentor allowed her to make decisions and overcome challenges related to her program implementation. Because he was not an occupational therapist, she felt he trusted her to make clinical, evidence-based decisions. She shared,

> *I don't think he necessarily thought that he would be an expert in that topic, just because he doesn't know much about OT, so he kind of let me take the reins, and do my own thing in that way.*

Her self-confidence was positively influenced by verbal persuasion from her Site Mentor, who acknowledged her efforts to increase her ability to build rapport and professional boundaries with the clients during her midterm evaluation. P4 stated,

> *And so, he noticed that, and it was nice that he kind of acknowledged it and said, 'Hey, she's doing this, she's like, stepping up.' And so that gave me a little bit more confidence in working with the clients later on.*

Not only did the student receive verbal persuasion from her Mentor, but she successfully mastered the task at hand, two very powerful combinations of efficacy sources.

When asked what a good mentoring relationship looks like, P4 shared that it is one that is reciprocal. She stated,

> *I think that open communication and effort on both sides are super important. So, in terms of communication, making sure that you have the opportunity to communicate with your mentor, regularly on as regular basis as you feel you need it.*

P4 felt that she had experienced that type of reciprocal communication and effort to communicate through her relationship with her Site Mentor during her DCE.

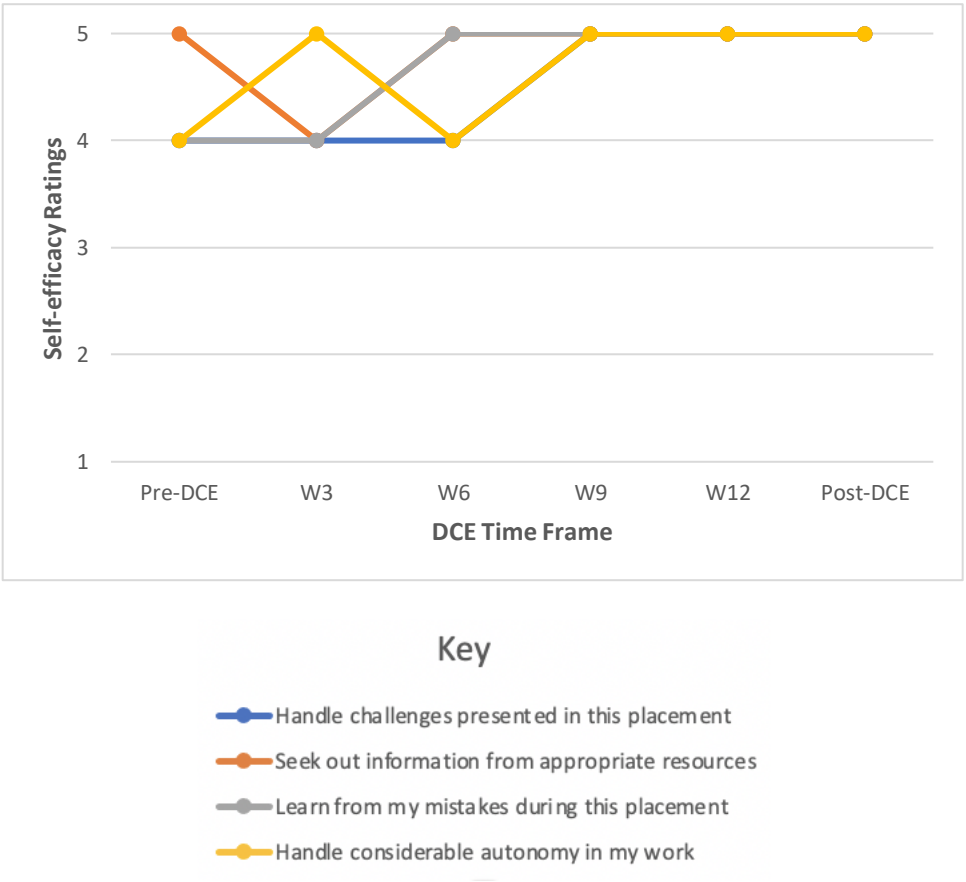
Participant 5.

Participant 5 (P5) was a 23-year-old Caucasian female who completed her Doctoral Capstone Experience in a non-traditional, role-emerging setting. The setting was a university with an inclusive education program for young adults with IDD. The student was familiar with the university, being a student there herself, but had not previously worked with individuals with IDD. Her Site Mentor was not an occupational therapist and had a doctoral degree in education. Her project involved educating faculty at the university on the principles of Universal Design for Learning.

P5's self-efficacy ratings are depicted in Figure 4.5. P5's self-efficacy varied during the first six weeks of the Doctoral Capstone Experience but were consistently rated as a 5 ("strongly agree") from weeks 9 through the end of the DCE. During week 3, her self-efficacy rating for the statement, "I am confident that I can seek out information from appropriate resources" decreased. However, her explanation did not appear to indicate any definable issues. She wrote, *"I have been independent with seeking out resources, ordering books and finding my own podcasts, videos, webinars and literature to support my learning in building faculty education modules."* During week 6, her self-efficacy rating for "I am confident that I can handle considerable autonomy in my work" decreased. Yet again, the explanation she provided was ambiguous. *"I have been able to choose how I spend and manage my time."*

Figure 4.5

P5's Self-efficacy Ratings Across the DCE



P5 Interview.

P5's DCE site did not change as a result of COVID-19; however, interactions with her Site Mentor were virtual. She shared,

> *But we had communications via email, and we set up weekly check in meetings over Zoom. So that was good. The communication part was definitely hard. And I feel like we would have had a better relationship if we were in person.*

P5 further explained that there were weeks when she and her Site Mentor were unable to meet when "things came up."

P5 shared that she received more helpful feedback from staff in the Center for Teaching Excellence (CTE) at the university rather than from her Site Mentor. She stated,

> *The members who are a part of the CTE staff were very helpful. And I actually received a lot of feedback from them, which I found really beneficial rather than my Site Mentor, because they are experts in designing and presenting trainings for faculty.*

P5 emphasized that she was very self-directed during her DCE, creating materials for her project and seeking feedback only as needed. She also shared that when there were lulls in communication with her Mentor, she took on new projects of her own accord. She explained,

> *Um, there were weeks where I wasn't able to get in contact with her as frequently. But I was still doing the full-time work during the week, so I kind of had to make my own decisions on how I would be spending my time when, you know, she is doing other tasks related to her job. So, an example would be reaching out to other OTs and who had experience with Universal Design for Learning. That was something that I decided to do on my own.*

P5 felt that her relationship with her Site Mentor positively influenced her self-confidence, even if indirectly. The lack of communication required her to be self-directed, which upon reflection, was a good thing. She shared,

> *So, I think being put in hard situations where I had to completely manage my own time and be independent and kind of initiate new projects and ideas… Looking back on it, I think my confidence has increased a lot with just being more comfortable in reaching out to people that I didn't know, or seeking feedback, because I was put in a position where I really had to self-direct my own experiences.*

P5 really focused on communication throughout her interview. She highlighted issues in communicating with her Site Mentor and her self-initiated communication with other individuals with expertise in her area. P5 shared that "*communication is key*" when it comes to mentorship.

Participant 6.

Participant 6 was a 23-year-old Caucasian female who completed her Doctoral Capstone Experience in a traditional setting. The setting was an inclusive preschool for children considered typical, neurotypical, or who had Intellectual and Developmental Disabilities (IDD). The student had previous experience working with preschoolers with IDD but not in this particular setting. Her Site Mentor was an occupational therapist. It was later revealed in the interview that P6 knew her Site Mentor prior to their collaboration during the DCE.

P6's self-efficacy ratings are depicted in Figure 4.6. P6's self-efficacy ratings were quite variable. During week 3, P6 rated the statement, "I am confident that I can handle considerable autonomy in my work" as a 3 ("neither agree nor disagree"). She commented, "*I feel like I am still quite reliant on [capstone chair] in creating the workshops*." During week 6, she rated the statement, "I am confident that I can seek out information from appropriate resources" as a 4 ("agree"). She stated,

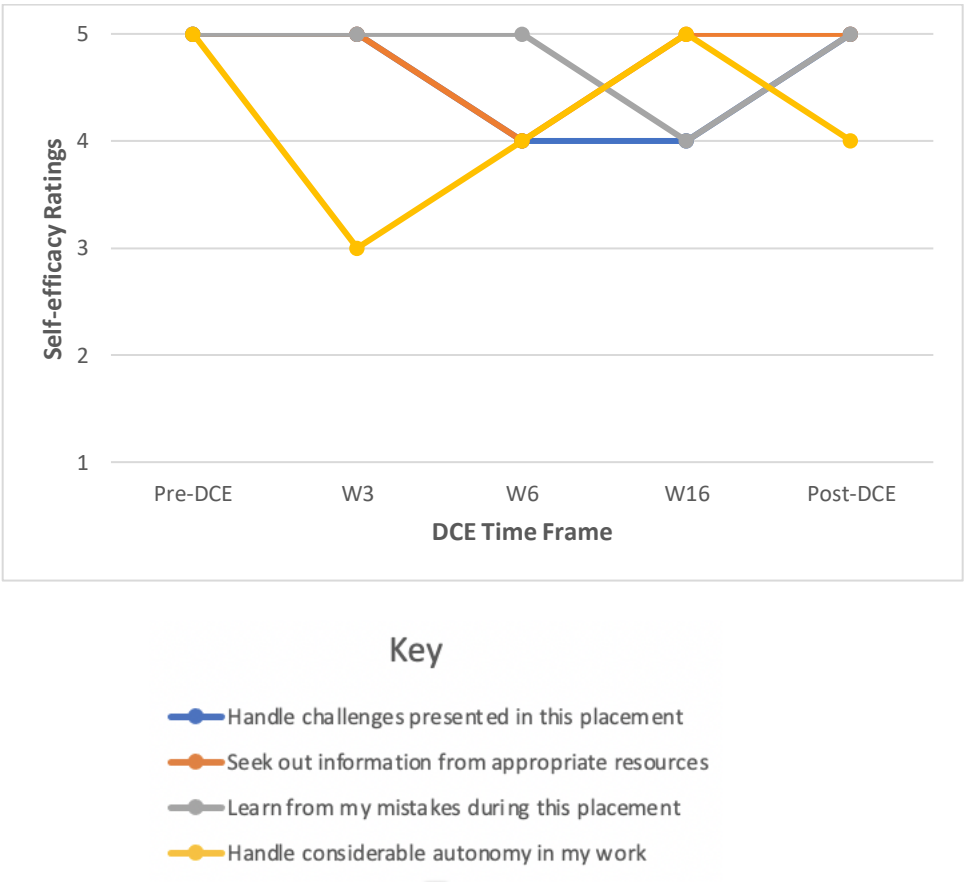
> *I am consistently faced with challenges at this DCE placement, both due to COVID-19 and from my Site Mentor. However, I continue to pursue this placement although I face many challenges. Though I face these challenges I still find resources and people to talk to to [sic] solve them.*

During week 16, P6 rated the statement, "I am confident that I can learn from my mistakes during this placement" as a 4 ("agree"). She commented, *"I have not had much time on site, but I have learned from what I have done so far in my capstone project and off-site work."* Finally, at

the completion of the DCE, P6 rated the statement, "I am confident that I can handle considerable autonomy in my work" as a 4 ("agree"). She commented, *"As my DCE has progressed I have become more autonomous in my work although I still require some guidance in some areas. Particularly from my capstone chair in writing up my manuscript."*

Figure 4.6

P6's Self-efficacy Ratings Across the DCE



P6 Interview.

At the start of the DCE, P6 was not allowed on site at the school due to COVID-19. P6 not only decided to delay the start of her DCE, but she also decided to extend it in hopes that she might be able to spend some time on site, if restrictions loosened. As a result, she was only on site for the final four weeks of her DCE.

When asked to describe communications with her Site Mentor, P6 spoke of communication platforms, but then spoke more of the challenges faced due to the pandemic and unexpected changes. She said,

> *We communicated through text messages, email, and the occasional Zoom meeting when necessary. The communication style we had, um, it was a bit difficult at the beginning, especially when the pandemic first hit, because I had to completely change what my idea was for my capstone project. I had planned to go on site and work, you know, directly with the preschool students, but obviously, that was not feasible anymore.*

During the period when she was unable to be on site, P6 received a lot of feedback and guidance from her faculty Capstone Chair. She shared,

> *She [Capstone Chair] provided more of the guidance for me than my Site Mentor did. But when I did get on site for that month, I did interact with my Site Mentor, obviously, much more, and she did provide much more, you know, guidance for me. And she was able to see me practicing and see me working with the preschool students, and she was able to provide me tips and provide me with different resources that would be helpful for me in the future. So, um, yeah, it was definitely an interesting experience because of the pandemic.*

P6 shared that she was *"harder on myself than I should be."* She shared that she rated herself lower on her evaluations than her Site Mentor did. This self-criticism could be what influenced her varying self-efficacy ratings. In addition, her relationship with her Site Mentor was *"not always a great one."* She shared further detail, stating,

> *I think that, especially because of the pandemic, and because of, I was trying to figure out, like I said, a new idea, because I could no longer work directly with the preschool students. Um, I think that my Site Mentor herself was overwhelmed with, you know, the idea as well that we had to come up with a new idea, and I was coming up with ideas and kind of presenting them to her and she was just kind of, like, shutting them down… that hurt my self-confidence.*

The student's Capstone Committee supported her in coming up with new and hopefully feasible project ideas. However, they were often dismissed by her Site Mentor even before the ideas could be fully shared. Yet overcoming the challenges that resulted from COVID-19 restrictions seemed to have increased her self-confidence. She said,

> *And as time went on, I did come up with an idea that did work. And I carried it out successfully. That did help myself confidence and being on site with my Site Mentor and having her see that I am a competent clinician…*

When asked what made a good mentor, P6 shared that a good mentor needs to be supportive. She stated,

> *I don't think she saw me as a doctoral student, I'll say that. Um, and I think that at times, I could feel that, and I could feel that she wasn't taking me as seriously as I wanted it to be. So, I think that as a mentor, you definitely need to establish boundaries. Um, a good mentor needs to be supportive.*

P6 grew from the challenges presented during her DCE, both from COVID-19 and from her relationship with her Site Mentor.

Themes

Each participant had a unique Doctoral Capstone Experience with unexpected challenges presented by COVID-19. The variety of DCE settings and populations as well as the relationship that each participant had with their Site Mentor may appear to be incomparable; however, an analysis of the interviews through coding resulted in several themes surrounding the mentoring relationship.

Each of the themes will be framed according to Bandura's (1977) theory of self-efficacy, as well as other supporting literature. The themes will be discussed and supporting quotes from the interviews included. Following are the themes:

1. Students Experienced Anxiety Resulting from Unexpected Changes
2. Students Craved Constructive and Specific Feedback from their Mentors
3. Students Learned from Collaboration and Role Modeling
4. Students Reflected on Overcoming Challenges for Personal Growth
5. Trust and Support from their Mentors Influenced Efficacy Beliefs
6. Communication, Collaboration, and Caring as Qualities of an Effective Mentor

Theme 1: Students Experienced Anxiety Resulting from Unexpected Changes.

Though students were not directly asked about their physiological states (physical nor emotional) in relation to the impact such states had on their mentoring relationship or on their self-efficacy for specific tasks throughout the DCE, some students shared how emotional states impacted their experience.

P1 had to switch DCE sites one week prior to the start of the experience, due to COVID-19. She shared,

> *I was surprised that, you know, I had such a good experience with everything going on. At first, I didn't even think we were going to be able to do our DCE so… I was supposed to actually be at another site, and they dropped me a week before I was supposed to start, so in March and April I was kind of freaking out.*

P4 also ended up switching her site shortly before the start of the Doctoral Capstone Experience. She used the terms confusion and uncertainty to describe her emotional state. She shared, *"I think that with COVID, and all the confusion and just uncertainty that our DCE had in general, it was really important for me to stay in pretty consistent communication with him [Capstone Chair] at least once a week."*

P6 also felt the strain of the pandemic impacting her original plans. Her feelings of confidence were greatly impacted by this sudden shift in direction and her Site Mentor's response. She shared,

> *Um, I think that, at first, my relationship with my Site Mentor was not always a great one. I think that, especially because of the pandemic, and because of, I was trying to figure out, like I said, a new idea, because I could no longer work directly with the preschool students. Um, I think that my Site Mentor herself was overwhelmed with, you know, the idea as well that we had to come up with a new idea, and I was coming up with ideas and kind of presenting them to her and she was just kind of, like, shutting them down. So, um, and, for my perspective, you know, that hurt my self-confidence because I was spending time coming up with these ideas, and then started doing some research on them to kind of back up my ideas. So, I'm spending time and energy doing some work, and then to have*

the ideas be shut down, and not necessarily to the fault of my Site Mentor, um, but just because it's not feasible for the site, her supervisor wouldn't allow it, things like that. Um, it definitely did hurt my self-confidence a little bit.

Mental and emotional states certainly had an impact on perceived self-efficacy among participants. While this is the weakest source of efficacy beliefs (Bandura, 1977), the findings show that the Doctoral Capstone Experience provides ample opportunity for students to recognize and push off of such psychological states. While they were impacted by feelings of anxiousness, concern, and uncertainty as they initiated the Doctoral Capstone Experience, these feelings changed based on their experiences. As research tells us, even these strong emotions can be changed by so many other factors.

Theme 2: Students Craved Constructive and Specific Feedback from their Mentors.

Students wanted constructive and specific feedback from their Site Mentors. Although feedback is not the same as what Bandura (1977) characterized as verbal persuasion – statements crafted and delivered to convince and persuade a person that they have the capability to perform a task successfully – some parts of feedback do meet that definition. It is also fair to conclude that since students are not familiar with self-efficacy theory and the specific language connected to it, they used the term "feedback" to mean information from their Mentor, some of which was persuasive. For some students, the communication they received from their Mentors enabled them to make improvements and experience growth. Students whose Site Mentors did not provide specific feedback actively sought feedback for themselves.

P1 shared, "*So, in regard to, like, constructive feedback, I never really got much just because, like, she kind of trusted me with whatever I did. So that did kind of bother me just because I love feedback."* It does not appear that this student experienced verbal persuasion from

her Site Mentor as a source for increased self-efficacy since the student indicated that communication was at a minimum in the first place and that she felt on her own. It is fair to conclude therefore that the student did not receive any suggestions for improving or statements that helped to persuade her to take on a new challenge.

Similarly, P2 stated, *"I think this experience in total, taught me how to seek feedback that wasn't already sought after."* She knew that she needed input and feedback to make specific changes to be successful during her DCE. She further explained,

> *The main issue we experienced was, we didn't think she was actually reading what I was sending her. So, her feedback to me, like via text or via email, was something along the lines of, 'You know, looks great.' ... She basically treated me as another intern when in reality, I was trying to carve, you know, a new role for them, for the organization. So, getting back to the feedback she kind of just, you know, sent me the same lines that she did everyone else. So, it wasn't too person centered.*

Verbal persuasion from her Site Mentor was not provided during P2's DCE. Nor were specific criteria for success that are so important for critical self-reflection (Moss & Brookhart, 2019). The statement also contains evidence that the student did not hold the Mentor in high regard. Respect for the person delivering the verbal persuasion is another factor that determines the impact those statements might have (Bandura, 1997)

On the other hand, P4's Site Mentor provided specific, detailed feedback regarding changes she could make to improve. She stated, *"I would say I responded to feedback pretty well. And I tried to integrate it…"*

Similar to P4's experience, P3 was also provided with helpful feedback from her Site Mentor. She shared,

> *My Mentor was so involved and was on site and communicating with me so consistently that I didn't really need their [faculty] support quite as much ... especially when I was proposing my project and after I ran my groups, I would seek him out to talk to him about how it went and how I can improve. And I tried to collaborate more with him and with staff. Once I was like in the thick of my program.*

It is this forward-looking feedback and criteria for success that is an important factor that influences students' efficacy beliefs (C. Moss, personal communication, January 21, 2020). P4 also experienced this forward-looking feedback, which positively impacted her confidence. She shared,

> *I think, yes, he positively influenced my self-confidence, because he knew going into this that I had no experience with this population. And from him being part of this population that I'm working with, I think that he used his own examples in his own life and interaction with clients to kind of give me real world examples of what I'd be experiencing and facing. So, once he gave me an example, I would try to do it with a client. If I came back to him and said, like, hey, this didn't work out too well, what should I do next time, he really gave me skills and tools to utilize next time, which increased my confidence because I kind of had more of an idea of what would be the best route for each client.*

P4's Mentor provided her with examples from his own work. These examples of not only what he did but how he did them gave her a target she could aim for and things to look for in her own approximations of a successful performance. This combination of a specific learning target accompanied by criteria for success allowed her to reflect on her interactions, assess what she did

and how she could improve, and to make improvements to her approach with clients in the future (Moss & Brookhart, 2019).

Theme 3: Students Learned from Collaboration and Role Modeling.

For some students who were on site with their Mentors, collaboration and direct observation of role modeling of behaviors, an impactful source of efficacy beliefs (Bandura, 1977), could occur. Those students were able to learn alongside their Site Mentor, and they constructed meaning from these interactions, in agreement with Baxter-Magolda's (2004) Learning Partnerships Model.

P1 shared that her Site Mentor valued her knowledge of occupational therapy. Her Site Mentor shared with her, "*…you're a doctorate student so like, you have the skills and the knowledge…"* But P1 also recognized that her Site Mentor helped her apply her skills and knowledge in a new context. P1 shared,

> *But I guess like, I did do a lot of presentations for the site through my trainings and my Site Mentor and I were also both on a, like a brainstorm team, because the site was also getting their accreditation. So, in regard to that we were kind of like, colleagues, I guess you could say, on that team. And in that sense, she like would give me feedback on like, oh, like, 'I did this instead of this.' Just because it was more policy things for the site, and she had a better sense of that.*

Being able to work collaboratively with her Site Mentor and share her own knowledge while also learning from her Mentor's expertise was beneficial to P1's efficacy beliefs.

P4 also experienced this role modeling behavior from her Site Mentor, which contributed to her efficacy beliefs. She shared,

So, I usually went to him for advice on how to deal with client conflict, or I struggled a lot with putting up boundaries with clients. So, trying to build our rapport and form relationships, but not kind of feeding into the manipulation that a lot of people with substance use disorder exhibit. So, he used his own experience to kind of guide me through that process and make sure that next time, I was able to put up some more boundaries and kind of limit myself in how vulnerable I was with them … And I tried to integrate it into the next interaction that I had with clients, whatever his advice was.

P4's Site Mentor modeled the behavior that she hoped to master and also provided her with specific examples to help her understand how to be successful. This is a solid example of the power of self-regulation (Zimmerman, 1986) and formative assessment working hand in hand. The Site Mentor provided a specific target, and P4 could therefore aim for it. By giving the student criteria for success, he provided both verbal persuasion (Bandura, 1977) by expressing his faith that she could accomplish these specific behaviors and provided her with things to look for in her future actions so that she could self-assess and self-regulate. The combination of his confidence in her expressed in a feed-forward discussion was important for the student to have in order for her to be able to strive for and hit a particular target (Moss & Brookhart, 2019).

Theme 4: Students Reflected on Overcoming Challenges for Personal Growth.

Bandura's (1977) theory states that mastery experiences are the most impactful source of self-efficacy because an individual can look at a successful performance, recognize the actions that they took to have success, and believe that they can repeat those actions in a similar situation. Each student successfully completed their Doctoral Capstone Experience, but their experiences were so vastly different, as is the nature of a doctoral course with individualized learning objectives, combined with the different contexts of their field sites, and exacerbated by

the challenges of COVID-19. The tasks that each student accomplished and the contexts in which they were completed were shared throughout their interviews. While the participants were asked specifically about their relationship with their Site Mentors, some did reflect on the impact of their overall experience.

P2, who completed her DCE at the original site intended but who did not experience a beneficial mentoring relationship, reflected on her experience and her ability to balance the research required for the DCE. She stated,

> *I think overall it was, it was good. I definitely developed confidence in myself and confidence in my research skills and just my ability to work in a different environment. I think sometimes, at least for my cohort, it was difficult. And of course, COVID, you know, throwing a curveball. So, a lot of students didn't get their first choice or their second or their third or even their fourth choice in sites. But I think it definitely got stressful for a lot of us, balancing the DCE with classes, and with studying for NBCOT [board examination]. The DCE is, in my opinion, almost more intensive than level two fieldwork because it's longer. It's a total of 560 hours, which is more than fieldwork. But also, with fieldwork, you get there, you do your eight-hour shift, you go home, you know, and you can continue on with your life. This not only balancing classes but also just balancing the depth and the amount of research that we had to do was very stressful. It was a great learning experience, but it was a lot.*

P4, who completed her DCE at a different site than originally intended shared,

> *Um, well, for our cohort it was definitely a different experience than a lot of other cohorts, just because of the pandemic and everything going on. But I think that my experience with the DCE was probably the best for me, because I waited a little longer,*

and I was able to go on site full time. So, myself and one other student were the only ones that were able to really do that. And I think that that really solidified this experience for me and gave me the clinical skills that I might not have gotten if I had done, like, a virtual project or done something in a different site that I wasn't as happy about because this was my second site. This wasn't my original placement. So, it took a little bit of adjustment when I first wasn't able to go on my first site, but it ended up being a really great experience. And I'm glad that I was able to go on site and learn that way because I'm a very hands-on observation-based person. So, I think that that really helped me.

P4's reflection speaks to the importance of context impacting one's efficacy beliefs for a specific task. It was not just the physical site that made all the difference for her, but the regular availability of a high-quality model – a professional she respected and saw as knowledgeable – whom she could both observe and learn from (Bandura, 1977). Being on site helped her to learn and develop skills she may not have been able to develop in a virtual setting where high-quality models were not as plentiful.

P5 reflected more on her ability to self-direct her learning. She completed her DCE at the original site intended, but virtually. She stated,

I think over the 14 weeks, I was able to really manage my own time and keep myself organized, and by doing that I was able to learn from being so self-directed. And I think I didn't realize it in the moment but looking back on it, I feel more confident in, in putting myself in in different situations, because I was so self-directed and had to find how to manage my own time.

Being successful in completing her capstone project despite obstacles of lack of communication and direction from her Site Mentor helped her to feel confident in her ability to direct her learning.

While mastery experiences were not the focus of the interview with the participants, parts of their reflections shed light on the importance of task, context, and the mentorship received on their efficacy beliefs. Some students were able to benefit from Mentors who provided role modeling, persuasion, and partnered with them in their learning. Others found other ways to overcome challenges such as by seeking mentorship from other members of their Capstone Committee.

Theme 5: Trust and Support from their Mentors Influenced Efficacy Beliefs.

Participants shared that the trust and validation provided by their Site Mentors or members of their Capstone Committee impacted their self-efficacy for particular tasks and contexts. Students who felt support from their Site Mentor to make decisions and felt they had a certain level of autonomy during their experience spoke of increased confidence and self-directedness. Students who did not feel such validation often sought it elsewhere, whether from their Capstone Chair or from the Capstone Coordinator.

Students shared that the level of trust from their Site Mentors impacted their confidence in their own abilities. Students who felt that their Site Mentor trusted them had a very different experience than those who felt they were not trusted to make decisions. This is in line with Baxter-Magolda's (2007, 2008) literature on self-authored learning, during which the mentor invites the mentee to share their knowledge, validating their "capacity to know."

P3 and P4 felt that their Site Mentors trusted their knowledge of occupational therapy. P3 stated, "*He [Site Mentor] trusted me to run groups, and I started to believe in myself more. I now feel a lot more confident with running groups in general."* P4 shared,

> *He was very hands off... just because I don't think he necessarily thought that he would be an expert in that topic, just because he doesn't know much about OT, so he kind of let me take the reins and do my own thing in that way*.

On the other hand, P5 and P6 felt the opposite. P5, who shared that she benefitted from regular meetings with her Site Mentor stated,

> *There were weeks where I wasn't able to get in contact with her as frequently. But I was still doing the full-time work during the week, so I kind of had to make my own decisions ... Looking back on it [my experience], I feel more confident in putting myself in different situations because I was so self-directed and had to find how to manage my own time.*

Yet P5 also shared that she received beneficial mentorship from Bluff University's Center for Teaching Excellence (CTE).

> *And before each of those, I was able to meet with CTE, for them to listen to my presentation. And the point of those meetings was to receive feedback for the actual presentation with the faculty. So, I was able to receive a lot of feedback regarding creating my activities for faculty to do to make it more meaningful for them, or feedback related to being more specific in the examples that I provided. And then I was able to incorporate that feedback into the actual workshops that I delivered with the faculty. So that was an example of how I receive feedback from not my site mentor, but through CTE, which it was a resource for me on my site, and then how I incorporated it.*

It is clear that when P5 was provided with specific learning targets and understood the criteria she needed to meet to be successful, she was motivated and able to accomplish her goal.

P6, who knew her Site Mentor prior to the DCE, believed her Site Mentor did not trust her abilities at the beginning of the experience. She shared,

> *I grew up here, and I actually know [my mentor] … I don't think she saw me as a doctoral student… It definitely did hurt my self-confidence a little bit. But as I said, it definitely allowed me to grow as a person and allowed me to be more flexible.*

Similar to P5, P6 also received mentorship from someone other than her Site Mentor. She shared that she collaborated with her Capstone Chair regarding her project.

> *And she [Capstone Chair] provided me with excellent guidance. I would, you know, create my PowerPoint presentations, and she would look through them, or I would present them to her, and she would provide me with feedback. So, it's not like I was, you know, asking her to do the whole thing for me or anything. I would ask her for feedback… So, the first one, I asked for much more guidance. And then as I went along, I only asked for guidance on specific sections of the workshop that I thought I needed help on. So, I became more independent as it went along. But, um, I definitely sought more guidance in the educational aspect. Um, in terms of I was...when I was creating the activities for the preschool students, I felt more comfortable in that because it was something that I was more used to, especially with being on fieldwork, that's something you have to be comfortable with coming up with activities for treatment sessions and things like that. So, I felt pretty comfortable with that. Also, I didn't, I didn't need to seek guidance in that regard.*

P6's comments speak to verbal persuasion from her Capstone Chair as a source of efficacy beliefs well as her own previous mastery experiences on fieldwork impacting her belief in her abilities to do similar tasks during the DCE.

It seems that whether students were supported by their Mentors through verbal persuasion or by other members of their Capstone Committee or felt confident in their abilities based on previous similar experiences, these sources of self-efficacy were necessary for students to accomplish their learning targets.

Theme 6: Communication, Collaboration, and Caring as Qualities of an Effective Mentor.

Participants were asked what they believed were qualities of a beneficial mentoring relationship. They reflected on their Doctoral Capstone Experience and the relationship they had with their Site Mentor. Some described the behaviors that they appreciated in their own Site Mentor, while others shared what they had hoped for but had not received during their experience.

One of the most recurrent characteristics mentioned was effective communication. P2 stated,

> *Communication is key when it comes to this kind of relationship. And if you as a mentor aren't providing, you know, x, y, and z to your mentee, then they're going to suffer. And that is something I first handedly experienced.*

P3 shared, *"And even if he was busy, he always would say if you needed anything shoot me an email or knock at my door. So just being open was one of the most important things… Also, good communication skills..."* P4 stated, *"Making sure that you have the opportunity to communicate with your mentor regularly…"* P5 agreed,

So, I think communication and regular feedback, but it just depends on the student. But I know for me having those weekly meetings were very much needed because I wanted that constant feedback and new opportunities for new things to do. So, I think communication is key.

Another characteristic that participants discussed as being beneficial to the mentoring relationship was the mutual nature of the relationship itself. Again, this is in agreement with the Learning Partnerships Model (Baxter-Magolda, 2004). P4 stated,

I think that in order for a mentoring relationship to be beneficial and constructive, I think that open communication and effort on both sides are super important. And in terms of a reciprocal relationship, just making sure they're giving what you want… and I think that my mentor did a really good job…

P5 stated, *"Time to ask questions and receive feedback…"*

Finally, valuing the role of a mentor and recognizing the influence one can make in such a role is key. Students shared that knowing that their Mentor cared about their learning was important and impacted their physiological state. P3 shared, "*So just being open, was one of the most important things. And just like him being interested in what I was doing."* P2 shared,

So, I think, you know, the idea of leading by example and just being a good role model in that position. And then I guess also just the want to be a mentor, like the desire to be a mentor and the desire to positively impact and influence a student.

Consistent and constructive communication, mutual collaboration, valuing the role of a mentor and the mentor's ability to positively influence a mentee are key characteristics highlighted by the participants as qualities of an effective mentor.

Summary of Qualitative and Quantitative Findings

Quantitative

To reiterate the quantitative findings of this dissertation, there were no significant differences in self-efficacy for students who had previous experience in a setting similar to their DCE setting compared to those without, for students who had previous experience with a population similar to the population at their DCE compared to those without, nor for students who were mentored by an occupational therapist compared to those who were not. Yet as a whole, there was a significant change in the mean self-efficacy rating score for participants pre- to post-the DCE. All six participants successfully completed the DCE, overcame challenges presented, and increased their self-efficacy ratings across their experience.

Qualitative

Despite the impact that COVID-19 had on the participants' physiological states, participants expressed the importance of role modeling behaviors and verbal persuasion from their Site Mentors and other members of the Capstone Committee as impacting factors on their self-efficacy. Communication, constructive feedback, as well as the autonomy to make decisions were aspects of the mentoring relationship that helped to build their confidence.

A good mentor was described as one who was open, communicative, and who valued the role of being a mentor. Students who experienced this type of mentorship confirmed that it contributed to their confidence, and students who did not always receive this type of mentorship, from their Mentor utilized other sources of efficacy to overcome such challenges.

The following chapter will discuss these findings as it relates to current literature. Limitations of the study, recommendations for future research, and implications for individuals in the role of Capstone Coordinator will be discussed. This dissertation's contribution to the

field of occupational therapy education will be considered. Last, the author's growth as an educational leader and future research agenda will be shared.

CHAPTER FIVE

RECOMMENDED ACTIONS

Discussion of the Findings

Each of the six participants had unique experiences that impacted their self-efficacy throughout the Doctoral Capstone Experience. Certain variables unexpectedly changed due to COVID-19, such as whether or not students' Doctoral Capstone Experiences were completed at the original site and with the population and Site Mentor intended. Another impacting factor was whether the DCE was completed virtually, in person, or a mixture of the two. Those factors aside, the quantitative data was not significant in regard to the impact of students' previous experiences and the profession of their Site Mentor on their self-efficacy for the DCE. There was, however, was a significant change as a whole in participants' mean self-efficacy across the DCE regardless of these variables.

What follows is a discussion of the researcher's insights based on the findings from the study. The discussion connects those findings to the literature embedded in the study's theoretical framework to offer possible rationales for the findings and investigate the themes that emerged from the six participant interviews regarding the influence of the mentoring relationship participant self-efficacy throughout the Doctoral Capstone Experience.

According to Bandura's (1977) Social Cognitive Theory, performance accomplishments (mastery experiences) are the most influential source to promote strong perceptions of positive self-efficacy for specific tasks in specific contexts. Though the changes in self-efficacy ratings of each participant across the DCE were not supported by the quantitative data as significant, the mean change pre- to post-DCE for all participants was significant. This appears logical, as each of the six participants successfully completed their Doctoral Capstone Experience and at the

completion was able to look back on their successes overall as a mastery experience. Participants overcame challenges that may have included one or more DCE site and population changes due to COVID-19, communication challenges with their Site Mentor, changes to their original DCE timeline, and any challenges unknown to the author. Certainly, overcoming these obstacles and completing their DCE during a world-wide pandemic contributed to their estimations of their own ability to persevere to produce a robust sense of self-efficacy (van Dither et al., 2011).

Similar to Andonian's (2017) fieldwork study, based on participants' ratings, the author found no significant relationship between the participants' self-efficacy and previous experiences with generally similar settings and/or populations to that of the DCE. It could be that the previous experiences, although similar, were still quite different across a variety of specific tasks, contexts, and relationships from that of the Doctoral Capstone Experience. For example, the experiences may not have required participants to self-direct such an experience, implement a capstone project, or be mentored rather than supervised during the experience. Bandura's (1977) Self-efficacy Theory helps to explain the dangerous assumption that general experiences can translate into positive self-efficacy expectations for tasks that have specific differences.

Andonian (2017) explained that occupational therapy educators should cultivate student self-efficacy in order to help them integrate feedback and participate in their Level II Fieldwork supervisory relationship, as students with higher self-efficacy may better be able to view even critical feedback as supportive. This appeared true for doctoral capstone students and their ability to integrate feedback during the DCE. Students shared that they wanted feedback from their mentors in order to grow and make changes. Most found feedback to be helpful and supportive of their success, rather than critical in nature.

In addition, while Andonian (2017) found a positive correlation between a supportive supervisory relationship and higher rates of student self-efficacy, the quantitative data in this study do not necessarily confirm that this is true for the mentorship relationship between the capstone student and their Site Mentor. Students who did not feel supported by their Site Mentor indicated an increase in self-efficacy over time. It may be that students' ratings were not reflective of their true beliefs regarding their abilities, as their verbal descriptions of their experience did appear to indicate that changes in their original site and population due to COVID-19 impacted their self-efficacy for the DCE initially. It is also logical that persuasion from their Mentor in terms of feedback conversations or persuasive statements before a participant tackled a new challenge was not the strongest influence on their development of self-efficacy. Rather, they were able to succeed at challenging tasks in challenging circumstances. At the end, they were able to conclude that it was their decisions and actions that led to their success. In other words, overcoming these challenges added up to a mastery experience, which Bandura (1997) described as the strongest predictor of highly efficacious beliefs.

Another causal explanation comes from Andonian (2013), who found that perceived self-efficacy proved to be a better predictor of behavior toward unfamiliar threats than did past performance. Perhaps students' own perceptions of their abilities allowed them to confidently overcome challenges presented. Another possibility is that the statements that participants were asked to rate were not specific enough to the Doctoral Capstone Experience to accurately reflect their self-efficacy for that particular experience. The four questions used were based on the *Student Confidence Questionnaire* (Derdall et al. 2002), which was developed to measure self-efficacy for fieldwork experiences.

Andonian (2017) found that the meaningfulness of the experience (e.g., providing opportunities for personal growth) was linked with higher rates of self-efficacy. This appears to align with the student's verbal descriptions of the impact that autonomy played on their growth. Believing that they had support and trust from their Site Mentor to make decisions increased students' beliefs that they could overcome challenges. Indeed, students' descriptions of their confidence after successfully overcoming obstacles aligns with Bandura's (1977) notion of performance accomplishments as an impactor of self-efficacy.

Students felt validated when their Site Mentor trusted them and respected their knowledge of occupational therapy. This aligns with Baxter-Magolda's (2004) work regarding self-authored learning. Within the Learning Partnerships Model, Baxter-Magolda (2004) discussed that learners are validated when invited to share their knowledge. Participants shared that their self-confidence was impacted based on whether or not their Site Mentor respected and valued their knowledge of occupational therapy. It is vital that students be able to assert the value of occupational therapy during their Doctoral Capstone Experience.

Zimmerman's (2000) self-regulated learning also came into play when students found that they needed to plan and manage their time, whether due to a lack of communication with their Mentor or of their own accord. It seems that the participants appreciated direction and feedback from their Mentors, but when it was not readily available, they were able to seek out feedback from others and initiate learning opportunities for themselves. "Independence" was used to describe this state of being for participants who felt unsupported.

Despite the unique challenges and relationships that participants experienced during their DCE, all six participants increased their overall self-efficacy rating for the DCE. This is of interest as some participants had supportive Site Mentors while others did not, some had

experience with their setting and/or population, while others did not. This may be due to the fact that all six implemented a capstone project, successfully completed the course, and overcame many challenges. It must be noted that all six did so during a pandemic that brought complications and challenges that could not have been anticipated.

Contributions to the Field

To date, there remains limited literature and resources regarding best practices for the administration of the Doctoral Capstone Experience, student self-efficacy for the DCE, and the impact of the mentoring relationship between the student and Site Mentor on the DCE. The author intends to disseminate portions of these findings at the local and national levels in order to inform capstone coordinators and faculty in occupational therapy doctoral programs of the importance of the mentorship of doctoral capstone students. As the number of occupational therapy doctoral programs continue to rise (AOTA, n.d.b.), evidence of best practices regarding the administration of the doctoral capstone experience will be crucial. The author hopes to continue this line of inquiry to fill the gaps in literature surrounding this topic.

Recommendations and Implications

As a result of conducting this study, the author has recommendations for capstone coordinators regarding their collaboration with Site Mentors and with doctoral capstone students, both prior to and during the DCE. Prior to the DCE, it is recommended that the Capstone Coordinator:

- Provide education to Site Mentors regarding the roles and responsibilities of an effective mentor
- Collaborate with students to create learning targets based on their individualized learning objectives (with detailed criteria for success)

During the DCE, it is recommended that the Capstone Coordinator:

- Confirm with Site Mentors and students that consistent communication is occurring and ensure its effectiveness (this includes verbal persuasion)
- Encourage students to build a network of mentors that can support them to meet their success criteria
- Collaborate with students and Site Mentors to identify opportunities for role modeling

Limitations

The researcher could not have anticipated completing the study during a global pandemic; therefore, the unexpected challenges that resulted could have impacted the results of the study. Following is a list of limitations to consider:

- Each OTD students' doctoral capstone experience was impacted by the COVID-19 pandemic, and this may have impacted their self-efficacy in ways that cannot be generalized to similar populations.
- There were a small number of participants, therefore the validity of the study was undermined (Faber, & Fonseca, 2014).
- The homogeneity of participants limits generalizability of the results to other occupational therapy doctoral student cohorts that may be more diverse.
- The unique nature of the program, as an entry-level occupational therapy doctoral program at a private, Spiritan university, may prevent findings from being applicable to other program models and institutions (e.g., post-baccalaureate doctoral programs, public and state universities)
- The program in which this study occurred is unique, and other programs may not administrate the doctoral capstone experience in the same manner that Bluff University

does. Therefore, the results and recommendations may not be applicable to other programs.

- The mentoring relationships between the OTD student and their Site Mentor, which were deeply explored in this study, may have been greatly impacted by COVID-19. Therefore, this study may not be a typical representation of the mentoring relationships that occur during the Doctoral Capstone Experience.
- Both the self-efficacy questionnaire and interview were self-report tools; therefore, the results were dependent on the participants' honesty and perception of their experiences.
- The items in the self-efficacy questionnaire were originally developed for fieldwork experiences and may not have been representative of the Doctoral Capstone Experience.

Implications for the Author's Leadership Agenda and Growth

Given the unforeseeable challenges presented during this study, the author intends to develop a line of research that aligns with the role of the Capstone Coordinator. The author hopes to develop evidence-based best practices for administration of the Doctoral Capstone Experience. Future actions the author will take are as follows:

1) Conduct a similar study with a future cohort of OTD students when the COVID-19 pandemic is no longer impacting DCE sites
2) Conduct a similar study with a larger sample size
3) Ensure that in the role of the Capstone Coordinator, the author promotes beneficial mentoring relationships during the Doctoral Capstone Experience, including consistent communication between the student and Site Mentor, opportunities for feedback and growth, as well as an understanding and appreciation for the role of occupational therapy within designated DCE sites

4) Disseminate this information with a broader audience of occupational therapy faculty, especially those serving as the Capstone Coordinators of entry-level OTD programs.

Conclusion

This mixed-methods study sought to understand how certain variables impact entry-level occupational therapy doctoral students' self-efficacy for the Doctoral Capstone Experience. Six entry-level occupational therapy doctoral students participated in the study. The participants completed self-efficacy ratings prior to and throughout their Doctoral Capstone Experience and an interview to explore their relationship with their Site Mentor.

A quantitative analysis of self-efficacy ratings resulted in one significant finding. Students' self-efficacy significantly increased pre- to post- Doctoral Capstone Experience. However, in agreement with previous literature, students' previous experiences with similar settings and populations to their DCE settings and populations did not have a significant impact on their self-efficacy. This speaks to the context- and task- specific nature of efficacy beliefs.

A qualitative analysis of interviews revealed several themes regarding students' relationships with their Site Mentors. In agreement with previous literature, the four sources of efficacy beliefs impacted student's prior to and throughout their experience. Students experienced anxiety resulting from unexpected changes to their DCE related to the global pandemic, yet these physiological states were easily impacted by other circumstances. Role modeling and verbal persuasion from their Site Mentor and other Capstone Committee members influenced their efficacy beliefs for specific tasks. While students reflected on their overall experience, they shared that successful task completion throughout the DCE helped increase their beliefs that they could overcome similar challenges presented in the future. Students

described good mentors as those who demonstrated effective communication, collaboration, and caring for student learning.

Occupational therapy faculty who serve as Capstone Coordinators could benefit from further understanding of the variables that impact student self-efficacy for task- and context-specific challenges throughout the Doctoral Capstone Experience. As the Doctoral Capstone Experience is to be mentored and student-directed rather than supervised, it is vital that occupational therapy doctoral students have the self-efficacy to successfully complete this advanced learning experience and the many unique challenges that it brings. The participants who successfully completed their Doctoral Capstone Experience during the COVID-19 global pandemic should feel confident in their abilities to overcome similar challenges as they begin their professional careers during the ongoing pandemic.

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Appendix A

Occupational Therapy Doctoral Capstone Experience Behavioral Objectives

All occupational therapy academic programs are required by ACOTE (2011) to assure a documented plan for collaboration between the academic institution and the site and verify that all aspects of the doctoral capstone are consistent with the academic institution's curriculum design**.** (Standard C.2.0 & C.2.1)

The objectives for the 14-week Doctoral Capstone Experience for OTD students are listed below. In addition, there space provided for the OTD Student and the Site Mentor to mutually decide upon 3 student-specific objectives that would be achievable within the 14-week experience.

The OTD student will:

1. Demonstrate effective communication skills and work interprofessionally with those who receive and provide care/services
2. Display positive interpersonal skills and insight into one's professional behaviors to accurately appraise one's professional disposition strengths and areas for improvement.
3. Exhibit the ability to practice educative roles for consumers, peers, students, interprofessionals and others
4. Develop essential knowledge and skills to contribute to the advancement of occupational therapy through scholarly activities.
5. Apply a critical foundation of evidence based professional knowledge, skills, and attitudes.
6. Apply principles and constructs of ethics to individual, institutional and societal issues, and articulate justifiable resolutions to these issues and act in an ethical manner.
7. Perform tasks in a safe and ethical manner and adheres to the site's policies and procedur es, including those related to human subject research when relevant
8. Demonstrate competence in following program methods, quality improvement and/or research procedures utilized at the site.
9. Learn, practice, and apply knowledge from the classroom and practice settings at a higher level than prior fieldwork experiences with simultaneous guidance from Site Mentor and DU OT Faculty.
10. Relate theory to practice and demonstrate synthesis of advanced knowledge in a specialized practice area through completion of a doctoral field experience and scholarly project.

11. Acquire in-depth experience in one or more of the following areas: clinical practice skills, research skills, administration, leadership, program and policy development, advocacy, education, and theory development

12. (Student identified objective)

13. (Student identified objective)

14. (Student identified objective)

I agree with the above stated objectives and feel that all learning objectives are obtainable within the established timeframe and encompass all aspects of the OTD student role at this site.

_____	_____	_____
Name of Site	Signature of Site Mentor	Date

Appendix B

DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE:

Exploring Variables That May Impact Occupational Therapy Doctoral Students' Self-Efficacy for the Doctoral Capstone Experience

INVESTIGATOR:

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(412) 396-6101
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PURPOSE:

You are being asked to participate in a research project that seeks to understand your previous experiences as well as your experience during the Doctoral Capstone Experience (DCE) and the impact of such experiences on your self-efficacy for the DCE.

In order to qualify for participation, you must be:

- A healthy adult, aged 18+
- Enrolled in an occupational therapy doctoral program
- Finished with your Level II Fieldwork experiences

PARTICIPANT PROCEDURES:

To participate in this study, you will be asked for information throughout the Doctoral Capstone Experience course. At the start of the Doctoral Capstone Experience, you will be asked to complete a demographic questionnaire. At that time, you will also be asked to complete four questions chosen from the *Student Confidence Questionnaire* (SCQ). These should take approximately 10 minutes. Throughout the DCE, you will be asked to complete journaling, as required assignments for the course, as well as to answer the same four questions from the SCQ again. Administration of the four questions will occur at the start of the DCE, at week 3, week 6, week 9, week 12, and the final week of the DCE. After completing the Doctoral Capstone Experience, you will be asked to complete a semi-structured phone interview. The semi-structured interview will take approximately 20 minutes.

The intent of the demographic questionnaire is to collect information related to your Doctoral Capstone Experience and previous clinical experiences. The items from the Student Confidence Questionnaire will ask you to rate your confidence in areas relative to the Doctoral Capstone Experience. You will receive a link to the survey via your university email address sent through the BlackBoard course.

The intent of the semi-structured phone interview is to capture your experience of preparation for and completion of your Doctoral Capstone Experience, including your role at the DCE site and in particular, your relationship with your Site Mentor. The phone interview will occur in fall of 2020 after you have finished the Doctoral Capstone Experience. An email with available times for the interview will be sent to your university email address. At that time, you will also be asked to provide the best phone number in order to contact you.

There are no direct benefits to you for participating in this study. You may withdraw from participation at any time. The survey can be completed at a time convenient for you. The interview session will be scheduled around your available time. All personal and health information will be kept confidential as data will be coded. Interviews will be audio-recorded; however, your name will not be used, only a number identifier. Identifiers will be stored in a locked filing cabinet and all coded data will be stored in either a separate locked filing cabinet or a password protected computer. Only researchers and staff directly involved on this study will have access to this information.

The information obtained in this study is intended to aid educators and researchers in the understanding how variables related to the Doctoral Capstone Experience may impact student self-efficacy.

COMPENSATION:

There will be no compensation for participating in this study.
Participation in this project will require no monetary cost to you.

CONFIDENTIALITY:

Your participation in this study and any personal information that you provide will be kept confidential at all times and to every extent possible.

Your name will never appear on any survey or research instruments. All written and electronic forms and study materials will be kept secure. Your response(s) will only appear in statistical data summaries. Any study materials with personal identifying information will be maintained for three years after the completion of the research and then destroyed.

RIGHT TO WITHDRAW:

You are under no obligation to participate in this study. Participating in this study will have no impact on your grade or relationship with the faculty. You are free to withdraw your consent to participate at any time by alerting the researchers.

SUMMARY OF RESULTS:

A summary of the results of this research will be supplied to you, at no cost, upon request.

VOLUNTARY CONSENT:

I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.
I understand that should I have any further questions about my participation in this study, I may call the Principal Investigator, Dr. Ann Cook, at 412-396-4216. Should I have any questions regarding protection of human subject issues, I may contact Dr. David Delmonico, Chair of the Duquesne University Institutional Review Board, at 412-396-1886.

_____ _____

Participant's Signature Date

_____ _____

Researcher's Signature

Appendix C

Occupational Therapy Doctoral Student Pre-Doctoral Capstone Experience (DCE) Survey

Demographic Information

Please provide your age: _____

Please indicate your gender:
(1) Female (2) Male (3) Other: (Please specify)_____

Please indicate your race:
(1) African American/Black
(2) Asian American/Pacific Islander
(3) Latino/Hispanic/Latinx
(4) Native American/Alaskan Native
(5) White/Caucasian
(6) Biracial/Multiracial
(7) Other: Please Specify _____

Please indicate the primary setting of your Doctoral Capstone Experience. Choose ONE setting from hospital-based OR community-based OR school-based. If you were in more than one setting, please choose "other" and explain further.

Hospital-based Settings:
(1) Inpatient Acute
(2) Inpatient Rehab
(3) SNF/Sub-Acute/Acute Long-Term Care
(4) General Rehab Outpatient
(5) Outpatient Hands
(6) Pediatric Hospital/Unit
(7) Pediatric Hospital Outpatient
(8) Inpatient Psychiatric

Community-based Settings:
(9) Pediatric Community
(10) Behavioral Health Community
(11) Older Adult Community Living
(12) Older Adult Day Program
(13) Outpatient/Hand Private Practice
(14) Adult Day Program for DD
(15) Home Health
(16) Pediatric Outpatient Clinic

School-based Settings:
(17) Early Intervention

(18) School

(19) Other/Nontraditional Setting: Please Specify _____

Please indicate the population(s) at your Doctoral Capstone Experience site. You may choose more than one:

Age Groups:
(1) 0-5
(2) 6-12
(3) 13-21
(4) 22-64
(5) 65+

Please indicate your prior experience in a similar setting or with a similar population:

(0) No prior experience with a similar setting and population to that of the DCE
(1) Prior experience: (Please explain): _____

Please indicate the professional background/credentials of your DCE Site Mentor:

(1) An OTR
(2) Other: (Please specify): _____

Introduction to Questionnaire

Occupational Therapy Doctoral Students' Level of Confidence for the Doctoral Capstone Experience

The enclosed questionnaire has been designed to assess students' level of confidence for the Doctoral Capstone Experience (DCE).

You are being asked to participate in a research study by completing this questionnaire. One questionnaire will be filled out at the start of the DCE. You will be asked to complete it again at weeks 3, 6, 9, 12, and the final week of the DCE. In addition, you will be asked to complete a follow-up phone interview following completion of the DCE.

Each participant in the study will be assigned a non-identifying number to preserve anonymity. The number is used to match responses over time. In order to reduce bias, a graduate assistant will receive the raw survey data and forward the data on to the primary researcher with numbers assigned. The person assigned to data entry will not have the students' identities, and confidentiality of responses will be maintained. Your name will never be used in any reporting of the data.

By answering the questionnaire, you are indicating your consent to participate. Participation is voluntary and you can withdraw at any time without consequences. Please contact Ann Cook at cooka3@duq.edu or 412-396-4216 with any questions.

Sincerely,

Ann Cook, OTD, OTR/L
Clinical Assistant Professor, Capstone Coordinator

Student Confidence Questionnaire

Instructions: Please rate your confidence based on how you're currently feeling regarding the Doctoral Capstone Experience. After choosing a rating response, please provide information as to why you chose the response you did.

	Scoring				
I am confident that I can:	Strongly Disagree				Strongly Agree
1. Handle challenges presented in this placement.	1	2	3	4	5
Please describe your rating above:					
2. Seek out information from appropriate resources.	1	2	3	4	5
Please describe your rating above:					
3. Learn from my mistakes during this placement.	1	2	3	4	5
Please describe your rating above:					
4. Handle considerable autonomy in my work.	1	2	3	4	5
Please describe your rating above:					

Appendix D

Post-DCE Interview Protocol

Participant # _____

Date _____

"Thank you for agreeing to participate in this interview. The interview will take about 20 minutes and will include approximately 12 questions regarding your experiences during the Doctoral Capstone Experience. I would like your permission to audio record this interview, so that I may accurately document the information you share with me. If, at any time, you wish to discontinue the interview, please let me know and we will stop. I also want to assure you that all of your responses will remain confidential and will be used only for educational purposes.

At this time, I would like to ask for your verbal consent to continue with this interview."

[If permission is obtained, begin recording.]

"Once again, your participation is voluntary, and you may stop the interview at any time. You may also withdraw your participation at any time without consequence. Do you have any questions before we begin?"

1) Can you tell me about your Doctoral Capstone Experience site including the setting and population with whom you worked?

2) In regard to your DCE, can you share a little about your learning objectives and whether those were accomplished?

3) Was your Site Mentor an OT? If not an occupational therapist, what was your Site Mentor's area of expertise?

4) What was your relationship like with your Site Mentor during the Doctoral Capstone Experience?

5) Can you describe the communication style or communication exchanges that you had with your Site Mentor?

6) How did you respond to constructive feedback? Can you provide an example?

7) Can you describe your ability to seek feedback from your Site Mentor or other members of your capstone team throughout the DCE? How did you decide when to collaborate and when to be more self-directed?

8) Did your mentor provide you with opportunities to actively make decisions and choices? Can you provide an example?

9) Considering the relationship you had with your Site Mentor during the Doctoral Capstone Experience, would you say that your Site Mentor impacted your self-confidence and if so, how?

10) Did you receive any other mentorship (from someone other than your formal Site Mentor) that you felt was influential to your DCE? What was this person's background or area of expertise?

11) After reflecting on your experiences, can you share what you believe are qualities of a beneficial mentoring relationship?

12) Is there anything else that you'd like to add regarding your experience?