

1-1-2019

Early Childhood Educators' Perceptions of Using Conscious Discipline to Promote Executive Function Development in Preschool Students: A Case Study

Annette C. Oswald-Hunt

Nova Southeastern University, aoswald2014@gmail.com

This document is a product of extensive research conducted at the Nova Southeastern University [Abraham S. Fischler College of Education](#). For more information on research and degree programs at the NSU Abraham S. Fischler College of Education, please click [here](#).

Follow this and additional works at: https://nsuworks.nova.edu/fse_etd

Part of the [Education Commons](#)

Share Feedback About This Item

NSUWorks Citation

Annette C. Oswald-Hunt. 2019. *Early Childhood Educators' Perceptions of Using Conscious Discipline to Promote Executive Function Development in Preschool Students: A Case Study*. Doctoral dissertation. Nova Southeastern University. Retrieved from NSUWorks, Abraham S. Fischler College of Education. (188)
https://nsuworks.nova.edu/fse_etd/188.

This Dissertation is brought to you by the Abraham S. Fischler College of Education at NSUWorks. It has been accepted for inclusion in Fischler College of Education: Theses and Dissertations by an authorized administrator of NSUWorks. For more information, please contact nsuworks@nova.edu.

Early Childhood Educators' Perceptions of Using Conscious Discipline to Promote
Executive Function Development in Preschool Students: A Case Study

Annette Oswald

An Applied Dissertation Submitted to the
Abraham S. Fischler College of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Nova Southeastern University
2019

Approval Page

This applied dissertation was submitted by Annette Oswald under the direction of the persons listed below. It was submitted to the Abraham S. Fischler College of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University.

Laurelee Carr, EdD
Committee Chair

Kathleen Kardaras, PsyD
Committee Member

Kimberly Durham, PsyD
Dean

Statement of Original Work

I declare the following:

I have read the Code of Student Conduct and Academic Responsibility as described in the *Student Handbook* of Nova Southeastern University. This applied dissertation represents my original work, except where I have acknowledged the ideas, words, or material of other authors.

Where another author's ideas have been presented in this applied dissertation, I have acknowledged the author's ideas by citing them in the required style.

Where another author's words have been presented in this applied dissertation, I have acknowledged the author's words by using appropriate quotation devices and citations in the required style.

I have obtained permission from the author or publisher—in accordance with the required guidelines—to include any copyrighted material (e.g., tables, figures, survey instruments, large portions of text) in this applied dissertation manuscript.

Annette Oswald

Name

March 4, 2019

Date

Acknowledgments

This journey gave me the opportunity to learn so much about myself at a deeper level. It has been an intense learning experience for me, not only in academia but at a personal and spiritual level. Writing this dissertation has made a lasting impact on me. The process taught me to trust and respect nature and to always believe in yourself. This work would have not been possible without the help of the following individuals. I consider myself to be extremely fortunate to have had the support and guidance of Edward Oswald. I will forever be grateful of your efforts and the belief that I will succeed. You never stopped believing in me.

I would like to thank my daughters Annabelle and Kristelle for always reminding me that everything is possible. When at times I felt too overwhelmed with my work and thoughts of quitting crossed my mind, I quickly remembered that I am their role model. Girls, thank you for always being there for me Ohana.

To my husband Tim, thank you for being patience with me and loving me unconditionally. You have a big heart. You teach me the value of hard work and commitment. You inspire me and remind me that not all who wander are lost.

Abstract

Early Childhood Educators' Perceptions of Using Conscious Discipline to Promote Executive Function Development in Preschool Students: A Case Study. Annette Oswald, 2019: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education. Keywords: Conscious Discipline, executive functions, early childhood, preschool students, case study

This applied dissertation was designed to explore teacher perceptions of the use of Conscious Discipline in the classroom to promote desirable behaviors and influence the development of EF skills in children. Using self-assessment surveys, qualitative interviews, and direct observations, the researcher explored teacher perceptions of the use of Conscious Discipline as a behavioral management system to develop EF in preschool children.

Conscious Discipline is an emotional intelligence behavior-management system that promotes desirable behaviors in children, embracing those skills found in the prefrontal lobes of the brain, which control the mechanism for self-regulation and problem-solving skills. Conscious Discipline promotes the development of self-regulation in preschool students, a key element in developing EF. The goal of this study was to add to the research literature on the usefulness and importance of using Conscious Discipline to promote EF in children at an early age.

Participants were 5 teachers in a private preschool center in South Florida serviced by the state college's institute in early care. Overall, four themes emerged. Teachers learned the importance of the development of self-regulation in students. Internalization of the teacher's journey in Conscious Discipline afforded implementation. Teachers increased their awareness of self and lifelong skills. Reaching executive state in Conscious Discipline affords academic successes. An implication is the importance of professional development in brain-based Conscious Development to help preschool teachers develop EF in their students.

Table of Contents

	Page
Chapter 1: Introduction.....	1
Statement of the Problem.....	3
Phenomenon of Interest	4
Background and Justification.....	5
Deficiencies in the Evidence.....	6
Audience	7
Definition of Key Terms.....	7
Purpose of the Study	10
Chapter 2: Literature Review.....	11
Theoretical Perspective.....	13
Conscious Discipline	18
Brain Development and EF Skills.....	22
Conscious Discipline and EF Skills.....	25
EF's Influence on Preschool Education.....	27
High-Functioning Skills in Preschoolers	29
Trends in Current Research	31
Teacher Perceptions of EF Skills and Conscious Discipline.....	33
Professional Development	38
Research Questions.....	41
Chapter 3: Methodology	42
Aim of the Study.....	42
Qualitative Research Approach	42
Participants.....	43
Data Collection Methods	44
Procedures.....	47
Data Analysis	49
Ethical Considerations	50
Trustworthiness.....	51
Potential Researcher Bias	53
Chapter 4: Findings.....	55
Research Questions.....	56
Themes.....	56
Results for Research Question 1	57
Results for Research Question 2.....	60
Results for Research Question 3.....	65
Results for Research Question 4.....	67
Summary.....	70
Chapter 5: Discussion	72
Overview of the Study	72
Interpretation of Findings	73
Implications of the Study.....	76
Limitations to the Study.....	77

Recommendations for Future Educational Practice.....	79
Recommendations for Future Research	80
Conclusion	81
References.....	82
Appendices	
A Self-Assessment Survey	98
B Direct Observation Checklist.....	100
C Qualitative Interview Questions	103

Chapter 1: Introduction

Interest is increasing in the study of children's cognitive processing of information during task-directed instruction and its correlation with high executive function (EF) skills in young children (Bierman & Torres, 2016). High EF skills development for young children serves as a precursor to academic achievement, personal achievement, and approaches to learning in the later years of life (Diamond, 2016). Previous research found benefits of children developing EF skills at a very early age (Bierman & Torres, 2016). The Conscious Discipline paradigm has gained acceptance with preschool educators as a successful and positive management strategy for promoting academic achievement in the classroom through the development of self-regulation skills, a key construct of EF (Caldarella, Page, & Gunter, 2012; Sorell, 2013). Understanding the role that the Conscious Discipline program plays in developing EF skills and changing behaviors associated with EF deficiencies is essential in building best practices among early childhood educators.

A study conducted by the United Nations Children's Fund (2014) highlighted cutting-edge advances in educational neuroscience research, which have clarified the key role of the environment and learning through play in young children's cognitive development. Developments in educational neuroscience have become the cornerstone of a revolutionary shift in how educators approach teaching and understand child development (Caine & Caine, 2011). Neuroscience has impacted the way early childhood educators interweave learning standards and developmentally appropriate practices into everyday classroom practices (Gordon & Browne, 2013). More importantly, the United Nations Children's Fund (2014) revealed that the brain is influenced just as much by its environment as by a genetic blueprint.

Children between the ages of 3 and 6 years develop prosocial behaviors and EF in

developmental stages (Moreno, Shwayder, & Friedman, 2017). Early childhood educators facing the requirement of teaching state standards may expect children to develop EF skills at a very young age. The intent of state standards and requisites for learning is to set “the bar for student achievement” (Schiller & Willis, 2008, p. 52). Standards provide a schema to ensure children within the same age and grade level become prepared to “meet the challenges of an increasingly complex world” (Schiller & Willis, 2008, p. 52). Early learning standards defined by the Early Childhood Education Assessment Consortium of the Council of Chief State School Officers have become the accepted norm for state standards. The Council of Chief State School Officers (as cited in Schiller & Willis, 2008) defined early learning standards as expectations for the development of young children in (a) health and physical well-being, (b) social and emotional well-being, (c) approaches to learning, (d) language and symbol comprehension, and (e) general knowledge of the world.

Howard, Okely, and Ellis (2015) indicated that early development of superior EF leads to early literacy and numeracy advances. Greenstone (2011) found deficits in EF lead to more serious problems beyond the classroom manifestation. Children with deficits in EF have a higher probability of being socially incompetent, demonstrate shortfalls in working memory and organization skills, indicate an inability to plan or initiate tasks, and lack motivation and engagement in learning processes (Diamond, 2016).

Building Better Brains research, conducted by Harvard University (2016), showed a gap in the study of EF skills, approaches to learning, and the rate of academic success for young children living in poverty. Harvard researchers also indicated the value of understanding the brain’s capacity in learning, such as its ability to hold on to information, manipulate and process information, and use the newly learned information. The brain’s ability to focus on thinking, ignoring unnecessary distractions, and the

flexibility to switch attention from one task to another are part of EF and self-regulation (Harvard University, 2016). Diamond (2016) highlighted the importance of identifying and improving EF in early childhood programs due to the growing evidence of developing EF skills as a predictor of later student academic success.

Sorell (2013) reflected that when teachers implement the Conscious Discipline behavioral management system, more students are engaged in on-task behaviors, their attention is sustained during activities, and they are self-regulated learners, which are all cornerstones of effective EF skills. Greenstone (2011) argued that, although many educators may understand what EF skills are, they may not recognize the vital role the skills play in children's lives. Howard et al. (2015) confirmed the importance of the development of EF skills in a child's academic, social, emotional, and behavioral competencies.

Researchers have found a child's EF impacts school readiness, approaches to learning, and academic success (Howard et al., 2015). Crocker (2007) suggested using Conscious Discipline to help students and teachers meet the human need for safety and connectedness to promote the brain's capacity for higher-level thinking. Higher level thinking skills increase the ability to make decisions and problem solve, a key element in promoting effective EF skills in students, especially self-regulation. Bailey (2011) noted that approximately 40% of young children were lacking self-regulation skills, the main skill needed for achievement in life. The preschool experience has been identified as the most crucial time in the emergence and development of EF for academic expectations (Bierman & Torres, 2016).

Statement of the Problem

Research is lacking on the perceptions of early childhood educators on using Conscious Discipline to develop EF skills in preschool students. By examining the

underlying perceptions of preschool teachers toward Conscious Discipline and its role in promoting EF skills, their attitudes regarding the program's usefulness and effects could be ascertained. The current applied study adds to the research base of using Conscious Discipline as a behavior management strategy in the classroom to develop EF skills in preschool children.

Phenomenon of Interest

Harvard University (2016) reported that children are not necessarily born with EF skills; however, children have the potential to develop EF skills. The study highlighted to early childhood educators the ways EF skills can be developed in early childhood. The Harvard study indicated the critical stages of the developing brain in the early years build the foundation for a skilled workforce, efficient community builders, and ultimately a thriving economy for the country. Richland and Burchinal (2013) examined longitudinal data that included 1,364 children from the Study of Early Child Care and Youth Development, which highlighted the importance of developing EF skills at an early age. Richland and Burchinal reported,

Children with greater executive-function skills (both composite and inhibitory control) and vocabulary knowledge in early elementary school displayed higher scores on a verbal analogies task at age 15 years, even after adjusting for key covariates. We posit that knowledge is a prerequisite to analogy performance, but strong executive-functioning resources during early childhood are related to long-term gains in fundamental reasoning skills. (p. 87)

Dapolito (2016) assessed the effectiveness of Conscious Discipline, using a range of 12 scales to validate the program. The extensive study included 66 teachers, 1,386 students, and 868 parents in 24 sites over three states in 8 months. Dapolito's results indicated Conscious Discipline

improves the social and emotional skills of students and teachers, increases student academic readiness and academic achievement, improves the quality of student–teacher interactions, improves school climate, decreases aggression in preschool children, and decreases impulsivity and hyperactivity in difficult students. (p. 30)

Background and Justification

An early care institute at a state college provides higher education and training to the entire childcare workforce in the county. The institute works with many local county agencies and organizations to promote high-quality educational training to all county early childhood educators. The mission of the institute is to provide the child care workforce of the county with comprehensive professional development in early childhood education.

The institute is one of a kind in the county providing high-quality research-based training in Conscious Discipline and coaching services to the participating early care centers in the county to support best teaching practices in early childhood education programs. Training offered to the entire childcare workforce is aligned with state and national learning standards (birth through age 3, prekindergarten, Head Start, and Common Core).

The setting for the qualitative case study was a private preschool among the institute’s clientele. The selected preschool teachers were part of the existing pilot program, on its 3rd year at the time of this study. All preschool teachers in the pilot program received 7 days of extensive training in Conscious Discipline paid by the institute at the start of their employment. In addition, preschool teachers received coaching, retraining, and observations with a rubric checklist at least three times per month. The preschool teachers taking part in this case study met the state’s requirements

to qualify to work in Florida's early childhood education programs. The institute of the state college selected pilot participants among early care centers serving infants and children up to 5 years old. The centers had to demonstrate a low rate of staff turnover, be Tier 1 or Tier 2 in the county rating system, and have a curriculum specialist working for the center.

Deficiencies in the Evidence

The body of research on EF in the educational setting is increasing, with research suggesting the important role of EF in learning, especially in the early years (Choi et al., 2016; Cuevas et al., 2014; Diamond, 2016; Nayfeld, Fuccillo, & Greenfield, 2013; Schoemaker, Mulder, Dekovic, & Matthys, 2013; Weiland, Ulvestad, Sachs, & Yoshikawa, 2013). However, only a few studies have focused on preschool teachers' perceptions, understandings, and levels of training for teaching EF skills in the classroom. McCrea (2013), in a quantitative study, reported a lack of research on early childhood teachers' perceptions of school-readiness skills, including EF. In addition, Bierman and Torres (2016) found little evidence on the level of preschool teachers' understanding of EF and the significance EF has on learning.

Morgan-Brokowsky (2012) indicated that many teachers' unfamiliarity with the topic of EF was an area of special concern, with teachers needing to be trained on EF skills. To improve academic success and approaches to learning for preschool students, more informed research regarding preschool teacher perceptions and understanding of EF is necessary. However, evidence-based research is lacking regarding preschool teachers' perceptions of using Conscious Discipline towards the development of EF skills. The current study was designed to explore the prevalent perceptions preschool teachers have toward using Conscious Discipline as a classroom-management system to promote EF skills in children.

McCrae (2013) observed few research studies have focused on teacher perceptions of EF. A search of the ProQuest Dissertations and Theses Global database and Google Scholar using the keyword search strategy of *executive function* and *preschool* or *early childhood* and *teacher perceptions* or *teacher understandings* found no research addressing the focus of the current study. However, research on teachers' perception towards Conscious Discipline used as a classroom-management system indicated that teachers find the program to be beneficial to their lives personally and professionally (Sorell, 2013).

Audience

By demonstrating educators' perceptions of the Conscious Discipline behavior management system in the development of early childhood EF, the qualitative case study may generate interest and discussion among educational leaders and policymakers by adding to the evidence-based research literature of best practices in early childhood education. Those who may benefit from this research include government leaders, top school officials, school board members, foundations supporting early childhood education and research, and organizations and companies providing early childhood educational services.

Definition of Key Terms

At risk. An at-risk student is “considered to have a higher probability of failing academically or dropping out of school” (Great Schools Partnership, 2013, para. 1). Various factors are used to determine those students who fall into the at-risk category based on explicit characteristics and background of students:

Physical disabilities and learning disabilities; prolonged or persistent health issues; habitual truancy, incarceration history, or adjudicated delinquency; family welfare or marital status; parental educational attainment, income

levels, employment status, or immigration status; [and] households in which the primary language spoken is not English. (Great Schools Partnership, 2013, para. 2)

Conscious Discipline. Conscious Discipline is a trademarked behavioral management system. Based on emotional intelligence, the program promotes desirable behaviors in children, embracing those skills found in the prefrontal lobes of the brain (Bailey, 2015).

Executive function (EF). EF can be defined best as incorporating three primary internal structures, (a) response inhibition, (b) working memory, and (c) mental shifting (Gudonis, 2015), which are multiple cognitive processes that work together to contribute to goal-oriented achievement (Kolnik, 2010). The set of functions encompasses cognitive processes that trigger the goal-oriented behaviors (Best & Miller, 2010; Clements, Sarama, & Germeroth, 2016; Cuevas et al., 2014; Rosenberg, 2015; Schoemaker et al., 2013). The result is regulation of behaviors, such as inhibitory control, which allows children to ignore unnecessary thoughts and distractions and focus on completing the tasks relevant to the information being learned (Bierman & Torres, 2016; Choi et al., 2016; Diamond & Lee, 2011; Francis, 2015).

Hyperactivity. The National Institute of Mental Health (2016) defined hyperactivity as when “a person seems to move about constantly, including situations in which it is not appropriate, excessively fidgets, taps, or talks. In adults, it may be extreme restlessness or wearing others out with their activity” (para. 3).

Impulsivity. The National Institute of Mental Health (2016) defined impulsivity as a condition in which

a person makes hasty actions that occur in the moment without first thinking about them and that may have high potential for harm; or a desire for immediate

rewards or inability to delay gratification. An impulsive person may be socially intrusive and excessively interrupt others or make important decisions without considering the long-term consequences. (para. 4)

Inattention. Inattention has been defined as when “a person wanders off task, lacks persistence, has difficulty sustaining focus, and is disorganized; and these problems are not due to defiance or lack of comprehension” (National Institute of Mental Health, 2016, para. 2).

Positive approaches to learning. This paradigm focuses on a wide range of student-initiated learning behaviors that construct learning, internalizing information on an individual basis. Meng (2015) defined approaches to learning as a student-level construct including learning behaviors such as initiative, engagement, and persistence. Positive approaches to learning are critical elements for children to achieve appropriate school-readiness skills and academic success at an early age (Chen & McNamee, 2011).

School readiness. School readiness is defined by the attributes of transition and gaining competencies. Transition is “children moving into and adjusting to new learning environments, families learning to work with a sociocultural system (i.e., education), and schools making provisions for admitting new children into the system, representing individual and societal diversity” (United Nations Children’s Fund, 2012, p. 8). Critical tasks in school readiness are the following:

1. Ready children, focusing on children’s learning and development.
2. Ready schools, focusing on the school environment along with practices that foster and support a smooth transition for children into primary school and advance and promote the learning of all children.
3. Ready families, focusing on parental and caregiver attitudes and involvement in their children’s early learning and development and transition to readiness

between poor children and those from moderate- or higher-income families.

(United Nations Children Fund, 2012, p. 7)

Strong Minds. Strong Minds is a voluntary early care and education quality rating improvement system. This system supports early care education quality to ensure children have all necessary skills for kindergarten readiness (Children's Services Council, 2018).

Purpose of the Study

The purpose of this research study was to learn, understand, and describe early childhood educators' perceptions of using the Conscious Discipline behavioral management system as a strategy to develop EF skills in preschool students. The study setting was an educational facility in South Florida.

Chapter 2: Literature Review

EF encompasses the higher functioning processes in the brain, such as working memory, inhibitory control, and mental flexibility, which govern the way a child self-regulates, sets goals, perseveres, and adapts to new situations (Gudonis, 2015; Kolnik, 2010; Reed, 2016). The capabilities of planning, organizing, shifting attention and thoughts, inhibiting thoughts and behaviors that may be inappropriate, and supporting and sequencing behavior reside in the cognitive domain of EF (Greenstone, 2011; Pawlina & Stanford, 2011; Reed, 2016). Bailey's (2013) frameworks in Conscious Discipline were designed to promote growth in the prefrontal lobes of the brain, which control self-regulation, and thereby promote development of EF skills.

EF skills strengthen children's cognitive and emotional autonomy, alongside the seven basic skills in Conscious Discipline: composure, encouragement, assertiveness, choices, positive intent, empathy, and consequences (Bailey, 2015; Chavez, 2014). To address the concept of emotional intelligence, one must embrace and understand the interconnection between the capacities to express emotion and think abstractly, as well as the general ability to learn and adapt to the environment. In early childhood, creative energy guides the child's efforts toward goals. These all-encompassing skills are critical to EF skills to support the management of a "child's cognitive, social, emotional, and behavioral responses" (Kolnik, 2010, p. 5) and are promoted in Conscious Discipline strategies (Bailey, 2015).

EF skills are a vital component for school readiness and are more important than IQ in preparing preschool-aged children for measures of math and literacy ability in kindergarten (Francis, 2015). "EFs play a critical role in learning during the preschool years and are related to academic outcomes in math and literacy" (Nayfeld et al., 2013, p. 82). By the time children enter grade school, they are expected to have EF skills to help

them transition into school. Conscious Discipline includes a list of EF skills called a *lending library* for children ages 6–24 months and Conscious Discipline structures and strategies to develop these skills early. The lending library for infants and toddlers includes seven EF skills: attention, prioritization, self-regulation, flexibility, working memory, organization, and empathy (Bailey, 2015). If these skills are fostered and developed years before preschool, children will be more likely to succeed in grade school and beyond (Bailey, 2015).

Building children’s social and emotional competence directly impacts children’s social, cognitive, and emotional management skills. Conscious Discipline focuses on brain research emphasizing moving from fright, fight, and flight responses of the brainstem (survival state in the brain) to the action-oriented functioning of the frontal brain lobe (executive state in the brain) to develop necessary social and emotional EF skills (Chavez, 2014). Richland and Burchinal (2013) found inhibitory control contributes to EF skills, supporting the development of analytical reasoning in children’s thinking skills. The researchers first investigated the thinking trajectory of analogy reasoning development, finding that long-term impacts of early EF skills, specifically inhibitory control, are more developed cognitive skills (Richland & Burchinal, 2013).

In recent years, professionals in early childhood education have investigated educational neuroscience, exploring EF skills in preschool classrooms. Unsurprisingly, in one study, kindergarten teachers said, “EF processes are as important as academics” (Clements et al., 2016, p. 80). Teachers rated EF mechanisms such as inhibition, self-regulation, and attention shifting as vital for math thinking and learning, and these ratings rose with teaching experience (Clements et al., 2016). According to Skogan et al. (2015), EF development, specifically inhibition and working memory, are well established during the early preschool years. These two skills are thought to be the building blocks of the

complex development of self-regulation, mental flexibility, ability to plan, and organizing skills (Skogan et al., 2015).

Theoretical Perspective

Several paradigms guided the theoretical perspective of this qualitative case study. They include constructivism theory, the work of Jean Piaget, and the work of Lev Vygotsky.

Constructivism. The constructivist approach is a framework emphasizing a student-centered approach in learning, where the focus of learning comes from the individual actively constructing his or her knowledge and understanding alongside a more knowledgeable person (Santrock, 2014). Constructivism is a term first put forward by Jean Piaget, based on the concept that children learn optimally when they are active participants in their own learning by engaging in the learning process (Gordon-Biddle, Garcia-Nevarez, Henderson, & Valero-Kerrick, 2014; Santrock, 2014). Ozer (2004) described classrooms in which the teacher utilizes the constructivist approach:

The teacher is a facilitator and a guide, who plans, organizes, guides, and provides directions to the learner, who is accountable for his [or her] own learning. The teacher supports the learner by means of suggestions that arise out of ordinary activities, by challenges that inspire creativity, and with projects that allow for independent thinking and new ways of learning information. Students work in groups to approach problems and challenges in real world situations; this in turn leads to the creation of practical solutions and a diverse variety of student products. (para. 2)

Educational neuroscience literature on brain development provided evidence supporting the constructivist philosophy and the development of EF skills (Burnett, 2010). Burnett (2010) emphasized, “Researchers and educators in the field of education

can now argue for interactive, brain-based, constructivist driven learning environments” (p. 151).

Constructivist theory recognizes that learning occurs in social settings, where language, real-world events, and interactions and cooperation with other learners promote and develop cognitive development (Ozer, 2004). The Conscious Discipline program is based on the constructivism theory and relational-cultural perspective. The relational-cultural theory focuses on the exchange of interactions, relationships, and outside factors (Hoile, 2016). Vygotsky viewed social constructivism with emphasis on the social interactions driving and developing an individual’s cognitive ability to internalize knowledge through the social-cultural realm (Nyikos & Hashimoto, 1997).

Constructivists posit that children build their knowledge of the world by using what they already know to understand new experiences and events. Conscious Discipline uses this approach to help individuals make connections with others and learn EF skills such as self-regulation (Gordon-Biddle et al., 2014; Hoile, 2016). Conscious Discipline uses Vygotsky’s premise of constructivism with the social connections and personal experiences guided by adults (Hoile, 2016). Hands-on experiences and interactive approaches in teaching are the building blocks in the constructivist approach to learning EF skills (Feeney, Moravcik, & Nolte, 2016; Hoile, 2016).

Jean Piaget. The best known of the cognitive theorists, Piaget (1896–1980) specialized in understanding how children learned rather than understanding how much children knew (Feeney et al., 2016; Gordon-Biddle et al., 2014). Piaget’s interest in learning about children commenced when he worked at Alfred Binet’s Laboratory on intelligence testing studies (Driscoll & Nagel, 2008; Feeney et al., 2016). His curiosity regarding why children consistently answered certain questions incorrectly led him to focus his research on how children think. After meticulous observations of children, he

learned that children have their own way of interpreting information (different from adults). Children constructed information based on brain growth, physical abilities, and external experiences such as interactions (Feeney et al., 2016).

Lev Vygotsky. Lev Vygotsky, a Russian psychologist, developed the sociocultural theory based on his focus of study on the way children developed thought and language. His emphasis on child development was centered on culture and socialization (Gordon-Biddle et al., 2014; Ozer, 2004). As reflected by Gordon-Biddle et al. (2014), Vygotsky's study of children began when he came across children with medical problems like birth defects. However, his theory of development was connected to the historical context in which he lived, during the postrevolutionary fanaticism of the Soviet Union. Vygotsky studied social sciences, literature, philosophy, psychology, and law in various universities in Moscow. Vygotsky's sociocultural theory was influenced and rooted in a Marxism-Leninism perspective. He emphasized that separation of human beings' cognition and their individual context was impossible, and thus people are socially embedded in the sociocultural context (Gordon-Biddle et al., 2014).

Based on Vygotsky's sociocultural theory, EF skills can be developed through sociodramatic play, because the power of play provides the dynamic relation for the promotion of EF skills (Bailey, 2015). As preschoolers begin to look for each other to play, certain skills are required to maintain relationships. Vygotsky elaborated on socialization and play and its importance in social collaboration skills like empathy, mental flexibility, self-regulation, and role coordination, skills fostered by Conscious Discipline (Bailey, 2015). These cognitive skills underlie effective social interactions such as inhibitory control, perspective taking, and mental flexibility to problem solving. Berk and Meyers (2013) mentioned as children engage in social play, they abide to social rules, like pretending to be the parent or an astronaut; in effect, children overcome the

urge of impulsivity to come out of character, utilizing their ability to control their inhibitions and regulate behaviors.

Vygotsky viewed constructivism as a social constructivist approach emphasizing the social framework in learning and the construction of knowledge through social interactions (Santrock, 2014). Vygotsky's social constructivism indicated that learning and development are a collective motion and promote children's cognitive development in the context of socialization (Ozer, 2004), which can be correlated to routines and rituals promulgated in frameworks of Conscious Discipline (Rain, 2014). As preschoolers engage in social interactions, EF skills are exercised as they role-play (working memory). Social playing requires children to exercise inhibitory control as they control their impulses to act out of character and engage in mental flexibility to adapt to unexpected changes in playing scenarios. Vygotsky proposed that by engaging in make-believe play, children develop symbolic thought and self-regulation (Berk & Meyers, 2013; Carlson, White, & Davis-Unger, 2014).

Social constructivism is a paradigm shift from the cognitive constructivism theory based on individual cognitive capacities to a collaborative, socially interactive, and sociocultural movement (Santrock, 2014). Vygotsky viewed the construction of knowledge when children socialize with each other (Driscoll & Nagel, 2008; Santrock, 2014). According to Vygotsky (as cited in Nyikos & Hashimoto, 1997), learning in isolation does not lead to cognitive development, whereas social interactions do.

Language plays an important role in Vygotsky's sociocultural theory, because language is a cultural instrument that mirrors a child's physical and social environment (Driscoll, 2008). The use of language is vital for cognitive development; language is how children begin to progress toward higher levels of thinking as they express their thoughts and ideas (Driscoll, 2008; Feeney et al., 2016; Gordon-Biddle et al., 2014). In Conscious

Discipline, adults model language to guide and teach children to think and problem solve (Bailey, 2011; Hoile, 2016). Through the use of language, educators promoting the Conscious Discipline lending library of EF skills can develop students' working memory by having students verbally recall past activities using visual reminders (Bailey, 2015). Teachers can promote self-regulation by using face-to-face I Love You rituals to help children self-regulate (Bailey, 2015). Vygotsky explained that children utilize language to engage in social interactions and more importantly to problem solve. These are skills taught and nourished as part of Conscious Discipline (Bailey, 2011; Santrock, 2014).

Language is responsible for self-regulation; Vygotsky knew this and coined the term *private speech* (Santrock, 2014). Vygotsky viewed private speech as a significant tool for thought process, especially during the early years in childhood (Feeney et al., 2016; Santrock, 2014). Bailey (2011) saw private speech as the way children govern (manage) their thinking and emotions, and thus behavior, allowing them to self-regulate and maintain cognitive flexibility if activities do not go as planned. Moreover, Vygotsky found that children who used private speech often were more socially competent than children who did not (Feeney et al., 2016; Santrock, 2014). Private speech is a way for children to govern behavior and guide themselves, especially during difficult tasks, which in turn helps children construct and expand on new ideas, developing cognitive flexibility (Santrock, 2014).

The *zone of proximal development* is a term Vygotsky used to explain a series of behaviors between what a child can achieve independently and what the child can accomplish with the help of a more knowledgeable person (Feeney et al., 2016; Nyikos & Hashimoto, 1997). Vygotsky proposed that children can expand and construct more knowledge from complicated tasks when they are supported by an adult or peer with more knowledge (Driscoll, 2008). This theory can be correlated to the questioning used

by adults in Conscious Discipline to scaffold a child's thinking and managing behaviors, promoting the development of EF skills.

“Cognition is consummately social in nature; information is passed on to children by more experts in their environment” (Gordon-Biddle et al., 2014, p. 99). Social constructivists uphold that collaboration in the group is a prerequisite for engaging in self-regulation, key for problem solving (Nyikos & Hashimoto, 1997). “Interaction with others and with the cultural environment contributes to human cognitive development if the interaction takes place within the zone of one's potential development” (Nyikos & Hashimoto, 1997, p. 507). The scaffolding approach allows an adult to guide a child into making connections, problem solving, and self-regulating, a key element of the Conscious Discipline program (Hill, 2017; Hoile, 2016).

Conscious Discipline

Conscious Discipline is an emotional intelligence behavior-management system encompassing the brain state model, which focuses on the importance of the development of prefrontal lobes in the brain, which is the control mechanism for self-regulation (Bailey, 2013).

[When] children lean into their feelings and embrace their presence, they integrate the automatic nervous system, balancing the parasympathetic (pause) and sympathetic (speed up). They integrate lower brain systems with higher brain systems, allowing children to respond instead of reacting to events. (Bailey, 2011, p. 4)

Becky Bailey, the founder of Loving Guidance, Inc. and “an internationally expert in child developmental psychology” developed Conscious Discipline (Conscious Connections, 2017, para. 1). Key attributes include

an evidence-based discipline approach [that] can help school staff, teachers, and

students create an environment where everyone can develop in a way best for them—including adults! Conscious Discipline is the only program that integrates classroom management with social-emotional learning, uses everyday events as part of a school's curriculum, and addresses the adult as well as the child. The Conscious Discipline program has been named a national model for character education by the Florida State Legislature. It has also been proven to reduce aggression by 64% while increasing reading scores by 18%; in fact, Conscious Discipline classrooms score significantly higher in statewide reading, comprehension, writing, and math tests. (Conscious Connections, 2017, para. 14–16)

As reflected by Bailey (2013), “Conscious Discipline is a research-based program proven to increase academic achievement; decrease problem behaviors; [and] improve the quality of relationships: student to student, teacher to student, parent to child, teacher to parent, and coworker to coworker” (para. 1). Conscious Discipline is based on brain research, a constructivist approach, and the relational-cultural view to create a curriculum for a comprehensive emotional intelligence and classroom-management system (Bailey, 2011; Finn, 2015; Hoile, 2016). Educators using Conscious Discipline consider conflict not as a hindrance but as a pathway to generating problem-solving and self-regulation skills (Bailey, 2015). Conscious Discipline focuses on teaching the ownership of feelings and uses conflict as a learning opportunity and means to manage emotions and regulate behavior (Cooper, 2014; Finn, 2015).

Barrett (2017) suggested, “Children who have not been taught how to appropriately respond to social and emotional challenges often struggle academically, exhibit a lack of impulse control and self-regulation, and have weaker peer relationships” (p. 10). The focus of Conscious Discipline is to target these challenges and teach children

to identify their feelings (metacognition), learn how to manage them (self-regulation), and respond to social-emotional conflict (cognitive flexibility), using their EF skills to problem solve. Social-emotional connections are made through each experience individuals have, creating neuroconnections in the brain and tying them to the person's EF, where higher order thinking occurs and information is processed (Bailey, 2011; Barrett, 2017).

Conscious Discipline uses tactful strategies to teach skills that offer self-regulation and problem-solving behaviors. Conflict is a way to develop self-awareness (metacognition) and to learn how to come up with effective problem-resolution strategies (Dapolito, 2016). With the aim to help children learn to regulate their behavior by managing their feelings, Conscious Discipline integrates social-emotional learning and neuroscience to promote EF skills (Hill, 2017). Using conflict as a teachable moment allows children to try out various strategies that ultimately lead to higher functioning in the frontal lobes, thus developing EF skills (Dapolito, 2016).

Bailey (2015) identified the seven basic skills in Conscious Discipline through neuroscience research, child-development information, and developmentally appropriate practices to foster social-emotional intelligence development in children—and teachers. A child's self-regulatory cognitive processes are used toward attaining a goal and learning to determine errors or conflicting information and ultimately problem solving skills (Francis, 2015; Greenstone, 2011; Kolnik, 2010). EF is a set of skills that comprises cognitive flexibility, inhibitory control, and working memory. Children utilize these skills throughout life to organize and control goal-directed behaviors (Diamond, 2016; Dias & Seabra, 2015; Kolnik, 2010). Much like an airport operating system, where information is constantly being received from many outside sources and demands action, EF skills are actively managed by a child's attentional systems, requiring the child to focus and shift

attention simultaneously (Kolnik, 2010).

Conscious Discipline's cornerstone is an emotional-intelligence-based paradigm combining the capabilities to express emotions and to think in abstract terms (Bailey, 2015). Conscious Discipline uses everyday life events as a springboard to develop the ability to learn and adapt to events, moving children's thinking from brain stem skills to action-oriented functioning located in the frontal lobe of the brain (Chavez, 2014). The Conscious Discipline frameworks promote and develop essential EF concepts by strengthening a child's cognitive and emotional autonomy. Rain (2014) stated the seven basic EF skills in Conscious Discipline are composure (self-regulations and motivation), encouragement (working memory), assertiveness (helps with problem solving, task initiation, and organizational skills), choices (planning, prioritization, and problem solving), positive intent (empathy and attention), and consequences (organizational skills, problem solving, and cognitive flexibility).

EF skills help children intentionally, and with flexibility, regulate their thinking and behavior (Bierman & Torres, 2016). Just like building blocks, EF skills create the neural foundation that supports school readiness by enabling children to self-regulate behaviors and learn in an academic setting (Bierman & Torres, 2016). These skills are developed during the preschool and early elementary years (3 to 7 years of age). Research using numerous measures of self-control in young children has indicated EF plays a vital role in cognitive and social development (Bierman & Torres, 2016; Carlson et al., 2014; Diamond, 2016; McClelland, Leve, & Pears, 2016). Higher functioning of EF skills has proven to support children's literacy and mathematical achievement and strengthen children's resilience to early life's adversities (Carlson et al., 2014). The correlation between Conscious Discipline and EF can be discerned through the connecting development of self-regulation in Conscious Discipline setting the foundation

for the development of EF functions.

In addition, a sensitive, critical period exists in early childhood, providing the opportunity to promote the nourishment, stimulation, and security children need for optimal brain development and fulfilling lifelong potential. Bailey's (2015) development of Conscious Discipline was influenced by theorists in cognitive development such as Jean Piaget.

Finn (2015) reflected that Piaget advocated the pedagogical position that adults should not force discipline on children, which questioned the authoritative position of adults in school. Piaget's work challenged adults to empower and engage children to create their own systems of social order and regulation (Finn, 2015). Conscious Development is based on the following belief:

A positive adult teaching children the proper way to respond in the moment of the undesirable behaviors instead of punishing students for the undesirable behavior can help raise self-regulated, mindful, and well-behaved children. The use of questioning the scenario, possibly recreating it to model appropriate responses, and all participants being a part of the decision-making process is integral to Piaget's approach and is embedded in the Conscious Discipline model. (Finn, 2015, p. 18)

Brain Development and EF Skills

To have a clear understanding of EF skills and the impact on life, one must review the biological constructs of neurodevelopment and the architecture of the brain. Research has indicated the importance of the critical or sensitive period early in life when early neural connectivity in humans develops. Interaction with the environment through visual perception, use of language skills, and genetic influences shape who the individual is at key developmental stages (Fox, Levitt, & Nelson, 2010; Hensch & Bilimoria, 2012).

Critical or sensitive periods are windows of opportunity when plasticity is at its highest for brain development; environmental input is needed for brain development in early childhood. During these sensitive periods, early childhood experiences are vital to form the building blocks to promote EF skills. These sensitive periods for brain development of sensory neurodevelopment like vision, hearing, language, and cognitive function are staggered throughout development (Fox et al., 2010; Hensch & Bilimoria, 2012).

Harvard University (2016) conducted an extensive study at the Center on the Developing Child and reported key EF skills develop as early as birth; however, the window of opportunity for greatest growth (the sensitive period) is between the ages of 3 to 5 years. Although EF skills continue to develop in adolescence and early adulthood, preschool age is the critical period for EF skills development. Moriguchi (2014) found, “Extensive evidence suggests that EF develops rapidly in the preschool years, with adult-level performance being achieved during adolescence” (p. 1). The maturation of the prefrontal cortex during the preschool years supports the development of EF skills.

Rushton and Larkin (2001) explained how the brain uses the environment and interconnects with past experiences to transfer knowledge and learn. The brain consists of a neurological network of cells called dendrites. As information enters the brain through the five senses, the thalamus receives the information and routes the input to the corresponding lobes in the brain responsible for each sense. These lobes have millions of cells corresponding to each sense and are responsible for processing the different senses being stimulated. The occipital lobe processes information dealing with visual input information. The temporal lobe processes information related to language development, writing, hearing, and sensory associations, and a small part is responsible for memory (Rushton & Larkin 2001).

Yeager and Yeager (2013) noted the frontal lobe is the part of the brain most

connected to the development of EF skills. The frontal lobe is responsible for judgment, creativity, decision-making, goal setting, and planning, all areas related to EF. Whereas the prefrontal cortex is the primary brain area associated with EF, the anterior cingulate, parietal cortex, and hippocampus are key in EF skills. As behavior and EF skills develop during infancy, these changes correspond closely with the changes in brain development and are specific to these regions. Although the prefrontal cortex is primary in the development of EF, all parts of the brain work together, because learning is not a separate or isolated series of events (Yeager & Yeager, 2013).

Brain architecture is built on early life's dynamic interactions between genes and environment; interactions and experiences are environmental factors key to initial brain shaping (Fox et al., 2010; Hensch & Bilimoria, 2012; Moriguchi, 2014). Anderson and Ylvisaker (2009) explained EF skills are mediated largely in the frontal and prefrontal cortex and are key to acquisition of new skills and application of new knowledge to the child's world experiences.

In the Conscious Discipline paradigm, changes in children and adult behaviors can be triggered by changes in three parts of the brain: the brain stem, limbic system, and prefrontal lobes (Bailey, 2013). According to the schema of Conscious Discipline and the development of the simplified brain model, "the executive state of the brain takes place in the prefrontal lobes, where decisions are best made" (Finn, 2015, p. 23). As elucidated by Bailey (2013), the brain stem is the area that regulates survival state, where safety takes priority and decisions are carelessly made without much attention to future consequences. The limbic system, Bailey (2013) explained, is related to a person's need for acceptance (fundamental to feeling safe and well-being). The skill of composure aids with balancing the state of arousal and the alarm system, asking the question, "Am I safe?" With feelings of safety, the brain turns off the fight-or-flight stress response, allowing the optimal

working of the brain (Bailey, 2013).

Conscious Discipline and EF Skills

For the past 25 years, educational psychologists, neurologists, and educators have expressed great interest in EF skills because of the educational implications for self-directed behaviors, self-regulation, and overall intelligence in young children (Banich, 2009; Greenstone, 2011). Typically developed children, adolescents, and adults learn to plan ahead using multiple-stepped tasks; EF skills are the cognitive ability affected by aging (Banich, 2009). Greenstone (2011) highlighted research in neuroscience, specifically neuroplasticity, which deepened the understanding of EF and dysfunction of EF skills. Other studies on what causes executive dysfunction have helped professionals remediate these dysfunctions in classrooms and teach EF skills (Greenstone, 2011).

Bailey's (2011) research and development of Conscious Discipline over the past two decades has been grounded in Vygotsky's work. Vygotsky's theory used the cognitive development approach to learning (Bailey, 2011). Vygotsky's theory connects academic success and social emotional functions in young children to the social interactions between an adult and the child.

No one conclusive method has been identified to determine EF skills, yet the Behavior Rating Inventory of Executive Function has been noted to be an effective way to measure EF skills (Greenstone, 2011; Peters, Algina, Smith, & Daunic, 2012). Students do not enter school with a full battery of tests on EF skills, and even if they did, the results would not reflect the full spectrum of their skills. A broader, more accurate measurement can be achieved by using behavior ratings, parental questionnaires, and teacher classroom observations (Greenstone, 2011).

Conscious Discipline is a valuable tool to improve overall academics, school readiness, and quality of life in young children. Its research-based, comprehensive, brain-

smart curriculum has demonstrated success in helping children develop EF skills, essential for school readiness and academic success (Chavez, 2014; Rain, 2014). Conscious Discipline's primary focus is to change challenging behaviors using informed educational neuroscience and promote skills that aid with the development of executive behaviors (Rain, 2014). Instead of the well-known traditional disciplinary methods of rewarding desirable behaviors and punishing the undesirable ones, Conscious Discipline uses mindful, intrinsic motivation to promote prosocial behaviors. The shift from external consequences, such as rewards and punishments, to problem solving causes intrinsic motivation and changes the internal state of thinking (Bailey, 2015; Sorell, 2013).

Conscious Discipline promotes and enhances EF skills in children as they interact in social and emotional situations in ways that allow problems to become opportunities to problem-solve and learn (Chavez, 2014; Sorell, 2013). Conscious Discipline provides educators with essential strategies that create a safe learning environment, optimizing learning and developing EF skills. "Research conducted regarding the effects of Conscious Discipline reports that the program significantly reduces aggressive acts, thus creating safe classrooms. Children who feel safe, connected and supported perform better academically" (Zastrow & Simonis, 2005, p. 4). The curriculum is based on current neuroscience influencing child development studies, impacting best teaching practices using developmentally appropriate practices (Sorell, 2013). Sorell (2013) stated,

The program aims to educate adults on child behavior and the development of practical skills including self-management, building relationships, and problem solving so they can learn how to positively impact the psychosocial development of the children they interact with. Skills that parents and teachers learn in the program are designed to be easily generalized across settings including home and school environments. (p. 24)

To deepen the understanding of the profound connections between Conscious Discipline and EF skills, self-regulation and socioemotional regulation are two key components that influence the development of EF skills. Conscious Discipline structures and skills foster the development of children's ability to self-regulate behaviors and reflect about their thinking. The curriculum teaches children to understand and manage their own feelings and choose ways to solve them by teaching routines and stress-reduction and calming strategies. As children practice these skills in everyday experiences in school, they acquire the ability to organize their thoughts and plan their response, thus developing the skills of working memory and self-regulation. Children develop these skills in Conscious Discipline when adults model thinking aloud and guide and prompt children using visual reminders, picture books, and checklists.

EF's Influence on Preschool Education

EF has become a widespread concern among professional early childhood policy makers because individuals with high EF skills have core skills necessary to succeed in life, as well as psychological, cognitive, and social skills that promote physical and mental health (Diamond, 2016). Extensive studies have indicated that EF skills are associated with the prefrontal cortex, and thus EF is key to cognitive and social development, which leads to moral conduct, school readiness, and self-regulation (Carlson, Faja, & Beck, 2016). A large body of evidence has indicated by improving EF skills, especially early on in life, individuals lead a satisfying, successful life (Diamond, 2016). EF has become an instrumental topic in early childhood education because of its relation to cognitive ability, real-world success, and the general intelligence of an individual (Lawson, Hook, Hackman, & Farah, 2016; Wiebe et al., 2011).

As research has indicated, early intervention shapes positive behavior and increases academic gains quicker than interventions later in a child's life (Chavez, 2014).

Preschool teachers are the bedrock in early childhood education. Teachers' ability to manage their perceptions and understanding of how educational neuroscience and socioemotional learning influence children's learning gains are key to constructing a high-quality educational system for children (Cooper, 2014). The growing use of Conscious Discipline in preschool settings has increased teachers' understanding of EF skills. With Conscious Discipline, first the teacher recognizes his or her self-perceptions, thus learning about the brain and the energy it releases into the environment (Bailey, 2015). When teachers begin their journey of Conscious Discipline, they develop self-efficacy and self-actualization that mirror their various aspects of teaching (Bailey, 2015).

Current researchers have learned that EF skills are a range of cognitive abilities that control and organize information to produce goal-directed behavior (Carlson et al., 2016; Griffin, Freund, McCardle, DelCarmen-Wiggins, & Haydon, 2016; Vitiello, Greenfield, Munis, & George, 2011; Willoughby & Blair, 2016). These skills can be easily promoted during the early years of childhood because young brains develop rapidly (Lawson et al., 2016; Santrock, 2014). Wiebe et al. (2011) noted that preschool is a prime period of rapid development in language abilities, symbolic thought, and self-identity. All of these improve the child's ability to self-regulate and set goal-directed behaviors. The growing conceptualization of EF skills and their use in early childhood development is imperative. Research has shown the long-term benefits of EF skills, particularly among children in at-risk environments (Wiebe et al., 2011).

EFs are directly associated with the prefrontal cortex processes (Carlson et al., 2016). In addition, the prefrontal cortex is related to age-related shifts in EF skills during the early years. These areas can become susceptible to young children's experiences in low-socioeconomic environments (Carlson et al., 2016). McClelland et al. (2016)

reported that relationships among low EF skills, school achievement, and families at risk (living in poverty and minority status) served as a predictor of low achievement in academics as early as prekindergarten.

Lawson et al. (2016) confirmed Piaget's theory of performance on an A-not-B task serving as an indicator of emerging EF skills and reflecting the maturation of the prefrontal cortex in infancy. "This task requires infants to search for a toy that they have watched the experimenter hide. After several trials in which the toy is hidden in one location, A, and the infant successfully retrieves it, the infant then watches the experimenter hide the toy in a new location, B" (Lawson et al., 2016, p. 261). The task reveals development of critical areas of the brain identified as EF skills: working memory, as the baby will remember the location of the toy, and inhibitory control, the ability to refrain from trying the old location where the toy was found previously (Lawson et al., 2016). Lipina, Martelli, Vuelta, and Colombo (2005) demonstrated that children living in deprived environments of low-socioeconomic status tended to select the incorrect response more often compared to children of high-socioeconomic status. However, this is not to say that children exposed to low-socioeconomic status are unable to develop EF skills and become successful citizens. On the contrary, evidence from studies suggested EF is distinctively related to resilience in youth exposed to risks such as low-socioeconomic status (McClelland et al., 2016).

High-Functioning Skills in Preschoolers

Building a strong foundation in the early years of life by developing high EF skills impacts children's outcomes in life greatly. McClelland et al. (2016) suggested that children with EF skills transition to formal schooling (kindergarten) more successfully because of their ability to manage emotions, regulate behaviors, and navigate successfully to new academic demands. Duncan et al. (2007) found that children's

attention (a characteristic of EF) between the ages of 5 and 6 years predicted those students who would enter kindergarten with higher school readiness and later, in early adolescence, show higher reading and mathematical achievement. Additionally, other studies found that children who can remain focused by the age of 4, indicating the EF skill of attention-span persistence, were more likely to complete college by the age of 25 (McClelland, Acock, Piccinin, Rhea, & Stallings, 2013). The study by McClelland et al. (2013) revealed that attention span plays a significant role when predicting reading and mathematics success at the age of 21, after controlling for achievement at age 7, parent education, vocabulary level, and gender.

Bailey (2015) emphasized, “Attention is a whole brain activity” (p. 125); an individual directs attention solely to something or someone, without being distracted, resulting in engaging many circuits throughout the brain. When children feel safe and loved, their brains are at optimal learning state, also known as the executive state, and therefore they can focus and sustain attention. When a child is capable of sustaining attention, neuroplasticity occurs in the brain. Neuroplasticity is “the brain’s ability to change its structure, circuits, chemical composition and function in response to change” and “is at the heart of all learning” (Bailey, 2015, p. 125). When children begin to constantly access their executive state, they begin engaging EF skills.

Vitiello et al. (2011) examined the relationship between EF skills and success and found that “strong EF skills support the performance of adaptive behaviors that contribute to learning, commonly referred to as children’s approaches to learning” (p. 328). EF skills include cognitive flexibility. Studies have indicated that high-functioning cognitive flexibility allows the learner to activate positive approaches to learning events more easily than learners with low-functioning cognitive flexibility (Vitiello et al., 2011).

Trends in Current Research

Research on EFs has indicated the connection among EF skills, language development, and self-regulation. Within the umbrella term of EF is inhibitory control, or controlling one's actions and or behaviors, such as resisting the urge to be distracted by unnecessary stimuli (Dia & Seabra, 2015). Self-control or self-regulation is often compared to inhibitory control, emotional control, and impulse control; the individual has the capability to regulate and monitor behavior by adjusting, adapting, and controlling emotional and cognitive states (Dias & Seabra, 2015).

In a quantitative research study, Rain (2014) compared the effectiveness of Conscious Discipline with a non-Conscious Discipline classroom. The study included a sample of 66 teachers, 1,386 students, and 868 parents in 24 schools in three states over 8 months. Rain reported teachers, parents of children, and trained classroom observers indicated that Conscious Discipline improved children's social-emotional skills, including impulse control, self-regulatory skills, working memory, organization skills, problem-solving skills, and goal orientation. In all the schools in the study, the overall school climate improved; preschool children were less likely to show aggression, impulsivity, and hyperactivity; and the quality of student-teacher relationships improved dramatically (Rain, 2014).

Fahy (2014) reflected that sufficient language skills are vital to regulate inner speech and that limited language skills can lead to deficits in not only language but also self-regulation EF skills. "Increasing evidence suggests that children with specific language impairment (SLI) display deficits in more than just language, with differences to various cognitive processes, the use of language for inner speech, and self-regulating EF" (Fahy, 2014, p. 61).

Aro, Laakso, Maatta, Tolvanen, and Poikkeus (2014) focused on the connections

between early language development and the development of self-regulation skills from the toddler years to kindergarten. They found that self-regulation is influenced by the maturation of early cognitive skills of attention, inhibitory control, and language. The study identified language as a skill “to pave the way for the development of regulatory skills” (Aro et al., 2014, p. 1405).

Bailey (2015) explained neural circuits in the prefrontal lobe are responsible for conscious self-control. A child exhibiting self-regulatory skills is using EF skills to regulate emotions and behavior. The prefrontal lobe is the control center, helping individuals control impulses and emotions. Composure is a mirror of a balanced nervous system, where the sympathetic nervous system and the parasympathetic nervous system are working together in harmony (Bailey, 2015). Self-regulation is an intricate behavior rooted in cognitive processes, the regulation of emotions, and affective reactions (Aro et al., 2014).

How self-regulation impacts school readiness and future academic achievement was investigated by Vernon-Feagans, Willoughby, and Garrett-Peters (2016) in a study on early development of EF skills. The study revealed the deeper implications of behavioral regulation as a predictor of early academic gains and initial achievement.

These early regulatory behaviors are likely part of the development of EF skills such as working memory, inhibition, and attention skills that emerge from the interplay between early brain development and environmental experiences. These skills have been hypothesized to be precursors or antecedent skills that facilitate later complex behavioral regulation as children make the transition to formal schooling. (Vernon-Feagans et al., 2016, p. 1)

Another trend found in several studies indicated the correlation between deficits or delays in language skills and children of low-socioeconomic status having lower EF

skills, specifically in self-regulation (Aro et al., 2014; Nayfeld et al., 2013; Vernon-Feagans et al., 2016). These studies highlighted how children living with families of low-socioeconomic status demonstrated lower functioning of self-regulation as well as limited expressive language abilities. Vernon-Feagans et al. (2016) reflected that children with regulatory difficulties usually lived in lower income homes, and their parents tended to have less education and fewer resources. “From a psychobiological perspective, these early poverty-related factors may be related to heightened stress hormone levels, which negatively influence the neural underpinnings of cognitive processes like regulatory behaviors” (Vernon-Feagans et al., 2016, p. 2).

Nayfeld et al. (2013) stated that children living in low-income homes scored lower on evaluations on EF processes, when compared to their peers living in higher income homes. Similar to the findings of Vernon-Feagans et al. (2016), Nayfeld et al. reported that children living in low-income homes entered school at a disadvantage when compared to their peers living in higher income homes. Low-income children showed lower EF skills. In Nayfeld et al.’s research, first graders were tested on various tasks related to EF skills, such as working memory and cognitive control (self-control) to better understand the disparities. The study revealed that socioeconomic status was a significant and positive predictor for both working memory and cognitive control, suggesting an early disadvantage for children living in low-socioeconomic status homes.

Teacher Perceptions of EF Skills and Conscious Discipline

The teacher is ultimately the leader of the learning occurring for all children in the classroom environment. Teachers’ perceptions of EF and its impact of learning and social emotional skills are critical in the learning environment. Teachers who are consciously aware of EF skills and how they impact student learning are more likely to teach and reinforce EF skills in students.

Hoile (2016) reported a majority of educators agreed that Conscious Discipline had influenced their lives and those of their students in a positive way. In the study, educators indicated that implementing the Conscious Discipline behavioral management program positively impacted children's social-emotional well-being and academics. The study also found significant improvements in teacher perceptions of management skills and responses to conflict, thus decreasing challenging behaviors associated with poor EF skills such as self-regulation, attention, and cognitive flexibility (Hoile, 2016). The study also revealed that teachers implementing Conscious Discipline in their classrooms noted a dramatic decrease in behavior problems and an increase in instructional time, thus improving student learning gains. Teachers reported Conscious Discipline improved not only their professional lives but also their personal lives, as their relationships with significant others flourished. Teachers admitted a challenge of the training was needing to completely change their way of thinking and reacting to life events (Hoile, 2016).

Preschool teachers play a key role in developing EF skills in young children during the daily routine and practices in the classroom (Webster, 2010). Research has indicated the importance of teacher knowledge of EF skills in young children and ability to recognize EF deficits (Reed, 2016; Webster, 2015). Wright (2010), in a quantitative study, investigated whether giving detailed support to students with deficit EF skills, instead of just providing academic intervention to improve behaviors, would result in students demonstrating more effective problem-solving skills, improved mental flexibility, and improved behaviors. The study demonstrated that with positive changes in behaviors rendered by support, student academic success increased, thus improving student self-esteem and ultimately decreasing the dropout rate.

The way teachers provide instruction, deliver lessons, structure the learning environment, and build relationships with students and families impacts the development

of self-regulation in their students (Webster, 2010). The National Association for the Education of Young Children (2008) supported the notion that teachers should implement a social-emotional curriculum to help children regulate emotions, manage impulsivity, and reduce frustration and anxiety.

Gilmore and Cragg (2014) were interested in what teachers knew about EF skills or if they were even aware of the term EF. The researchers were guided by two constructs in exploring teacher understanding of EF. One construct was to “demonstrate that teachers’ conceptions of child development and their knowledge of neuroscience influence the teaching practices they employ” (Gilmore & Cragg, 2014, p. 132). Teacher perception of EF and its importance might change their behavior and instruction. The second construct was that “for research evidence to have an impact on educational practice, researchers need to understand teachers’ conceptions of these issues” (Gilmore & Cragg, 2014, p. 133). Currently, research has offered limited understanding of teacher perceptions of the importance of EF and its role in teaching and learning.

Gilmore and Cragg (2014) conducted an online survey in the United Kingdom to measure teachers’ knowledge of EF skills. Ninety-six teachers completed the survey. Of the sample of teachers, 52% were primary school teachers. Further, 29% of the participating teachers had 1 to 3 years of teaching experience, 35% had 4 to 10 years of experience, and 34% had more than a decade of teaching experience. Only 18% of teachers reported they had heard of EF before completing the survey; however, 72% stated they were somewhat aware of the individual skills and their importance. The study found that the majority of the teachers were aware of the importance of working memory, self-regulation, and mental flexibility in mathematics, even if they had never heard of the term EF before the survey. The study revealed that teachers might need years of experience to understand EF and its importance in academic success. Notably, the

participants reported they became aware of EF skills through their own teaching experience and not during their education preparation programs. Educational neuroscience may not be emphasized in teacher preparation coursework.

Alexander (2014) explained although all children follow the progression of each developmental milestone, each child differs in the rate of each stage, due to varying biological make-up and interactions and experiences with the environment during early childhood. Alexander discussed the importance of having a knowledgeable teacher who provides enriching early experiences to accommodate the complexities of the sensitive periods in a child's development. Teachers should have in-depth knowledge of how early experiences and a stimulating learning environment during a child's sensitive period impact the neural pathways. Alexander explored early childhood care providers' knowledge of brain development during the sensitive period and the impact of a stimulating environment on the brain. The care providers understood high-quality interactions and responsive care impacted development; however, they knew less about the impact of the environment and the development of brain architecture (Alexander, 2014).

Evidence-based research literature on teachers' perceptions of neuroscience in the classroom is limited, specifically in teachers' perceptions of providing stimulating environments for preschool children to develop school readiness and self-regulation. McCrea (2013) explored teachers' perceptions about school readiness in kindergarteners and the links between EF and self-regulation, based on current neuroscience research on the topic. The study emphasized educators needed understanding of the EF, educational neuroscience, and the impact on assessing school readiness. "Cognitive and behavioral readiness for school depends largely on the development of a child's executive regulatory systems during the preschool period" (McCrea, 2013, p. 15).

McCrea's (2013) research study included 72 New York City kindergarten teachers as participants, each with at least 3 years of teaching experience. The major finding was a significant number of teachers were unaware of early childhood educational programs designed to increase self-regulation in children, such as Tools of the Minds. Another key finding was that only 17.4% of the teachers had attended training on the topic of EF and early childhood development (McCrea, 2013).

Null (2014) acknowledged the impact of positive relationships between teachers and students, with teachers being warm, close, and responsive to children. Children are more likely to learn, adapt, and be successful in the learning environment in the presence of such relationships. The quality of teacher–student interactions in early childhood is vital in creating a peaceful learning environment that promotes learning at the executive state. Null indicated that teacher–child interactions based on positive relationships developed in early schooling have a significant impact on later academic success. Further, research indicated children who develop strong attachments to other adults such as teachers are more likely to progress into the future with positive social and emotional development, which is imperative to the development of cognitive abilities and executive skills (Bailey, 2015).

Caldarella et al. (2012) detailed preschool teachers' perceptions of Conscious Discipline. The participants agreed social-emotional learning in preschool was important. Almost all participants agreed that the Conscious Discipline behavioral management program was acceptable, and most participants agreed that the program had a positive influence on them and their students. Overall, 88% of participants agreed that Conscious Discipline needed to be infused into the preschool curriculum. Research has been conducted to validate and demonstrate teachers' perceptions on social-emotional learning and its importance to children's quality of life (Caldarella et al., 2012). However, there is

a significant gap in research conducted to correlate the Conscious Discipline behavioral management program to the development of EF skills in children.

Professional Development

Teachers' understanding of the importance of identifying and promoting EF skills in the classroom can help their students make tremendous academic and social-emotional gains, in an investment for the future. Postholm (2012) reflected, "Teacher professional development means teacher's learning, how they learn to learn, and how they apply their knowledge in practice to support pupil learning" (p. 3). Wright (2010) stated, "Educators spend a great deal of time emphasizing learning and preparing for standardized state tests, but how much time is spent addressing EFs, which appear to impact learning in such a significant manner?" (p. 13). Teachers can develop professionally by participating in coursework, observing colleagues, and self-reflecting on practices (Postholm, 2012). Professional development can happen in planned reflection meetings or during spontaneous conversations with colleagues.

The Conscious Discipline behavioral management program is a brain-based research program. Its philosophy is to begin training the adults first and accept the changes in their thinking before teaching children the necessary skills to be successful in life. During this journey, teachers focus on the developmentally appropriate teaching practices while they learn about themselves (Sorell, 2013). The Conscious Discipline paradigm focuses on teaching adults about the importance of creating safe environments, making meaningful connections, and self-empowering (Bailey, 2015). The idea during the journey in Conscious Discipline is "we must be the change we want to see in the world" (L. G. E. Smith, Thomas, & McGarty, 2015, p. 2). Thus, adults learn and practice Conscious Discipline skills and strategies and develop a better understanding about themselves and others. In turn, they are able to foster these skills in children and teach

children the tools necessary to work from an executive state of mind (Bailey, 2015; Sorell, 2013). “Trained teachers are better able to model the behavior they desire in the children” (Sorell, 2013, p. 30).

Caldarella et al. (2012) explained the Conscious Discipline behavioral management program begins training with teachers “in the seven basic powers for self-control (perception, unity, attention, free will, love, acceptance, and intention) as well as the ‘seven basic skills for discipline’ (composure, encouragement, assertiveness, choices, positive intent, empathy, and consequences)” (p. 3). Within the journey of Conscious Discipline, teachers master these skills, using moments of conflict as teaching opportunities in their own lives and for their students (Caldarella et al., 2012).

Calderella et al. (2012) described using the Conscious Discipline behavioral management program as the focus for professional development for 17 early childhood special educators. The study demonstrated teachers indicated the program was appropriate and had positive effects, with higher ratings corresponding to more experience with the program. Lee (2015) stressed the importance of professional development as a mechanism for social change in the profession of education by bringing about newer and in-depth thinking. Lee’s study primarily focused on curricula with the professional learning community and involved a process of continuous progress on intervention, reflection, and plans among the learning community. The action research consisted of three cycles. The first part of the action cycle was a multimedia presentation about EF and the importance on learning. The presentation was followed by a working memory task and thorough discussion about what is already known about EF. The professional development’s primary goal was for the learning community of educators to consider alternative methods to strengthen responsiveness to the needs of students with compromised EF skills. Challenging behavior indicating deficits in EF includes limitation

in attention, lack of inhibitory control, and slow rate of processing information.

Lee (2015) stated, “Critical action research involves identifying problems in practice, planning actions, implementing, monitoring, modifying actions and evaluating outcomes of actions” (p. 55). After planned implementation, modifications to teaching practices, and participant reflections, teachers’ understanding of how critical EF is in classrooms increased. After the professional development, teachers felt the impact in classrooms on a personal level and also experienced the desire to seek equity for all children. Lee also noted that with increased knowledge and experience with EF, teachers were able to identify deficits in EF skills. Lee stated,

This knowledge also brought about new attitudes for the participants, in regard to their students’ intentions. Each teacher learned that many problem behaviors in the classroom are not volitional, and most students are well-intentioned, even when they are being disruptive. It is this empathy that creates teachers who are willing to be creative, flexible, and think outside of the box to make learning possible for all of our students. This study also shows us that teacher leadership is effective when teachers are motivated to make change. Change and school improvements do not need to come down from administrators who are not in the classroom. Teachers have the power to make great changes in their classrooms and in the field. (p. 231)

In Lee’s (2015) study, the professional development brought new attitudes and perspective to how deficits in EF negatively impact student behaviors. Postholm (2012) explained the sociocultural theory and Vygotsky’s theory on thoughts and ideas and the connection to teacher learning. In teaching, the social surroundings play an important part in how a learner develops cognitive ability. Because individuals construct knowledge in a social context, a best practice is to provide professional development in settings where

teachers can observe, implement practices, and reflect on best practices in teaching.

Postholm reflected,

Teacher trainers cannot promote the learning of teachers without awakening their previous knowledge and experiences during the learning process. Based on the previous knowledge of teachers, they may be assisted in their zones of proximal development by more competent others (Vygotsky 1978). More competent others may, in this setting, be colleagues, external teachers or other resource persons. (p. 4)

Research Questions

One overarching research question (Research Question 1) and three subquestions (Research Questions 2–4) guided the study.

1. What are the perceptions of early childhood teachers of the use of Conscious Discipline to develop EF skills in preschool students?

2. To what extent does professional development in Conscious Discipline influence teachers' implementation of the program in their preschool classroom?

3. To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes and develops EF skills in their students?

4. To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes academic success for their students?

Chapter 3: Methodology

Aim of the Study

The aim of this study was to learn, understand, and describe early childhood educators' perceptions of the use of the Conscious Discipline behavioral management program to develop EF skills in students in a South Florida preschool. A qualitative research design was selected as the appropriate design for the study. Creswell (2014) stated,

Qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. . . . Those who engage in this form of inquiry support a way of looking at research that honors the inductive style, a focus on individual meaning, and the importance of rendering the complexity of a situation. (p. 4)

Marshall and Rossman (2016) observed as the qualitative approach became a more accepted method of research in the past century, its use increased in importance as a lens to examine phenomenon.

Qualitative Research Approach

Creswell (2013) highlighted five widely used qualitative theoretical paradigms that may guide a research study: case study, grounded theory, narrative research, ethnography, and phenomenology. After evaluating the different qualitative methods, the researcher determined that the research problem could best be investigated using the qualitative case study approach. Yin (2017) stated that a qualitative case study is the most appropriate research method to use when investigating a “contemporary phenomenon (the ‘case’) in its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident” (p. 15).

As qualitative researchers explore the general assumption that “social reality is a

human creation, they interpret and contextualize meanings from people's beliefs and practices" (Baškarada, 2014, p. 1). The researcher used the approach of qualitative case study because the topic was "well-suited for extensive and in-depth descriptions of complex social phenomena" (Baškarada, 2014, p. 4). The qualitative inquiry study has become a leading method to explore and study phenomena because of its focus "on the self-reflective nature of how qualitative research is conducted, read, and advanced" (Creswell, 2007, p. 3).

Based on the recommendations of Creswell (2013), a purposeful sampling strategy was employed to select participants to "purposefully inform an understanding of the research problem and central phenomenon of the proposed study" (p. 156). The phenomenon was the perceptions of early childhood educators toward the use of the Conscious Discipline behavioral management system to develop effective EF skills in preschool children. Purposeful sampling is a conception prevalent in qualitative research in which "the inquirer selects individuals and sites for study because they can purposefully inform an understanding of the research problem and central phenomenon of the study" (Creswell, 2012, p. 158).

Participants

Five early childhood educators were selected as participants. The sample size was based on Creswell's (2013) rationale that "this number should provide ample opportunity to identify themes of the cases as well as conduct cross-case theme analysis" (p. 157). The participants were preschool teachers in a private preschool center in South Florida serviced by the state college's institute in early care. All the participants had completed 40 hours in child care training; 120 hours for the Florida Child Care Professional Credential; and 10 hours training in various settings in an infant, toddler, or preschool classroom. Each participant had a high school diploma, had completed special-needs

training in early childhood education, and had at least 2 years of classroom experience in early childhood education.

The participants received 7 days of extensive training in Conscious Discipline paid by the institute at the start of their employment. In addition, all preschool teachers received coaching, retraining, and observations with rubric checklists at least three times per month in Conscious Discipline. The preschool teachers selected as participants in the study met the state's requirements to qualify to work in Florida's early childhood education programs.

Data Collection Methods

Data in case studies can be collected through a myriad of procedures to answer the research questions. Yin (2009) detailed six forms of data collection methods available to use in case study research: “documents, archival records, interviews, direct observation, participant observation, and physical artifacts” (p. 102). According to Yin (2009), the strength of direct observation is real-time data collection within the context of the case; weaknesses include time required, selectivity, and reflexivity (observation affecting events). The strength of interviewing is targeted data collection to produce insight; weaknesses are potential bias, reflexivity (interviewee responding as he or she thinks the interviewer wants), and inaccurate recall by participants (Yin, 2009). Self-assessment surveys have similar strengths and weaknesses to interviews.

The three methods of data collection used in the current research study were self-assessment survey, observations, and interviews. As posited by Grammatikopoulous, Zachopoulou, Tsangaridou, Liukkonen, and Pickup (2008), a more complex and robust picture can be discerned in the case study paradigm using a variety of data collection methods.

Advisory committee. An advisory committee consisting of two early childhood

instructional designers working for the Institute of Excellence in Early Care and Education was formed for the study. The instructors were selected randomly to reflect the diversity of the institute. The committee was charged with two tasks. First, the committee would review, evaluate, and make recommendations for each of the instruments, as the data collection instruments were adapted by the researcher and as a result not validated. The second task of the advisory committee was to review and comment on the findings and the emergent themes developed from the study. Use of an advisory committee ensured increased validity and reliability of the study (Creswell, 2014).

Self-Assessment Survey. The first data collection method was the Self-Assessment Survey (see Appendix A). The Self-Assessment Survey was adapted from the Conscious Discipline (2018b) progress assessment rubrics, with questions added to reflect perceptions of EF skills. The Self-Assessment Survey was designed to allow the participants to reflect on their understanding of Conscious Discipline’s promotion of EF skills in the classroom. Sedikides (1993) described the value of using a self-report survey as a case study collection tool: “According to the self-assessment view, people are motivated to reduce uncertainty about their abilities or personality characteristics. Uncertainty is reduced by obtaining an objective and accurate picture of the self in self-evaluative settings” (p. 317). The questions asked in the Self-Assessment Survey were reviewed by the advisory committee to enhance the reliability and validity of the study.

Direct observations. The Direct Observation Checklist was the second data collection method used (see Appendix B). As with the Self-Assessment Survey, the Direct Observation Checklist was derived from the Conscious Discipline (2018b) progress assessment rubrics, with additional questions to reflect use of Conscious Discipline to promote student development of EF in the classroom. An observational checklist is a valuable case-study data collection tool because it is “unobtrusive and does

not require direct interaction with participants. . . . [Results may] illuminate the discrepancies between what people said in the interviews and casual conversations and what they actually do” (Meyer, 2001, pp. 339–340). The reliability and the validity of the findings from the Direct Observation Checklist were enhanced by the researcher observing each participant five times over 2 months. Creswell (2009) stated, “The more experience that a researcher has with participants in their actual setting, the more accurate or valid will be the findings” (p. 202).

Qualitative interviews. The third method for data collection in the research study was qualitative interviews. King and Horrocks (2010) expressed, “Interviewing is the most commonly used method of data collection in qualitative research, and this familiarity has advantages for . . . researchers” (p. 1). As elucidated by Yin (2009),

Interviews also are essential sources of case study information. The interviews will be guided conversations rather than structured queries. In other words, although you will be pursuing a consistent line of inquiry, your actual stream of questions in a case study interview is likely to be fluid rather than rigid. (p. 106)

Rubin and Rubin (2012) highlighted three types of qualitative interview questions: main questions, follow-up questions, and probes. Rubin and Rubin defined the constructs of these three types of qualitative questions:

Main questions assure that you cover each part of your research question and provide an overall structure to the interview; follow-up questions get depth and detail on events or steps in a process, as well as the meaning on concepts, and themes; whereas probes encourage the interviewee to keep talking and stay on topic, ask for clarification, or ask for evidence and examples. (p. 119)

First, main questions structure the interview. These are prepared in advance and worded to match the experiences of the interviewee. Second, follow-up questions are asked to

gain depth, detail, richness, and nuance, to ensure thoroughness and credibility of the data. Follow-up questions are based on interviewees' responses. Third, probing questions are used to manage the conversation. Probes may ask for elaboration, keep the interview on target, and help reveal bias. Probing questions are simple and formulaic, not based on the interviewees' previous answers (Rubin & Rubin, 2012).

A copy of the qualitative interview questions can be found in Appendix C. All interview questions were reviewed by the advisory committee to enhance their reliability and validity. During each interview, the researcher made field notes to ensure that the probing questions were similar for each participant, also to strengthen the study's reliability and validity.

Procedures

Upon gaining Institutional Review Board approval, the researcher e-mailed several prospective early childhood education school-site administrators with details on the scope of the study. The e-mail stressed participation in the study was voluntary, with the right at any phase of the study to withdraw participation. The e-mail highlighted participants' entitlement to anonymity as well as a copy of the results of the study (Creswell, 2008). Once an administrator granted permission for research at the school site, a Nova Southeastern University Informed Consent Form encapsulating the parameters of the study was e-mailed to the site administrator. Five preschool teachers from one site were purposefully selected, as recommended by Creswell (2014), as participants in the study and given Informed Consent Forms to sign. Creswell (2014) defined purposeful selection as "qualitative researchers select individuals who will best help them understand the research problem and the research question" (p. 246).

Self-Assessment Survey protocol. A protocol was created for the Self-Assessment Survey to guide the participants, similar to an interview protocol, consisting

of a header, instructions, and questions to be answered by the participants (Creswell, 2013). Participants notified the researcher via e-mail when the consent forms had been signed. The researcher then e-mailed the participants the Self-Assessment Survey protocol, allowing several days for the participants to complete it. Both the Informed Consent Forms and Self-Assessment Surveys were collected on the day of the first observation visit.

Observational Protocol. An Observational Protocol was produced using the Direct Observation Checklist questions. As suggested by Creswell (2014), the Observational Protocol included a second page divided down the middle for descriptive notes on one side and reflective notes on the other side. Creswell (2014) defined descriptive notes as “portraits of participants, a reconstruction of dialogue, a description of physical setting, [or] accounts of particular events or activities” (pp. 181–182). Creswell (2014) described reflective notes as “the researcher’s personal thoughts, such as speculation, feelings, problems, ideas, hunches, impressions, and prejudices” (p. 182). The Observational Protocol also was used to note background information including date, place, and time of the observation. Five observations of participants took place over 2 months to allow for a “in-depth understanding of the phenomenon under study” (Creswell, 2014, p. 202).

Qualitative Interview Protocol. The Qualitative Interview Protocol consisted of all interview questions. The protocol also included Creswell’s (2014) recommended sections:

a heading (date, place, interviewer); instructions for the interviewer to follow so that standard procedures are used from one interview to another; the questions [with] typically an ice-breaker question at the beginning; probes . . . to follow up and ask individuals to explain their ideas in more detail, or to elaborate on what

they have said; [and] spaces between the questions to record [notes or reflections] to responses. (p. 194)

As stated in the Participant section, five preschool teachers were chosen at one school site to be interviewed. The qualitative interviews for each participant were scheduled after all observations were completed and took place over 2 weeks, with approximately one hour scheduled for each interview.

Recordings. All qualitative interviews were recorded using the recording capability of the iPhone. Each interview recording was uploaded to NoNotes, a web-based transcription and recording site with an app on the iPhone. Within 2–3 days of receipt of the interview, NoNotes provided a verbatim transcript of each interview (NoNotes, 2018). To ensure confidentiality, transcripts were stored in a password-protected computer accessible only by the researcher. Also, after transcripts are downloaded from NoNotes, the copies were deleted from the website.

Data Analysis

Creswell (2014) recommended an explicit strategy for data analysis, to which the researcher adhered. Creswell's (2014) approach focused on various levels of analysis from "the specific to the general" (p. 196). The data analysis schema began with the raw data, which then were organized and prepared for analysis. The researcher read and reread all the data. Then, the researcher coded the data to yield themes and descriptions of each theme.

Data software tools were not used, following the suggestion of Gay, Mills, and Airasian (2011), to enable the researcher to gain personal immersion in the evaluation and elucidation of the qualitative data. Creswell (2014) defined coding as "the process of organizing the data by bracketing chunks (or text or image segments) and writing a word representing a category" (pp. 197–198). As codes were developed based on the data,

Creswell's (2014) recommendations for categorizing codes according to three attributes were observed: "codes on topics that readers would expect to find, based on the past literature and common sense; codes that are surprising and that were not anticipated at the beginning of the study; [and] codes that are unusual, and that are, in and of themselves, of conceptual interest to readers" (pp. 198–199).

The next step was to describe and interpret emergent themes, commonalities, patterns, and relationships identified in the coding process as they correlated to the research questions. Strategies for data analysis in phenomenological studies developed by A. Smith, Flowers, and Larkin (2009) were appropriate for analysis in the current study:

1. The close line-by-line analysis of the experiential claims, concerns, and perceptions of each participant.
2. The identification of emergent patterns that emphasize convergence and divergence, commonality and nuance.
3. The development of a "dialogue" between the researcher, the coded data, and knowledge of the subject.
4. The organization of this material in a format that allows for analyzed data to be traced through the entire process, from initial comments on the transcript, through initial clustering and thematic development, into the final structure of themes.
5. The development of a narrative evidenced by a detailed commentary on data extracts. (pp. 79–80)

Ethical Considerations

The guidelines for ethical considerations in qualitative research, elucidated by Willig (2013), were used in this research study:

1. Informed consent. The researcher should ensure that participants are fully

informed about the research procedure and give their consent to participate in the research before data collection begins.

2. No deception. Deception of participants should be avoided altogether.
3. Right to withdraw. The researcher should ensure that participants feel free to withdraw from participation in the study without fear of being penalized.
4. Debriefing. The researcher should ensure that, after data collection, participants are informed about the full aims of the research and access to any publications arising from the study.
5. Confidentiality. The researcher should maintain complete confidentiality regarding all information about participants acquired during the research process. (pp. 96–97)

The researcher adhered to all ethical constructs associated with qualitative studies, in particular maintaining participant anonymity and privacy (Yin, 2017). Several techniques developed by Yin (2017) to protect human subjects were employed throughout the research process:

1. Informed consent was gained from all participants, describing the nature of the case study and formally soliciting their volunteer participation.
2. Participants were protected from any harm in the study, including avoiding deception.
3. The privacy and confidentiality of participants were protected. Being in the study did not place any participants in an undesirable position, including being on a roster for future study solicitations.

Trustworthiness

Parallel to the validity of quantitative research, trustworthiness governs the value of qualitative inquiry (Chenail, 2011). The variance between quantitative research with

random samples and qualitative research focusing on people and their discussions and thoughts impedes viewing credibility issues related to validity and reliability through the traditional quantitative lens (Marshall & Rossman, 2016). As reflected by Creswell (2008), in a quantitative study the research instrument is the focal point for validity and reliability issues. In contrast, the researcher is the focal point for credibility issues in qualitative studies (Marshall & Rossman, 2016).

To provide credibility for the study, thereby strengthening its validity and reliability, the following steps were taken. First, data collection was triangulated through use of multiple data collection instruments, with peer review of the instruments. Data triangulation through use of multiple sources fosters recognition of converging patterns and themes (Creswell, 2012). Baxter and Jack (2008) explained,

Triangulation of data sources, data types, or researchers is a primary strategy that can be used and would support the principle in case study research that the phenomena be viewed and explored from multiple perspectives. The collection and comparison of this data enhances data quality based on the principles of idea convergence and the confirmation of findings. (p. 566)

The second step was the use of member checking by the participants with a follow-up interview with each participant. In the follow-up interview, participants were shown aspects of the findings, such as themes and case analysis, for them to make comments and changes (Creswell, 2013). Baxter and Jack (2008) illuminated the intent of such sharing of findings: “Researchers’ interpretation of the data are shared with the participants, and the participants have the opportunity to discuss and clarify the interpretation and contribute new or additional perspectives on the issue under study” (p. 556).

Potential Researcher Bias

Bogdan and Biklen (2011) and Chenail (2011) stressed the significance of the researcher to lessen bias when undertaking qualitative research due to the central role of the researcher as the focal point in the research. Yin (2017) observed, “All the preceding conditions will be negated if a researcher only seeks to use a case study to substantiate a preconceived position” (p. 86). Creswell (2014) postulated that all researcher bias should be recognized and reflected in a qualitative study. Creswell (2014) wrote, “Reflectivity has been mentioned as a core characteristic of qualitative research. Good quality research contains comments by the researchers about how their interpretation of the findings is shaped by their background” (p. 202).

Reflecting on the researcher’s role in the study, the researcher brings a unique expertise to the investigation. The researcher was a full-time professor in early childhood education at a local college and has developed techniques, strategies, and methodologies to promote understanding of EF with future preschool teachers. In addition, the researcher has created an array of teaching strategies for identifying, developing, and enhancing EF skills of preschool students in the classroom. The researcher is currently an instructional designer working for a grant-funded institution developing training modules in Conscious Discipline, as well as coaching preschool teachers, assistant teachers, and site directors in Conscious Discipline and its impact on the development of EF skills in preschool students. The researcher also has developed Conscious Discipline training sessions for practitioners and site directors.

Although it is impossible to eliminate personal beliefs, paradigms, and constructs, recognizing and reflecting on these beliefs as part of the research process, as illuminated by Flocken (2014), can “provide tremendous insight and validity checks on data gathered during the research process . . . creating an honest response to the issue” (p. 72).

Additionally, triangulation of data collection, member checking, and peer review by an advisory committee enabled the researcher to recognize and minimize any potential bias in the study based on the researcher's background and expertise.

Chapter 4: Findings

The purpose of this research study was to learn, understand, and describe early childhood educators' perceptions of using the Conscious Discipline behavioral management system as a strategy to develop EF skills in preschool students. The study took place in a privately-owned early learning center located in South Florida. The five participants in this qualitative study are early childhood teachers who had been part of a pilot program begun by a local community college for the previous 3 years. The participants received extensive training in Conscious Discipline from the college, along with support from assigned program coaches. The participants completed the Florida requirements to teach in an early learning center, including 120 hours for the Florida Child Care Professional Credential and special-needs training for early childhood education. This study documented participants' experiences using Conscious Discipline and their perceptions of how children's EF skills developed when using it.

This chapter presents the analysis of common themes that emerged from the data collected during the study. Multiple methods were used to collect data, including a Self-Assessment Survey (Appendix A), semistructured qualitative interviews (Appendix C), and direct observations using the Direct Observation Checklist (Appendix B). Participants completed the Self-Assessment Survey to reflect on their perceptions about EF skills and their internalization of Conscious Discipline. The findings from the qualitative interviews were examined. Participants' body language and facial expressions were taken into consideration and noted in field notes during interviews to help the researcher understand the level of comfort each participant was experiencing during the processes. The researcher used the Direct Observation Checklist during 8 weeks of classroom observations on teachers' use of Conscious Discipline and the development of children's EF skills.

Research Questions

One overarching research question (Research Question 1) and three subquestions (Research Questions 2–4) guided the study.

1. What are the perceptions of early childhood teachers of the use of Conscious Discipline to develop EF skills in preschool students?
2. To what extent does professional development in Conscious Discipline influence teachers' implementation of the program in their preschool classroom?
3. To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes and develops EF skills in their students?
4. To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes academic success for their students?

Themes

Four themes emerged from the data:

1. Teachers learned the importance of the development of self-regulation in students.
2. Internalization of the teacher's journey in Conscious Discipline afforded implementation.
3. Teachers increased their awareness of self and lifelong skills.
4. Reaching executive state in Conscious Discipline affords academic successes.

After analyzing the data for word patterns and topics, commonalities were developed to address the study's research questions. During data analysis, the researcher noted the majority of the participants perceived self-regulation as the most critical EF skill their students developed and or improved leading to significant changes in behavior

and academics.

The researcher used Creswell's (2014) recommendations to analyze and organize data as a guide when analyzing and coding the data collected for the study. Codes were generated from the data utilizing Creswell's (2014) recommendation to "organize the data by bracketing chunks and writing a word representing a category" (pp. 197-198). These codes were derived from the following three recommended attributes: (a) codes on topics that were expected to be found based on the literature, (b) codes that were surprising and not anticipated at the beginning of the study, and (c) codes that were unusual and of conceptual interest to readers (Creswell, 2014). The researcher then identified, described, and interpreted the emergent themes, commonalities, patterns, and relationships as part of the coding process for the research questions. Data were gathered from the Self-Assessment Survey (Appendix A), observations using the Direct Observation Checklist (Appendix B), and qualitative interviews using a protocol (Appendix C).

Results for Research Question 1

What are the perceptions of early childhood teachers of the use of Conscious Discipline to develop EF skills in preschool students? The key theme to emerge for this question was the importance of self-regulation. The following statements were delineated from interviews and Self-Assessment Survey sessions when participants were asked to discuss their perceptions of how Conscious Discipline influences the development of EF skills in children.

Participant 1 stated in the interview,

For me, it is something very important for the children because they can self-regulate and focus in class so they can develop positive work in all the areas,

because Conscious Discipline helps us first to self-regulate ourselves when a child

especially is not adjusting to being dropped off by their parents. We are capable of helping the child by making eye contact, modeling breathing to calm; we offer all social, emotional support, beginning with us self-regulating first, which is what really helps us help the child.

On the Self-Assessment Survey, Participant 1 added, “Breathing techniques help me regulate my thinking and how I feel—the breathing relaxation technique really helped with self-regulating.”

Participant 1 was observed having students take turns during literacy lessons, using music to cue when the student’s turn was up, and using breathing techniques. Participant 1 used the Conscious Discipline breathing technique of S.T.A.R. (smile, take a deep breath, and relax) to help the student through a crisis. The teacher also used the I Love You Ritual on the playground with one student to help make connections, self-regulate behavior, and exercise impulse control.

Participant 3 stated in the interview,

It is very important for the teacher to be able to have those perceptions first and then to be able to implement them so they [students] can learn it. [Important] is self-control, mostly like waiting your turn, and having control, knowing that it will be your turn but being patient and learning that. It improves a lot because most of them have a hard time with self-regulation, so it helps them a lot to learn how to control themselves and keep those emotions that are not always good and calm down and breathe and know that everything is going to be okay and they are going to be safe.

Also, on the Self-Assessment Survey, Participant 3 recognized developing the emotional state to self-regulate thinking and emotions. During an observation, Participant 3 helped children resolve the problem of whose turn it was during table play. Children noticed and

identified with facial expressions and used words provided by Participant 3 to help each other take turns.

Similarly, Participant 4 reflected on the Self-Assessment Survey, “Conscious Discipline helped teachers to identify emotion state to better self-regulate behavior of students.” Participant 4 was observed having children use Velcro name-tags to wait for a turn in the center rotation, making eye contact during connective moments like circle time for engagement, and exercising impulse control.

Participant 5 asserted during the interview,

The children learn to self-regulate, and like this, they work in harmony with their classmates. They also learn to be more independent in such a way they feel sure of themselves. Through the use of Conscious Discipline, the children learn how to self-regulate through the use of the I Love You Ritual.

Participant 5 also noted on the Self-Assessment Survey, “Conscious Discipline promotes empathy, self-regulation—I regulate my thoughts, feelings, and actions.”

During the completion of the Self-Assessment Survey, participants revealed what Conscious Discipline skill or structure they found to help them improve EF skills in self-regulation. Participant 1 disclosed that the breathing relaxation technique helped with self-regulating. Participant 2 identified the Conscious Discipline strategy of Power of Perception, seeing the best in others. Participant 3 said incorporating the school family structure and classroom jobs helped students learn impulse control, organization, and the feeling of safety. Participant 4 explained the structure of the Wishing You Well strategy encouraged the development of empathy. The researcher was interested to read these responses and find the connection the participants made with self-regulation in various Conscious Discipline skills or structure. Participants made correlations using skills in Conscious Discipline like the breathing technique and structures such as classroom jobs

and the school family with the EF skill of self-regulation. Although Participant 2 did not disclose the relationship between EF and the Conscious Discipline strategy of Power of Perception, EF skills like mental flexibility and attention can be developed within this Conscious Discipline attribute.

During the observations, teachers utilized tools like breathing techniques, noticing and describing a facial expression, problem-solving strategies, and the I Love You Ritual with children to develop skills to self-regulate and control impulsive behaviors. These observations indicated teachers' perception of using Conscious Discipline to develop EF skills daily in their classrooms. Using reflective notes on the Direct Observation Checklist, the researcher noted teachers used these skills as a natural way of teaching and in personal behaviors, indicating teachers are self-regulated and aware of the importance of being calm so they can pass these skills to their children.

Results for Research Question 2

To what extent does professional development in Conscious Discipline influence teachers' implementation of the program in their preschool classroom? The key theme to emerge for Research Question 2 was internalization of Conscious Discipline increases implementation of Conscious Discipline.

Major theme: Internalization of Conscious Discipline increased implementation. The following statements emerged from the qualitative interviews and Self-Assessment Survey sessions when participants were asked about the role of professional development in helping them to understand Conscious Discipline and its influence on EF in children.

Participant 1 stated during the interview,

The benefits, first of all, we must learn to recognize how does the child feel? And depending on how the child feels, we can offer the child help. This is what

Conscious Discipline teaches us, is to learn how to recognize emotions in children. When children feel safe, then they are capable of learning in the classroom and have an open mind. We are self-regulated and it allows us to help the children learn by recognizing their needs independently. When children do not feel good, they are not able to learn, so they have to feel good; breathing helps them. We must be prepared to offer these supports to children using Safe Keeper, the songs, the area of breathing relaxing technique. Professional development helps the development of skills in EF through the studies, since we learn the many tools that help us regulate and like that helps us reach areas in our executive state.

On the Self-Assessment Survey, Participant 1 noted, “Becoming calm and being present.”

Participant 2 reflected during the interview,

In my case, professional development has been a development for the past 3 years of a journey. It helps a lot working with children that have low EF skills since I have the capacity to help them get to the state of asking the questions, “What can I learn?” instead of “Am I loved?” I have completed three classes on Conscious Discipline and, depending on teachers’ preparation in Conscious Discipline, they can see EF skills development in children. I feel more comfortable working with them, so giving the tools to help them develop skills. Conscious Discipline has helped me see skills, and this way I now know what I am seeing. Before training in Conscious Discipline, although I saw the skills, I did not know there was a name for these skills. If I did see the skills, I did not notice, at least not the way I notice them now; I can focus on these areas more now. It has helped [me] a lot in regards to . . . children that started in August. They are already using words like, “Can I have a turn, please?” Also, students are using their hands as signs; this was something that they did not have when they started 2 months ago. Now they are

using these skills because it's been months of consistently day after day teaching. They learn how to do things. Believe it or not, and sometimes you do not see it, but there are moments throughout the day that you say, "WOW, look what I did!" I always have said and maintained this thinking: we in one way or the other were using Conscious Discipline without even knowing what Conscious Discipline was. Now we see it as polished skills emotionally speaking but also professionally. In other words, the knowledge I have now . . . it's intrinsic, but because I know what I am doing, which is the most important thing I see in this program. It's not like if I breathe, I will calm down, but I know that I will be capable [of managing] my emotions knowing what I am doing. The moment we started learning this program, I remember saying, I am breathing but I am not calming myself, and of course not, I am not calming, because that is not the objective. The point here is manage my emotions knowing I have this emotion. During the interview, Participant 3 indicated,

As I further grow in Conscious Discipline these skills . . . become more facilitated in ways; I can help the children reach a level of executive state and functions. It helps me in a positive way also to help them resolve conflicts and positivity help children. It positivity helps me at a personal level and professionally as well. It helps me very much because I can perceive in different situations as I implement Conscious Discipline in the classroom, it becomes easier for them to resolve conflicts. They are ready to find a solution for different situations in many different ways. I think it has helped me a lot in a positive way because Conscious Discipline helps children emotionally and academically. Once children reach use of Conscious Discipline, they improve their capacity emotionally, but also they are ready to learn in an environment where they are accepted and safe. They are

more ready and prepared to learn.

Participant 3 also wrote on the Self-Assessment Survey that Conscious Discipline skills helped students “becom[e] calm and patient.”

Participant 4 stated in the interview,

Professional development has helped me improve EF skills in my children to self-regulate, and therefore they [can] access skills in the executive state allowing them to [be] thinking more clearly and make decisions and be more receptive to learning. As a teacher, I see challenging behavior as an opportunity for learning, perhaps as a call for help, and use my skills learned from Conscious Discipline.

Participant 4 also reflected on the Self-Assessment Survey, “It [Conscious Discipline] has helped me become patient when dealing with the students.”

All five participants indicated the importance of internalizing Conscious Discipline, making it part of their way of living in their personal lives. The participants felt that professional development in any area or topic in education is fundamentally essential to intake the newly learned skills with an open mind, perceiving the new information as a journey where it leads teachers’ professional development to confidence that they are capable of passing on and teaching these skills to children. Interviews and Self-Assessment Survey responses suggested that teachers felt professional development in Conscious Discipline allowed them to begin learning about their state of emotion and awareness of self.

Participant 1 and Participant 3 reported professional development helped them recognize the different emotional states and the correlation with self-regulation. In the interview, Participant 1 noted,

Professional development helps the development of skills in EF through the studies, since we learn the many tools that help us regulate and like that helps us

reach areas in our executive state. Conscious Discipline helps us first to self-regulate ourselves. When a child especially is not adjusting to being dropped off by their parents, we are capable of helping the child by making eye contact, modeling breathing to calm. We offer all social, emotional support beginning with us self-regulating first, which is what really helps us help the child.

Participant 3 asserted in the interview,

As I further grow in Conscious Discipline, these skills become more facilitated in ways [so] I can help the children reach a level of executive state and functions. It helps me in a positive way also to help them resolve conflicts, and positivity helps children. Its positivity helps me at a personal level and professionally as well.

Participants indicated that learning about the brain state model in Conscious Discipline and emotional states was transformative in their lives. Professional development allowed them to see the importance of teachers' internalizing this way of thinking about themselves.

Subthemes representing transformational changes. With the internalization in the journey of Conscious Discipline, teachers described going through transformational changes. They changed the way they perceived children's behavior, realized how conflict can be an opportunity to learn, and understood the value of being self-regulated. Four participants reported the following subthemes, which correlated to the Conscious Discipline Implementation Framework on Transformational Changes.

See misbehavior as a call for help instead of disrespect. Participant 4 indicated in an interview that professional development in Conscious Discipline allowed her to see challenging behaviors as an opportunity for learning, a call for help. Participant 3 recognized Conscious Discipline professional development made positive changes in the way she perceives challenging behaviors in her students. She sees these episodes as

opportunities to determine skills her students are missing.

See conflict as a teaching opportunity rather than a disruption to learning. In the interview, Participant 2 recognized using moments of conflict to encourage moments of self-regulation. Conscious Discipline has polished these skills. In both the interview and on the Self-Assessment Survey, Participant 3 reported Conscious Discipline professional development helped her perceive conflict differently, and by implementing Conscious Discipline, she can resolve these conflicts more efficiently.

See children as capable of self-regulation instead of needing to be controlled. Participant 1 acknowledged in the interview that children feel safe and capable of learning when teachers are self-regulated and functioning at an executive state of mind. She admitted when she self-calmed and regulated her thinking, she was able to help children learn how to self-regulate.

Understand how internal state dictates external behavior. Participant 1 recognized calming her internal state enabled her to feel present, allowing her to dictate an external behavior that positively influenced her students. Participant 2 reported before Conscious Discipline training, she was unable to recognize what skills were missing in herself, but now she is capable of noticing these skills and when they are missing in her students.

See connection as the most powerful motivating force to achievement. Participant 3 validated that through the I Love You Ritual, she noticed a strong positive link between herself and her students. The strategy encouraged positive relationships and made learning easier.

Results for Research Question 3

To what extent do teachers believe the implementation of Conscious Discipline behavioral management program promotes and develops EF skills in their students? The

key theme to emerge from this question was a raised awareness of self and of lifelong skills. The following thoughts emerged from participants when asked (a) what benefits they perceived children were having in learning when using EF skills in a Conscious Discipline classroom environment and (b) the importance of teaching EF skills to children.

Participant 1 asserted during the interview,

The benefits, first of all, we must learn to recognize how does the child feel and, depending on how the child feels, we can offer the child help. This is what Conscious Discipline teaches us, is to learn how to recognize emotions in children. When children feel safe, then they are capable of learning in the classroom and have an open mind. We are self-regulated and it allows us to help the children learn by recognizing their needs independently. When children do not feel good, they are not able to learn, so they have to feel good; breathing helps them. We must be prepared to offer these supports to children using Safe Keeper, the songs, the area of breathing relaxing technique.

Participant 1 also stated on the Self-Assessment Survey that students displayed focus and were receptive to learning.

Participant 2 added in an interview,

Many benefits, like I said before, depending, as long as the child comes in with the advantage of working in an executive state in Conscious Discipline. When the child comes in this state, they are ready to learn. When a child knows how to behave, they can focus and are ready to learn.

Participant 3 reported in an interview,

I see a really good benefit because I have a 4-year-old that she already knows how to regulate herself and she knows how to control . . . her emotional control. She

can [already] read, [which] makes [her] feel grown and important.

On the Self-Assessment Survey, Participant 3 also noted that children learn self-control.

Qualitative interview and observations data suggested each participant recognized their awareness of their emotions and thoughts and thus were capable of identifying and understanding emotions in children, encouraging a teachable moment between the teacher and students. Participant 1 acknowledged the benefits of being self-regulated, allowing her to help children learn to recognize and become aware of their own needs. Participant 3 reported in her Self-Assessment Survey,

I would like to improve my emotional state because sometimes in the classroom my emotions get to me, and I need to have someone remind me to stop and take a deep breath and relax. It is important for me to regulate this skill because if I don't have it in control, it's not easy to teach it.

Participant 3's statement suggested that her self-awareness of how she felt played a significant role in her ability to teach this awareness to her students. Her ability to use a breathing technique to self-regulate gave her the tools to assess higher order thinking skills and teach that strategy to students.

Results for Research Question 4

To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes academic success for their students? The key theme for Research Question 4 was reaching executive state in Conscious Discipline. The executive state is "the optimal state for problem-solving and learning" (Conscious Discipline, 2017, para. 5). As teachers and students learn these skills in Conscious Discipline, they become regulated learners; teachers can teach children, and children are ready to learn. According to Zelazo, Blair, and Willoughby (2017), "Self-regulated learning refers to an active form of learning, in which the learner

is metacognitively, motivationally, and behaviorally engaged in the learning process” (p. 23).

The following statements emerged from interviews and Self-Assessment Survey responses when participants were prompted to discuss their feelings on how Conscious Discipline improves children’s academic skills. Participant 2 stated,

It has helped a lot in regards to, like, right now I have children that started in August. They are already using words like, “Can I have a turn, please?” using their hands as signs. This was something that [students] did not have when they started 2 months ago. Now [students] are using these skills because it’s been months of consistently day after day teaching. They learn how to do things. Believe it or not, and sometimes you do not see it, but there are moments throughout the day that you say, “WOW, look what I did!” When the child comes in this state, they are ready to learn. When a child knows how to behave, they can focus and are ready to learn. I would like . . . for children to come with these skills ahead of time before my class, which is ages 4–5 years old, so they are ready to learn academics. All the structures in Conscious Discipline help develop these skills, as long as they are being used correctly.

Participant 2 also indicated on the Self-Assessment Survey that Conscious Discipline skills such as using language, using assertiveness, and making choices were important.

Participant 3 noted during the interview,

I think it has helped me a lot in a positive way because Conscious Discipline helps children emotionally and academically. Once children reach EF state, they use Conscious Discipline; they improve their capacity emotionally. But also, they are ready to learn in an environment where they are accepted and safe. They are more ready and prepared to learn. They are ready to find a solution for different

situations in many different ways.

Participant 5 reflected in an interview,

They [students] learn how to auto-regulate and reach the high level to be ready to learn about more things. For example, using their words to communicate, able to express what's going on, able to speak to the other child [who] is doing them harm or making them feel sad. Express their feelings by using words. I have one student, that has helped him a whole lot, because at the beginning when he would get upset, or something would happen [that] did not go his way, he would start crying and throwing a tantrum and everything. And since I have been helping him use the breathing technique, I have been able to tell him, "Breathe, calm down, use your words, and tell me what's wrong," and he was able to quickly calm down and stop crying and he tells me with his words what's wrong.

The development of the use of Conscious Discipline and its impact on academic success in students became evident during several class observations. Participant 1 modeled several skills in Conscious Discipline to promote multiple EF skills, including self-regulation, attention, problem-solving skills and empathy in the classroom. The researcher noted the following on the Direct Observation Checklist:

Two girls disputed the use of materials in the center. Child 1 (C1) used force to take a shovel and measuring cups from the other. The victim, Child 1 (C2), cried, crossed her arms, and stood next to the child who took her supplies. The teacher noticed the dispute and recognized help was needed. The teacher walked up to the two girls. She had them make eye contact with her (encourage attention). Then, the teacher had the girls engage in a breathing technique, S.T.A.R. (promotes self-regulation) [S.T.A.R. represents smile, take a deep breath, and relax]. The teacher had C1 notice C2's face (encourages empathy and identify emotions), the teacher

said, “Look at her face, her eyebrows are like this, her eyes are like this, and her mouth is like this” (teacher used hand signs to show facial expression). The teacher went on to ask C1, “What do you think she is feeling?” C1 said, “She is mad because I took the shovel and cups.” The teacher asked C2, “What can you tell C1 next time she wants to use something you are using?” (promotes problem-solving). C2: “Use your words, say, ‘Can I have a turn please?’” The teacher turned to C1 and asked her what she can say next time she wants to use something someone else is holding at the time (promotes learning and self-regulation, and problem-solving). C1 said, “Can I have a turn, please?” The children around this event were observing the exchange like a mirror effect.

In this case, Participant 1 used Conscious Discipline skills to help the girls identify the feeling, process thoughts, and help them manage their feelings, hence changing the girls’ internal state and dictating a more desirable behavior, which became a learning opportunity (an executive state). This event allowed not only the two girls to process the conflict as a learning opportunity but also the surrounding children to witness how conflict can be solved by self-regulating and using words to communicate with each other. The children are learning to become self-regulated learners.

Summary

This case study focused on teacher’s perceptions on using Conscious Discipline to promote and develop EF skills in preschool children. The researcher interpreted the results by triangulating the data using the Self-Assessment Survey, qualitative interviews, and the Direct Observation Checklist. The results from the data were combined to help determine the themes presented in this chapter. Overall, four themes emerged from the case study’s data: (a) Teachers learned the importance of the development of self-regulation in students, (b) internalization of the teacher’s journey in Conscious Discipline

afforded implementation, (c) teachers increased their awareness of self and lifelong skills, and (d) reaching executive state in Conscious Discipline affords academic successes. The data demonstrated evidence to support the importance of professional development focused on the development of EF skills using a brain-based program such as Conscious Discipline.

Chapter 5: Discussion

This chapter presents discussion of the qualitative research study's findings. The study focused on early childhood teachers' perceptions of Conscious Discipline and its impact on preschool students' development of EF skills. This chapter is segmented into seven sections: Overview of the Study, Interpretations of Findings, Implications of the Study, Limitations, Recommendations for Future Educational Practice, Recommendations for Future Research, and Conclusion.

Overview of the Study

The purpose of this qualitative case study was to explore the perceptions of early childhood educators towards using Conscious Discipline to promote and develop EF skills in preschool children. Guiding the research study was one overarching research question (Research Question 1) and three subquestions (Research Questions 2–4):

1. What are the perceptions of early childhood teachers of the use of Conscious Discipline to develop EF skills in preschool students?
2. To what extent does professional development in Conscious Discipline influence teachers' implementation of the program in their preschool classroom?
3. To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes and develops EF skills in their students?
4. To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes academic success for their students?

The five participants were veteran, state-certified, early childhood teachers. The participants in this study were teachers working for a private early learning center in South Florida. They had been part of a pilot program for the local college, participating in

Conscious Discipline training for the previous 3 years.

Interpretation of Findings

Research Question 1. What are the perceptions of early childhood teachers of the use of Conscious Discipline to develop EF skills in preschool students? Participants identified self-regulation to be one of the most important and vital EF skills for children and teachers to use in the classroom. Self-regulation is the ability to manage undesirable emotions and impulses by using skills to control these impulses. The participants indicated throughout their training in Conscious Discipline that self-regulation was an essential skill to access students' moments of higher order thinking, such as problem solving and impulse control. With Conscious Discipline, individuals learn to use relaxation breathing techniques to become mindful or conscious of their feelings and thoughts, especially in moments when highly emotional reactions to an upsetting stimulus demand certain behaviors. The participants reported Conscious Discipline training helped them develop the skills of self-regulation and impulse control and encouraged them to access their ability to think in an executive state. Self-regulation allowed individuals to find calm during an upsetting moment, adjusting changes in expectation and handling frustration without impulsive behaviors (Bailey, 2015).

Bailey (2015) reflected, "Self-regulation is the cornerstone skill for all development. It refers to both the conscious and unconscious processes that allow us to regulate our thoughts, feelings, and actions in service of a goal" (p. 12). Under the umbrella term of EF skills, self-regulation is the mental process that helps with planning, focus attention, memory, and flexibility. It is the control system that filters distractions, prioritizes tasks, and sets goals. Self-regulation is vital for the development of social-emotional competency, academics, learning, and life successes (Bailey, 2015).

The findings showed that self-regulated teachers could provide a safe learning

environment using conflict as opportunities to teach children to self-regulate and become attuned to their feelings. This environment and the Conscious Discipline strategies promoted children to develop EF skills to govern behaviors at the executive state. When teachers and children self-regulate, they can access higher order thinking and brilliance (Conscious Discipline, 2019).

Research Question 2. To what extent does professional development in Conscious Discipline influence teachers' implementation of the program in their preschool classroom? When teachers receive meaningful professional development content, they are more likely to internalize information and implement it in the classroom. All five participants reported learning about self-regulation and its impact on learning through Conscious Discipline professional development, which helped them recognize their abilities to self-regulate and control impulses in both their personal relationships and professional lives. Professional development played a crucial role in providing teachers with skills they realized had to be internalized to teach. Skills such as being aware of self-regulation, noticing behaviors, self-calming, having a positive intent, and showing empathy were reported as a vital part of the Conscious Discipline journey.

Participants felt using Conscious Discipline in their daily classroom environment developed EF skills in their students and themselves. Many expressed the importance of internalizing Conscious Discipline as the first step before being able to teach these skills to their students. During the interviews, all five participants stated they perceived EF skills as the ability to self-regulate and focus attention, show self-control, regulate emotion, and learn independence, thereby allowing students to learn academics.

These findings demonstrated the importance of internalizing information. In this case, professional development in Conscious Discipline influenced program implementation in early childhood classrooms. The researcher noted when teachers

internalize Conscious Discipline, they perceive the development of self-awareness, thus promoting skills that contribute to living a fulfilling and successful life.

Research Question 3. To what extent do teachers believe the implementation of the Conscious Discipline behavioral management program promotes and develops EF skills in their students? The theme that emerged was raised awareness of self and lifelong skills. The brain state model is about self-awareness and learning to be conscious; individuals are capable of managing thoughts, emotions, and behavior (Conscious Discipline, 2019). Once this self-awareness merges into individuals' lives, teachers are capable of teaching children to learn to become conscious of themselves. By increasing self-awareness, individuals frequently respond consciously (as opposed to reacting, a term considered derived from impulsivity, a survival state behavior) to their needs in the present moment and therefore internalize new information and implement it as part of their daily life. The ability of self-regulation is, in a way, the skill of developed self-awareness in thinking. Teachers and students learned to consciously understand their emotions and acknowledge their behavior.

Research Question 4. To what extent do preschool teachers believe the implementation of the Conscious Discipline behavioral management program promotes academic success for their students? The participants accepted the reality that for them to internalize Conscious Discipline, they first had to change the way they thought and perceived the world around them, especially in the world of their classrooms. Participants reported their ability to implement Conscious Discipline in their classroom increased when they used a different lens to understand themselves and others. Participants felt that because their lens changed, they taught consciously, using Conscious Discipline as a platform to help children become calm and alert. Participants reported their students were making academic progress because Conscious Discipline helped them with self-

regulation and problem solving.

When asked what skills improved through the fostering of Conscious Discipline in their lives, two of the five participants focused their response on the development or improvement of EF skills, such as self-regulation, impulse control, planning and prioritization, organizational skills, and memory. The other three participants focused their responses on skills rooted in Conscious Discipline such as being present and noticing rather than judging, Conscious Discipline breathing techniques to relax, having the perception of love, and assertiveness. All the participants recognized that because Conscious Discipline allowed them to reach the executive state by integrating EF skills, children were exposed to a more reflective and aware teacher. The participants acknowledged that their students were able to work independently and efficiently as well as help each other, thus increasing student engagement and academic gains and decreasing moments of chaos and undesirable behaviors.

Implications of the Study

Robust links between EF skills and academic functioning in early childhood have been found to contribute to school readiness in literacy, mathematics, and social competence. EF skills are a predictor of school success, self-regulated behaviors, and lifelong success (Zelazo et al., 2017). EF skills are part of the executive state in the Conscious Discipline brain state model (Zelazo et al., 2017). The model focuses on the integration of practical skills used to manage thoughts, emotions, and behaviors, essential to recognizing and promoting EF skills in early childhood development. Once an individual has the skills to self-regulate, the individual can learn and problem solve. The data collected in this study indicated teachers acknowledged the value of developing and promoting EF skills in their classroom. The participants felt strongly that earlier exposure to learning Conscious Discipline skills led to better outcomes for their students. This

research study on teachers' perceptions of the role of using Conscious Discipline to develop and promote EF skills in preschool has the following implications.

1. Teachers who self-regulate their thoughts and emotions are more likely to teach self-regulation skills to their students utilizing the skills they learned during their Conscious Discipline training. Thus, teachers begin to interact with their students the same way they were expected to learn during teacher Conscious Discipline training; therefore, the parallel process emerges in the classroom.

2. Teachers are more likely to implement newly learned teaching practices in their classrooms when they internalize new skills. As they deeply understand and relate these new skills within themselves, their lens changes the way they see how children learn interpersonal and intrapersonal skills. Students will be positively impacted with enhanced empathy, mental flexibility, memory, attention, impulse control, and problem-solving skills.

3. Teachers who recognize they are aware of their own emotions and thoughts are more likely to acknowledge their internal state dictates their behavioral responses. Therefore, during moments of difficulty in the classroom, self-attuned teachers can regulate their emotions and access their EF state to make decisions more efficiently.

4. Teachers are more likely to access their EF skills when they integrate skills in Conscious Discipline to regulate and actively engage students in learning. Teachers functioning at an EF state tend to actively stimulate children in their classrooms to become active regulated learners working together in harmony.

Limitations to the Study

Any discussion of limitations with the case study begins with perceived problems of generalization, which are often misapplied in qualitative research. Polit and Beck (2010) defined generalization as an “act of reason that involves drawing broad inferences

from particular observations, . . . widely-acknowledged as a quality standard in quantitative research” (p. 1451). Creswell (2014) posited that generalization is not an appropriate lens in which to view the outcomes of qualitative research:

The intent of this form of inquiry is not to generalize findings to individuals, sites, or places outside of those under study. . . . The value of qualitative research lies in the particular description and themes developed *in context* of a specific site. (pp. 203–204)

Limitations impacting an accurate and rich development and description of emergent themes in the study could result from weaknesses in case study sources of evidence (Yin, 2009). In terms of the Self-Assessment Survey and qualitative interview instruments, limitations in data collection could arise due to “bias due to poorly articulated questions, response bias, inaccuracies due to poor recall, and reflexivity” (Yin, 2009, p. 182), with interviewees giving responses they think the interviewer wants to hear. Steps to minimize these limitations in the study included peer review of both the Self-Assessment Survey and qualitative interview instruments to enhance development of accurate and properly constructed questions. Given the expertise of the researcher with EF and Conspicuous Discipline, researcher bias was possible, although steps were taken throughout the research study for the researcher to bracket all professional beliefs related to both paradigms.

A potential limitation to direct observation is reflexivity in that the “event may proceed differently because it is being observed” (Yin, 2009, p. 182). Thus, observations took place over time for the researcher to achieve

in-depth understanding of the phenomenon under study and convey detail about the site and people that lends credibility to the narrative account. The more experience that a researcher has with participants in their actual setting, the more

accurate and valid will be the findings. (Creswell, 2014, p. 202)

Another limitation relates to the geographic location to the study, which was limited to one site in South Florida. The findings, reflecting the location, may be difficult to generalize to other settings, a common constraint in qualitative research (Creswell, 2012).

Another limitation focuses on sample size. The study followed the recommendations of Creswell (2013) by selecting, through purposeful sampling, five participants. As noted by Creswell (2013), “This number should provide ample opportunity to identify themes of the cases as well as conduct cross-case theme analysis” (p. 157). Because of the small sample, size issues and concerns of data saturation of the phenomenon may be raised (Gentles, Charles, Ploeg, & McKibbin, 2015). Steps to mitigate this limitation included writing “a rich, thick description to convey the findings” (Creswell, 2014, p. 202). As reflected by Creswell (2014), “When qualitative researchers provide detailed descriptions of the setting . . . or offer many perspectives about a theme, the results become more realistic and richer. This procedure can add to the validity of the findings” (p. 202).

The researcher noted a language barrier between participants’ home language and English during the interview process. Translations from Spanish to English served as a bridge between content information and documentation of data. The majority of the participants responded to every question during the interview. However, some participants limited their answers to just a few words. Consequently, their true perceptions might not have been adequately captured in the study.

Recommendations for Future Educational Practice

Based on the findings of this research, the researcher suggests three recommendations for instructional practices.

1. All stakeholders in the school, including administration, staff, and faculty, should be provided with school-wide continuing professional development in Conscious Discipline and EF skills. Just like the culture of a family, building school-wide professional development promotes cohesiveness and community within all members of the school.

2. Teachers and staff should receive additional professional development on educational neuroscience trends and research. Teachers receiving these trainings are more likely to implement teaching practices that are research based and data informed.

3. School districts should implement a continuous coaching system to provide teachers with individualized support in the classroom with developing and maintaining Conscious Discipline and EF skills.

Recommendations for Future Research

Future research should combine the development of EF skills in young children and early childhood education teachers around the country, bridging the gap between teacher professional development in educational neuroscience and learning. Four recommendations are offered for future research.

1. The study was done in South Florida with primarily Hispanic and Haitian American preschool teachers. A study should be undertaken in other parts of the country to determine whether preschool teachers' perceptions towards Conscious Discipline are similar.

2. Conduct research to explore elementary teachers' perceptions of Conscious Discipline and the development of EF skills as well as students' social competence and academic successes in other regions of the country, particularly where students are considered to be at high risk. Two examples of high-risk student groups are immigrant children and first-generation American children who are not native English speakers.

3. Undertake a study of preservice teachers studying to become kindergarten through Grade 12 teachers by first providing them with training in Conscious Discipline and EF skills. Then, researchers could assess their perceptions of EF skills in promoting student achievement in the classroom.

4. Academically track a cohort of preschool students taught using Conscious Discipline methods and strategies throughout their elementary, middle, and high school years to determine the strength of correlations between Conscious Discipline and EF skills and academic performance.

Conclusion

The findings reported in this research case study indicated early childhood teachers' perceptions are dynamic in an environment that provides personal and professional growth through professional development. Teacher perceptions on EF skills, social and emotional intelligence, and the neuroscience of learning changed as they continued to study Conscious Discipline. In this study, teachers stated their thinking changed and they approached teaching practices differently as they related to children's social and emotional skills.

Conscious Discipline is about transforming and changing the way life events are seen, replacing the traditional way of thinking about learning, behavior, and relationships into viewing these aspects through a new lens (Conscious Discipline, 2018a).

Transformational changes were evident in the reporting of all participants, who acknowledged they first had to change the way they thought about themselves their self-awareness while learning about CD and noting its impact on the development of EF in themselves and their students. Conscious Discipline transformational changes ask teachers to do the following:

- See misbehaviors as a call for help instead of disrespect.

- See conflict as a teaching opportunity rather than a disruption to learning.
- See connection as the most powerful motivating force for achievement.
- See children as capable of self-regulation instead of needing to be controlled.
- Understand that the only person who can make change is ourselves.
- Understand that internal state dictates external state behavior. (Conscious Discipline, 2018a, p. 2)

Participants reported the transformational changes listed above as a result of professional development. Teachers confirmed the importance of students interrelating EF skills to succeed socially and academically. Providing professional development for early childhood education teachers in developing and promoting EF skills for early childhood students, interrelating cognitive growth, behavioral development, and social-emotional development, can become an essential cornerstone of future educational programs.

References

- Alexander, D. J. (2014). *Developmentally appropriate practice and preschool teachers' perceptions: Theory versus practice* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (3621971)
- Anderson, V., & Ylvisaker, M. (2009). Executive function and frontal lobes: Themes for child development, brain insult, and rehabilitation. *Developmental Neurorehabilitation*, 12, 253-254. doi:10.3109/17518420903086899
- Aro, T., Laakso, M.-L., Maatta, S., Tolvanen, A., & Poikkeus, A.-M. (2014). Associations between toddler-age communication and kindergarten-age self-regulatory skills. *Journal of Speech, Language, and Hearing Research*, 57, 1405-

1417. doi:10.1044/2014_JSLHR-L-12-0411

- Bailey, B. A. (2011). *The theoretical scientific basis of Conscious Discipline*. Oviedo, FL: Loving Guidance. Retrieved from <https://consciousdiscipline.s3.amazonaws.com/CD-Methodology/Theoretical-and-Scientific-Basis-of-Conscious-Discipline.pdf>
- Bailey, B. A. (2013). *Fostering self-regulation skills in all children, even the most defiant and aggressive: Help children help each other in the classroom*. Oviedo, FL: Loving Guidance. Retrieved from <https://tasp.memberclicks.net/assets/conference-materials/fostering-self-regulation-skills-in-all-children-jill-molli-tasp-2013.pdf>
- Bailey, B. A. (2015). *Conscious Discipline: Building resilient classrooms*. Oviedo, FL: Loving Guidance.
- Banich, M. T. (2009). Executive function: The search for an integrated account. *Current Directions in Psychological Science*, 18(2), 89-94. doi:10.1111/j.1467-8721.2009.01615.x
- Barrett, A. L. (2017). *Establishing connections with mindful interactions: Impact of parent education on perceptions of self-awareness and mindful parenting practices* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (10281131)
- Baškarada, S. (2014). Qualitative case study guidelines. *The Qualitative Report*, 19(40), 1-18. Retrieved from <http://nsuworks.nova.edu/tqr/vol19/iss40/3>
- Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13, 544-559. Retrieved from <http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf>
- Berk, L. E., & Meyers, A.B. (2013). The role of make-believe play in the development of executive function: Status of research and future directions. *American Journal of*

Play, 6(1), 98-110.

Best, J. R., & Miller, P. H. (2010). A developmental perspective on executive function.

Child Development, 81, 1641-1660. doi:10.1111/j.1467-8624/2010/01499/x

Bierman, K. L., & Torres, M. (2016). Promoting the development of executive functions

through early education and prevention programs. In J. A. Griffin, P. McCardie,

& L. Freund (Eds.), *Executive function in preschool-age children: Integrating,*

measurement, neurodevelopment and translational research (pp. 299-326).

Washington, DC: American Psychological Association.

Bogdan, R. C., & Biklen, S. (2011). *Qualitative research for education: An introduction*

to theories and methods (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Burnett, S. M. (2010). Substantiating constructivism from a brain-based perspective.

International Journal of Interdisciplinary Social Science, 5(4), 145-153.

Caine, R. N., & Caine, G. (2011). How new research on learning is re-writing how

schools work and teachers teach. *LEARNing Landscapes*, 5(1), 19-26.

Caldarella, P., Page, N. W., & Gunter, L. (2012). Early childhood educators' perceptions

of Conscious Discipline. *Education*, 132, 589-599.

Carlson, S. M., Faja, S. & Beck, D. M. (2016). Incorporating early development into the

measurement of executive function: The need for a continuum of measures

across development. In J. A. Griffin, P. McCardie, & L. Freund (Eds.), *Executive*

function in preschool-age children: Integrating, measurement,

neurodevelopment and translational research (pp. 45-64). Washington, DC:

American Psychological Association.

Carlson, S. M., White, R. E., & Davis-Unger, A. C. (2014). Evidence for a relation

between executive function and pretense representation in preschool children.

Cognitive Development, 29, 1-16. doi:10.1016/j.cogdev.2013.09.001

- Chavez, A. (2014). *The effects of the implementation of the Conscious Discipline program on social emotional learning in an early childhood classroom* (Master's thesis). Retrieved from <https://sophia.stkate.edu/maed/91>
- Chen, J., & McNamee, G. D. (2011). Positive approaches to learning in the context of preschool classroom activities. *Early Childhood Education Journal*, 39, 71-78. doi:10.1007/s10643-010-0441-x
- Chenail, R. J. (2011). Interviewing the investigator: Strategies for addressing instrumentation and researcher bias concerns in qualitative research. *The Qualitative Report*, 16, 255-262. Retrieved from <http://www.nova.edu/ssss/QR/QR16-1/interviewing.pdf>
- Children's Services Council. (2018). *Information about Strong Minds*. Retrieved from <http://providers.cscpcb.org/bequality>
- Choi, J. Y., Castle, S., Williamson, A. C., Young, E., Worley, L., Long, M., & Horn, D. M. (2016). Teacher-child interactions and the development of executive function in preschool-age children attending Head Start. *Early Childhood Development*, 27, 751-769. doi:10.1080/10409289.2016.1129864
- Clements, D. H., Sarama, J., & Germeroth, C. (2016). Learning executive function and early mathematics: Directions of casual relations. *Early Childhood Research Quarterly*, 36, 79-90. doi:10.1016/j.ecresq.2015.12.009
- Conscious Connections. (2017). *What is conscious discipline?* Retrieved from <http://www.getmecc.com/Conscious-Discipline.html>
- Conscious Discipline. (2018). *Implementation framework*. Oviedo, FL: Author. Retrieved from https://consciousdiscipline.s3.amazonaws.com/Free-Resources/Implementation-Staff-Development/FREE_Implementaion-Framework.pdf
- Conscious Discipline. (2018). *Progress assessment rubrics*. Retrieved from

- <https://consciousdiscipline.com/free-resources/type/progress-assessment-rubrics/>
- Conscious Discipline. (2019). *The Conscious Discipline brain state model*. Retrieved from <https://consciousdiscipline.com/methodology/brain-state-model>
- Cooper, L. (2014). *Impact of a discipline model on teacher efficacy and burnout: Perspectives for elementary teachers in Michigan* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (3637105)
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: SAGE.
- Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Upper Saddle River, NJ: Pearson Education.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: SAGE.
- Creswell, J. (2012). *Qualitative research and research design* (3rd ed.). Upper Saddle River, NJ: Pearson.
- Creswell, J. W., (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: SAGE.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: SAGE.
- Crocker, J. P. (2007). *Organizational climate, teacher beliefs, and professional development: An investigation of the relationships* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (AAT 33000043)
- Cuevas, K., Deater-Deckard, K., Kim-Spoon, J., Wang, Z., Morasch, K. C., & Bell, M. A. (2014). A longitudinal intergenerational analysis of executive functions during early childhood. *Behavioral Journal of Development Psychology*, 32(1), 50-64.

doi:10.1111/bjdp.12021

- Dapolito, A. F. (2016). *Implementation of self-regulation and conflict resolution strategies through Conscious Discipline in an early childhood classroom* (Master's thesis). Retrieved from <https://sophia.stkate.edu/maed/154/>
- Diamond, A. (2016). Why improving and assessing executive functions early in life is critical. In J. A. Griffin, P. McCardie, & L. Freund (Eds.), *Executive function in preschool-age children: Integrating, measurement, neurodevelopment and translational research* (pp. 11-43). Washington, DC: American Psychological Association.
- Diamond, A., & Lee, K. (2011). Interventions shown to aid executive function development in children 4-12 years old. *Science*, 333(6045), 959-964. doi:10.1126/science.1204529
- Dias, N. M., & Seabra, A. G. (2015). Is it possible to promote executive functions in preschoolers? A case study in Brazil. *International Journal of Child Care and Education Policy*, 9(6), 1-18. doi:10.1186/s40723-015-0010-2
- Driscoll, A., & Nagel, N. G. (2008). *Early childhood education: Birth–8: The world of children, families, and educators* (4th ed.). Upper Saddle River, NJ: Pearson Education.
- Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., . . . Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, 43, 1428-1446. doi:10.1037/0012-1649.43.6.1428
- Fahy, J. K. (2014). Language and executive functions: Self-talk for self-regulation. *ASHA SIG 1 Perspectives on Language Learning and Education*, 21(2), 61-71.
- Feeney, S., Moravcik, E., & Nolte, S. (2016). *Who am I in the lives of children? An introduction to early childhood education* (10th ed.) Upper Saddle River, NJ:

Pearson Education.

- Finn, H. D. (2015). *The experiences of teachers and staff in schools that implement Conscious Discipline* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (3739182)
- Flocken, A. (2014). *Factors contributing to regular education elementary school teachers' attitudes toward inclusion: A case study* (Doctoral dissertation). Retrieved from Nova MARPS, Practicums and Applied Dissertations database. (10977)
- Fox, S. E., Levitt, P., & Nelson, C. A., III. (2010). How the timing and quality of early experiences influence the development of brain architecture. *Child Development*, 81, 28-40. doi:10.1111/j.1467-8624.2009.01380.x
- Francis, A. (2015). *Playground use and executive function development during preschool years* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (AAT 1598727)
- Gay, L. R., Mills, G. E., & Airasian, P. W. (2011). *Educational research: Competencies for analysis and applications* (10th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Gentles, S. J., Charles, C., Ploeg, J., & McKibbin, K. A. (2015). Sampling in qualitative research: Insights from an overview of the methods literature. *The Qualitative Report*, 20, 1772-1789. Retrieved from <http://nsuworks.nova.edu/tpq/vol20/iss11/5>
- Gilmore, C., & Cragg, L. (2014). Teachers' understanding of the role of executive functions in mathematics learning. *Mind, Brain, and Education*, 8(3), 132-136. doi:10.1111/mbe.12050
- Gordon, A., & Browne, K. (2013). *Beginnings and beyond: Foundations in early childhood education*. Boston, MA: Cengage Learning.

- Gordon-Biddle, K. A., Garcia-Nevarez, A., Henderson, W. J. R., & Valero-Kerrick, A. (2014). *Early childhood education: Becoming a professional*. Thousand Oaks, CA: SAGE.
- Grammatikopoulous, V., Zachopoulou, E., Tsangaridou, N., Liukkonen, J., & Pickup, I. (2008). Applying a mixed method design to evaluate training seminars within an early childhood education project. *Evaluation and Research in Education, 21*, 4-17. doi:10.2167/eri417.0
- Great Schools Partnership. (2013). At risk. In *The glossary of education reform*. Retrieved from <http://edglossary.org/at-risk/>
- Greenstone, H. (2011). Executive function in the classroom: Neurological implications for classroom intervention. *LEARNing Landscapes, 5*(1), 101-114.
- Griffin, J. A., Freund, L. S., McCardle, P., DelCarmen-Wiggins, R., & Haydon, A. (2016). Introduction to executive function in preschool-age children. In J. A. Griffin, P. McCardie, & L. Freund (Eds.), *Executive function in preschool-age children: Integrating, measurement, neurodevelopment and translational research* (pp. 3-7). Washington, DC: American Psychological Association.
- Gudonis, V. (2015). Review of doctoral dissertation "Executive functions and school success in primary school children" (social sciences, psychology, 06S) prepared by Lauryna Rakickiene. *International Journal of Psychology: A Biopsychosocial Approach, 16*, 127-132. Retrieved from https://eltalpykla.vdu.lt/bitstream/handle/1/630/ISSN22345-024X_2015_V_16.PG_127-132.pdf
- Harvard University. (2016). *Executive function & self-regulation*. Retrieved from <http://developingchild.harvard.edu/science/key-concepts/executive-function>
- Hensch T. K., & Bilimoria, P. M. (2012). Manipulating critical periods for brain development. *Cerebrum, 11*, 1-18. Retrieved from <http://dana.org/Cerebrum>

/Default.aspx?id=39481

- Hill, M. (2017). *Elementary educators' perceptions of Conscious Discipline as a management strategy* (Undergraduate honors thesis). Retrieved from <http://scholarworks.uark.edu/cieduht/15>
- Hoile, M. B. (2016). *A case study of the influence of classroom management programs on academic achievements of at-risk preschool students* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (10156692)
- Howard, S. J., Okely, A. D., & Ellis, Y. G. (2015). Evaluation of a differentiation model of preschoolers' executive functions. *Frontiers in Psychology, 6*, Article 285. doi:10.3389/fpsyg.2015.00285
- King, N., & Horrocks, C. (2010). *Interviews in qualitative research*. Thousand Oaks, CA: SAGE.
- Kolnik, S. (2010). *Predicting school readiness: Executive functions, problem behaviors, and theory of mind in preschoolers* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (AAT 3424775)
- Lawson, G. M., Hook, C. J., Hackman, D. A., & Farah, M. J. (2016). Socioeconomic status and the development of executive function: Behavioral and neuroscience approaches. In J. A. Griffin, P. McCardie, & L. Freund (Eds.), *Executive function in preschool-age children: Integrating, measurement, neurodevelopment and translational research* (pp. 259-278). Washington, DC: American Psychological Association.
- Lee, W. A. (2015). *Strengthening ECE teachers' ability to plan for inclusive, strengths-based curriculum and instruction for children with compromised executive functions: A critical action plan* (Thesis). Retrieved from ProQuest Dissertations & Theses database. (1588930)

- Lipina, S. J., Martelli, M. I., Vuelta, B., & Colombo, J. A. (2005). Performance on the A-not-B task of Argentinean infants from unsatisfied and satisfied basic needs homes. *Interamerican Journal of Psychology*, *39*(1), 49-60.
- Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.). Thousand Oaks, CA: SAGE.
- McClelland, M. M., Acock, A. C., Piccinin, A., Rhea, S. A., & Stallings, M. C. (2013). Relations between preschool attention span-persistence and age 25 educational outcomes. *Early Childhood Research Quarterly*, *28*, 314-324.
- McClelland, M. M., Leve, L. D., & Pears, K. C. (2016). Preschool executive functions in the context of family risk. In J. A. Griffin, P. McCardle, & L. S. Freund (Eds.), *Executive function in preschool-age children: Integrating measurement, neurodevelopment, and translational research* (pp. 241-257). Washington, DC: American Psychological Association.
- McCrea, L. (2013). *Kindergarten teachers' perceptions of and expectations for school readiness: Self-regulation and success* (Doctoral dissertation). Retrieved from http://digitalcommons.pcom.edu/cgi/viewcontent.cgi?article=1354&context=psychology_dissertations
- Meng, C. (2014). Classroom quality and academic skills: Approaches to learning as a moderator. *School Psychology Quarterly*, *30*, 553-563. doi:10.1037/spq0000108
- Meyer, C. B. (2001). A case in case study methodology. *Field Methods*, *13*, 329-352. doi:10.1177/1525822X0101300402
- Moreno, A. J., Shwayder, I., & Friedman, I. D. (2017). The function of executive function: Everyday manifestations of regulated thinking in preschool settings. *Early Childhood Education Journal*, *45*, 143-153. doi:10.1007/s106430016-0777

- Morgan-Brokowsky, L. (2012). *Executive functions in the schools: What do teachers know about executive functions and how they impact student progress?* (Doctoral dissertation). Retrieved from http://digitalcommons.pcom.edu/psychology_dissertations/230/h
- Moriguchi, Y. (2014). The early development of executive function and its relation to social interaction: A brief review. *Frontiers in Psychology, 5*, 1-6. doi:10.3389/fpsyg.2014.00388
- National Association for the Education of Young Children. (2008). *Standard 1: Relationships. A guide to the NAEYC early childhood program standard and related accreditation criteria*. Retrieved from [https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/early-learning/Standard 1_Relationships_2008_text.pdf](https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/accreditation/early-learning/Standard%201_Relationships_2008_text.pdf)
- National Institute of Mental Health. (2016). *Attention deficit hyperactivity disorder*. Retrieved from <https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd/index.shtml>
- Nayfeld, I., Fuccillo, J., & Greenfield, D. B. (2013). Executive functions in early learning: Extending the relationship between executive functions and school readiness to science. *Learning and Individual Differences, 26*, 81-88. doi:10.1016/j.lindif.2013.04.01.
- NoNotes. (2018). Home page. Retrieved from <https://www.nonotes.com/>
- Null, L. A. (2014). *Effects of Conscious Discipline training on Head Start teacher-child interactions: An action research plan* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (3628721)
- Nyikos, M., & Hashimoto, R. (1997). Constructivist theory applied to collaborative learning in teacher education: In search of ZPD. *The Modern Language Journal,*

- 81, 506-517. doi:10.2307/328893
- Ozer, O. (2004, October). Constructivism in Piaget and Vygotsky. *Fountain Magazine*, 48. Retrieved from <https://fountainmagazine.com/2004/issue-48-october-december-2004/CONSTRUCTIVISM-in-Piaget-and-Vygotsky>
- Pawlina, S., & Stanford, C. (2011). Preschoolers grow their brains: Shifting mindsets for greater resiliency and better solving. *Young Children*, 66(5), 30-35. Retrieved from <https://www.jstor.org/stable/i40102782>
- Peters, C., Algina, J., Smith, S., & Daunic, A. (2012). Factorial validity of the Behavior Rating Inventory of Executive Function (BRIEF)–Teacher Form. *Child Neuropsychology*, 18, 168-181. doi:10.1080/09297049.2011.594427
- Polit, D. F., & Beck, D. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies*, 47, 1451-1458. doi:10/1016/ijnurstu.2010.06.004
- Postholm, M. B. (2012). Teachers' professional development: A theoretical review. *Educational Research*, 54, 405-429. doi:10.1080/00131881.2012.734725
- Rain, J. S. (2014). *Loving Guidance, Inc. final report: Conscious Discipline research study, research findings*. Retrieved from <https://consciousdiscipline.com/conscious-discipline-improves-sel-school-climate-readiness-and-pro-social-behavior/>
- Reed, L. E. (2016). *A qualitative case study: Teacher perceptions of executive function* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (10010909)
- Richland, L. E., & Burchinal, M. R. (2013). Early executive functions predict reasoning development. *Psychological Science*, 24(1), 87-92. doi:10.1177/09567976112450883

- Rosenberg, L. (2015). The associations between executive functions' capacities, performance process skills, and dimensions of participation in activities of daily life among children of elementary school age. *Applied Neuropsychology: Child*, 4(3), 148-156. doi:10.1080/21622965.2013.821652
- Rubin, H. J., & Rubin, I. S. (2014). *Qualitative interviewing: The art of hearing data*. (3rd ed.). Thousand Oaks, CA: SAGE.
- Rushton, S., & Larkin, E. (2001). Shaping the learning environment: Connecting developmentally appropriate practices to brain research. *Early Childhood Education Journal*, 29(1), 25-33. doi:10.1023/A:1011304805899
- Santrock, J. (2014). *Child development: An introduction* (14th ed.). New York, NY: McGraw-Hill.
- Schiller, P., & Willis, C. A. (2008). Using brain-based teaching strategies to create supportive early childhood environments that address learning standards. *Young Children*, 63(4), 52-55. Retrieved from <https://www.jstor.org/stable/i40102764>
- Schoemaker, K., Mulder, H., Dekovic, M., & Matthys, W. (2013). Executive functions in preschool children with externalizing behavior problems: A meta-analysis. *Journal of Abnormal Child Psychology*, 41, 457-471. doi:10.1007/s10802-012-9684-x
- Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology*, 65, 317-338. doi:10.1037/0022-3514.65.2.317
- Skogan, A. H., Zeiner, P., Egeland, J., Annne-Grethe, U., Reichborn-Kjennerud, T., & Aase, H. (2015). Parent ratings of executive functions in young preschool children with symptoms of attention-deficit/hyperactivity disorder. *Behavioral and Brain Functions*, 11(16), 1-11. doi:10.1186/s12993-015-0060-1

- Smith, A., Flowers, P., & Larkin, M. (2009). *Interpretive phenomenological analysis: Theory, method, and research*. Thousand Oaks, CA: SAGE.
- Smith, L. G. E., Thomas, E. F., & McGarty, C. (2015). "We must be the change we want to see in the world": Integrating norms and identities through social interaction. *Political Psychology, 36*, 543-557. doi:10.1111/pops.12180
- Sorell, D. M. (2013). *Conscious Discipline implementation: A case study on teacher management of chronic problem behaviors* (Master's thesis). Retrieved from ProQuest Dissertations & Theses database. (AAT 1536624)
- United Nations Children's Fund. (2012). *School readiness: A conceptual framework*. Retrieved from [http://www.unicef.org/education/files/Child2Child_ConceptualFramework_FINAL\(1\).pdf](http://www.unicef.org/education/files/Child2Child_ConceptualFramework_FINAL(1).pdf)
- United Nations Children's Fund. (2014.) *Building brains: New frontiers in early childhood development*. Retrieved from http://www.unicef.org/earlychildhood/files/Building_better_brains____web.pdf
- Vernon-Feagans, L., Willoughby, M., & Garrett-Peters, P. (2016). Predictors of behavioral regulation in kindergarten: Household chaos, parenting, and early executive functions. *Developmental Psychology, 52*, 430-441. doi:10.1037/dev0000087
- Vitiello, V. E., Greenfield, D. B., Munis, P., & George, J. (2011). Cognitive flexibility, approaches to learning, and academic school readiness in Head Start preschool children. *Early Education and Development, 22*, 388-410. doi:10.1080/10409289.2011.538366.
- Webster, M. A. (2010). *Teacher beliefs and practices related to student self-regulation in the classroom* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (3722254)

- Weiland, C., Ulvestad, K., Sachs, J., & Yoshikawa, Y. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function and emotional skills. *Child Development, 84*, 2112-2130. doi:10.1111/cdev.12099
- Wiebe, S. A., Sheffield, T., Nelson, J. M., Clark, C. A. C., Chevalier, N., & Espy, K. A. (2011). The structure of executive function in 3-year-olds. *Journal of Experimental Child Psychology, 108*, 436-452. doi:10.1016/j.jecp.2010.08.008
- Willig, C. (2013). *Introducing qualitative research in psychology* (3rd ed.). Buckingham, England: Open University Press.
- Willoughby, M. T., & Blair, C. B. (2016). Longitudinal measurement of executive function in preschoolers. In J. A. Griffin, P. McCardie, & L. Freund (Eds.), *Executive function in preschool-age children: Integrating, measurement, neurodevelopment and translational research* (pp. 91-113). Washington, DC: American Psychological Association.
- Wright, C. L. (2010). *Executive functioning skills in a school district: An examination of teachers' perception of executive functioning skills related to age, sex, and educational classification* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses database. (3403210)
- Yeager, M., & Yeager, D. (2013). *Executive function and child development*. New York, NY: Norton.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: SAGE.
- Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th ed.). Thousand Oaks, CA: SAGE.
- Zastrow, K., & Simonis, P. (2005). *Enhanced teaching and learning with conscious*

discipline. Green Bay: University of Wisconsin, Institute for Learning Partnership.

Zelazo, P. D., Blair, C. B., & Willoughby, M. T. (2017). *Executive function: Implications for education* (NCER 2017-2000). Washington, DC: National Center for Education Research. Retrieved from <https://ies.ed.gov/ncer/pubs/20172000/>

Appendix A
Self-Assessment Survey

Self-Assessment Survey

1. What are your strengths in executive function (EF) skills? Explain why you think that is your strength.
2. What areas of EF skills would you say you need improvement? Explain why you think that is your weakness.
3. What Conscious Discipline (CD) skill or structure helps you improve EF skill/s?
4. How have your EF skills improved as you fostered the journey of CD?
5. How do EF skills play a role in learning and behavior management?
6. What EF deficits are connected to behavior challenges?
7. How important is it to teach EF skills to preschool children?

Appendix B
Direct Observation Checklist

Direct Observation Checklist (DOC)

Conscious Discipline Skills and Structure

- | | |
|---|---|
| Working memory | <input type="checkbox"/> Make eye contact
<input type="checkbox"/> Visual reminders
<input type="checkbox"/> Daily schedule
<input type="checkbox"/> Play memory games |
| Self-regulation/
impulse control | <input type="checkbox"/> Teach routines
<input type="checkbox"/> Teach relaxation technique
<input type="checkbox"/> Teach problem-solving
<input type="checkbox"/> Start and Stop games
<input type="checkbox"/> Face to face I Love You Rituals |
| Attention | <input type="checkbox"/> Notice statement (not judgment)
<input type="checkbox"/> Notice body, reflect feelings and desires
<input type="checkbox"/> Make games to identify facial expression and feelings
<input type="checkbox"/> Read stories that talks about characters' feelings |
| Flexibility | <input type="checkbox"/> Making class commitments
<input type="checkbox"/> Celebrate goals
<input type="checkbox"/> Encouraging statements |
| Organization | <input type="checkbox"/> Visual schedules
<input type="checkbox"/> Visual card rules
<input type="checkbox"/> Visual routines
<input type="checkbox"/> Model think aloud |
| Empathy | <input type="checkbox"/> Implement games to identify facial expressions and feelings |
| Goal achievement | <input type="checkbox"/> Making class commitments
<input type="checkbox"/> Celebrate goals
<input type="checkbox"/> Encouraging statements |
| Task initiation | <input type="checkbox"/> Provide choices
<input type="checkbox"/> Guide children as they make choices
<input type="checkbox"/> Use phrases like, You Did It! Or Good for You |

- Time management**
- Predictable routine
 - Picture calendars And schedules
 - Role play and practice transitions
 - Create patterns in the daily schedule

Appendix C

Qualitative Interview Questions

Interview Questions

1. What are your perceptions about executive functions skills in preschool children?
2. How can Conscious Discipline improve EF skills in preschool children?
3. Which Conscious Discipline structures do you find most helpful to promote or even improve EF skills in your classroom?
4. What Conscious Discipline skills do you find most helpful to promote or even improve EF skills in your students?
5. What benefits do you see in children's academic achievement at the preschool level if they have high EF skills? How do they play a role in learning and behavior management?
6. How will professional development in Conscious Discipline help you improve EF skills in your students?
7. How have your perceptions of EF skills in preschool children changed as you use Conscious Discipline in your classroom?
8. How has Conscious Discipline improved EF skills in preschool children?
9. What Conscious Discipline structures do you find most helpful to promote or even improve EF skills in your classroom?
10. What Conscious Discipline skills do you find most helpful to promote or even improve EF skills in your students?
11. What academic achievements do you see in your preschool students having after the implementation Conscious Discipline?