Abstract

Accreditation standards require education preparation programs to foster knowledge, skills, and dispositions (attitudes, values, and beliefs that can influence behaviors, actions, and discourse). Several studies have established a link between educator dispositions and effective educator practice as well as student outcomes (Combs & Snygg, 1959; Combs et al., 1969; Leithwood, 1990; Wasicsko, 1977b), making dispositions an important construct. Data about authentic dispositions can be gleaned from a variety of sources, including nonverbal communication, impromptu discussions, and teacher immediacy behaviors (actions that build psychological closeness to students). While those forms of data can be useful when teaching in a face-to-face setting, they are limited or absent in asynchronous online learning, which might make fostering and assessing dispositions more difficult when teaching asynchronously. Given the recent increase in enrollment in fully online asynchronous courses, and the lack of research on fostering and assessing students' dispositions when teaching asynchronous online courses, this study sought to understand the similarities and differences between fostering and assessing dispositions of students enrolled in face-to-face courses and of students enrolled in asynchronous online courses in educator preparation programs.

Fifty-nine participants who teach in educator preparation programs completed anonymous quantitative surveys, and a nested sample of six respondents participated in qualitative interviews. SPSS was used to analyze quantitative data, and NVivo was used to code qualitative data. This study used a pragmatic and yin yang approach to understand and integrate the research findings. Theories of learning, adult change, and cognitive development shaped the study questions. Key findings indicate that, on average, faculty

attribute significant importance to fostering and assessing dispositions. Overall, study participants reported that it is more difficult to foster and assess dispositions when teaching asynchronously than in face-to-face courses and that they are less effective at fostering and assessing dispositions when teaching asynchronously than in face-to-face courses. The study also found a strong link between faculty age and the level of efficacy and difficulty associated with fostering and assessing dispositions. Faculty who are older perceived they were more effective at fostering and assessing dispositions in face-to-face courses and asynchronous online courses than younger faculty. Likewise, they found it less difficult to assess dispositions when teaching asynchronously.

Several interviewees explained methods to foster and assess dispositions that can be transferred to online learning. Focused and well-designed professional development may help faculty to more efficiently and effectively foster and assess dispositions when teaching asynchronous online courses.

Keywords: asynchronous online learning, dispositions, higher education, helping professions, educator preparation

Fostering and Assessing Dispositions: A mixed methods study of face-to-face and

asynchronous courses in educator preparation programs

by

Suzanne E. Brooks

DISSERTATION

submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in

Jewish Education

Azrieli Graduate School of Jewish Education and Administration

Yeshiva University

New York

September 2022

. . . .

The committee for this doctoral dissertation consists of

 Chair: David Pelcovitz, PhD, Azrieli Graduate School of Jewish Education and Administration, Yeshiva University

 Committee Member: Rona Novick, PhD, Azrieli Graduate School of Jewish Education and Administration, Yeshiva University

Committee Member: Moshe Krakowski, PhD, Azrieli Graduate School of Jewish Education and Administration, Yeshiva University

Reader: Judith Cahn, EdD, John Jay College of Criminal Justice, City University of New York

Reader: Alexander Mondrow, PhD, Rabbi Isaac Elchanan Rabbinical Seminary, Yeshiva University

Acknowledgements

Surprisingly, I only realized well after I defended my dissertation the connection between the dissertation focus, dispositions, and the reason for my overwhelming gratitude to the current and past deans and faculty of the Azrieli Graduate School. Without a doubt, the Azrieli faculty and administration embody the effective educator dispositions described in this dissertation. Having the opportunity to observe their humility, genuine concern for others, and collaborative natures made this educational endeavor a personally transformative experience. I am awed by how the faculty treated me like a colleague, although I was the student, and consistently opened opportunities for me to learn and develop.

Thank you to my dissertation committee chair, Dr. David Pelcovitz, the dissertation committee: Dean Rona Novick and Dr. Moshe Krakowski, and the outside readers, Dr. Alexander Mondrow and Dr. Judith Cahn. Your flexibility and optimism made this mountain surmountable.

My doctoral experiences would not have been the same had I not been a doctoral fellow at Azrieli. I am forever grateful to Dean David Schnall for the fellowship, a gift that opened opportunities to collaborate with Azrieli and other YU faculty.

While I am grateful to the entire Azrieli faculty, I want to acknowledge and thank those with whom I have worked closely throughout the years. Dean Rona Novick built my leadership capacity through the most extraordinary experiential learning experiences. Her

trust and confidence in my abilities often surpassed my own and showed me how potential can be actualized when given an opportunity. She is the quintessential educator and leader. I hope to foster growth in others with the same positive and congenial spirit that she used to foster my development.

Whether at Azrieli, Torah in Motion, or Thursday night Zoom *parsha shiurim*, I feel extraordinarily blessed and grateful to have learned from Dr. Moshe Sokolow and his wellspring of knowledge. I am honored to have had the opportunity to work with him on the doctoral program. Dr. Sokolow's sincerity, humility, genuine concern for students, and passion for Jewish education is unparalleled.

I cannot possibly articulate how much I have learned from Dr. David Pelcovitz. His compassion for others transcends anything I could imagine. While working with Dr. Pelcovitz, I have been fortunate to observe his dedication and positive attitude towards all people. His trust in my judgment and his collegial approach often left me dumbstruck, and ultimately enabled me to develop new perspectives and skills.

The academic and career guidance Dr. Moshe Krakowski shared with me throughout the doctoral program is priceless. From the first semester research course at Azrieli, to reviewing the integration of mixed methods in this dissertation, he has always offered valuable feedback and honest advice. I am grateful to Dr. Krakowski for giving me opportunities as an academic, and for being a trusted advisor throughout the program.

I am fortunate to have collaborated with Dr. Laya Salomon on many projects. She is a model of humility and a collaborative spirit who makes everyone feel heard and appreciated. She exudes an authentic passion for Jewish education and educators, and her focus on the end goal is invaluable, reminding us of our real purpose.

I would be remiss if I did not acknowledge and thank Mrs. Louisa Wolf, who is the one everyone leaned on at Azrieli. With a soft-spoken, can-do attitude, she always accomplished the impossible with complete equanimity.

In addition to the Azrieli deans and faculty, gratitude goes to scholars outside Azrieli, as well as to friends and family. Thank you, Dr. Jenny Isaacs, for teaching me essential research skills, for your support, and patience. Most of all, thank you for reminding me that the best dissertation is a finished dissertation. Dr. Judith Cahn, you provided support and encouragement, meaningful and honest feedback, and the occasional tough love. Thank you for your handholding and belief in my abilities. I am humbled to collaborate with you on projects and grateful for your mentorship. I am grateful to Sandy Newman, who cheered me on throughout every step of this journey. Her kind, caring nature and positive spirit are greatly appreciated.

To my mother, I thank you for your support throughout this journey. You have always been a role model of resilience and the bedrock of our family. Your ability to embrace plan B showed us how to face challenges and persevere. I am grateful for all you have done for us. You have been waiting so long for this milestone, and I hope it has brought you *nachas*. Mike, we feel incredibly blessed that you joined our family. Your kind and generous spirit and interest in our success are greatly appreciated.

To Grandma and Grandpa Goldman*, z"l*. Your boundless and unconditional love provided an enduring sense of security and well-being that only grandparents can provide. I hope I can give my family the warmth, optimism, and love that you gave me. While I was not able to achieve this goal during your lifetime, attaining this goal is largely due to your influence.

Moshe, Miri, Akiva, Ariella, and Leora; Yaakov, Yocheved, Yitzchok, and Adina; Brocha, Nechama, Sara, and Devora, I love you and thank God that he blessed me to be your mother, mother-in-law, and grandmother. I am so proud of each of you. I thank you for your patience and chipping in when needed. The best part of completing this dissertation is that I will have more time to spend with you.

To Melech - What can I say? Without your firm belief in my abilities, I would not have achieved this goal. When I was ready for a career change and discussed several paths with you, it was never a question to you of whether I can or whether I was able. Your focus was always on what I will enjoy. Thank you for encouraging me to follow my passion and seeing within me abilities that I did not know I possessed. Your unconditional love and support shaped my confidence and well-being. Although you are not formally serving in the field of education, I constantly learn from your unassuming nature and the many acts of kindness that you do without fanfare or others' knowledge. May God bless us to grow old together in good health and happiness, and with *nachas* from all.

Table of Contents

List of Tables

List of Figures

List of Appendices

CHAPTER ONE: INTRODUCTION

The COVID-19 pandemic may be responsible for the largest online learning experiment in history. While there may be too many confounding factors, such as limited access to or unstable technology, lack of amenable work environments, health concerns, etc., to fully understand its efficacy and limitations, the wide use of online learning during the pandemic has been unprecedented. Nonetheless, prior to the pandemic, enrollment in distance education courses was continuously increasing (Ortagus, 2017), while college enrollment in general declined (Seaman, Allen & Seaman, 2018; National Center for Education Statistics; n.d.). This increase has been identified in both undergraduate and graduate programs (National Center for Education Statistics, n.d), and may be attributed to the rise in complete degree programs that are offered online as opposed to isolated and independent courses (Ortagus, 2017).

Distance education, specifically, asynchronous online courses, in which students do not meet regularly for class in person or virtually through web or phone conferencing, may be a preferred learning modality because of the increased accessibility to courses that it provides (Lee & Choi, 2011). Asynchronous learning provides flexibility of time and space by allowing students to select where and when to complete coursework to meet assigned deadlines (ibid.). This flexibility enables students to enroll in higher education courses without relocating or to work on assignments at any hour of the day, making it possible to complete an educational program while in the workforce or tending to family needs. While

some people may be skeptical about the efficacy of fully online courses, a meta-analysis by the US Department of Education (Means et al., 2009) found that students enrolled in online higher education courses "performed modestly better, on average, than those learning the same material through traditional face-to-face instruction" (p. xiv).

Bell and Federman (2013) found that at least 49% of fully online undergraduate programs were concentrated in three areas: computer science/information systems, healthcare, and business. Research on teaching STEM (science, technology, engineering and math) disciplines online tends to focus on the acquisition of knowledge and skills. For example, Summers, Waigandt and Whittaker (2005) examined student test scores from an online course and a face-to-face introductory statistics course to understand the learning outcomes of each instructional model. Gagne and Shepherd (2001) considered grades and standardized test scores for online and face-to-face students in accounting courses, and Enriquez (2010) examined test scores and homework of students enrolled in online and face-to-face circuits analysis courses.

In addition to the requirements to teach knowledge and skills, many accreditation associations serving helping fields in the social sciences and medicine include the fostering and assessment of students' dispositions (attitudes, values, and beliefs) in their accreditation standards (e.g., American Nursing Association, 2015; American Psychological Association, 2015; Council for the Accreditation of Educator Preparation, 2015; Council on Social Work Education, 2015; Liaison Committee on Medical Education, 2019; National Association of School Psychology, 2010; also see Kerr & Dils, 2011). Accreditation functions as a gatekeeper to ensure higher education quality. Sykes (2005) emphasizes three goals of standards in educator preparation programs: to provide safety and protect K-12 students and

stakeholders from harm, provide equity in education through a common minimum standard of qualification, and as a vehicle to perpetuate democracy (a robust education can lead to producing more thoughtful citizens).

The accreditation process includes peer reviewers from outside an institution who evaluate the ability of an institution to meet nationally recognized standards that have been established by each profession (Prus & Strein, 2011). Therefore, including the teaching and assessment of dispositions in accreditation standards indicates that dispositions are considered important features of professional preparation and education by the wider field.

The similar focus on dispositions across the helping fields may be of no surprise given the findings in the Florida Studies in the Helping Professions (Florida Studies; Combs et al., 1969). This group of studies examined effective practice of those serving in a variety of helping fields. The studies found that effective practitioners across fields shared certain perceptions or dispositions towards themselves, other people, their general frame of reference, purpose, and approach to helping. Using a broad description, those perceptions are a belief that one is capable, that other people are capable, a focus on people rather than objects or tasks (which results in empathy), perceptions about purpose and professional tasks, and methods to achieve their purpose. The Florida Studies found consistency between perceptions that are integral elements of effective practitioners amongst mental health counselors, teachers, pastoral counselors, nurses, and college teachers (although some tasks of college teaching, e.g., research, may require a lower degree of these effective perceptions).

In response to the need to foster and assess dispositions in students, several organizations partner with academic institutions to help schools meet this goal. The Kern National Network for Caring and Character in Medicine

(https://knncaringcharactermedicine.org) and Healer's Art (www.rishiprograms.org/healers-art) are two examples of independent organizations that work with medical schools to foster and assess dispositions in students. Such partnerships highlight the importance of dispositions in training students who will be entering the helping professions. Those partnerships may also reflect a need for faculty to consider specific learning theories and learning activities to foster and assess dispositions in students.

The Council for the Accreditation of Educator Preparation (CAEP), American Psychological Association (APA), Council for Social Work Education (CSWE), Liaison Committee on Medical Education (LCME), and the National Council for the Accreditation of Teacher Education (NCATE, which merged with Teacher Education Accreditation Council, TEAC, to become CAEP), use both specific and vague language when referring to dispositions in their standards (APA, 2015; CAEP, 2015; CSWE, 2015; LCME, 2019; NCATE, 2008). For example, the Council of Chief State School Officers (2013, April) includes a list of Critical Dispositions:

> The teacher values the input and contributions of families, colleagues, and other professionals in understanding and supporting each learner's development (p. 16);
> The teacher values diverse languages and dialects and seeks to integrate them into his/her instructional practice to engage students in learning (p. 17);
> The teacher is committed to working with learners, colleagues, families, and communities to establish positive and supportive learning environments (p. 21); and
> The teacher appreciates multiple perspectives within the discipline and facilitates learners' critical analysis of these perspectives. (p.24)

CAEP (2015), however, was vague in describing the need to admit candidates with appropriate dispositions through articulating the requirement without specifying which dispositions would qualify a candidate for admissions. The CAEP 2015 Interim Standards state as follows:

> Selectivity Factors 3.3 - Educator preparation providers establish and monitor attributes and dispositions beyond academic ability that candidates must demonstrate at admissions and during the program. The provider selects criteria, describes the measures used and evidence of the reliability and validity of those measures, and reports data that show how the academic and non-academic factors predict candidate performance in the program and effective teaching. (p. 9).

Furthermore, in a 2015 email exchange, a CAEP representative stated that the architects of the new CAEP standards were deliberately vague in their reference to dispositions because "they thought it important for the field to search them out and understand them through practice and more investigation" (Elliot, 2015; Appendix A). This indicates a need for continued research in this domain.

In addition to the helping professions, faith-based higher education institutions may seek to foster religious dispositions. For example, Yeshiva University (Jewish) and Fordham (Jesuit), may intend to foster professional and religious dispositions that are aligned with the credos of their universities (https://www.yu.edu/about/values; www.fordham.edu/info/20089/living_the_mission).

Professional and religious dispositions likely have some overlap. Some religious dispositions, however, may be applicable to all students in a faith-based institution regardless of their educational and professional ambitions. Setran (2018), for example, describes a

"world view" and specific Christian dispositions that he believes should be fostered in students enrolled in Christian schools of higher education, such as "*Shalom,*" which "includes not only a concern for one's own personal flourishing but also a clear passion for the flourishing of others—spending oneself for justice, harmony, and beauty in the larger social order" (p. 54). Yeshiva University posts five core values on its website-- truth, life, compassion, humanity and redemption--that are described as five "Torot," (*Emet, Chaim, Adam, Chesed,* and *Zion*) and includes values such as "each individual is created in the divine image, and accordingly possesses incalculable worth and value" (https://www.yu.edu/about/values).

Dispositions may play the most significant role in educator preparation programs that serve students entering the field of religious education, such as the Azrieli Graduate School of Jewish Education and Administration, the William Davidson School of the Jewish Theological Seminary of America, and Seton Hall University. Their obligation extends beyond the need to meet the requirements of the field of accreditation standards and education in general. Those programs also need to meet the standards and educational goals consistent with their religious values and beliefs, focusing on fostering and assessing religious dispositions in addition to professional educator dispositions. Seton Hall, a Catholic university in New Jersey, for example, offers an "M.A. or Ed.S. in Education Leadership, Management and Policy focusing on Catholic School Leadership" and "offers Catholic school educators and administrators a unique academic program that concentrates on the mission of Catholic school leadership and the formation of Catholic educators" (https://www.shu.edu/academics/ma-eds-catholic-school-leadership.cfm).

Professional dispositions that may be necessary in all helping fields, such as an ability to self-reflect (CAEP, 2015; APA, 2015; CSWE, 2015; ANA, 2015; LCME, 2019; NCATE, 2008), may be even more essential in religious studies educators or clergy. Those engaged in pastoral counseling or religious education may be viewed with a higher-than-average degree of trust by their congregants or students. Self-reflection may be an important tool towards developing healthy and effective dispositions of those leaders (Powers, 1999; Wilson & Cameron, 1996). Meaningful and deep self-reflection can enable a person to understand how one's actions and behaviors impact others (Powers, 1999), thereby fostering humility. A lack of humility, however, may lead to narcissism or arrogance, and result in clergy or religious education professionals taking advantage of their congregants' or students' trust, leading to abuse of power. The many cases of child abuse that have been attributed to members of the clergy (Fitzgibbons & O'Leary, 2011) is a single example, with far-reaching impact, of people who believed they could "get away" with violating boundaries. "Sexual abuse in general is a violation of basic human trust. However, when the sexual abuse is perpetrated by clergy, there is an added feeling of betrayal by someone deemed to be an ideal for morality" (McGraw et al., 2019, p. 8). That same feeling of betrayal is likely true when religious education professionals overstep boundaries because they often serve as spiritual mentors to their students. This magnifies the responsibility of higher education to implement effective learning activities for and assessments of dispositions when preparing students to become teachers of religious studies. It also highlights the need for higher education to serve as gatekeepers to the field towards protecting the vulnerable.

The need to foster and assess dispositions of students enrolled in educator preparation programs is driven by several factors, including accreditation standards and the need to

graduate teachers who possess dispositional attributes associated with effective educators, in general or religious education. The changing landscape of higher education teaching and learning compels institutions to consider how to foster and assess dispositions when using various instructional modalities, such as face-to-face traditional courses and asynchronous or synchronous online learning. While a body of research exists on fostering and assessing educator dispositions in traditional, face-to-face courses (for example, see Conderman & Walker, 2015; Diez, 2007; Dottin, 2010; Murrell et al., 2010; Rike & Sharp, 2008; Taylor & Wasicsko, 2000; Wasicsko, 2007), research on fostering and assessing dispositions in asynchronous online courses is scarce. Although Eberly and Rand (2003) describe the use of discussion boards and chats in online courses and explain the benefits of online disinhibition of students towards evaluating authentic dispositions, the research in this domain pales compared to that of assessing dispositions in traditional courses.

Furthermore, nonverbal communication (Mehrabian, 1971), impromptu discussions (Ritchhart, 2002), and teacher immediacy behaviors (Andersen, 1978) have all been associated with fostering and assessing authentic dispositions. These strategies are limited or nonexistent in asynchronous online education.

This mixed methods study explored the similarities and differences between fostering and assessing educator dispositions in face-to-face and asynchronous online courses. The theoretical framework of this study includes several theories which faculty may consider when fostering and assessing dispositions online. They are theories of cognitive development, adult learning, online learning, and adult change. While other theories may be important towards understanding this domain, these theories were selected due to their link to teaching and learning, as well as disposition formation and assessment in online

environments. The theories in the framework were used to guide the design of the quantitative survey and qualitative interview questions.

Problem Statement

Several studies have found an important link between dispositions and effective practice (Combs & Snygg, 1959; Combs et al., 1969; Leithwood, 1990), including Wasicsko (1977b), who reviewed eight studies that supported this link. Those studies were based on traditional, face-to-face courses, while studies on fostering and assessing dispositions online are scarce. Given the need to graduate competent education professionals and the link between dispositions and effective practice in the helping professions, this study sought to compare fostering and assessing dispositions in face-to-face and asynchronous online courses in educator preparation programs.

Definitions

The following definitions were used to qualify essential terms in this study:

Dispositions - attitudes, values, and beliefs that are demonstrated through verbal and nonverbal communication, behavior, and actions, for example, to embrace diversity.

Face-to-face or f2f - Traditional courses that are taught in person with students and the teacher in the same room.

Asynchronous online or asynch - Courses that are completed via an online learning management system, do not meet in-person, and do not meet synchronously for class via videoconferencing. Such courses provide flexibility for the student to complete coursework independently within predetermined deadlines.

Synchronous - Courses that meet through a video conferencing platform

Purpose

The purpose of this study was to explore the similarities and differences between fostering and assessing dispositions in face-to-face and asynchronous online courses in educator preparation programs.

Significance

The goal of this study was to showcase similarities and differences between the two instructional modalities--face-to-face and asynchronous online instruction-- and inform higher education and professional development practices. Using a parallel convergent mixed methods design, this study examined the similarities and differences between the fostering and assessment of dispositions in students enrolled in traditional, face-to-face educator preparation courses and the fostering and assessment of dispositions of students enrolled in asynchronous online educator preparation courses. The study sought to understand the relationship between several variables and how they impact the level of perceived difficulty and efficacy that faculty associate with fostering and assessing dispositions in face-to-face and asynchronous online courses.

Due to the exponential increase of students enrolled in online courses, even prior to the COVID-19 pandemic (Ortagus, 2017), and the accreditation requirements for educator preparation programs to foster and assess dispositions, this study may be significant towards understanding how to maintain high educational standards, proper professional preparation, and faculty professional development in online education.

Furthermore, Collinson et al. (1998) explained that dispositions are fundamental to exemplary teaching and, while an "ethic to care" plays a significant role in all teaching, it is particularly relevant to religious education. Therefore, this study may have particular

significance to educator preparation programs that are focused on religious education. Such programs may seek to foster and assess professional educator dispositions and dispositions that are unique to religious education, possibly making the task even more complex in asynchronous courses or programs. Although this study was not intended to evaluate the need to foster and assess dispositions, determine which dispositions are most important to foster and assess, or test the efficacy of specific initiatives, it was intended to showcase an area of instruction that had little if any research to support best practices. The following overarching question emerged:

What are the similarities and differences in fostering and assessing dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses in educator preparation programs?

CHAPTER TWO: LITERATURE REVIEW

Overview of the History of Dispositions in Education

Well before modern times, ancient and Biblical texts and leaders alluded to or commented on dispositions of teachers and learners. For example, the dictum that an angry teacher cannot teach students effectively and a student who is embarrassed to ask questions will not be able to learn (Proverbs 2:6). Rabbi Akiva ben Yosef (50-135 CE) reasoned that a teacher should continue teaching a student until the student knows and understands the content (Babylonian Talmud, Eruvin 54:b), placing the responsibility on the teacher to ensure that students learn and advancing the belief that all students *can* learn. Maimonides (1138-1204 CE) expanded on Rabbi Akiva ben Yosef's statement that a teacher should not become angry at his student if the student did not understand what was taught; rather, the teacher is obligated to teach the student until he understands the content (Maimonides, 1180). Rashbatz explained that a teacher should have a pleasant facial expression when teaching because just like looking at water reflects a person's facial expression, so too, one person's expression is reflected by another (Sacks, 2009; see Proverbs 2:6). According to Rashbatz, this phenomenon moves beyond facial expressions and includes emotional and attitudinal reactions such as happiness and sadness (Sacks, 2009), underscoring that educators' dispositions impacts students' dispositions and learning.

Using a more secular lens, Jansen (2009) claims:

It could well be argued that no one influenced and shaped our thinking about dispositions and other causal properties more than Aristotle. What he wrote about power and capacity (dynamis), nature (physis), and habit (hexis) has been read, systematized, and criticized again and again during the history of philosophy. (p. 24)

In *Ethics,* Aristotle considered the concept of virtues and decided that the concept is really dispositions (Meissner, 2009). Aristotle then differentiated between two types of dispositions, those that evolve without conscious thought and those that are consciously developed (Meissner, 2009). Diener (2015) posited that according to Plato, education is an endeavor of moral development and values formation. In Plato's *Sophist* a definition of ontology is offered "which not only includes dispositions, capabilities and powers among what is, but even identifies being with having a certain disposition, capability or power" including "virtue and knowledge" (Gonzalez, 2009, p.3).

Diener (2015) shared that Plato believed the purpose of educating students "is to cultivate them into a certain type of human beings who have a certain disposition toward learning themselves, and the world around them" (pp. 25-26). If fostering dispositions and values are the essence of education, then it would seem necessary for educators to embody and model the desired dispositions and values.

In the modern era, Dewey (1988; 1922) discussed dispositions as habits of mind and noted that one's environment contributes to disposition formation. He suggested that different careers may require different dispositions and that these habits of mind influence our thoughts and actions. Although dispositions may be difficult to change, Dewey supported the idea that change is possible, which can be attributed to neuroplasticity (Dewey, 1922).

Dewey's position that different careers may necessitate specific dispositions did not, however, seem to drive change in educator preparation during the early twentieth century.

Several twentieth and twenty-first century scholars made the role of dispositions more prominent and discussed the significance, definition, and formation and assessment of dispositions in general, and educator dispositions in particular. They include Altan, Lane and Dottin (2019, 2010, 2009), Arnstine (1967), Combs (1959, 1962), Combs and Snygg (1959), Costa and Kallick (2014), Diez (2007), Feiman- Nemser (2014, 2001), Koeppen and Davison-Jenkins (2007), Murrell et al. (2010), Singh and Stoloff (2008), Snygg and Combs (1949), Raths (2001) and Wasicsko (1977a).

According to Freeman (2007), Arnstine (1967) may have been the first to use "dispositions" to describe behaviors and actions that were "thoughtful and discriminative of situations" (Arnstine, 1967, p. 28). Further examination of the literature, however, indicates that although the term "dispositions" may have been new to education, the general construct was already acknowledged and considered to have a significant role in learning outcomes. The Association of Supervision and Curriculum Development (ASCD) 1962 Yearbook Committee, for example, highlighted the importance of educators' dispositions when they stated, "Teachers who believe children can, will try to teach them. Teachers who believe children are unable, give up trying or spend their days on a treadmill, hopelessly making motions they never expect will matter" (Association for Supervision and Curriculum Development, 1962, p.1). The Committee poignantly explained the extent to which beliefs can limit or foster the growth of others and stated,

> The beliefs we hold about people can serve as prison walls limiting us at every turn.
> They can also set us free from our shackles to confront great new possibilities never

dreamed of before. No beliefs will be more important to education than those we hold

about the future of man and the limits of his potentials. (Association for Supervision

and Curriculum Development, 1962, p. 1)

Snygg and Combs (1949) explained the relationship between human beliefs and

actions through the discipline of perceptual/field psychology. They posited that human action

and behavior are the result of how people perceive a situation and are not caused by the

actual situation. In addition to perceptions of situations, expectations as a result of

perceptions can influence behavior and actions. Combs (1962) described four overarching

perceptions about oneself that are present in what he referred to as the "adequate" person and

contribute to self-actualization: "(a) a positive view of self, (b) identification with others, (c)

openness to experience and acceptance, and (d) a rich and available perceptual field" (p.51).

A "positive view of self" enables people to view themselves in a generally positive

light, and even though they may acknowledge their limitations, shortcomings do not define

them. Their positive view of self enables them to "see themselves as persons who are liked,

wanted, acceptable, able; as persons of dignity and integrity, of worth and importance"

(Combs, 1962, p.51). "Identification with others" is rooted in altruism and the ability to care

about and respect others as people, to be concerned about justice and the well-being of

others: "The insecure self can identify only with those who make him feel safe and secure.

The more positive the individual's feelings about self, the easier it is to identify with an ever

broader sample of mankind" (ibid., p. 56). "Openness to experience" is the ability to be open

to change without defenses, and when needed, to function with ambiguity. A "rich and

available perceptual field" develops when a person has a wide variety of experiences.

According to Combs, a variety of experiences can provide wider perceptions and result in

better judgment and more intelligent behavior. Combs posited that when the aforementioned four aspects of perception are present, a person is "adequate" and can achieve self-actualization. He theorized that once these components coalesce, a person can be healthy and well-adjusted, and then one will be more other-focused and capable of positive contributions to society. Combs' subsequent work continued to explore how perceptions impact oneself, one's efficacy in the helping fields, and specifically, the influence of educator perceptions on student outcomes.

Following Combs' explanation of perceptual psychology and the perceptions that are at the core of a healthy individual, the Association for Supervision and Curriculum Development (ASCD) Yearbook Committee (1962) turned the conversation to the link between perceptions and education. They theorized that perceptions and attitudes of acceptance and perspective-taking impact teaching and learning through stating,

> If the teacher and students accept the perceptions of each person as he currently is, then each student is free to explore his perceptions without fear of ridicule or of feeling attacked. If the teacher accepts student perceptions, other students tend to accept them. (Association for Supervision and Curriculum Development, 1962, p. 71)

The Committee also identified the need for teachers to re-envision their classrooms and make them a safe space for sharing and developing ideas, attitudes, beliefs, and values towards developing learning environments that are informed by perceptual psychology and human development.

At approximately the same time as Combs, Arnstine (1967) discussed the importance of educator dispositions and the methods for fostering and assessing appropriate dispositions. Arnstine suggested that dispositions are a tendency to act. He suggested that learning

foundational courses in isolation, such as educational psychology or philosophy of education would not be productive towards training future teachers. Instead, he suggested that students learn theory while they can implement it in practice and shape their educator dispositions through understanding how the foundations that they are learning apply to their classroom teaching. Furthermore, Arnstine's position was that disposition formation needs time and would need to be an ongoing process during the preparation program and not designated to one semester (Arnstine, 1984). A disposition, according to Arnstine, is "the tendency to behave in certain ways when certain conditions are realized" (p. 32) and would need to be observed in several different situations over time to understand the authenticity of the disposition.

Although Arnstine wrote about the importance of dispositions in education, it was not until the 1990s that educator dispositions became a widely discussed topic in the field (Freeman, 2007). A new focus on dispositions led to educator preparation programs focusing on three goals, knowledge, skills, and dispositions, instead of the previous focus on just knowledge and skills or knowledge, skills, and attitudes (ibid.). This shift may be due to the outgrowth of a combination of factors, such as reformulating accreditation standards and national education committees.

Role of Review Committees and Accreditation Standards

The American Association of Teacher Colleges, established in 1927, was the first agency to accredit teacher education programs in the United States (Kraft, 2001). Accreditation, however, only focused on teaching knowledge and skills until the late twentieth century.

In 1981 the National Commission on Excellence in Education was formed to investigate the state of education in the United States, including public and private elementary, middle, and high schools, and colleges and universities. The commission produced the 1983 report *A Nation at Risk: The Imperative for Educational Reform. An Open Letter to the American People. A Report to the Nation and the Secretary of Education* (Gardner, 1983). In that report Gardner noted the declining state of education in the United States and stressed the importance of several factors towards improving teaching and learning. Those factors included several dispositions such as the need for teachers to share the belief that all students can learn, a commitment to diversity and enabling all students to achieve excellence and fostering lifelong learners.

Shortly after *A Nation at Risk* was presented to the US Department of Education, the Carnegie Forum on Education and the Economy created a taskforce to address the declining education level and outcomes in the United States (National Board for Professional Teaching Standards, 2021). The taskforce produced the report *A Nation Prepared: Teachers for the 21st Century. The Report of the Task Force on Teaching as a Profession,* which made specific recommendations to address the inadequacies described in *A Nation at Risk.* The taskforce recommendations included improving standards for educator preparation programs and the creation of the National Board for Professional Teaching Standards (NBPTS; Carnegie Corporation of New York, 1986), raising the status and focus of teaching as a profession. NBPTS was founded in 1987, geared towards experienced teachers, and published their first set of standards in 1989 (Kraft, 2001). The standards, *What Teachers Should Know and Be Able to Do*, included five core propositions which continue to guide the NBPTS standards. They are:

1. Teachers are committed to students and their learning.

2. Teachers know the subjects they teach and how to teach those subjects to students.

3. Teachers are responsible for managing and monitoring student learning.

4. Teachers think systematically about their practice and learn from experience.

5. Teachers are members of learning communities. (National Board for Professional Teaching Standards, 2016)

The NBPTS standards incorporated educator dispositions as an important focus in teacher development. This may have been the first time that a national body placed equal emphasis on dispositions through extending the focus on knowledge and skills to become knowledge, skills, and dispositions. The 2016 revised standards continued that focus. Dispositions, such as embracing diverse students, are delineated in *What Teachers Should Know and Be Able to Do* and include statements such as, "Teachers Recognize Individual Differences in Their Students and Adjust Their Practice Accordingly" (National Board for Professional Teaching Standards, 2016, p. 12). Such statements not only emphasize the importance of embracing diversity, they also place the responsibility on teachers to have flexible dispositions and mold their practice to address their students' needs. An implicit message is conveyed that teaching diverse students can be done, and an effective teacher is capable of providing that experience.

At approximately the same time as the Carnegie task force report and formation of NBPTS, Katz and Raths (1985; 1986) proposed the addition of dispositions in teacher education. They emphasized the need to recognize the possibly erroneous assumption "that the observed execution of a given skill on one or a small number of occasions is a sufficient

criterion of teacher competence" (Katz & Raths, 1986, p.8), and that behaviors and actions need to be observed many times and in different settings. They differentiated between skills, knowledge, and dispositions, explaining that a teacher can possess a certain skill or knowledge but not actually use them. The tendency to use the skill or knowledge is the disposition, and according to Katz and Raths, the frequency of implementation should be the marker of competence. Katz and Raths (1986) also posited that teacher educators could influence teachers' development of dispositions, implying that dispositions are malleable. Similar to Gardner (1983) they specified that educator preparation programs should foster a disposition to embrace diversity.

In 1992, The Interstate New Teacher Assessment and Support Consortium (InTASC), under the auspices of the Council of Chief State School Officers, developed a new set of standards for educator licensing (Interstate New Teacher Assessment and Support Consortium, 1992). According to the Interstate New Teacher Support Consortium (InTASC) the NBPTS standards were intended for veteran teachers (InTasc, 1992), and the new InTASC standards were intended for initial teacher licensing (Kraft, 2001). Building on the work of NBPTS, InTASC specified "dispositions" as one of the essential foci of the InTASC model. Each standard was divided into three sections: knowledge, dispositions, and performances. Examples of dispositions include:

> The teacher appreciates multiple perspectives and conveys to learners how
>
> knowledge is developed from the vantage point of the knower.

The teacher appreciates individual variation within each area of development, shows respect for the diverse talents of all learners, and is committed to help them develop self-confidence and competence.

The teacher is disposed to use students' strengths as a basis for growth, and their errors as an opportunity for learning.

The teacher believes that all children can learn at high levels and persists in helping all children achieve success.

The teacher appreciates and values human diversity, shows respect for students' varied talents and perspectives, and is committed to the pursuit of 'individually configured excellence.'

The teacher respects students as individuals with differing personal and family backgrounds and various skills, talents, and interests.

The teacher is sensitive to community and cultural norms.

The teacher makes students feel valued for their potential as people and helps them learn to value each other. (Interstate New Teacher Assessment and Support Consortium, 1992, p. 14-19).

Through the articulation of specific dispositions in the standards, InTASC highlighted the important role of fostering and assessing dispositions in candidates seeking teaching licenses.

Funded by the Rockefeller Foundation and the Carnegie Corporation, the National Committee on Teaching and America's Future was formed in 1994 to draft concrete steps to address the mediocrity and inadequate performances of the nation's schools described in *A Nation at Risk* (National Commission on Excellence in Education, 1983; National Commission on Teaching, 1996). The committee's report included five overarching recommendations and several steps towards reaching each goal. The five recommendations were:

I. Get serious about standards, for both students and teachers.

II. Reinvent teacher preparation and professional development.

III. Fix teacher recruitment and put qualified teachers in every classroom.

IV. Encourage and reward teacher knowledge and skill.

V. Create schools that are organized for student and teacher success. (National Committee on Teaching and America's Future, 1996, p. vii)

The recommendations included improving and using standards during teacher preparation and in professional development, and stressed the importance of knowledge, skills, and dispositions. The call for change casted dispositions as one of the three critical elements of successful teachers through stating,

What is required is a great national crusade united behind the proposition that competent teaching is a new student right. We must understand that if this nation is to prepare all of its children for the challenges of the 21st century, teaching must be able to recruit and retain able, well-prepared teachers for all classrooms. These entrants

must be equipped with the knowledge, skills, and dispositions that will enable them to

succeed with all students. (Most, 1996, p. 57)

Towards that end, the authors emphasized several dispositions, including the need for

teachers to be collaborative with students, families, and colleagues and embrace diversity.

The National Council for Accreditation of Teacher Education (NCATE), founded in

1954, succeeded the American Association of Colleges for Teacher Education in accrediting

educator preparation programs (National Council for Accreditation of Teacher Education,

2008). Over the course of three years during the late 1990s, NCATE systematically designed

new standards for preservice teachers (Mitchell, 2000). The new set of NCATE standards

were released in 2000 and referred to three overarching goals in education: the development

of knowledge, skills, and dispositions (Mitchell, 2000). Additionally, NCATE established

performance-based standards for which institutions would need to document observable

phenomena to support students' abilities instead of faculty claiming that content had been

taught. The performance-based standards included a need to monitor both the process of

instruction and observable student outcomes, including performance-based evidence of

teacher candidates' dispositions (Mitchell, 2000).

The NCATE 2002 Standards continued the focus on dispositions and stated,

Candidates for all professional education roles develop and model dispositions that

are expected of educators. The unit articulates candidate dispositions as part of its

conceptual framework(s). The unit systematically assesses the development of

appropriate professional dispositions by candidates. Dispositions are not usually

assessed directly; instead, they are assessed along with other performances in

candidates' work with students, families, and communities. Candidates for all

professional education roles are expected to demonstrate positive effects on student

learning. Teachers and teacher candidates have student learning as the focus of their

work. Other professional school personnel are able to create and maintain positive

environments [a positive disposition to teach], as appropriate to their professional

responsibilities, which support student learning in the educational setting. (NCATE,

2002, p. 19 in Erickson et al., 2005)

In 1997, the Teacher Education Accreditation Council (TEAC) was formed to provide

accreditation to educator preparation programs with a goal of supporting "the preparation of

competent, caring, and qualified professional educators" (Teacher Education Accreditation

Council, 2014). The inclusion of "caring" in its goal statement may have reflected the

increasing emphasis on educator dispositions in preparation programs, even though the

importance of educator dispositions may not have been fully recognized at that time.

Even though agencies and organizations, such as NBPTS, InTasc, NCATE, and

TEAC, began including dispositions in their standards in the late 1990s, the impact on

educator preparation was not transformative at that time. In 2006, Thornton claimed that

"dispositions remain a neglected part of teacher education" (p. 53).

The next set of NCATE standards were released in 2008 and may have increased the

focus on professional dispositions. The standards stated that faculty needed to work

collaboratively towards designing a conceptual framework to create a common vision and

guide learning and assessment activities, such as curriculum, instruction, and teaching

practices, as well as to make "professional commitments and professional dispositions

explicit" (National Council for the Accreditation of Teacher Education, 2008, p.14). The new

standards and accompanying rubrics mentioned the word "disposition(s)" eighty-two times

and included dispositions such as caring, embracing diversity, and collaboration. For

example, in the rubric for Standard 1g, "Professional Dispositions for all Candidates,"

NCATE describes the target behaviors as

> Candidates work with students, families, colleagues, and communities in ways that
>
> reflect the professional dispositions expected of professional educators as delineated
>
> in professional, state, and institutional standards. Candidates demonstrate classroom
>
> behaviors that create caring and supportive learning environments and encourage self-
>
> directed learning by all students. Candidates recognize when their own professional
>
> dispositions may need to be adjusted and are able to develop plans to do so. (National
>
> Council for the Accreditation of Teacher Education, 2008, p. 20)

Furthermore, the rubric for Standard 3c, "Candidates' Development and Demonstration of

Knowledge, Skills, and Professional Dispositions To Help All Students Learn," described the

target performance as follows:

> > Candidates work collaboratively with other candidates and clinical faculty to
> >
> > critique and reflect on each other's practice and their effects on student
> >
> > learning with the goal of improving practice. Field experiences and clinical
> >
> > practice facilitate candidates' exploration of their knowledge, skills, and
> >
> > professional dispositions related to all students. Candidates develop and
> >
> > demonstrate proficiencies that support learning by all students as shown in
> >
> > their work with students with exceptionalities and those from diverse
> >
> > ethnic/racial, linguistic, gender, and socioeconomic groups in classrooms and
> >
> > schools. (National Council for the Accreditation of Teacher Education, 2008,
> >
> > p. 31)

Additionally, NCATE suggested that teacher educators identify and assess other dispositions based on their program's mission, through requiring that

> Candidates for all professional education roles develop and model professional dispositions that are expected of educators. The unit includes as professional dispositions the ideal of fairness and the belief that all students can learn. Based on its mission, the unit may determine additional professional dispositions it wants candidates to develop. The unit articulates professional dispositions as part of its conceptual framework. The unit systematically assesses the development of appropriate professional dispositions by candidates. Professional dispositions are not assessed directly; instead the unit assesses dispositions based on observable behavior in educational settings. (National Council for the Accreditation of Teacher Education, 2008, p. 22)

Overall, dispositions may have played a more prominent role in the NCATE 2008 Standards than previous standards.

The Council for the Accreditation of Educator Preparation (CAEP) may have been the next significant accrediting agency to address dispositions in educator preparation standards. Formed through merging NCATE and TEAC in 2010 and recognized by the Council for Higher Education Accreditation (CHEA) in 2014, CAEP completed its first set of standards in 2013 and those standards became the only standards in use by CAEP in 2016 (Council for the Accreditation of Educator Preparation, 2020). CAEP 2013 standards included several references to dispositions and placed a significant emphasis on teacher candidates' dispositions through standard 3.3 which required

Educator preparation providers establish and monitor attributes and dispositions beyond academic ability that candidates must demonstrate at admissions and during the program. The provider selects criteria, describes the measures used and evidence of the reliability and validity of those measures, and reports data that show how the academic and non-academic factors predict candidate performance in the program and effective teaching. (Council for the Accreditation of Educator Preparation, 2013)

The newest educator preparation accreditation agency, the Association for Advancing Quality in Educator Preparation (AAQEP), founded in 2017, received approval to provide accreditation from the Council of Higher Education Accreditation (CHEA) in May 2021 (Association for Advancing Quality in Educator Preparation, *Recognition*, n.d). AAQEP continued the focus on dispositions and the role of dispositions in successful teaching. Standard 1, for example, "Candidate Completer Performance" states the following:

Program completers perform as professional educators with the capacity to support success for all learners.

Candidates and completers exhibit the knowledge, skills, and professional dispositions of competent, caring, and effective professional educators. Successful candidate performance requires knowledge of learners, context, and content. Candidates demonstrate the ability to plan for and enact and/or support instruction and assessment that is differentiated and culturally responsive. Evidence shows that, by the time of program completion, candidates exhibit knowledge, skills, and abilities of professional educators appropriate to their target credential or degree, including . . . 1f. Dispositions

and behaviors required for successful professional practice. (Association for

Advancing Quality in Educator Preparation, *Standard-1*, n.d.)

Similar to NCATE, the Association for Advancing Quality in Educator Preparation

requires performance-based assessment for accreditation and requires that programs evaluate

students' dispositions, such as embracing diversity, collaboration, and an ethic of caring.

While scholars have discussed dispositions with more or less frequency for millennia,

the impact on educator preparation programs appears to be a late twentieth and twenty-first

century phenomenon due to the increase of scholarly publications on the topic and the

inclusion of dispositions in accreditation standards. While those standards may be informed

by research, accreditation agencies hold a key to implementation through mandating the

inclusion of dispositions and, more recently, the use of observable phenomenon to support

assessment of dispositions.

The increased focus on dispositions during the twentieth and twenty-first centuries

was not exclusive to North America and was also stressed in education internationally. For

example, the Council of European Union for Teacher Education included dispositions as part

of its core competencies for educators (Caena, 2011). Although "dispositions" has been of

greater interest to the academic community in recent years, defining the exact nature of

dispositions can be difficult; as Shussler (2006) stated, it "represents aspects of teaching that

occur internally. It is only the outcomes of one's dispositions that can be viewed externally"

(p. 258). The European Commission Directorate-General for Education and Culture likewise

stated that defining dispositions is "challenging" due to "the elusive nature of the criteria for

defining and assessing the presence of dispositions and attitudes for teaching, or the best

strategies for promoting their development in initial teacher education" (Caena, 2011, p. 9).

Exploring the various definitions of dispositions, the significance of dispositions on student outcomes, and associated practices to foster and assess dispositions can provide greater understanding of this domain.

Defining Dispositions

Philosophers, psychologists**,** scholars, helping professions' educators, and specifically educator preparation programs have used different terms to refer to dispositions, and a variety of definitions have been offered. Usher (2002, as cited in Koeppen & Davison-Jenkins, 2007) described dispositions as "determiners of behavior . . . They are a constellation of personal meanings from which behaviors spring . . . " (p. 3). Other terms for dispositions include, "personal qualities or characteristics that are possessed by individuals, including attitudes, beliefs, interests, appreciations, values, and modes of adjustment" (Taylor & Wasicsko, 2000, p. 2), "personal attributes" (Koeppen & Davison-Jenkins, 2007, p. 1), "virtue ethic" (McKnight, 2004, P. 214), which according to Aristotle's definition of dispositions is "a virtue or vice in relation to the agent and a particular frame of mind in any given ethical or moral situation" (ibid.), and perceptions (Combs & Snygg, 1949).

Oja and Reiman (2007) suggested that educator dispositions are "characteristics of a teacher that represent dominant and preferred trends in teachers' interpretations, judgments, and actions in ill structured professional contexts" (p. 92; also see Reiman & Johnson, 2003). They did not suggest that dispositions are only manifested when addressing ill-structured problems as dispositions are present in other situations; rather, dispositions can be more readily noticed when responding to ill-structured problems. That is likely due to the increased difficulty of parroting a response when the scenario is less structured.

Welch and Napoleon (2015) posited that dispositions are "similar to professional beliefs or value systems" (p. 585), with the distinction being that an authentic disposition has a predictive quality and therefore needs to be evident in behavior and actions to augur future tendencies. Descartes used the word dispositions interchangeably with tendencies and inclinations (Machamer, 2009).

Meissner (2009) clarified that in Greek historiography, "ancient biographies, actions are conceived of as displaying dispositions that in turn can be used as positive or negative paradigms for modeling one's own behavior" (p. 49). Meissner (2009) further posited that 'dispositions' are habits and as a

> concept is especially prominent in teachers' training research, where educating teachers is held to consist of developing and strengthening some more or less pre-existent dispositions to being a teacher into a habit which is typical of a master teacher. Evaluating teachers consists in profiling their behavior according to a set of moral values that define the core of what one expects from a teacher or thinker. In this context, dispositions are necessary conditions for being a master; they can, more or less, be present in people's behavior. (pp. 47-48).

Disposition, a word derived from the Latin *dispositio* (*diathesis* in Greek), means "orderly arrangement" and can refer to the arrangement of "things, of speeches, or of soldiers in an attacking army" (Jansen, 2009, p. 24). However, in the works of Aristotle, dispositions refer to a "causal property" (Jansen, 2009, p. 24). Aristotle used several words for dispositions, such as dynamis ("power" or "capacity"), *physis* ("nature"), or *hexis* ("habit"; ibid.). The word *dynamis* is used by Aristotle to reflect a tendency or inclination to or for something ("*echei tên dynamin tou . . .* ='has the disposition to'"; Jansen, 2009, p. 30).

Mumford (2003) described dispositions as material properties (e.g., fragile) or mental properties (e.g., trustworthy).

In contrast to the Megarian philosophers, who believed that a disposition needs to be actualized to be categorized as a disposition, Aristotle posited that a disposition can be present whether or not it is being utilized or manifested and can be rational (cognitive) or non-rational (emotive; Jansen, 2009). In his objection to Aristotle's ontology and definition of dispositions, Jansen (2009) stated that "dispositions are not only described in terms of their realizations, but also recognized through them" (p.44), implying that an integral part the ontology and definition of dispositions is the fact that they are realized and recognized, and not something that cannot be observed or identified.

In modern research on and discourse in education, the definition of dispositions has also been discussed and debated. Wise (2006) referred to "the moral and ethical development of teachers" (p. 5) when discussing disposition formation. Similarly, Murrell et al. (2010) categorized teaching as a moral practice in which teachers' values and beliefs shape their ethics and morals, resulting in the formation of dispositions. Furthermore, Murrell et al. (2010) considered morals, ethics, and values to be the guiding factors of teachers' decision making and actions.

Informed by the work of Parker Palmer (1998) on selfhood and a teacher's personhood at the core of good teaching, Hare (2007) created a flowerpot metaphor to define dispositions. The top layer of the soil is dispositions, followed by thoughts, then feelings, then values, next is beliefs, and the bottom layer is "the ground on which we stand" (p. 143).

Allen et al. (2014) used the word dispositions to represent "a person's core attitudes, values, and beliefs demonstrated through both verbal and non-verbal behaviors as one

interacts with oneself, others, one's purpose, and frames of reference" (p. 3). Breese and Nawrocki-Chabin (2007) defined educator dispositions as "intellectual and emotional investments in events, situations, and people" through which "educators develop positions towards teaching and learning that direct their work with students, parents, and colleagues" (p. 33).

In 1985, Katz and Raths seemed to define dispositions as habits of mind that are reflected by repeated behaviors. In a later work, Katz and Raths (1986) stated, "A disposition is defined as an attribution which summarizes the trend of a teacher's actions across similar contexts" (Katz & Raths, 1986, p. 3). They posited that a disposition does not explain a cause of behavior, rather it is reflected by observed behaviors. According to Katz and Raths (1986), "A disposition is a tendency to exhibit frequently, consciously, and voluntarily a pattern of behavior that is directed to a broad goal" (Katz, 1993, p. 2). For example, "seeing a teacher make use of praise in specific contexts and on many occasions, an observer might attribute a supportive disposition to him or her" (Katz & Raths, 1986, p.4). Katz (1995) stated that "a disposition is a pattern of behavior exhibited frequently and in the absence of coercion and constituting a habit of mind under some conscious and voluntary control, and that is intentional and oriented to broad goals" (p. 63). A disposition, therefore, has at least two important ontological features: it is manifested through actions which enable it to be recognized, and it has repeated manifestations versus appearing in an isolated incident. Similarly, Johnson and Reiman (2007) defined dispositions as "characteristics of a teacher that represent a trend of a teacher's judgments and actions in ill-structured contexts (situations in which there is more than one way to solve a dilemma; even experts disagree on which way is best)" (p. 677).

Villegas (2007) defined dispositions as "tendencies for individuals to act in a particular manner under particular circumstances, based on their beliefs. A tendency implies a pattern of behavior that is predictive of future actions" (p. 373). This definition provides at least three important distinctions. First, according to Villegas, a disposition has a predictive quality in that the patterns of behaviors seem likely to continue in other settings (e.g., the dispositions of a graduate student could predict the student's dispositions in the workforce). Second, a disposition is rooted in beliefs. That is, beliefs lead people to behave in certain ways. Third, dispositions are considered present when they can be noted through observations of behaviors. This emphasis on observable behavior is consistent with the definition provided by Katz and Raths (1986). The National Council for the Accreditation of Teacher Education (NCATE, 2008) also indicated that dispositions are an observable phenomenon. Their definition includes "attitudes, values, and beliefs demonstrated through both verbal and nonverbal behaviors" (NCATE, 20008, pp. 89-90). If dispositions are "demonstrated," then they are observable.

Altan et al. (2019), Costa & Kallick (2008), and Thornton (2006) defined dispositions as "habits of mind." Thornton (2006) stated that dispositions are

> habits of mind, including both cognitive and affective attributes that filter one's knowledge, skills, and beliefs and impact the action one takes in a classroom or professional setting. They are manifested within relationships as meaning-making occurs with others and they are evidenced through interactions in the form of discourse. (p.62)

Thornton's definition links habits of thinking, mindsets, and emotion as the driving force and factor in shaping or filtering knowledge, skills, and beliefs to the actions and behaviors

people exhibit. Nelsen (2014) provided a more nuanced definition than "habits of mind" and suggests that dispositions are "clusters of habits" because "a single disposition can be usefully described through as a set of interrelated habits" (p. 4).

Similarly, NCATE (2008) links dispositions to actions and behaviors. NCATE (2008) defines professional dispositions as the "attitudes, values, and beliefs demonstrated through both verbal and nonverbal behaviors as educators interact with students, families, colleagues, and communities" (p. 89-90). NCATE's specification that dispositions are reflected by verbal and nonverbal actions indicates that the observation of both verbal and nonverbal behaviors are indications of dispositions and are important towards evaluating dispositions.

Considering the aforementioned sample of definitions of "dispositions," several themes are repeated. First, dispositions need to be manifested through behaviors and actions. Additionally, dispositions can be reflected through both verbal and nonverbal communication. Furthermore, dispositions are habits of mind and have substantial consistency. Finally, dispositions are manifested and recognizable across multiple settings and contexts.

Dispositions and Emotional Intelligence

While scholars and university programs use a variety of words to refer to dispositions, such as personal attributes (Koeppen & Davison-Jenkins, 2007), commitments, professional ethics (Binghamton University, 2021; National Council for the Accreditation of Teacher Education, 2010), characteristics, and inclinations (Washington State University, n.d.), emotional intelligence is not used interchangeably with dispositions. The two constructs, dispositions and emotional intelligence, may be related but are not synonymous.

Emotional intelligence (EI) has been defined as abilities (Mayer & Salovey, 1997), personality traits (Bar-On, 1997) or a combination of personality traits and leadership characteristics (Boyatzis et al., 2000). Mayer, Salovey and Caruso's "ability model is often considered to be the most promising model of EI" (Føllesdal & Hagtvet, 2013, p.748). Salovey and Mayer (1990) define EI as the "ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 189) and consider EI an intelligence that can be measured, similar to IQ. EI is

> the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth. (Mayer & Salovey, 1997 in Mayer, Salovey, & Caruso, 2004, p. 1)

The four abilities of the Mayer and Salovey EI model, perceive, understand, use, and manage emotions in oneself and others (Caruso & Rees, 2018), are considered to be "hard" skills and can be measured through the MSCEIT - Mayer, Salovey, Caruso Emotional Intelligence Test (Mayer, Salovey, & Caruso, n.d.).

The Mayer, Salovey, and Caruso (2004) EI model is focused on emotions and how emotions can provide data to guide our thoughts and actions. EI enables people to identify and differentiate feelings, moods, and emotions. Those feelings, moods, and emotions, however, may be influenced by our attitudes, values, and beliefs (dispositions). How one reacts to emotions is largely based on his perceptions (Combs, 1999). For example, if one values diversity (a disposition), then one might feel anger (an emotion) when perceiving a

scenario that reflects racism. Dispositions, therefore, may influence emotions, however, emotional intelligence, the skills to perceive, use, understand, and manage emotions, is a separate and distinct construct from dispositions.

The aforementioned sections explored definitions of the term "dispositions," what it refers to as well as what is excluded. Although reviewing the definition of the term "dispositions" can lend greater clarity to understanding the construct, delineating educator dispositions is necessary towards knowing which dispositions educator preparation programs seek to foster and assess.

Identifying Dispositions

In general terms, dispositions are the attitudes, values, and beliefs that form habits of mind and are demonstrated through verbal and nonverbal actions, behaviors, and discourse. Towards identifying whether pre-service educators have field-appropriate dispositions, several researchers sought to identify which dispositions are essential towards serving as an effective educator. Codifying essential dispositions is important so that faculty know what they are aiming to foster and can design congruent assessments. Identifying integral educator dispositions is essential towards graduating effective educators and towards meeting program goals and accreditation standards. Notar et al. (2009), however, clarified that educator preparation programs do not have a common list of dispositions. Therefore, institutions need to identify and prioritize the dispositions that they believe are essential to effective practice. Dispositions are often described or listed through narratives, checklists, or rubrics and can be categorized as specific manifestations of dispositions or overarching dispositions from which inferences can be drawn about potential actions and behaviors. This section will provide a sample of both specific and general educator dispositions.

The National Board for Professional Teaching Standards (NBPTS; 2002) stated the importance of several specific educator dispositions, such as "curiosity, tolerance, honesty, fairness, respect for diversity and appreciation of cultural differences -- and the capacities that are prerequisites for intellectual growth: the ability to reason and take multiple perspectives to be creative and take risks, and to adopt an experimental and problem solving orientation" (p. 6). Additionally, the NBPTS asserted that effective educator dispositions include collaboration, the ability to understand their students as people, being lifelong learners, reflective and flexible practitioners, and the belief that all students can learn.

Da Ros-Voseles and Moss (2007) described the need for teachers to have "wonder and to be curious about surrounding phenomena" (p. 92), to have "trust and openness" (p. 90) and possess dispositions of "open-mindedness, respect, inquisitiveness, patience, and flexibility" (p.93), be reflective practitioners, and have the ability to understand multiple perspectives.

Kennedy (2008) explained that effective educator dispositions include "believing all students can learn, holding a positive attitude toward student diversity, [and] valuing equitable treatment of students" (p. 60). Purkey and Novak (1997) suggested that believing people are "able, valuable, [and] responsible" are integral dispositions of effective educators. Breese and Nawrocki-Chabin (2007) described a teacher with effective dispositions as feeling compelled to "know each of his students' strengths, areas of growth, inclinations, and aversions, who honors student culture and prior knowledge, and who commits to the development of the whole student (not just his cognition) to inform instruction leading to learning" (pp. 31-32). They also described educator dispositions that foster a caring climate and safe space "to ask questions, take risks, and enjoy learning" (p.32). Palmer (1998; 2017)

explained that a teacher's selfhood is enmeshed with one's ability to be a good teacher. In addition to authentic care for students and mastery and interest in subject matter, the personhood is what will be conveyed to students. As such, an integral component of effective teaching is "self-knowledge" (Palmer, 1998; 2017, p. 3) and a self-reflective disposition.

One broad approach to identifying and assessing dispositions is the perceptual approach, which is based on the psychological understanding of a perceptual or phenomenal field (Combs & Snygg, 1959). A perceptual or phenomenal field approach examines human behavior through the eyes of the person behaving (ibid.). Combs (1999) posited that "people behave according to (1) how they see themselves, (2) how they see the situations they confront, and (3) what they are trying to do at the moment of acting" (p.3). Combs suggested that of the three aforementioned perceptions, perception of self is most influential due to its enduring status (as opposed to situations and responses which are transient), and one's values shape self-perception and self-concept (Combs, 1999). For example, a teacher may consider himself to be a "good teacher" or "bad teacher," based on his/her values, attitudes, and beliefs about good or bad teaching. Those beliefs about self, shape self-concept, which is how a person understands who he is, which can ultimately impact his efficacy.

 Combs used the word "adequate" to describe a healthy sense of self. An adequate perception of self contributes to living a healthy, productive life. According to Combs (1999), people who feel

> "adequate suffer the incapacitating effects of emotion much less than do persons who feel generally inadequate. Persons with concepts of themselves as generally unliked, unwanted, unacceptable, unable, and unworthy often find the tension so great that they may be unable to operate effectively and efficiently. Instead, they are in a

continual state of emergency, and the emotions they experience are destructive rather

than helpful in maintaining and enhancing themselves." (Combs, 1999, p.63)

Combs (1969) found that a positive perception of self is an integral ingredient of effective

educators.

Combs (1999) used the term 'perceptions' to refer to dispositions. He believed that

five overarching perceptions were responsible for human behavior and action, and when

measured, could be used to identify effective and ineffective providers in the helping

professions. Those perceptions are positive perception of self; a positive perception of others;

an ability to understand and identify with people (e.g., empathy); personal meaning attributed

to an event, situation, goal, or task; and perceptions that inform methods to approach an

event, situation, goal, or task.

A series of studies on effective and ineffective practice in the helping professions

were conducted and published as the *Florida Studies in the Helping Professions* (The

Florida Studies; Combs et al., 1969). Those studies were designed in response to Rogers

(1958), who claimed that obvious differences exist between helpful and unhelpful

relationships and that those differences were due to attitudes and perceptions of the "helper"

and "helpee." The Florida Studies examined similar perceptions across several fields, such

as counseling, teaching, nursing, college teaching, and pastoral counseling.

Prior to beginning the studies, graduate students and faculty in the College of

Education at the University of Florida participated in seminars through which they sought to

identify the core perceptions of effective versus ineffective providers in the helping

professions. Through these discussions, participants noticed that a primary difference

between serving in a helping profession and other professions is that those in the helping

professions need to be prepared to provide immediate responses (Combs et al., 1969). For example, teachers need to respond to students and situations in their classrooms, including typical classroom occurrences, such as answering students' questions, as well as the myriad unexpected and impromptu scenarios that arise.

Likewise, other helping professionals need to provide some form of immediate response to those they are trying to help. This commonality across helping professions was identified as part of using the "self as instrument," which is "the use of the helper's self in the process" (Combs et al., 1969, p.10). Because each person is different, they posited that the common thread amongst effective helping professionals is how practitioners use "self" to drive their behavior and actions. They determined that attitudes, values, and beliefs inform perceptions and perceptions influence action. Therefore, the team explored perceptual orientations that could provide predictable outcomes and identified five overarching perceptual beliefs that can have significant impact on the efficacy of helping professionals:

1. the general frame of reference or point of view from which the helper approached his problem,

2. the ways in which the helper perceived other people,

3. the ways in which the helper perceived himself,

4. the ways in which the helper perceived the task with which he was confronted, and

5. the ways in which the helper perceived appropriate methods for carrying out his purpose. (Combs et al., 1969, p.14)

Using a perceptual framework, Combs et al. (1969) tested their hypotheses about perceptions and efficacy across the helping professions, including mental health professionals, pastoral counselors, nurses, teachers, and college teachers. Hypotheses about

the five overarching perceptions of effective educators were further discussed, refined, and consolidated to ensure that all categories of perceptions were actually representing perceptions and not behaviors. This resulted in four broad perceptions: perception of self, perception of others, perception of the task, and general frame of reference.

The research on teachers' perceptions included effective and ineffective teachers who were selected by asking several school principals and curriculum coordinators to identify their highest and lowest performing teachers. Teachers were selected for the study if both the principal and curriculum coordinator similarly categorized them. Next, teachers were requested to participate in a study of effective teaching and were not told why they had been selected. The final sample included 19 effective and 13 ineffective teachers, representing a 51.3% acceptance rate of effective teachers and 13% acceptance rate by ineffective teachers. All subjects were female. Statistical difference was insignificant when the groups were compared for age, academic preparation, standardized test scores via the National Teacher Examination, years of teaching experience, and years in their current district (Combs et al., 1969).

Based on hypotheses about effective and ineffective helping professionals, interviews and observations of teachers were coded by four trained observers and their coding was checked for interrater reliability. Observers coded the interviews and observations for four overarching perceptions reflected by twenty subsets of perceptions. They are:

A. Perceptions of people and their behavior

1. Able - Unable

2. Friendly - Unfriendly

3. Worthy - Unworthy

    4. Internally Motivated - Externally Motivated

    5. Dependable -Undependable

    6. Helpful - Hindering

B. Perceptions of self

    7. With people - Apart from People

    8. Able - Unable

    9. Dependable - Undependable

    10. Worthy - Unworthy

    11. Wanted - Unwanted

C. Perception of the Teaching Task

    12. Freeing - Controlling

    13. Larger - Smaller

    14. Revealing - Concealing

    15. Involved - Uninvolved

    16. Encouraging Process - Achieving Goals

D. General Frame of Reference

    17. Internal - External

    18. People - Things

    19. Perceptual Meanings - Facts and Events

    20. Immediate Causation - Historical. (Combs et al., 1969)

The interview data did not indicate a statistically significant difference between the

perceptions of the effective and ineffective teacher participants, which may be related to

participants reporting inaccurate self-perceptions; perceptions that are not shared by

observers. For example, a teacher might perceive him/herself as empathic while observable phenomenon indicates otherwise. The data from classroom observations were statistically significant (p < .01) and found that perceptions of effective and ineffective teachers differ (Combs et al., 1969). The effective teachers shared similar perceptions about self, others, teaching, and their frame of reference. The study found that effective teachers' perceptions could be categorized as follows:

    A. The general frame of reference of effective teachers tends to be one which emphasizes:

        1. An internal rather than an external frame of reference.

        2. Concern with people rather than with things.

        3. Concerned with perceptual meanings rather than facts and events.

        4. An immediate rather than a historical view of the causes of behavior.

    B. Effective teachers tend to perceive other people and their behavior as:

        1. Able rather than unable.

        2. Friendly rather than unfriendly.

        3. Worthy rather than unworthy.

        4. Internally rather than externally motivated.

        5. Dependable rather than undependable.

        6. Helpful rather than hindering.

    C. Effective teachers tend to perceive themselves as:

        1. With people rather than apart from people.

        2. Able rather than unable.

        3. Dependable rather than undependable.

4. Worthy rather than unworthy.

5. Wanted rather than unwanted.

D. Effective teachers tend to perceive the teaching task as:

1. Freeing rather than controlling.

2. Larger rather than smaller.

3. Revealing rather than concealing.

4. Involved rather than uninvolved.

5. Encouraging process rather than achieving goals. (Combs et al., 1969)

Although the sample size was relatively small, this research provided a framework for understanding dispositions that continued to be used for decades (for example see Wasicsko, 2007).

Building on the work of Combs, Wasicsko (1977a; 1977b) also examined dispositions using a perceptual framework. He summarized Combs (1969) perceptual themes into perceptions about how people "view themselves and others, and their attitudes and beliefs about the nature of the helping situation" (Wasicsko, 1977b, p. 5). Regarding teachers specifically, Wasicsko (1977a) explained that effective and ineffective teachers can be distinguished through examining teachers' perceptions "about themselves, students, and the task of teaching" (p.6).

Wasicsko (1977b) summarized results from eight studies of teachers' perceptions about others and noted that all eight studies found significance between teachers' perceptions of their students and students' behaviors. When teachers had a negative perception of students, students displayed negative behavior and vice versa. This reflects the unique role that teachers may have towards shaping students' self-fulfilling prophecies.

Combs, Blume, Newman, and Wass (1974) streamlined the perceptual views of effective educators and articulated four primary and overarching perceptions that differentiate effective from ineffective teachers:

(1) Accurate perceptions of people (Perceptions of Others)

(2) Perceptions of self, leading to adequacy (Perceptions of Self)

(3) Accurate perceptions about the purposes and processes of learning (Perceptions of Purpose)

(4) Personal perceptions about appropriate methods for achieving purposes (Frame of Reference). (p. 22 as cited in Wasicsko, 1977a, p. 19)

These classifications of perceptions continued to be adjusted, including by Notar et al. (2009). Based on Combs (1999) and Usher (2002), Notar et al. (2009) classified five essential dispositions of effective teachers: empathy, positive view of others, positive view of self, authenticity, and meaningful purpose and vision (p. 4). Specific dispositions mentioned by Notar et al. include, "enthusiasm, sensitivity, responsibility, commitment, professionalism, skillful preparation, a sense of respect for others, communication, and appropriate dress, deportment and demeanor" (p. 6), "honesty, justice, fairness, care, empathy, integrity, courage, respect, and responsibility" (p. 6), and "character, commitment to change and professional growth . . . obligations and working relationships beyond the classroom. Teachers need to possess the characteristics of patience, determination, courage, and respect for students" (pp. 6-7).

Sing and Stoloff (2008) also used a perceptual approach; however, they delineated more specific dispositions through the Eastern Teachers Dispositions Index (ESTD). Using Likert-style scales, Singh and Stoloff designed a forty-six-item instrument based on studies

by Combs et al. (1969), Koeppen and Davidson-Jenkins (2004), Thompson et al. (2004), Wasicsko (2002), and InTASC (2001). Although this instrument categorized items into similar overarching perceptual categories then Combs et al. (1969), self, others, subject matter, purpose and process of education, [and] general frame of reference (Singh & Stoloff, 2008), the subcategories may be more extensive and touch on dispositional qualities, such as motivation to and interest in learning, collaboration, open to perspectives and ideas, open to feedback, optimistic and enthusiastic, self-directed learner, open to diverse people and learning needs, knowledge that their personal qualities can impact teaching and learning, proactive towards conflict resolution, patience, and be concerned about their students' complete well-being.

In research conducted nearly a half century ago, analyzing the impact of a reading program on student reading achievement, Armor et al. (1976) also found that teacher perceptions impact student outcomes. They hypothesized that teachers' perceptions about self-efficacy were highly correlated to reading achievement. Based on Bandura's definition of self-efficacy, "beliefs in one's capacity to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3), teacher self-efficacy (or teacher-efficacy) is a teacher's beliefs in her/himself as able to impact student achievement and outcomes.

In their study of reading achievement in schools with large minority populations, Armor et al. (1976) asked teachers to report on their perceptions about their ability to impact minority students' learning. Two items were used to assess teachers' perceptions about their efficacy. The first item reflected a lack of teacher efficacy through stating, "when it comes right down to it, a teacher can't do much (because) most of a student's motivation and

performance depends on his or her home environment" (p. 23). The second item represented a belief in teacher efficacy: "if I really try hard, I can get through to even the most difficult or unmotivated students" (p. 23). When the results were analyzed, Armor et al. (1976) found teachers' perceptions about teacher efficacy were strongly, positively correlated ($P < .05$) to students' achievements in reading. The greater the teacher's perception of self-efficacy, the greater student advancement in reading, indicating that teachers' self-perceptions are an important factor towards teacher efficacy and student outcomes. Therefore, teachers' perceptions of self-efficacy can be an important disposition for educator preparation programs to foster and assess.

Katz and Raths (1985) described the importance of the culture within educator preparation programs and the dispositions of the faculty and staff as well as those enrolled in the programs. They suggested that dispositions, such as "wonder, puzzle, reflect, explore, examine, study and analyze pertinent phenomena" (p. 304), are integral elements of effective teacher preparation programs and candidates. Katz and Raths (1986) posited that fostering and assessing dispositions should be a goal of educator preparation programs; however, they make a distinction between different dispositions. They suggest that professional dispositions related to teaching are the purview of the program, and that dispositions, moods, personal attributes, emotions, etc. that are not linked to educator efficacy should be addressed by other professionals and are not the domain of the preparation program.

Katz and Raths (1986) further asserted that some dispositions should be evaluated during the admissions process. They suggested that empathy, for example, is a disposition that should be present in program applicants, and if absent, can be a disqualifying admissions factor.

Roth (2005) explained that teachers' belief systems about themselves, their students, society, and the overarching goals of education, as well as beliefs about their ability to impact learning outcomes, inform their actions and instructional decisions. He specified beliefs that serve as foundations of dispositions: "attitude toward inquiry, ongoing self-development, introspection, principled reasoning, reflection, belief in the child as a learner" (Roth, 2005, p. 177). A reflective disposition is particularly important for continuous improvement and determining future instructional practices. Additionally, Roth emphasized that to make an impact, teachers need to perceive themselves as able and to view their efficacy as improving and not stagnate. Furthermore, Friedman (1991) linked school leaders' lack of trust in teacher efficacy to high teacher burnout, indicating that teacher efficacy can be impacted by school climate and culture. This supports the need for educator leadership programs to foster dispositions in their students that contribute to perceiving others as capable, and attitudes that are favorable towards building leadership qualities in their faculties.

Haberman (1995) also asserted that a reflective teacher is an integral component of effective teaching. He outlines seven overarching dispositions of "Star Teachers" that have been linked to effective teachers of students living in poverty. First, a "Star Teacher" is persistent and believes it is the teacher's responsibility to ensure that learning transpires through recognizing differences in students and meeting the needs of diverse students and learners, constantly seeking to improve their practice. Second, they protect the learners and will try to collaborate and negotiate with supervisors to introduce learning activities that they believe will promote learning, as opposed to blind conformity. Third, they are reflective practitioners and can use theory to inform their practice. Fourth, they understand and

recognize the socio-economic struggles of their students, but they continue to accept responsibility for student learning through questioning curricula goals and learning activities to ensure they are relevant to students. Fifth, they view the teacher-student relationship as a professional relationship. Whether they have a natural affinity for a student, or a student has an affinity for them, or they do not have an organic relationship, "Star Teachers" treat all children with respect, concern, and care, and anticipate that all students will learn. Sixth, they build collegial relationships with other teachers in their school, contributing to a support system. They learn to navigate bureaucracy and determine what must be addressed and what can be minimized, protecting themselves and their students from nonsensical, bureaucratic, or arbitrary intrusions on student learning. Seventh, the ability to create a safe environment for students to make mistakes and for the teacher to acknowledge his/her own mistakes in important areas, including interpersonal relationships.

In his study of twelve teacher educators in NCATE-accredited universities in Florida, Varol (2011) examined perceptions towards dispositions as innate or able to be developed using a forty-two item dispositions checklist. Varol identified the dispositions to be tested through reviewing the literature as well as seventeen dispositions outlined by the College of Education of Florida State University committee for dispositions, based on InTasc and NCATE guiding principles and standards. They are:

> Integrity, Honesty, Sincerity, Empathy, Thoughtfulness, Compassion, Independence, Maturity, Approachability, Kindness, Welcomeness, Patience, Perseverance, Determination, Sense of humor, Belief that all students can learn, Passion for education, Enthusiasm, Passion for being teacher, Open-mindedness, Non-judgmental, Objectivity, Fairness, Leadership, Cooperativeness, Amenability,

Curiosity, Inquisitiveness, Willing to try new methods, Diplomacy, Prudence, Judiciousness, Acceptance of feedback/criticism, Rhetoric, Eloquence, Discourse, Orderliness, Diligence, Punctuality, Flexibility, Docility, Calmness (Varol, 2011, pp. 56 - 58).

Koeppen and Davison-Jenkins (2007) identified ten dispositions that were explained through a narrative and used in a rubric for faculty and student self-assessment checklist. Those dispositions include the following:

1. actively engaging in small/large group class settings,

2. thoughtful and responsive listening,

3. cooperating/collaborating,

4. Respecting self and others,

5. Actively engaging in reflection,

6. Being prepared,

7. Continuously learning,

8. Responding to situations,

9. Responding to feedback, and

10. Attendance. (p. 7 see also pp. 107-132)

Koeppen and Davison-Jenkins (2007) were curious about the perceptions that in-service teachers had regarding educator dispositions. They sought to learn whether in-service teachers' perceptions about the importance of dispositions was congruent to their own. They asked field placement cooperating teachers to complete a twenty-four-item survey regarding their perceptions about important and insignificant educator dispositions. The list of dispositions was based on personal experience, accreditation policies and standards, extant

research, and other educator preparation programs. Examples of items that were evaluated include:

- communicate in ways that demonstrate respect for feelings, ideas, and contributions of others
- treat students with dignity and respect at all times
- be willing to receive feedback and assessment of their teaching
- be committed to critical reflection for professional growth
- be sensitive to student differences
- seriously consider the quality of their responses or reactions to feedback from students, colleagues, parents, etc.
- view teaching as a collaborative effort among educators. (pp. 83-84)

With one exception ("demonstrate and encourage democratic interaction in the classroom and school," p. 84), at least 90% of cooperating teachers either agreed in part or fully with the importance of each item on the list of dispositions.

A different approach was described by Costa and Kallick (2008). Using their Deweyian (Dewey, 1922) based definition of dispositions as habits of mind, they posited that intelligent behaviors are the products of thinking habits that result in dispositions. Costa and Kallick identified sixteen thinking dispositions that are linked to effective people. They suggested that these dispositions should be fostered in teachers, school leaders, and children due to their link to general productivity and efficacy. Costa and Kallick suggested that efficacious people have the following habits of mind:

1. Persisting
2. Managing impulsivity

3. Listening with understanding and empathy

4. Thinking flexibly

5. Thinking about thinking (metacognition)

6. Striving for accuracy

7. Questioning and posing problems

8. Applying past knowledge to new situations

9. Thinking and communicating with clarity and precision

10. Gathering data through all senses

11. Creating, imagining, and innovating

12. Responding with wonderment and awe

13. Taking responsible risks

14. Finding humor

15. Thinking interdependently

16. Remaining open to continuous learning. (pp. 15-41)

These habits of mind are most prominent when responding to ill-structured problems or unexpected situations because such scenarios preclude a prepared or planned response (Costa, 1991). Altan et al. (2019) further clarified that each of Costa and Kallick's (2008) sixteen habits of mind can be manifested as behaviors which reflect specific dispositions. For example, a habit of thinking flexibly would manifest through considering alternatives or changing perspective (Altan et al., 2019).

Additional dispositions can be identified through perusing the checklists or rubrics for dispositions that universities believe are essential components of effective educators. For example, East Tennessee State University uses an Educator Disposition Assessment and

Residency Candidate Performance Checklist that includes dispositions such as "creates safe classroom with zero tolerance for negativity," "actively seeks solutions to problems without complaint," and "maintains a respectful tone at all times" (East Tennessee State University, Residency Handbook and Resources, n.d.). Casey et al. (2021) also designed a rubric to evaluate six overarching competencies and dispositions: "Cultural Competence, Critical thinking, Communication, Collaboration, Self-reflection, and Initiative" (p. 20).

Likewise, Florida State University uses the Florida State University Dispositional Evaluation Rubric. Dispositions in that rubric include items such as integrity, confidentiality, dependability and a cooperative nature (Florida State University, 2015). Furthermore, some states (versus individual universities) have a common rubric or checklist for colleges that outline effective educator dispositions. For example, colleges in Georgia use the Georgia Educators' Task Force Professional Behaviors and Dispositions Assessment (PBDA; Ariail & Averitt Miller, 2017), a list of professional behaviors and dispositions that was compiled by a group of educators. Fourteen qualities are listed in the PBDA, and dispositions include collaboration, positive and appropriate relationships with students, positive attitude, positive relationship with adults (e.g., parents, colleagues, supervisors), effective communication, initiative, embraces diversity and differences, facilitates a positive learning environment, and commitment to ongoing improvement (Ariail & Averitt Miller, 2017).

Finally, the global interest in identifying, fostering, and assessing dispositions has led West et al. (2018) to establish a list of essential teacher dispositions. Using a mixed methods design and an iterative approach, they were able to identify five overarching categories of dispositions, referred to as subscales, and twenty-six manifestations of the associated dispositions. The final five overarching categories were "motivation to teach," "teacher

efficacy," "willingness to learn," "conscientiousness," and "interpersonal and communication skills" (pp. 32-33). Part of West et al.'s iterative process included interviewing "primary school teachers who were recognized as 'Highly Accomplished Teachers' (HATs) by the federal and state governments" (p. 5) in Australia. HATSs were selected as models of excellence in teaching and recognized as capable of mentoring other teachers in the development of teaching and learning practices. Ninety-two HATS were invited to participate in this study and twelve participated. The teachers were asked to share their insights about important educator dispositions through rank ordering dispositions that were derived from the literature and responding to open ended interview questions. The dispositions with the largest degree of convergence (two-thirds of respondents) were as follows:

1. Shows passion for teaching

2. Engages in evaluative practice of pedagogy

3. Displays a genuine concern for students' wellbeing

4. Shows a passion for students' learning

5. Copes well with change and ambiguity

6. Foresees the need to differentiate for diverse students

7. Possesses professional knowledge

8. Demonstrates a level of overall teacher professionalism. (West et al., 2018, pp. 10-11)

West et al. used the final list of dispositions to design the Teacher Disposition Scale (TDS), a seven-point Likert scale questionnaire. The questionnaire was completed as self-assessments by 179 preservice teachers in their final year of undergraduate study. West et al. tested the

TDS results to determine its validity and reliability as an instrument using exploratory factor analysis (EFA), reliability analysis (Cronbach's alpha), and a Rasch analysis. With the removal of two items listed as manifestations or characteristics of the subscales, they found that the tool had both validity and reliability. Although West et al. explained that the dispositions were only tested through interviewing primary teachers and preservice primary teachers using the TDS, it may have implications for teachers of other grades. Furthermore, although the dispositions were tested in Australia, the list may be generalizable to other populations but may need further exploration and testing to determine suitability.

This section explored a sample of the dispositions that have been identified in the literature and university websites and a connection to teacher efficacy has been established. The link between educator dispositions towards students' abilities or towards diversity and teachers' beliefs about themselves can have particularly profound effects on student outcomes and deserves further exploration.

Educator Dispositions and Student Outcomes

The link between educators' attitudes, values, and beliefs and their conscious and unconscious actions supports the need to ensure those entering the field of education possess appropriate professional dispositions. This section will explain the significance of three dispositions, teachers' beliefs about students' abilities, teachers' beliefs about themselves, and teachers' embracing diversity, because those attitudes, values, and beliefs can be pervasive and impact all aspects of teachers' efficacy.

Combs (1999) explained that people whom one values or who are important figures in one's life, such as a teacher, can influence a change in self-perception. That change in self-perception can be positive or negative, leading to improved or reduced value of oneself,

resulting in a positive or negative self-fulfilling prophecy. What teachers think and their thinking processes impacts their behaviors and actions (Clark et al., 1984) and can thereby impact student outcomes.

In a study of 277 elementary school teachers, Georgiou et al. (2002) examined the relationship between teachers' attributions of students' weak performance and teachers' behaviors towards those students. More specifically, they considered how teachers viewed students' abilities, efforts, and families, and teacher behaviors as causes, reasons, or explanations of students' performances. Consistent with Heider's (1958) attribution theory, Georgiou et al., hypothesized that teachers' attributions of students' weak academic performance would influence teachers' behaviors towards students.

Teachers were asked to complete a three-part questionnaire. To complete the questionnaire, they were asked to consider a student who had the lowest below grade level achievement across academic disciplines and who did not have a diagnosis of "mental retardation, sensory handicaps, or syndromes" (Georgiou et al., p. 588). The first section asked the teachers to report on attributions for academic failure, that is, their reasons or rationales that they believe explain why the student is failing, such as that the student has low intelligence. The second section asked teachers to report on their behaviors toward the student which reflected empathy or apathy and being supportive or uninvolved. The third section of the survey asked teachers to report on their general sense of efficacy, meaning their abilities to teach successfully.

Georgiou et al. (2002) found that teachers' beliefs about the causes for students' failures, their attributions, were associated with teachers' behaviors to those students. They identified two phenomena: acceptance of the student, which was correlated to providing

academic support, and rejection of the student, which was associated with neglect or isolation of the student. Teachers who attributed students' weak performance to lack of ability tended to respond with pity and empathy and provide support. Teachers who attributed students' weak performance to lack of effort tended to have anger and apathy and may have neglected the student. Georgiou et al. also found that teachers who believed that they could make an impact on student learning and are responsible for student outcomes provided greater support to academically struggling students, further supporting the position that teachers' beliefs impact teaching and learning.

Hattie (2008) found that teacher expectations had a strong influence on student outcomes. Donohoo (2017) described this as the Pygmalion Effect and the Golem Effect. The Pygmalion Effect is a theory titled after the mythical Pygmalion, a Greek sculptor whose affection for and belief in the human qualities of his sculpture ultimately brought his sculpture to life (Ovid, 2018). The Pygmalion Effect refers to improved student outcomes as a response to teachers' beliefs in students' abilities. The higher teacher expectations are with regard to students, the greater their achievements will be as a result of self-fulfilling prophecy shaped by the students' self-perceptions that were influenced by teachers' expectations (Rosenthal, 1994; Rosenthal & Jacobson, 1968). Essentially, the Pygmalion Effect is a feedback loop: teacher's expectations lead students to adopt self-perceptions, which leads to student behaviors that reflect those expectations, reinforcing the teacher's dispositions and behaviors towards the student, and becoming a self-fulfilling prophecy for the student.

The Pygmalion Effect, also known as Teacher Expectancy Effect (TTE), explains how "interpersonal expectations create reality" (Szumski & Karwowski, 2019, p. 1). It is

applicable only to instances when teachers have false biases that impact teachers'

expectations of students' and students' self-perceptions (Brophy, 1983). The Pygmalion

Effect became a popular term to describe the influence of teachers' biases and expectations

on students' outcomes after Rosenthal and Jacobson (1968) studied the impact of teachers'

expectations on students' achievement. In that study, Rosenthal and Jacobson provided the

names of 20% of the students in each of 18 classes to their respective teachers and said those

students scored high on a test that detected that they would have significant increases in their

intellectual capacities over the year. In reality, the students were selected randomly. At the

end of the year, first and second graders in the intervention group saw more significant

academic growth than their peers. While the Pygmalion Effect is not a guaranteed outcome

of expectations, it may increase the possibility of positive or negative outcomes (Brophy,

1983). Brophy explained that it occurs when "the existence of a teacher expectation for a

particular student's performance increases the probability that the student's performance will

move in the direction expected, and not in the opposite direction" (Brophy, 1983, p.8).

The extent to which the Pygmalion Effect could play a role in students' achievement

was examined by Szumski & Karwowski (2019). They examined the influence of teachers'

expectation of middle school math students, students' academic self-assessments (self-

perceptions), and the Pygmalion effect. Szumski and Karwowski found that teachers'

expectations contributed to a Pygmalion Effect both at the individual level and at the class

level. Meaning, individuals performed better or worse depending on the messages they

received from their teachers' expectations of them (ß = 0.20, p < .001), and their achievement

was also influenced by messages and expectations that the teachers had of the class (ß = 0.40,

p < .001). They noted that factors such as students' socioeconomic status (SES) may impact

teachers' perceptions. Szumski and Karowski found that "SES translated significantly into teacher expectations regarding the potential of the class (ß = 0.45, p < .001)" (p. 5), an important point considering the correlations between teacher's beliefs about their students and students' outcomes. They concluded that "the higher teacher expectations are with regard to the whole class, the higher the achievements of individual students will be" (p. 8).

Friedrich et al. (2015) also found that teacher expectations were positively correlated to student achievement, likewise, supporting the Pygmalion effect. The participants in this longitudinal study included 73 teachers and 1289 fifth grade math students. Teachers were asked to complete a two-item Likert scale survey about their expectations of their students' mathematics abilities in February so that they would have ample time to know their students and develop beliefs and expectations regarding students' abilities; however, it is unclear how much of teaches' predictions were based on accurate assessments developed during the first half of the school year and false biases and expectations that defect linked to a Pygmalion Effect. With that caveat, however, Freidrich et al. (2015) found that the Pygmalion effect impacted student outcomes.

The Golem Effect (Babad et al, 1982) "is used to represent the concerns of social scientists and educators, which are focused on the negative effects of self-fulfilling prophecies, distortions in information processing, biases, and stereotypes" (p. 459) of teachers, which can lead to students' negative self-fulfilling prophecies. The Golem is a figure in Jewish legends. It is purported that Rabbi Judah Loew, a sixteenth-century rabbinic leader in Prague, known as the Maharal, created a clay figure and used mystical powers to endow the figure with human abilities. The Golem was able to follow directions and complete tasks such as housework but was not able to speak. One Friday, close to the

Sabbath, the Golem purportedly became angry and destructive, ruining property and frightening people. To prevent the town from further devastation, Rabbi Loew removed the mystical powers from the Golem, and the Golem reverted back into a pile of clay (Kieval, 2000). The Golem only had the capabilities that were bestowed upon it by Rabbi Loew, and it did not have the ability to reason; when Rabbi Loew removed the powers, the Golem was completely incapable.

The Golem Effect is reflected by Hattie's (2008) question about teachers, "Do they have false and misleading expectations that lead to decrements in learning" (p.121). When teachers have biases or preconceived expectations, positive or negative, about their students, those expectations are part of a feedback loop which influence students' self-perceptions and motivation and appear to substantiate the teachers' original expectations leading the teacher to confirm his/her original assessments of students' abilities (Reyna, 2008). Although erroneous, these perceptions can lead teachers to believe that performance is stable rather than subject to development, and to stifle students' capacity to thrive (ibid).

Further research on expectancy theories was conducted by Babad and Inbar (1981). They studied college students in a physical education teacher training program and found several differences between the personalities of high-biased and low-biased students. High-biased participants identified as more conventional than low-biased groups, were more socially conforming, more dogmatic, and they tended "to be more autocratic, rigid, distant, impulsive, preferential, and less trusting" (p. 560). Babad, Inbar and Rosenthal (1982) extended that research and found a relationship between high-biased teachers and expectancy effects. High-biased teachers were found to be more dogmatic and "treated the students they considered of low potential more dogmatically and the students manipulated to be of high

potential less dogmatically" (p. 472). Babad's (1985) research, combined with a review of 345 studies (Rosenthal & Rubin, 1978), leads to the claim that "expectancy bias is now an undisputed phenomenon" (Babad, 1985, p. 175). The biases that teachers might hold include racial, ethnic, socio-economic, and others, and can limit a teacher's ability to embrace diversity and provide equitable teaching and learning opportunities to all students.

Although recent events reported in the media highlight a continued need to develop cross-cultural acceptance and reduce biases, the need to develop an openness to diversity has been a clarion call for decades. As a fundamental disposition of an effective educator, Nieto (2000) discussed the imperative to improve educators' abilities to work with diverse students and put "equity front and center" (p. 180). Towards truly embracing diversity and providing full opportunities for integration, education, and self- actualization of marginalized members of society, Nieto suggested substantive changes to the methods through which educator preparation programs promote and foster embracing diversity. Nieto bemoaned, "Typically, teacher education programs give little consideration to the fact that all classrooms in the future will have students of racially and ethnically diverse backgrounds and whose first language may not be English" (p. 182). She posited that educator preparation programs are responsible for shaping dispositions towards diversity in future educators.

The need to foster acceptance of diversity seems to be increasing, in part, due to the large population of first- and second-generation immigrant children under 18 in the United States. As of 2019, twenty-six percent of children under 18 lived with at least one parent who was an immigrant (Batalova et al., 2021). Eighty-eight percent (15.6 million) of children with an immigrant parent were second generation immigrant children under 18 (15.6 million; ibid.). The large population of immigrant and second-generation children under 18 further

supports the need to train educators who can teach students of diverse backgrounds. Even when considering religious education and Jewish education specifically, which may appear to some as a homogeneous system, teachers and school leaders need to embrace a variety of ethnic, cultural, and racial differences to be inclusive of all stakeholders.

In their review of research on teacher quality, Cochran-Smith and Zeichner (2009) found that educator preparation programs did not have an enduring impact on teacher candidates' attitudes and beliefs about teaching diverse students. Cochran-Smith and Zeichner also found that research had not indicated whether teacher candidates' dispositions were assessed prior to entering educator preparation programs to identify which candidates may be more or less suitable to learn how to teach diverse students. As research in this domain continues, the onus is on educator preparation programs to identify methods to cultivate high quality educators who possess the knowledge, skills, and dispositions to be effective in their roles to serve all students. This is especially significant given the profound impact that teachers have on student achievement (Hattie, 2008).

Teacher efficacy and quality are also critical factors impacting student outcomes (Cochran-Smith & Zeichner, 2009). According to Goldhaber & Ronfeldt (2020), "It has thus become commonplace for researchers to cite teacher quality as the most important schooling factor influencing academic outcomes, and for policymakers to focus on ways to improve it" (p. 211). Teacher quality is more than content and pedagogical knowledge, it includes affective and professional competencies in addition to suitable dispositions (Cochran-Smith & Zeichner, 2009). Teacher self-efficacy, teachers' beliefs in their abilities to facilitate student learning (Demmon-Berger, 1986; Hoy & Spero, 2005), is one disposition that is strongly correlated to student outcomes (Hoy & Spero, 2005).

In a synthesis of 800 meta-analyses including 52,637 studies, Hattie (2008) reported the impacts or influences on student outcomes (p. 15). He found that teachers had the greatest impact on student learning when compared to factors such as family, school, curricula, teaching (versus the teacher), and students' contributions. Hattie considered the impact of educator dispositions, such as teachers' beliefs about the potential for students to progress, and whether achievement can be influenced, or abilities are fixed impact student outcomes.

Goddard (2001) found that in addition to individual efficacy beliefs, collective efficacy, shared beliefs among the faculty, was correlated to student outcomes, even when correcting for ". . . students' prior achievement and demographic characteristics" (Goddard, 2001, p. 474). Collective Teacher efficacy is the "collective self-perception that teachers in a given school make an educational difference to their students over and above the educational impact of their homes and communities" (Tschannen-Moran & Barr, 2004, p. 190). Collective teacher efficacy, rooted in Bandura's theory of self-efficacy (Bandura, 1977), which is "the conviction that one can successfully execute the behavior required to produce the outcomes" (ibid., p 193) desired. That belief that one is capable of the task is termed an efficacy expectation. It is different than an efficacy outcome, which is knowing what "behavior will lead to certain outcomes" (ibid., p. 193), but does not necessarily indicate that the person has the capabilities to carry out the necessary behavior or the beliefs that he can engage in the necessary tasks to produce the desired outcome. Efficacy expectations can influence the types of activities pursued and the level of effort and time on task that individuals are willing to assign when engaging in less desirable or more difficult tasks.

Four factors have been identified as impactful on a sense of self efficacy: performance accomplishments, vicarious experience, verbal persuasion and emotional

arousal (Bandura, 1977). Performance accomplishments occur when an individual experiences success and those successes germinate a positive belief about the ability to engage in other tasks successfully. Vicarious experience refers to the ability to observe other people's success and envision how one can likewise realize success in similar situations. Verbal persuasion is the sense of being able and is formed in response to other people using language that conveys a message that one is capable. Emotional arousal is the positive or negative belief about competency in response to a stressful or calm situation. Stressful situations have the ability to make one feel less competent and less stressful situations may contribute to a sense of competency.

The same four elements impact a sense of collective efficacy (Goddard, et al., 2004). Collective teacher efficacy is a shared belief among teachers in a school that they can make a difference in student outcomes (Donohoo, 2017). Although referring to the same influences on efficacy as Bandura (1977), Donohoo (2017) used slightly different terminology: mastery, vicarious experiences, social persuasion, and emotional tone to facilitate efficacy beliefs. Tschannen-Moran & Barr (2004) stated that collective teacher efficacy beliefs "stem from the effects of mastery and vicarious learning experiences, social pressure, and the emotional tone of the organization" (p. 190).

Considerations of efficacy beliefs are not new. The Babylonian Talmud, compiled in 500 CE, suggested the need for educators to continuously re-teach a student until the student has learned the content (Eruvin 54b). This Talmudic passage places responsibility on the teacher to ensure the outcome. Maimonides (Hilchot Talmud Torah; 4:4) expands on the Talmud (see Eruvin, 54b) and relates that a teacher should not become angry at students

when they do not understand the information; rather, he should continue to teach the student patiently until he understands.

The belief that teachers can make a difference in student outcomes reflects a disposition towards teachers' abilities and the abilities of students. Donohoo (2017) posited that collective teacher efficacy "outranks every other factor in regard to impacting student achievement including socioeconomic status, prior achievement, home environment, and parental involvement" (p. 1). This particular disposition may have a profound effect on student learning, as according to Hattie (2016; 2015), collective teacher efficacy had the greatest or second to greatest impact on student outcomes. This is an important claim that may support a need to foster and assess self and collective efficacy dispositions in educators because those dispositions can be encouraged or impeded, "revitalizing or demoralizing to the school's social system" (Tschannen-Moran & Barr, 2004, p. 190). Therefore, fostering and assessing teacher and collective efficacy and other educator dispositions may be an important goal for educator preparation programs, resulting in the need to understand how best to foster and assess dispositions.

Assessing Dispositions

Katz and Raths (1986) posited that if dispositions are a program goal, then they must be assessed. In addition to the need to assess the attainment of goals, they suggested that "Goals that are not assessed are probably interpreted by teachers and their students as mere rhetoric, 'signifying nothing'" (Katz & Raths, p. 13). The assessment of dispositions can therefore serve to reinforce their importance in teacher candidates, in addition to providing data on learning outcomes and individual suitability to the field.

Usher (2002, as cited in Koeppen & Davison-Jenkin, 2007), however, stated that "dispositions are not open to direct measurement, rather, dispositions can be inferred, and inferences can be subjected to standards of validity and reliability for use in research and other measurement tasks" (p. 3). One inferential approach is the perceptual psychology approach. Using the perceptual approach to understand disposition formation and assessment, Combs and Snygg (1959) suggest four pathways to assess dispositions: "1. Information obtained from the individual himself, 2. Inferences from observed behavior, 3. The use of projective technique, and 4. The protocols of therapy" (p. 452). The first pathway - Information from individuals - can be obtained through several mediums, including questionnaires, informal conversations, standardized tests and personality inventories, autobiographies, journals, and instruments such as the Mooney Problems Check List (MPCL; Combs & Snygg, 1959; Mooney & Gordon, 1950). The MPCL is unique in that it is not a test; rather, it enables respondents to share concerns about their welfare across several categories of well-being, such as health, religious connection, and family. Respondents underline all areas of concern, circle items of greatest concern, and answer questions. Combs and Snygg (1959) suggest that responses to MPCL may provide insights into students' personal meanings and attitudes, providing a better understanding of their perceptions.

The second pathway - Inferences from observed behaviors - include the inferences that can be drawn from verbal and nonverbal communication and behavior as well as formal and informal conversation. Combs and Snygg (1959) suggest that what a person shares and considers important provides a window into his meaning-making and perceptions. The third pathway - interpretations from projective devices (e.g., completing sentences and interpreting inkblots) - may provide valuable information as projective instruments may induce more

authentic responses due to their vague and less direct style. This ambiguity can provide a sense of safety to respondents that direct questions may jeopardize, thereby enabling the evaluator to learn actual perceptions versus parroted statements. The fourth pathway - therapy - enables insights into perceptions through a client discussing his inner workings, such as motivations, wishes, attitudes, beliefs.

Based on the four perceptions of effective educators articulated by Combs, Blume, Newman, and Wass (1974), Wasicsko (1977a) developed an assessment instrument to identify effective and ineffective educators. The instrument used Human Relations Incidents (HRI) to assess dispositions through scoring implied or inferential data, which may be more effective than self-assessments because "self-reports are coachable and fakeable" (Kyllonen et al., 2005).

The HRI asked teacher applicants to write about a teaching situation which involved at least one other person and held special significance to the teacher. Participants were asked to describe the scenario, their actions, their thoughts at the time about their role, and their current perspectives about the situation, including what if anything they would do differently. People involved in hiring, such as deans, superintendents, and college instructors, rated the HRIs using a rubric to score each of four perceptions: perceives self as identified with others or unidentified with others (open to and connected with diverse people or not); perceives others as capable or incapable of making good, independent decisions; has perceptions of larger, long-term purpose and goals or smaller more immediate outcomes; and perceives frame of reference that is people-oriented versus focused on things. Raters used a seven-point scale, with 7 representing an effective educator perception and 1 representing an ineffective teacher perception (Wasicsko, 1977a).

Wasicsko (1977a) found that teacher selection personnel were able to use the instrument in consonance with highly trained raters (p < .05), indicating the HRI tool had validity. He also found that those involved in the selection of teachers who were trained in using the instrument were able to use it more effectively than those who were not trained (p < .05).

Together with colleagues, Wasicsko continued developing instruments to assess educator dispositions using a perceptual approach. Two such instruments include one for the assessment and development of dispositions of students enrolled in educational leadership EdD programs (Allen, Wasicsko, & Chirichello, 2014), and an instrument for the assessment of applicants to EdD programs (Allen et al., 2018). For assessing students enrolled in EdD programs, Allen, Wasicsko, and Chirichello (2014) introduced the use of a 360 instrument, the Individual Leadership Self-Assessment Instrument (ILSA). On a 360 instrument, colleagues, supervisors, friends, and/ or families complete rating scales to provide feedback and then the scores on each element are tabulated and compared. Feedback and scores can be provided according to groups of respondents (e.g., scores from peers or scores from colleagues) or a composite, overall score can be calculated. The feedback is generally used to help EdD students understand areas of strength and areas that would benefit from further development.

The ILSA 360 was used to provide feedback based on perceptual ratings of EdD students' perceptions of self, others, purpose, and their general frame of reference. Each student completed the ILSA as a self-assessment and then asked ten friends or colleagues to complete an ILSA about him/her. Next, students compared their self-assessments with the ten forms completed by their friends and colleagues to identify similar responses and areas of

difference. After reflecting on the ILSA and noting the areas of strength and those that would benefit from development, Individual Leadership Dispositional Growth Plans (ILDGP) were designed to assist the student in developing desirable educational leadership dispositions. Students created goals for both areas of strength and areas for growth (Allen, Wasicsko, & Chirichello, 2014). Allen, Wasicsko, & Chirichello (2014) found that the ILSA 360 was beneficial to the development of EdD candidates as well as to the development of school district leaders, college administrators, and other helping professionals. This process, and the necessary reflection component, is consistent with Aristotle, who believed that for dispositional change to occur, reflection and discourse must be incorporated (McKnight, 2004).

Although dispositions are an important element of effective school leadership (Berry et al., 2021; Leithwood & Jantzi, 1999; Pregot, 2016), dispositional change takes time, often more than the duration of an EdD program (Allen et al., 2018). Therefore, it may be necessary to admit only those applicants who already exhibit a high degree of effective educator dispositions. To ensure that EdD students met a minimum threshold of educator dispositions, Allen et al. (2018) explored assessing dispositions of educational leadership EdD applicants. Although they believed that changes and growth in dispositions could and should transpire during an EdD program, only those students who scored 5-7 on a scale of 1 - 7, with 7 being highly positive on each of the application components, were admitted to the program.

A three-pronged approach was used to assess dispositions of EdD applicants: a review of application materials, group interviews, and a Human Relations Incident (HRI) essay, which applicants wrote while at the university for interviews. The application

materials requested a leadership letter in which candidates describe items, such as their leadership experiences, philosophies, goals, and aspirations. Interviews were conducted as group interviews, in part to determine how interviewees interacted with each other, which was important given that the EdD program used a cohort model. The HRI essay was similar to other HRIs and students were required to write about a formal or informal leadership experience, describing the scenario and their actions, how they felt when it happened, how they currently feel about the situation, and what they would do differently. Faculty who were trained to score the HRIs evaluated them. Interrater reliability exceeded 80%. All three application components were scored for perceptions of self, others, purpose, and frame of reference to identify applicants with preferred educator dispositions. Applicants had to score 5 - 7 on each of the three application components (application, interview, and HRI) to be admitted into the EdD program.

Application, interview, and HRI scores were later compared to 360 self-assessments, 360 assessments completed by their critical friends or coworkers, and 360 assessments done by their EdD cohort. Results from 360s completed by critical friends and cohort members about their colleagues in the EdD all ranged between 5-7, which was consistent with the admissions assessments. That consistency indicates that the EdD admissions committee was able to identify and admit candidates with effective educator dispositions (Allen et al., 2018).

Allen et al. (2018) posited that the four overarching perceptual constructs described by Combs et al. (1974; perceptions of self, other, subject, and frame of reference) are highly correlated with each other, which allows for the use of a few constructs from which to draw inferences. For example, scoring high on the ability to identify with diverse people translates to being people-oriented instead of focused on objects. The unlikely possibility that a person

can rate very high in one area and very low in another further supports the validity of the perceptual assessment approach (Allen et al., 2018, p. 2).

In a small study of a three-year, teacher preparation program, Wilson and Cameron (1996) also found that the time necessary to develop dispositions was a contributing factor to the perceptual (dispositional) development of preservice teachers. Wilson and Cameron used reflective, unstructured journaling to identify changes in pre-service teachers' perceptions about themselves, their students, and their instructional and classroom practices. Students were encouraged to write daily entries in their journals during a three-week student-teaching experience. Participants included 28 preservice teachers from a three-year undergraduate teacher preparation program: ten students in their first year, nine in their second, and nine in their third year of the program.

Wilson and Cameron found that preservice teachers' perceptions were generally more "sophisticated" during their third year, with the development happening in the later part of their second year and third year in the program. When comparing the journal entries of first-, second-, and third-year preservice teachers, participants were more student-centered, were less focused on controlling and more "holistic" in their views and had greater understanding of the link between teacher-student relationships, classroom management, and student outcomes when they were in their third year of the program.

Additionally, Wilson and Cameron (1996) found a disappointing paradigm shift in preservice teachers' perceptions of students. As preservice teachers progressed through the program, they may have become less caring about students as people and more focused on students as learners and managerial techniques to achieve learning outcomes.

Although Wilson and Cameron's (1996) study found both areas of positive development and areas of concern, it provided two insights into the assessment of dispositions. First, reflective journaling may provide important assessment data that can be useful towards evaluating students' development. Second, consistent with Allen et al. (2018), change can take years. Therefore, preservice teacher educators need to consider viable time frames and appropriate intervals to assess change.

Singh and Stoloff (2008) took a different approach to assessing dispositions. They developed an assessment instrument, the Eastern Teacher Disposition Index (ESTDI), which was informed by the works of Combs (1969), Koeppen and Davidson-Jenkins (2004), Thompson, Randsell, and Rousseau (2004), and Wasicsko (2002), as well as INTASC (2001) guiding principles. Singh and Stoloff (2008) used a perceptual approach to understand dispositions and assess students in five overarching perceptual categories (perceptions about self, others, subject, process of education, and frame of reference). Students were asked to self-assess on forty-six manifestations of the dispositions.

Similarly, Casey et al. (2021) analyzed data from two focus groups and found convergence on the benefits of using observations, videos, discussions, feedback, and interviews to assess dispositions, with observations and videos being the most highly ranked choices. Although they did not find convergence between the two focus groups on the benefits of journaling, self-evaluations, and rubrics, each of those strategies were ranked amongst the top five assessment methods by at least one of the focus groups. Casey et al. (2021) also designed an assessment rubric to evaluate six core competencies: "Cultural Competence, Critical thinking, Communication, Collaboration, Self-reflection, and Initiative" (p. 20). Consistent with an incremental approach (Yaeger & Dweck, 2012) to

dispositions, this rubric is scored as beginning, emerging, and competent, indicating that dispositions can be developed and are not fixed traits.

In a similar approach to Casey et al. (2021), West et al. (2018) interviewed high-performing teachers to identify essential teacher dispositions and design a scale that could assess preservice and in-service teachers. The expert teachers were asked to rank order dispositions of effective teachers as well as to respond to open-ended questions. The list of desirable dispositions was then used to create the Teacher Disposition Scale (TDS). The rating scale was tested on 179 preservice teachers. Although West et al. reported on the reliability and validity of the instrument and the associated dispositions as essential to effective teaching, they suggest that the TDS could be used as an assessment tool through which preservice teachers self-assess the pervasiveness of the qualities described in the survey.

Katz and Raths (1986) suggested the use of ten-point scales to rate teacher candidates' dispositions, with the caveat that the rater needs to be trained to identify dispositions (desirable and undesirable) and that the observations are done with sufficient frequency. A single observation may be insufficient because a disposition is a tendency to behave a certain way with a fair amount of frequency (Katz & Raths, 1986), and a single or few observations would not be sufficient to substantiate dispositional ratings.

Eberly et al. (2007) cited several methods to assess dispositions. Those approaches include the unstructured journaling described by Wilson and Cameron (1996), the use of rubrics to identify perceptions during classroom observations (Combs, et al., 1974; Wasicsko, 1978), the use of open-ended questions (Stevens & Charles, 2005), and synchronous online chat forums to respond to case studies (Eberly & Rand, 2003).

Eberly et al. (2007) suggested an entirely different approach to assess educator dispositions. Guided by Kegan's (1980) constructive-developmental theory, they assessed the stages of undergraduate and graduate students' consciousness and meaning-making through analyzing responses to multicultural scenarios. In constructive-developmental theory, people are "active organizers of their experience" (Kegan, 1994, p. 29) and have epistemological systems that evolve (Kegan, 1980), and their meaning-making revolves around differentiating between self and other or subject and object (ibid.). Kegan (1994) describes five stages of meaning-making, with each subsequent stage incorporating and expanding upon prior stages. Stages range from impulsive and understanding the world as if oneself is an object, to understanding through interpersonal relationships, and then a more global and systems understanding. Eberly et al. (2007) consolidated Kegan's five-stage model into three overarching categories: egocentric (stages 1-2), ethnocentric (stage 3), and worldcentric (stages 4-5; see Eberly et al., 2007, p. 32). In the egocentric stage. meaning-making and epistemology is organized around the self. In the ethnocentric stage meaning is organized around people and interpersonal actions and communications. In the world-centric stage, meaning-making is organized around larger society and systems. Eberly et al. (2007) summarize the stages as "we," "us," and "all of us" (p. 32).

The constructivist-developmental theoretical framework was used by Eberly et al. (2007) to assess dispositions through understanding students' meaning-making. Meaning-making informs how we process, interpret, and understand events (self or other and subject or object), leading to the formation of attitudes, values, and beliefs that can impact teaching and learning. Eberly et al. (2007) therefore sought to identify the developmental stage of preservice teachers because the stage of consciousness is linked to a student's ability to learn.

If there is a mismatch between the level of consciousness and meaning-making demands of the course, then students will not be able to sufficiently process the subject matter, and the learning activities aimed to foster dispositions may be ineffective.

To understand higher education students' developmental stage, Eberly et al. (2007) analyzed students' responses to open-ended questions about multiculturalism and diversity. They found that most of the students responded to the case studies at the third stage of meaning-making. This assessment strategy provided insights into students' meaning-making stages and their stage of meaning-making impacts and shapes their dispositions. Eberly et al. suggest that the

> use of narrative teaching cases provides a rich tool for the exploration of students' thoughts, ideas and beliefs. Similarly, our findings provide a window into our students' dispositions and thus their underlying meaning-making system. This information will allow us as instructors to know the order of consciousness our students' use to understand multicultural issues. It can help us prepare appropriate learning tools to coincide with those developmental levels. As Kegan's work illustrates, it is essential that the instructor's learning tools, and teaching strategies do not place students in "over their heads. (p. 35)

Somewhat similar to Eberly et al. (2007), Covaleskie (2007) suggested that faculty use a more cognitive approach to assess dispositions. Covaleskie critiqued a direct approach to the assessment of dispositions because of the potential for inaccurate results. First, students know what the faculty would like to observe and can intentionally display those qualities that would be lauded by the faculty. Second, Covaleskie asserted that the absence of observable phenomena may be due to lack of knowledge or skill rather than deficiency in the

desired disposition. Covaleskie explained that a student may need more direction in executing certain skills, such as differentiated instruction, even though the student fully believes instruction should be differentiated. Covaleski therefore asserted that educator preparation programs should focus on their students developing a philosophy of education and establishing a belief system. Once a philosophy is established, practice should be consistent with the beliefs except in the case when more knowledge and skills are necessary to actualize the disposition. In the latter scenario, an incongruent educational philosophy and educational practices would serve to inform faculty about knowledge and skills that need further development, but not necessarily dispositions. If practice is inconsistent with the philosophy and faculty have reason to believe that knowledge or skills are not deficient, then this would indicate that the student's dispositions are different than those that were articulated.

Another approach to assessing dispositions, also based on constructivist-developmental theory as well as social-cognitive theories, was examined by Oja & Reiman (2007). Oja and Reiman's (2007) model framed dispositions through three areas: cognitive development as conceptual/reflective abilities, ego, and morals. They suggested that responses to ill-structured problems, problems that can have more than one right answer, cast light on educators' dispositions because they will showcase intellectual, ego-driven, and moral elements of decision making. Oja and Reiman referred to these three domains as "conceptual/reflective, self/ego, and moral/ethical" (p. 95). These domains were selected based on Oja and Reiman's beliefs that teachers' epistemological assumptions and meaning-making, social-emotional maturity, and their moral compass influence perceptions, judgements, and responses to situations. For example, one's conceptual or reflective aptitude

can impact how one reacts to diversity because meaning-making can be established through rigid stereotypes (lower complexity/reflective thinking) or an attitude of tolerance, which is associated with reduction in bias (Miller, 1981).

Similar to the benefits of using ill-structured problems to assess dispositions, Costa et al. (1991) claimed that intelligent behavior, which is the manifestation of dispositions, "is demonstrated when we are confronted with questions and problems for which we don't know the immediate answer" (p. 100). They suggested that impromptu, unplanned, and unexpected scenarios or questions and real-life experiences can provide important data about dispositions because they demand the use of applying prior knowledge to new experiences, resulting in intelligent behaviors. This approach to dispositions may result in more authentic assessments, which reflect actual habits of mind and dispositions, as opposed to planned scenarios to which students might parrot the "correct" answer. Therefore, impromptu behaviors and discourse may provide better assessment data about students' dispositions. Observations of preservice teachers answering unexpected questions and other situations that showcase impromptu behaviors may be useful in evaluating whether students possess the sixteen habits of mind of effective people outlined by Costa and Kallick (2000, 2008).

Considering Costa and Kallick's (2000) sixteen habits of mind, Altan et al. (2019) described how pre-service teachers' dispositions can be assessed by collecting data from "interviews, long-term observation, deliberation, and inquiry into the underlying motivators for preservice teachers' actions" (p. 179) and mapping information from those sources to the sixteen habits of mind. They suggested that several learning theories and theories which indirectly support learning can shed light on the habits of mind and resulting intelligent behaviors of effective educators, providing assessment information about pre-service

teachers' dispositions. The theories that they selected to map included constructivism, incremental theory, and self-regulated learning theory. Theories which indirectly support learning are emotional intelligence and mindfulness (Altan et al., 2019).

Constructivism is a learning theory of meaning-making in which knowledge is built through using past experiences to understand new knowledge, concepts, and ideas. It can be understood through a Piagetian lens as an individual process or through a Vygotskyian lens as a social process in which collaboration and interaction facilitate learning (Kalina & Powell, 2009). Incremental learning theory suggests that learning is a process and knowledge evolves (Yeager & Dweck, 2012). It is associated with a growth mindset and the belief that intelligence can develop or progress over time (ibid.). Self-regulated learning theory refers to the concept of an individual taking ownership and responsibility for learning, recognizing oneself as the locus of control to "activate and sustain cognitions, affect, and behaviors that are systematically oriented toward the attainment of learning goals" (Schunk & Zimmerman, 2012, p. vii). Emotional intelligence is the ability to perceive, understand, use, and manage emotions in oneself and others (Mayer et al., 2004). Mindfulness is the ability to focus on the present and be fully attuned to the task or situation at hand (Creswell, 2017). The aforementioned theories were selected by Altan et al. (2019) because they were believed to be particularly germane to fostering and assessing dispositions.

Altan et al. (2019) used a directed qualitative content analysis approach, an approach typically used to "validate or extend conceptually a theoretical framework or theory" (Hsieh & Shannon, 2005), to analyze the literature regarding the educational and support theories and Costa and Kallick's (2000) sixteen habits of mind. Directed qualitative content analysis, also known as "deductive category application" (Hsieh & Shannon, 2005, p. 1281; also see

Mayring, 2000, 2004), uses predetermined categories and codes to create a conceptual framework. In this study the educational and support theories were "the theories," and the codes were the intelligent behaviors assigned to each of Costa and Kallick's (2000) habits of mind. Next, Altan et al. (2019) used the intelligent behaviors that are associated with the habits of mind as a common denominator and assigned the intelligent behaviors to congruent theories. They found consistency between intelligent behaviors associated with the Habits of Mind and the intelligent behaviors associated with the learning and learning support theories. For example, the intelligent behavior "remaining calm, thoughtful, and reflective" (p. 178) was associated with the "managing impulsivity" habit of mind and the mindfulness learning support theory. Altan et al. suggested that the intentional use of learning theories can be helpful in assessing (and fostering) dispositions, such as reflective journaling as part of a mindfulness approach. In a second example of this approach, Altan et al. (2019) explained that a preservice teacher's display of behaviors associated with the theory of incremental learning (during interviews, observations, etc.) would manifest as intelligent behaviors, such as remaining on task even when the task is challenging, reflecting the "persisting" habit of mind listed in Costa and Kallick's (2000) sixteen habits of mind and intelligent behaviors of effective people.

Altan et al. (2019) further suggested that the habits of mind are frequently associated with several intelligent behaviors and that the associated behaviors of each habit may be aligned with different learning and support theories. That indicates the benefit of using different theories to guide the fostering and assessment of each element of a particular habit of mind (ibid.). For example,

One of the Habits of Mind, Persisting, includes the following two intelligent behaviors: having a repertoire of alternative strategies for problem solving and employing a whole range of these strategies and not giving up easily. Based on the findings of our content analysis, we decided to place the first behavior under Self-Regulated Learning and the second under Incremental Theory. (p. 172-173)

Koeppen and Davison-Jenkins (2007) also relied on educational theories to inform their process of fostering and assessing dispositions in pre-service teachers. They codified ten dispositions that they identified by reviewing research about teacher identity, the human aspects of teaching, and teacher efficacy, as well as accreditation standards, and by reflecting on their own experiences. Koeppen and Davison-Jenkins then used a multi-tier approach to foster and assess dispositions. They introduced the ten core dispositions to students enrolled in an educator preparation program and provided descriptors of each disposition so that students and faculty would have a shared understanding of the dispositions and their importance in serving as an effective educator. Koeppen and Davison-Jenkins tried several approaches to assess students' dispositions, including rubrics and a separate narrative explaining each disposition in greater detail, checklists, surveys, and reflective journals. Based on feedback from colleagues and students, they found the combination of the dispositions narrative, rubric, and reflective journal instrumental in providing assessment data.

Koeppen and Davison-Jenkins' (2007) dispositions narrative was particularly important because it provided a shared and clear understanding of the dispositions that would be assessed and could thereby prime students to know and think about effective educator dispositions. The rubric, titled Class Participation, focused on the dispositions that were

closely linked to students' participation in university coursework. Students were asked to self-assess the rubric, and faculty used the same rubric to assess students in their "large-group participation, small-group participation, preparedness, and attendance" (p. 24). The comparison of scores provided meaningful feedback towards understanding how self-perception and the perception of others may be consistent or incongruent.

Other dispositions – "listening, cooperation and collaboration, respect, reflection, continuous learning, and professionalism" (Koeppen and Davison-Jenkins, 2007, p. 24) – were assessed through a Personal Qualitative Inventory (PQI). The PQI is a reflective journaling instrument through which students reflect on their development in each dispositional category. Faculty provide extensive feedback to PQI entries, but do not assign points. They use the PQI experience to monitor students' understanding of the importance of the selected dispositions as well as students' development and growth or lack thereof in each area. Due to the combination of students' self-reflection and journaling and faculty feedback, the PQI system gives ownership of the process and dispositional development to students while serving to reiterate the importance and significance of effective educator dispositions. Faculty review the PQIs to monitor whether students identify dispositions in themselves and others. Faculty provide significant feedback on PQIs and through follow-up conversations, making this a collaborative process.

The intentional focus on understanding, thinking about, and self-reflecting vis-à-vis dispositions may have played a role in dispositional development. Koeppen and Davison-Jenkins (2007) noted that from the PQI entries they were able to conclude that students understood the dispositions, and for the most part, students were able to continue to embody or improve in the targeted domains.

Diez (2006) also embraced the use of reflective journaling to assess dispositions. Diez described the use of students' reflective journaling about their lesson design. In this journal activity the student-teachers were required to explain how they intended to meet the diverse learning needs of students through the selected instructional practices. Through this journaling, Diez noted, student-teachers may self-assess their suitability to the field, their abilities in this domain, and their commitment to developing as an effective teacher. It should be noted, however, that reflection activities may be less accurate when completed by students who lack self-awareness, an important educator disposition. People who are less self-aware may rate themselves higher than how others perceive them (Wasicsko et al., 2004), making this activity less effective for candidates whose dispositions may not be congruent with the field of education.

The aforementioned approaches to the assessment of dispositions were all strategies used when assessing the dispositions of applicants or students enrolled in a degree-granting program. Kennedy (2008), however, explained that the most significant evaluation of educator dispositions would ideally use an experimental or longitudinal research design. Experimental studies would help to differentiate between dispositions that students had prior to enrolling in an educator preparation program and those that developed during a program. Longitudinal studies (that reassess students who serve in the field) would clarify whether the dispositions that were fostered during the preparation program were enduring. It should be noted that some schools use standardized online assessments to screen teacher and administrator applicants to verify whether they possess the attitudes, values, and beliefs of effective teachers (e.g., Star Teacher and TeacherInsight; Kennedy, 2008; for additional information on the beliefs of "Star Teachers" see Haberman et al., 2018). Whether the

assessment of dispositions is implemented before and/or during preservice teachers' residency in a teacher preparation program or once they serve in the field, educator preparation programs are, nonetheless, required to foster dispositions.

Fostering Dispositions

Scholars have differing approaches, both theoretical and practical, to fostering dispositions. One overarching theoretical difference is between whether dispositions are "entities" or "incremental" (Diez, 2007; also see Dweck, 1989) and "mutable" (Nelsen, 2014, p. 2; also see Altan et al., 2019; Powers. 1999). Those who perceive dispositions as an "entity," such as Wasickso (2007), view dispositions as more or less stable and less pervious to change (Nelsen, 2014). Those who assert that dispositions are "incremental," such as Oja and Reiman (2007) and Diez (2006), perceive dispositions as susceptible to change and development over time.

Based on the entity approach to dispositions, Wasickso (2002) posited that dispositions are inherently less flexible and subject to change. He suggested that preparation programs can implement learning activities to foster candidates' development of dispositions, but the ability to foster substantial change is limited. Therefore, according to Wasicsko, programs should evaluate dispositions during the admissions process to ensure that essential educator dispositions are already evident. Wasickso stated that programs should consider accepting only those candidates who score at least a 5 on a 1-7 disposition rating scale in which 1 is low and 7 is high.

In Nelsen's view, which is based on Dewey (1988, 1985; also see Dewey, 1922), dispositions are both mutable and immutable. This is due to the brain's neuroplasticity. Neuroplasticity, ideally, allows for dispositions to become fairly well-established and not

fleeting, and at the same time, not so rigid that they are impervious and inflexible to change when new knowledge, needs, and contexts require different attributes or affect. This combination of stability and flexibility allows people to continue to develop while retaining a semblance of consistency in their traits, character, and attributes. The mechanism of neuroplasticity supports the focus on fostering dispositions in educator preparation programs. For example, Oja and Reiman (2007) suggested that when faced with complex and new experiences, reflecting on the new information may result in different understandings and skills.

Diez (2006) further suggested that change is possible. She explained that a disposition towards diversity and multiculturalism, for example, can change when a student who comes from an insular background is educated about diverse populations. The increased knowledge and understanding of diversity and associated interpersonal skills can result in embracing diversity and dispositional change, supporting the exposure to ideas, concepts, and knowledge as an integral element of fostering dispositions.

According to Roth (2005), universities are particularly suited to foster dispositions. While teachers may be able to advance their skills at using instructional techniques (e.g., active participation) through professional development or other training, universities may be better suited for developing attitudes, values, and beliefs due in part to the time demands and resources necessary to impact dispositions. Roth (2005) asserted that the purpose of university education "is to educate in a variety of modes and domains, such as critical thinking, perceiving, analyzing, reflecting, developing beliefs and values both in varied disciplines and in personal philosophy; understanding the self; and greater intellectual and psychological maturity" (p. 183), indicating that the university is an appropriate milieu to

foster dispositions. Similarly, Johnson and Reiman (2007; Reiman & Johnson 2003) shared the assertion that dispositions can "develop over time when teachers participate in deliberate professional education programs" (p. 677).

Using a developmental approach, Oja and Reiman (2007) considered theories that were previously used to assess conceptual complexity/reflective thinking, ego, and moral/ethical judgment. Those domains were examined because of their link to effective teaching (ibid.). Helpful dispositions can be inferred from understanding how teachers think about ill-structured problems, e.g., whether they are mature and can exude care and compassion while maintaining balance between self and others. Next, Oja and Reiman (2007) integrated a combination of the theories used to understand complexity, ego, and judgment, specifically theories of cognitive development, constructivism, and social cognitivism to inform how they would foster and assess dispositions. That approach included considering that meaning is constructed, experiences inform or impact meaning-making, learning is a social endeavor and develops from people's interactions with each other and their environments, and assimilation and accommodation contribute to meaning-making. Based on that integration of theories, Oja and Reiman (2007) designed the integrated learning framework (ILF) to foster and assess dispositions.

The ILF includes seven theory-based instructional design principles to foster educator dispositions. The design principles include "building trust and respecting contexts" (p. 101), acknowledging "complex new roles and helping experiences" (p. 101-102), using "guided inquiry" (p. 102), combining "support and challenge" (p. 102-103), and integrating "balance" (p. 103), "continuity," (p. 103) and "reflective coaching" (p. 103-104).

"Building trust" refers to developing congenial relationships, collaboration, and trust with preservice teachers, which may be conducive to facilitating "social, reflective, and ethical development" (p.101). "Respecting contexts" refers to the need for faculty to consider the experiences of students when designing learning activities and recognizing that prior experiences inform how people make meaning. Assignments that ask students to reflect on their experiences or encourage them to share their perspectives based on their experience or to engage in collaborative tasks (which inherently recognize the contribution of different participants and therefore different knowledge) can be a useful medium to foster dispositions. Understanding "complex new roles" refers to the disequilibrium that can arise when new situations or new knowledge appears to be inconsistent with past understandings. Reflection activities, through journaling, discussion boards, or conversations, can provide a milieu for students to consider past thinking and provide time to assimilate or accommodate the new knowledge. "Guided inquiry" can foster dispositions through prompts that lead students to conduct self-assessments and reflection in oral or written communication. Guided inquiry relies on the teacher educator to design highly structured prompts for some students and less structured prompts for others, depending on the complexity of students' conceptual thinking and ethical judgment. Based on Vygotsky's (1978 in Oja and Reiman, 2007; also see Vygotsky, 2017) zone of proximal development, "support and challenge" refers to the combination of providing encouragement and stretching learners outside their comfort zones and level of mastery to acquire new learning. Oja and Reiman (2007) suggested that this may be the most difficult principle to consider when designing learning activities that can foster dispositions because the degree of support and challenge needs to be differentiated for each student. "Balance" refers to the time allocated to and depth of experiences and reflections.

Oja and Reiman suggested implementing weekly guided reflections about practice experiences, because "a time lag between action and reflection appears to halt the growth process" (2007, p. 103). "Continuity" refers to the duration of time allocated to fostering a disposition. Oja and Reiman suggested a minimum of "four to six months are needed for significant learning and development to occur" (p. 103) and impact "moral reasoning and reflective judgment" (p. 103). "Reflective coaching" is mentoring that is adjusted for students based on identifying their existing knowledge and skills, based on observable phenomenon, provides role modeling or demonstrations when needed, and includes practice, self-reflection, mentor observations, and incorporates mentor feedback into future practice.

Although Oja and Reiman's seven principles make frequent reference to self-assessment and reflective activities to foster dispositions, the actual self-assessment and reflection activities are not uniform and can vary. Oja and Reiman's (2007) seven principles, however, provide research and theory-based structures to frame the design of activities intended to foster dispositions through harnessing effective research-based practices associated with developing conceptual complexity, ego, and moral/ethical judgment.

Altan et al. (2019) posited that learning theories and theories that support learning can be used to foster the dispositions listed in Costa and Kallick's (2000) sixteen habits of mind. For example, "teacher educators can place value on sense of humor and how it may contribute to supportive learning environments. Likewise, teacher educators can model these behaviors by *gently attending to another person or remaining calm and not behaving impulsively"* (Altan et al., 2019, p.178). Additionally, teacher-educators can use Self-Regulated Learning Theory to model persistence, for example, "planning results in positive outcomes and reduces anxiety" (Altan et al., 2019, p. 176) and other important strategies that

enable a student to take ownership of learning. Pre-service teachers can learn from this model both through understanding what is valued in education and through observing how to integrate the values and theories. Furthermore, Altan et al. suggested using reflective journaling and the arts "to encourage preservice teachers to pay attention to the world around them: '*to gather data using all senses, take time before acting, remain calm, reflective, enjoy life, and the surrounding beauty'* (Costa & Kallick, 2000)" (p. 171).

When considering learning activities to foster dispositions, however, Eberly et al. (2007) suggested that the first step is to understand the developmental and cognitive stages as students. Considering Kegan's (1998) adult developmental theory, they summarized his position as follows:

> the complexity of modern life requires us to often function at the fourth order of consciousness but many of us do not have the mental structures to do so. Because of this, our students often do not learn what we think we are teaching, and we often misinterpret the motivation and learning needs of students who make meaning of their experiences at the second or third order of consciousness." (p.32)

 Therefore, it may be important to understand students' level of meaning-making before designing learning activities to foster dispositions.

One disposition that has a direct link to teacher performance is self-efficacy, a belief in oneself as capable (Bandura; 1997). Bandura suggested that this disposition could be developed through four strategies: engaging in mastery experiences, vicarious learning, verbal persuasion, and emotional states (Ma, 2021). Mastery experiences are challenging situations that result in success and thereby create a sense of being capable of achieving other goals. Vicarious experience refers to the ability to observe other people's success and

envision how one can likewise realize success in similar situations. Verbal persuasion is the sense of being able and is formed in response to other people using language that conveys a message that one is capable. Emotional arousal is the positive or negative belief about competency in response to a stressful or calm situation. Stressful situations have the ability to make one feel less competent and less stressful situations may contribute to a sense of competency.

Towards understanding the role of mastery experiences, vicarious learning, verbal persuasion, and emotional states to foster the disposition of teacher self-efficacy, Ma et al. (2021) coded interviews of first-year teachers' describing their experience during their early career phase. The most significant factor in their development was mastery experiences. Although this study examined first-year teachers and additional research on the effects of vicarious learning, verbal persuasion, and emotional states may be beneficial, it may be helpful to consider how to incorporate these four approaches to fostering teacher self-efficacy when educating preservice teachers.

Based on the works of Bandura (1977; 1997), Bandura and Walter (1963), and Boyatzis (1982), Breese and Nawrocki-Chabin (2007) posited that dispositions are manifested "through intentional, practiced behaviors that can be challenged, developed, and enhanced even as they denote behavioral tendencies that endure over time" (p. 33). Breese and Nawrocki-Chabin (2007) harnessed Bandura's Social Learning Theory (1977a), which was later modified and renamed as Social Cognitive Learning Theory (1986), to foster and assess dispositions. In these theories, modeling of behaviors influenced behavior formation in observers. Bandura posited that for the modeling of behaviors to influence the behavior of others, a cognitive process would mediate between the observation and action (1986). That

is, observers would need to notice the modeling of the behavior (attention), remember what was modeled (retention), have the capability to imitate the behavior (reproduction), and perceive greater gains than loss by adopting the behavior (motivation).

One form of modeling dispositions was described by Powers (1999). In a six-week study, three teachers, who were selected based on their high performance, corresponded online with preservice teachers about teaching and learning practices that emerged from courses, field work, and current events reported by the media. The discussions began as a question-and-answer forum and, due to tragic events in the news and the teacher's honest self-reflection, the conversation morphed into posts about students' self-reflections. Powers posited that the teachers' modeling of self-reflection and dispositions enabled students to further develop their own self-awareness and dispositions through deep reflection. Although the written responses of the students indicate that they were attentive to the teacher's dispositions and behavior, observations of students' teaching practices may be instrumental towards understanding whether they have the ability and motivation described by Bandura (1986) to reproduce and adopt their new outlooks, resulting in dispositional change. Nonetheless, an important first step of dispositional development may be observing or learning about the dispositions of effective teachers and providing a supportive environment.

Providing a supportive environment and having role models to foster dispositions are also mentioned by Notar et al. (2009) and Stewart and Davis (2005). Notar et al. (2009) stated that dispositions are "acquired, supported, or weakened by interactive experiences in an environment with significant adults and peers" (p. 4). Towards that end, they suggested that institutions identify teachers who could serve as positive role models to preservice teachers engaged in classroom observations and field experience (Notar et al., 2009).

Participating in professional conferences may also provide an opportunity for preservice teachers to learn from the professional conduct of others and to practice professional conduct themselves (Stewart & Davis, 2005). Additionally, Stewart and Davis (2005) posited that program faculty should model educator dispositions, which may be highly effective towards fostering dispositions if done intentionally. Dottin (2009) also recommended the use of communities of practice in which experienced teachers model effective dispositions for preservice or novice teachers as a forum for the fostering of dispositions. Referring to Ritchhart (2002), Dottin (2010) summarized the steps to fostering dispositions through a milieu in which preservice teachers can "see the dispositions, they are taught about the dispositions, they practice demonstrating the dispositions, and there is consistency in the implicit messages sent by the teacher" (p. 18).

Notar et al. (2009), Dottin (2009), Breese and Nawrocki-Chabin (2007), and Titone et al. (1998) suggested that the use of reflection activities is beneficial for the development of dispositions. Notar et al. (2009) suggested that reflections on coursework and observations as well as portfolios can help students develop their dispositions. Breese and Nawrocki-Chabin (2007) emphasized the importance of understanding "the how and why" of an experience for reflections to have an impact on future behavior (p. 36). For designing impactful reflection activities, Rodgers (2002) provided four criteria based on Dewey:

> 1. Reflection is a meaning-making process that moves a learner from one experience into the next with deeper understanding of its relationships with and connections to other experiences and ideas. It is the thread that makes continuity of learning possible, and ensures the progress of the individual and, ultimately, society. It is a means to essentially moral ends.

2. Reflection is a systematic, rigorous, disciplined way of thinking, with its roots in scientific inquiry.

3. Reflection needs to happen in community, in interaction with others.

 4. Reflection requires attitudes that value the personal and intellectual growth of oneself and of others. (p. 845)

Notar et al. (2009) also recommended the use of discussions and case studies (p. 8). According to Notar et al. the first step to dispositional development is creating opportunities for preservice teachers to examine their current dispositions and whether they are open to change.

Likewise, Casey et al. (2021) reported that in their study of teacher-educators, preservice teachers, and in-service teachers, extensive field experience and reflective practice were two strategies to foster dispositions. Participants in their study claimed that extensive field experiences were best for developing dispositions because they provide faculty better information than observing classroom interactions, and frequent observations allow faculty to observe whether the disposition is pervasive and is guiding actions and behaviors as opposed to isolated or infrequent incidents. Casey et al. also recommended the use of co-teaching to foster and develop dispositions such as collaboration.

Using the perceptual approach, Allen et al. (2014) found that using the ILSA 360, reflecting on the ILSA results, noting the areas of strength and those that would benefit from development, and designing Individual Leadership Dispositional Growth Plans (ILDGP) facilitated development of desirable educational leadership dispositions. Students created goals for both areas of strength and areas for growth so that they can develop maximal efficacy.

In their study of preservice teachers enrolled in each level of a three-year program, Wilson and Cameron (1996) used reflective journaling to foster dispositions. They found that students' reflective journaling may have contributed to their disposition formation. Wilson and Cameron also found that noticeable differences emerged starting in the latter half of the second year and primarily during the third year of the program. That is consistent with Allen et al. (2018) who describe that the time needed for change to occur is as a limitation of higher education programs in fostering dispositions. Therefore, when seeking to foster dispositions, preservice teacher educators may need to consider the time needed to develop the desired results.

Da Ros-Voseles and Moss (2007) suggested the use of role-playing as one technique to foster dispositions. Other strategies include ensuring that preservice teachers have the opportunity to observe and serve as student-teachers in the classrooms of teachers who have effective educator dispositions. De Ros-Voseles and Moss also recommended that student-teachers engage in a project approach (Katz & Chard, 2000; Katz & Chard, 1992) when teaching because that approach can support development of dispositions such as being flexible, curious, risk-taking, and having a sense of wonder. Additionally, Da Ros-Voseles and Moss recommended the use of case studies and conversation about the case studies that encourage dialogue leading to the development of perspective-taking skills, understanding values, self-awareness, and self-reflection. Towards developing empathy and a non-judgmental attitude, Da Ros-Vasele and Moss found that journaling can be an effective tool.

Diez (2006) also supported the use of reflections to foster dispositions and explained that increased knowledge and skills can support the development of dispositions. For example, Diez (2006) explained that Alverno College requires students to write reflections

along with their lesson plans, explaining their choices of action and how those decisions enable the teacher to meet the needs of all learners. This activity is intended to facilitate intentional teaching, reinforce knowledge and skills, and simultaneously foster a disposition towards students as able to learn. These reflections may also influence students' commitment to developing effective teaching practices and dispositions or serve to showcase incompatibility to the field, leading the student to pursue a different career path.

Covaleskie (2007) took a different approach. He acknowledged some people may take issue with college programs fostering dispositions and perceive this as indoctrinating. He also questioned what programs should foster and how that could be achieved. Covaleskie suggested that educator preparation programs should require students to develop a philosophy of education. Once students have a strong commitment to their beliefs (dispositions) about educational practice, then their actions should be consistent with those beliefs, unless they need to learn the knowledge and skills necessary to behave consistently with their beliefs. For example, an educator may believe that all children can learn and also have difficulty differentiating instruction. In such a case, Covaleskie (2007) posited that the deficiency isn't the disposition, rather, it's the lack of skill necessary to achieve the desired outcome and requires more development of the skills, but not necessarily the dispositions.

One approach presented by Covaleskie (2007) to foster dispositions, is the use of case studies. According to Covaleskie, critical analysis of case studies can impact disposition formation due to "thinking carefully and rigorously about how one should act in specific situations and/or thinking carefully and rigorously about the sort of beliefs that would justify one's actions" (p. 210). Second, he suggested the possibility of using a capstone experience to foster disposition. Covaleskie asserted that for a capstone experience to influence

dispositions, it should follow rigorous and analytical thinking about why certain courses of action would be preferred over others.

This section provided a sample of methods used to foster dispositions and included techniques such as faculty modeling dispositions, students participating in reflection activities, implementation of 360s, the use of collaborative activities, co-teaching, participation in communities of practice and the use of self-assessments towards outlining developmental goals. The underlying beliefs about the nature of dispositions, being open to change or impervious to change, has been described and may contribute to the approaches to fostering dispositions selected by faculty. Whether faculty seek to admit only those with certain well-established dispositions or view disposition-formation as part of their educational responsibility, the link between educator dispositions and student outcomes has been well-established, especially the relationship between teachers' beliefs about students and themselves (Hattie, 2008; Donohoo, 2016).

Notwithstanding the importance attributed to fostering and assessing dispositions, the current body of literature primarily focuses on fostering and assessing dispositions when teaching face-to-face courses. Fostering and assessing dispositions in students enrolled in asynchronous online courses, however, may pose unique challenges. Although several strategies, such as writing reflections, can be implemented to foster and assess dispositions in both face-to-face and asynchronous online courses, teaching through an asynchronous modality may limit inferential data and opportunities for modeling behaviors due to the lack of nonverbal communication, impromptu discussions, and teacher immediacy behaviors that can contribute to fostering and assessing dispositions in face-to-face courses.

Challenges

Teaching knowledge and skills in asynchronous online courses requires andragogy that is congruent to the milieu. Likewise, fostering and assessing dispositions in asynchronous online courses may require different strategies. This may be in part due at least three different elements of face-to-face instruction that are absent in asynchronous online courses: nonverbal communication, impromptu discussions, and teacher immediacy behaviors.

The role of nonverbal communication in fostering and assessing dispositions is articulated by the National Council for the Accreditation of Teacher Education (NCATE, 2008) standards. NCATE (2008) defined dispositions as "attitudes, values, and beliefs demonstrated through both verbal and nonverbal behaviors as educators interact with students, families, colleagues, and communities" (p. 89-90), specifying that dispositions are reflected by verbal and nonverbal actions. This indicates that the observation of both verbal and nonverbal behaviors is important towards evaluating dispositions. In fact, Albert Mehrabian, known for his research on verbal and nonverbal communication, placed a greater significance on nonverbal communication than verbal communication. In *Silent Messages* (1971) Mehrabian posited that

> Our actions rather than our speech is especially important, since it is inseparable from
> the feelings that we knowingly or inadvertently project in our everyday social
> interaction and determines the effectiveness and well-being of our intimate, social and
> working
> relationships. Indeed, in the realm of feelings, our facial expressions, postures,
> movements, and gestures are so important that when our words contradict the silent

messages contained within them, others mistrust what we say - they rely almost

completely on what we do. (Mehrabian, 1971, p. iii)

While traditional face-to-face courses allow for faculty to observe students' verbal

and nonverbal communication, fully asynchronous online courses preclude faculty from

observing either form of communication, limiting the sources of data that can provide

accurate evaluation of students' dispositions.

In an analysis of fostering dispositions in preservice teachers enrolled in a traditional

face-to-face class, Mueller & Hindin (2011) found that students were able to provide some

evidence of learned educator dispositions through responding to written scenarios via an

online tool. That tool inherently lacked the ability to draw data from the kind of nonverbal

communication that Mehrabian (1971) posited plays a significant role in understanding

authentic dispositions and could be observed in face-to-face settings. Additionally, Mueller

and Hindin acknowledge that coursework may have contributed to 'parroting' (Hoffman,

1996 in Mueller & Hindin, 2011, p. 28), "whereby candidates feel that there is one right way

to think about inclusion (cultural stereotypes) and thus mimic the perceived acceptable

responses" (Boling, 2007 in Mueller & Hindin, 2011, p. 28). Given the inherent lack of

nonverbal communication and the ability to parrot responses, written responses to scenarios

posted online may be limited in their utility as an instrument to accurately assess students'

actual dispositions and underscores the need for valid instruments to assess dispositions.

Furthermore, Hoffman (1996) described the complexity in fostering and assessing

dispositions in face-to face courses, which may be further magnified and challenged in

asynchronous instruction. In one traditional graduate school, efforts to foster and assess an

openness to multiculturalism in preservice teachers seemed ineffective. Hoffman (1996) explained that it was

". . . as if the students had all been programmed to think in exactly the same way, with the same images and same words. The very fact that the 'lessons' of multiculturalism were so codified seemed to undermine the essential multicultural theme--an inherent openness and flexibility. Instead, there was a cant, a correct vocabulary, a proper way to think and be 'aware.' It seemed to me all too prepackaged, a parroting of the 'right' themes--a lesson, in a sense, too well learned." (p. 547)

The field of social psychology has been interested in understanding attitudes, a component of dispositions, as indicated by the robust literature on attitude formation and assessment (Albarracin, & Shavitt, 2018; Ehret, Monroe, & Read, 2015) and how it can be accurately assessed. One view of attitude formation is that it includes a dual process:

"One is quick and (relatively) uncontrolled and a second that is slower and involves controlled and deliberative processing. Much of the interest in the quick and uncontrolled route is with the possibility that these relatively automatic attitudes reveal how an individual 'really feels' without the intervention of self-presentation or self-regulatory processes." (p. 148)

While traditional face-to-face classes may be ripe for impromptu discussion that can provide particularly important insights into students' authentic dispositions because their reactions are spontaneous and not planned, written responses that are assigned in advance for traditional or online courses may be less reliable tools for the assessment of dispositions.

Additionally, Ehret, Monroe & Read (2015) found that the brain may go through several processes (not just a dual process) before forming an attitude, and they note that "explicit measures may be much more strongly influenced by motivations, such as self-presentation or desire to appear non-prejudiced" (p. 164), making the assessment of dispositions in both traditional and online students challenging when using explicit instead of implicit measures.

Another factor that can impact the fostering and assessment of dispositions in asynchronous online courses is the lack of teacher immediacy behaviors. Teacher immediacy behaviors are defined as verbal and nonverbal actions and behaviors that "indicate physical or psychological closeness" between the teacher and student (Andersen, 1978, p. 12). Verbal immediacy includes calling a person by his or her name (Gholamrezaee & Ghanizadeh, 2018). Nonverbal immediacy behaviors include body orientation, proximity or physical distance, eye contact, smiling, a nod and a touch (Andersen, 1978; Witt & Wheeless, 2001). Teacher immediacy is considered to have a significant impact on teacher effectiveness (Andersen, 1978) and on students' emotional engagement with course content, leading to better learning outcomes (Mazer, 2013). Andersen (1978) found that immediacy is "a good predictor of student behavioral commitment. If a student perceives the instructor to be immediate, he/she is more likely to engage in practices suggested in the course" (Andersen, 1978, p. 36), making immediacy particularly relevant to teaching in the affective domain and fostering dispositions.

Blondy (2007) outlined several practices specific to online learning that are based on Knowles' (1988) assumptions of andragogy, including those that foster teacher immediacy: responding to students' questions within twenty-four hours or initiating an ice breaker to

which the instructor posts first. Arbaugh (2001) added that referring to students by name in an online discussion forum increases immediacy in asynchronous online discussion boards. Although both Blondy (2007) and Arbaugh (2001) share ideas to enhance verbal immediacy, the absence of nonverbal immediacy behaviors (body position, eye contact, etc.) in asynchronous online learning is notable. Given that teacher immediacy behaviors can contribute to students' motivation and interest in adopting recommendations and approaches to development, how can dispositions be fostered and assessed in asynchronous online courses that lack verbal and nonverbal teacher immediacy behaviors?

In addition to the need to identify and use tools, strategies, and learning activities that accurately assess and foster dispositions in students enrolled in asynchronous courses, institutions may need to make honest self-assessments about their focus on professional dispositions, or lack thereof, in their programs. Although a focus on cultivating professional dispositions may be articulated in program standards (APA, 2015; CAEP, 2015; CSWE, 2015; LCME, 2019; NCATE, 2008), in actuality, schools may be neglecting this domain.

In a study on effecting change in organizations, Bowe et al. (2003) found that although the medical school that was under study listed "professional competencies, attitudes and skills" (the equivalent of dispositions), such as compassion and collaboration, as one of their "four primary educational commitments" (p. 726), "preclinical courses rarely addressed or evaluated professional competencies, attitudes and skills" (p. 727), and the assessment of dispositions during the third and fourth year of medical school posed particular challenges. When this omission was examined, Bowe et al. (2003) found that in addition to the complexity posed by third- and fourth-year rotations (students are constantly under new faculty), some faculty believed dispositions could not be taught, others believed that

dispositions should be reinforced throughout the program whether or not they can be taught, and a third group of faculty believed dispositions should not be a curricular focus and should be evaluated during the admissions process.

Although participants in the aforementioned study were skeptical about their ability to foster dispositions in students, Bertolini (2017) found that concrete steps to foster and support dispositions were implemented with success in an educator preparation program. Dottin (2010) was also successful in fostering dispositions, and links that success to students' engagement in cognitive tasks that caused them to think deeply about both the dispositions and transferring dispositions to new settings. The discrepancy between the medical school faculty and Bertolini (2017) and Dottin's (2010) findings may be due to at least two factors. One factor is that different program structures may be more or less suited to fostering and assessing dispositions. A second implication may be a need to teach dispositions with intentionality, informed by theories of learning, cognition, development, and adult change. This second factor may still be insufficient when attempting to foster dispositions in all students enrolled within the same program, as sociocultural, economic, religious, and academic diversity also need to be considered.

Furthermore, Wasicsko, Wirtz and Resor (2009) posited that schools of education can help those who possess a certain minimal threshold of educator dispositions to improve their dispositions but cannot cultivate dispositions in adult students who are very low in educator dispositional tendencies. They suggested evaluating students' dispositions during the admissions process to determine which students are viable candidates and which are not, based in part on their dispositional rating and ability of the school to foster further development of applicants' dispositions.

In addition to admitting students whom faculty feel capable of training, designing learning activities that are congruent with the goal of fostering dispositions, and the need to use valid instruments that can capture authentic dispositions and not merely those that are espoused or parroted, educators need to consider the learning environment when fostering and assessing dispositions. The literature on disposition-formation and assessment has largely been based on face-to-face courses. This study examined how the fostering and assessment of dispositions may differ between face-to-face instruction and asynchronous online courses, which are absent (or limited in) essential forms of data that are generally used to foster and assess dispositions, such as non-verbal communication, teacher immediacy behaviors, and impromptu discussions.

While prior studies of online learning have examined the enrollment trends, efficacy, and cost-benefits of online learning (Bell & Federman, 2013; Seaman, Allen & Seaman, 2018; Smith & Mitry, 2008), gender differences (Morante, Djenidi, Clark & West, 2017) and participation (ibid.), the literature regarding the ability of higher education institutions to foster and assess dispositions in asynchronous courses is scarce. Online library search results for the fostering or assessment of dispositions include articles and texts that are overwhelmingly focused on face-to-face instruction and discuss the definitions of "dispositions" (Altan, Lane, & Dottin, 2019; Diez, 2007; Ritchhart, 2001), educational theories to foster dispositions (Altan, Lane, & Dottin, 2019), which dispositions are important to the field (Pufpaff, Sciuchetti, & Taylor, 2017), which dispositions are teachable (Varol, 2011), and tools to assess dispositions (Koeppen & Davison-Jenkins, 2007; Pufpaff, Sciuchetti, & Taylor, 2017; Schulte et al., 2004). Although the body of literature includes an examination of faculty dispositions that are suitable for online teaching (Kirwan & Roumell,

2015), and an assessment of dispositions using online synchronous chats (Eberly & Rand, 2003), no search results were found for studies that examine the fostering and/or assessment of dispositions of students enrolled in asynchronous online courses.

Given the importance of dispositions in the helping fields, the complexity of fostering and assessing dispositions, and the increasing frequency of using online learning in higher education, this mixed method study examined the similarities and differences between fostering and assessing dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses in one helping field, education. The purpose of this study was to explore the similarities and differences between fostering and assessing dispositions in face-to-face and asynchronous online courses in educator preparation programs, which appears to be absent from the literature on online teaching. The following overarching question emerged: What are the similarities and differences in fostering and assessing dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses in educator preparation programs?

CHAPTER THREE: THEORETICAL FRAMEWORK

The theoretical framework for this study shaped the research questions and hypotheses through exploring several theories that may contribute to fostering and assessing online educator preparation students' dispositions effectively. Theories that might be considered when determining how best to foster and assess dispositions in asynchronous online courses are cognitive development, andragogy, online learning, and adult change.

Adult Cognitive Development

Cognitive development is the development of thinking, problem-solving, memory and attention (Arnett, 2007). Jean Piaget, arguably the father of genetic epistemology, conceptualized cognitive development as four stages spanning birth to age twenty-five, in which people think differently at different ages (Piaget, 1971). Piaget asserted that the four stages of human development were sequential, and one must pass through an earlier stage before entering into the next stage (Arnett, 2007; Wadsworth, 2004). Contrary to Piaget's stage theory, which capped cognitive development in the early to mid-twenties, more recent research indicates that cognitive development can extend well into adult years (Arnett, 2004; Arnett, 2007; Fischer, 1980; Basseches, 1984; Kegan, 1994; Kegan & Lahey, 2009; Riegel,1973) and throughout one's lifespan (Kegan & Lahey, 2009). Perry (1999), for example, described reflective judgment as an aspect of cognition that begins to develop during the teen years and continues through emerging adulthood (ages eighteen to twenty-five and possibly well beyond twenty-five; Arnett, 2004) in the form of relativism, the ability

to think of opposing views through comparison rather than absolute right and wrong, and eventually commitment, the ability to embrace one perspective while remaining genuinely open-minded to other perspectives to the extent that one may change a view if new dimensions are introduced.

Riegel (1973), one of the early theorists to disagree with Piaget, proposed that Piaget's theory of cognitive development "has never been shown convincingly that the highest level of operation, i.e., formal operational intelligence, characterizes the thinking of mature adults" (p. 22) and proposed dialectical thinking as a fifth stage. Dialectical thought is thinking that understands opposing ideas or perspectives or that problems can remain unresolved, a developmental stage that can last well into adulthood (Basseches, 1984). In addition to the ability to suspend differing views and ultimately commit to a perspective, dialectical thinking is a process through which the consideration of opposing views can ultimately serve to refine thoughts through "evaluation and reevaluation" (Riegel, 1973, p. 18). Although Riegel did not believe that Piaget's stages need to be passed through sequentially and posited that people can move back and forth between stages, he aligned dialectical thinking with a mature ability (Riegel,1973).

Cognitive development, specifically the development of dialectical thinking, is particularly germane to the conceptual framework of this research because it explains the developmental foundation of perspective-taking, which is associated with several dispositions. The ability to understand another person's perspective was either overtly articulated or implied in the professional preparation standards for programs that were reviewed for this research (CAEP, 2015; APA, 2015; CSWE, 2015; ANA, 2015; LCME, 2019; NCATE, 2008). Collaboration and an openness to diversity are two examples of

dispositions that are mentioned in all of the standards that were reviewed (CAEP, 2015; APA, 2015; CSWE, 2015; ANA, 2015; LCME, 2019; NCATE, 2008) and are linked to understanding multiple perspectives. Goldstein, Vezich, and Shapiro (2014) noted that "favorable task and relationship outcomes are positively correlated with the extent to which members of the dyad were inclined (via disposition or experimental manipulation) to take the other's perspective" (p. 956), implying that effective collaboration is positively correlated to perspective-taking skills. "Cultural learning" (Tomasello & Ratner, 1993), possibly an integral step towards developing acceptance of diversity, requires that learners "attempt to see a situation the way the other sees it - from inside the other's perspective, as it were" (p. 496). Understanding another person's perspective may be a critical element to "correcting negative attitudes and biases toward others" (Goldstein, Vezich, & Shapiro, 2014, p. 956) and true acceptance of differences and diversity.

The ability to think dialectically would therefore appear to be an essential tool towards developing those dispositions (perspective-taking, collaboration, embracing diversity). This helps frame the research questions through seeking to understand how faculty consider adult cognitive development when they intend to foster or assess dispositions.

Adult Learning Theories

      Evolution of andragogy. Approaches to adult education have been utilized since ancient times by educators and philosophers such as Confucius, Plato, Socrates, Aristotle, Cicero, and Jews being that their target audience was adults (Knowles, Holton, & Swanson, 2015). Those teachers used methods that would engage students in genuine inquiry through, for example, case studies or Socratic dialogue, instead of students serving as repositories of information (Knowles, Holton, & Swanson, 2015). Although models of adult education have

been utilized for millennia, adult education theory is frequently considered to be a fairly new discipline.

Thorndike, Bregman, Tilton, and Woodyard are often considered to be the first researchers to examine how adults learn (Merriam & Bierma, 2014). Their early research focused more on the capacity of adults to learn than on investigating which approaches would be most conducive to adult learning (Thorndike, Bregman, Tilton, & Woodyard, 1928). Thorndike and his colleagues found that adults twenty-five years of age through at least age seventy have the ability to learn (ibid.). Lindeman (1926), whose research in actuality predates that of Thorndike, Bregman, Tilton, and Woodyard, appears to be the first to articulate specific theories relevant to adult education in the modern era, such as the role of life experience as a form of education, small group discussions, and student-centered education (Lindeman, 1926). Decades later, Malcolm Knowles (1968) adopted the term "andragogy" from European educators to refer to specific assumptions about adult learning and teaching adults (Knowles, 1988). "Andragogy" seems to appear for the first time in German teacher Alexander Kapp's (1833) book *Platon's Erziehungslehre*, in which he used the word andragogy to describe the general practice of teaching adults (Kapp, 1833, p. 241; Loeng, 2017; Reischmann, 2004). According to Henschke (2011), "andragogy" was first used in American literature in 1926 by Edward Lindeman (Lindeman, 1926 in Reischmann, 2004; Henschke, 2011); nevertheless, Knowles is frequently credited with adding the term to the North American lexicon (Merriam & Bierema, 2014).

The term andragogy is "based on the Greek word aner (with the stem andr), meaning 'man, not boy' or adult" (Knowles, 1988, p. 42) and "agogus, meaning leader of" (Knowles, Holton, & Swanson, 2015, p.19). Knowles adopted the word andragogy to distinguish

between the practice of teaching adults from that of teaching children, pedagogy (from the

Greek *paid*, child; Knowles, Holton, & Swanson, 2015, p.19), and framed a set of

assumptions about adult learning. Knowles (1975) originally posited four assumptions, which

later developed into five and then six assumptions (1984, 1989b, 1990). The six elements that

Knowles posited need to be present or addressed for adults to learn are as follows:

1. "A need to know" - Adults need to know the reason why it is important for

   them to learn the content before proceeding to learn it.

2. "The learner's self-concept" - Adult learners can fall into a role they played

   when they were in a classroom setting as children and become helpless

   recipients of knowledge. This can pose a conflict between their sense of self

   as being capable and feeling as if the adult educator views them as incapable.

   Therefore, Knowles posits that adult educators must consider their students'

   self-concepts and create self-directed learning environments in adult

   education. This autonomy will serve to reinforce a positive self-concept to

   adult participants, and students won't feel the frustration of knowing they're

   capable while playing a role as incapable.

3. "The role of the learner's experiences" - Adults carry a wealth of experiences

   that can be harnessed to help or inform the process and content. These

   experiences shape who they are. At times, their experiences may negatively

   impact their outlook and they will need to transform their way of thinking to

   engage in the learning process.

4. "Readiness to learn" - Adults are open to learning content that is consistent with their current developmental stage and that has implications to their current stations in life. Readiness can be induced, but it must be present.

5. "Orientation to learning" - Adults learn best when the content has implications for or application to their lives.

6. "Motivation" - The primary motivator for adults is intrinsic (Knowles, Holton, & Swanson, 2015).

Although Knowles originally perceived concrete differences between the strategies used to teach adults and those for teaching children, he later recognized that many elements of each theory could be used for the other classification of students. In the 1980s, Knowles began to accept "that andragogy is simply another model of assumptions about learners to be used alongside the pedagogical model of assumptions, thereby providing two alternative models for testing out the assumptions as to their 'fit' with particular situations" (Knowles, 1988, p. 43). Furthermore, Knowles' assumptions about andragogy and the research on effective traditional and blended pedagogy do not necessarily delineate different assumptions about learning that can selectively be used for adults or children; rather, they are often exactly the same. Examples of pedagogical practices that are also considered andragogical practices include student agency (Anthony, 2019); understanding the purpose of learning the information or the "why" (Hunter, 2004); student-directed learning (Lee & Hannafin, 2016), which Knowles classified as a distinct feature of adult education (Knowles, Holton, & Swanson, 2015); and problem-based learning (Lee & Hannafin, 2016; Merriam & Bierema, 2014). For the purpose of this research, andragogy will be used to broadly describe learning theories that are used to teach adults. Theories of adult learning were considered for this

research because fostering and assessing dispositions in students in educator preparation programs is essentially a function of teaching and assessment of adult learners.

Online adult learning theories. Paloff and Pratt (2002) posit that teaching online is markedly different from teaching in a face-to-face setting and is not merely the transfer of face-to-face content to an online learning management system. Rather, online teaching requires familiarity with specific teaching approaches that are aligned with online teaching, such as building community (ibid.). Learning theories that will be part of the conceptual framework for this study have particular relevance to online learning and include behaviorism, cognitivism, humanism, transformative learning, experiential learning, and variations of constructivism (see Merriam & Bierema, 2014; Mezirow, 2000; Kolb, 1984; Arghode, Brieger, & McLean, 2017; Leonard, 2002; Gordon, 2009). Although all of the aforementioned theories may have specific implications for online learning, humanism, transformative learning, and constructivism may be particularly relevant to fostering dispositions. Towards understanding how dispositions can be taught online, this section will describe the aforementioned learning theories and their suitability to online learning.

Behaviorism. Watson (1948, 1919, 1925), "the father of behaviorism" in North America (Knowles, Holton, & Swanson, 2015), believed that learning is defined as a change in behavior that occurs in response to stimuli and results in observable phenomenon. Watson (1948) proposed that psychology should be focused on observable data and not include introspection, stating "that much of their [psychologists'] material is stated in terms of introspection, whereas a statement in terms of objective results would be far more valuable" (p.466). Thorndike (1898) further developed behaviorism through research on animals that resulted in a stimulus-response theory that describes learning as a process through which a

stimulus is introduced and a desired response is rewarded, connecting a desired response directly to a stimulus. Referring to the works of Watson, Thorndike, and Russian physiologist Ivan Pavlov, Guthrie expanded the stimulus response theory through explaining the role of association between stimulus and response (Guthrie & Powers, 1950). Perhaps most notable, Skinner's (1971) discourse on behaviorism posited that people need outside loci of control to maintain society: "Behaviorists believe that human behavior is the result of the arrangement of particular stimuli in the environment. If this behavior is reinforced or rewarded, it is likely to continue; if it is not reinforced it is likely to disappear" (Merriam & Bierema, 2014, p. 26). Learning outcomes would therefore be measured by observable behavior. If the desired behavior took root, then learning occurred, and if it did not, then learning did not take place.

Behaviorism, by definition, is objective-oriented, with specific desired outcomes and goals. One example of a behaviorist approach in adult education is evidence-based practice. Evidence-based practice relies on observable phenomena to assess learning and inform learning activities (Merriam & Bierema, 2014). Asynchronous online learning also utilizes elements of behaviorist strategies. Activities such as asking students to revise a draft, faculty closing an online module when assignments are due, or requiring students to post an original response to a discussion board before they can view other students' posts, are all rooted in a behaviorist approach. Regarding disposition-formation, a behaviorist approach may include grading students on written reflections about strategies that they implemented to foster change.

Cognitivism. The foundations of cognitivism as a learning model are drawn from the theories and findings of researchers such as Piaget and Cook (1952), Anderson (1983), Ausubel (1969), Gagne, Briggs and Wager (1992), and Wilson and Keil (2001), who identify

mental processes responsible for learning. Mental processes include functions such as memory (Merriam & Bierema, 2014), analytical reasoning, schema formation, creative thinking (DeVillers, 2007), transfer, and metacognition (Merriam, Caffarella & Baumgartner, 2007). Cognitivists focus on cognitive processes and the development of cognitive skills, such as critical thinking, above producing the kinds of objective deliverables or behaviors that are required by behaviorists (DeVillers, 2007). Considering which mental processes will be in demand to achieve learning goals during the lesson design phase may enable instructors to create lessons that are concordant with beliefs about effective learning, while further developing those mental processes. Theories of cognition are relevant to all learning modalities; face-to-face, hybrid, synchronous online, and fully asynchronous learning, however, different processes may be in more or less demand depending on the learning modality.

Constructivism. Constructivism can be defined as an epistemology or as a learning theory and has many versions (Phillips, 1995; Golding, 2011). As a learning theory it can explain the internal process through which individuals learn (Piaget & Cook, 1952; Piaget, 2003) or how knowledge is socially constructed (Vygotsky, 1978). As a learning theory, constructivism defines learning as the building of new meaning, or reconstruction of meaning, in which the student is actively involved in the knowledge development process. Constructivism is based in part on theories of Piaget, Dewey, and Vygotsky. Piaget viewed learning as an internal process between the person and experience (Piaget, 1952; Piaget, 2003) and posited that assimilation, accommodation, and adaptation help people learn through experiences and lead to the reconstruction of knowledge and learning. Dewey expressed that community, family, and society shape experiences and thus learning, and

learning is not solely an internal process but is subject to outside influences (Dewey, 1997).

Dewey supported creating student-centered learning environments in which the learner is an

active participant and learns by doing (Dewey, 1997). Vygotsky also believed that

knowledge is socially constructed and dependent on culture and society (1980). He found

that "what children can do with the assistance of others might be in some sense even more

indicative of their mental development than what they can do alone" (Vygotsky, 1978, p. 85).

Dewey and Vygotsky's assumptions about learning serve as the foundation of social

constructivism (Merriam & Bierema, 2014). Both social and individual constructivism are

germane to adult learning as it helps clarify the process through which people learn and build

meaning. One commonly used asynchronous online learning activity is the participation in

discussion boards. Well-constructed discussion board prompts can challenge students to

think deeply about issues and require students to reflect on their own experiences while also

considering the input of their peers' responses and posts to develop greater understanding

and meaning.

     Humanism. Humanism is rooted in the works of psychologists such as Rogers and

Maslow, who saw learning as a conduit to functioning and reaching one's full potential and

self-actualization (Rogers, 1961; Rogers, 1983; Maslow, 1970). Humanism is guided by five

elements: "personal involvement," "self-initiation," "pervasiveness," "evaluation by the

learner," and "essence in meaning" (Rogers, 1969, p.5; Knowles, Holton, Swanson, 2015,

p.15). In reflecting on his experience, Rogers (1961) shared his beliefs that people have the

capacity to continue to grow, develop, and self-actualize, and his role as a therapist was to

facilitate that process. He stated that as a therapist his approach shifted from "How can I

treat, or cure, or change this person?" to "How can I provide a relationship which this person

may use for his own personal growth?" (Rogers, 1961, p.32), indicating the importance of ownership and agency in self-development. A humanistic approach to education includes faculty serving as facilitators instead of didactic instructors (Weber, 2014) and fostering ongoing human development (Yang, 2004). Humanism can inform andragogy in the affective domain. The use of discussion board prompts or journaling that requires self-reflection, decision-making, self-development plans, and self-assessment would be uses of a humanistic approach to asynchronous online learning.

   Transformational (transformative) learning. Transformational learning is grounded in a constructivist epistemology (Mezirow, 1991) and closely aligned to the learning theory of humanism due its focus on human growth through self-development and change. Transformational learning, however, is focused more specifically on the change of attitudes, beliefs, perspectives, and habits of mind towards or about oneself or others (Mezirow, 2000). Transformational learning "is understood as the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one's experience as a guide to future action" and enables the learner to become "critically aware of one's own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation" (Mezirow, 2000, p. 4). Transformative learning therefore requires people to understand how they formed their assumptions, evaluate the accuracy and justification of those assumptions, and apply, modify, or completely alter those assumptions to address new situations. Mezirow described four overarching stages (and ten steps) to the transformational learning process. They are the introduction of a disorienting experience, meaning an experience that would challenge the prior held assumption; critical reflection of the

assumption; discourse with peers to arrive at a shared meaning; and action, a change in perspective or habits of mind (Mezirow, 1991).

The aforementioned process is intended to increase agency in the affective domain and the ability to understand multiple perspectives; and in general, in forming habits of mind, attitudes, values, and beliefs. For transformational learning to be effective, students may need to possess emotional intelligence (Mezirow, 2000) and be open to "transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action" (Mezirow, 2000, pp.7-8). Transformative learning can be used in asynchronous courses via discussion board prompts that require students to share cultural differences and experiences and challenge their own prior assumptions. In online learning this might be asking students to consider the discussion posts of others in addition to assigned readings and viewings, and then expecting them to use new insights to confirm or reject their prior perspectives while simultaneously regarding the perspectives of others.

Experiential learning. Experiential learning theory is largely attributed to Kolb (1984), who tapped into the theories of Piaget, Dewey, and Lewin to establish a robust experiential learning model. Kolb's theory of experiential learning places emphasis on the process of learning and not on the outcome as do behaviorists. Kolb outlined four steps in experiential learning: "concrete experience" - full participation in the experience; openly reflecting on the experience from different angles and perspectives; creating new insights and theories to solve problems; and testing the theories and using them to solve problems (Kolb, 1984). According to Kolb, experiential learning is cyclical, and the implementation stage

serves a dual purpose, testing the new theories and serving as an experience to be objectively and critically analyzed (1984). Fenwick (2003) describes two overarching categories of experiential learning, "constructivist" (p. 23) and "situative" (p. 24). The constructivist conceptualization of experiential learning is focused on the learning and building meaning and is, according to Fenwick, an internal process (2003, p.23). The situative approach emphasizes context and situation in the learning process and building meaning. Fenwick (2003) explains "that learning is rooted in the situation in which a person participates, not in the head of that person as intellectual concepts produced by reflection" (p. 24). Asynchronous online learning can be aligned with both approaches. An example of an asynchronous online experiential learning activity that is informed by constructivism is requiring students to post reflections about a work or personal experience and engaging students to reflect and challenge their assumptions. An asynchronous online experiential learning activity that is aligned with a situational approach is forming a community of practice (Lave & Wenger, 1991) or the use of virtual reality simulations.

The six aforementioned learning theories--behaviorism, cognitivism, constructivism, humanism, transformational learning, and experiential learning--are only a sample of learning theories discussed in the literature. Behaviorism, cognitivism, constructivism, and humanism have been noted for their frequent use in adult online learning (Arghode, Brieger, & McLean, 2017) and therefore have been selected for inclusion in this conceptual framework. Transformative learning and experiential learning have also been selected as part of this conceptual framework due to their direct link to the affective domain, self-reflection, and disposition development.

Adult change. As a construct, "dispositions" has several components, attitudes, values, and beliefs. Disposition formation or change can be examined from a biological, neurological, cognitive, or psychological lens. This conceptual framework will focus on the social psychology theories relating to attitude and attitude change.

Theories of adult change are included in the conceptual framework of this study because adult change theory can or should inform how faculty foster dispositional change-- the attitudes, values and beliefs that direct behavior--in their students. This section will share examples of change theories and specifically focus on influencing change of attitude, a component of dispositions. The focus on attitudes was selected due to the robust literature about that element of dispositions and because attitudes may influence other dispositions. Attitude towards diversity, for example, may influence one's ability to collaborate both in positive and negative senses. The following section will include a sample of theories that may inform approaches to adult change and disposition formation and assessment.

The field of social psychology has and continues to conduct extensive research on attitude formation and influencing attitudes (Dolores & Shavitt, 2018; Ryffel & Wirth, 2016; Wheeler et al., 2005). Delores and Shavitt (2018) explained that attitudes can be understood as a relationship between attitude and behavior. They posited that the definition of the word "attitude" is "a definition that simply focuses on the evaluative nature of attitudes as favor or disfavor. Attitudes have a subject matter (referred to as the object or target), which can be an object, a person, or an abstract idea" (Dolores & Shavitt, 2018, p. 300). That subject-object orientation is stimulated by different experiences or bases. Research indicates that an

alignment of persuasive tactics to the basis of the attitude (Ryffel & Wirth, 2016; Wheeler et al., 2005) is important towards effective influence and change.

Foundations of attitudes include a functional basis, an attitude that is rooted in a function such as social acceptance (Katz, 1960), and self-schemata, how a person perceives him/herself (e.g., extroverted or introverted; Wheeler et al., 2005). Combs and Snygg (1959) explained that perceptions inform or direct behavior. What we do and how we react is based on what we perceive about oneself, others, experiences/situations, and approaches to situations. Breckler and Wiggins (1991) described attitudes as having an affective or cognitive basis: "The affective component refers to emotional responses engendered by an attitude object, whereas the [cognitive] evaluative component refers to thoughts, beliefs, and judgments about an attitude object" (Breckler & Wiggins, 1991, p. 182). This classification has been widely used in the literature on persuading attitudes (Petty et al., 1997).

Haddock et al. (2008) found that affective persuasion was most effective towards influencing attitudes of people with high need for affect, and cognitive persuasion was most effective towards influencing attitudes of people with a high need for cognition. Although persuasion may be most effective through matching an approach to the basis of the attitude (using a cognitive approach to persuade cognitively based attitudes and an affective approach to persuade attitudes based in emotion), a mismatch appeal may have greater impact than a matching appeal when using a strong appeal (Ryffel & Wirth, 2016). That effect is likely due to processing the incoming message more carefully (Ryffel & Wirth, 2016). Furthermore, affective attitudes can be influenced by both affective and cognitive approaches, while cognitive-based attitudes tend to require cognitive approaches (Seligman et al., 2018). The lower success rate of a mismatched approach to influencing cognitively based attitudes may

be due to the complexity of cognitively based attitudes (Seligman et al., 2018). This indicates that effective persuasion requires an intentional approach in which both the basis of the attitude and the correct way to persuade are considered given the stakeholders and their context. Therefore, when faculty include the fostering of dispositions in their course goals, they should consider the bases of their students' attitudes when crafting an instructional approach.

Repetition may be a second feature of successful persuasion. Hasher and Toppino (1977) found that people were more likely to think a statement was true if they heard it more than one time, which is known as the *illusion of truth* (IOT). When Hasher and Toppino (1977) asked study participants to identify true from false statements, participants more frequently selected true and false statements that they were exposed to a week earlier, than true statements that they were shown for the first time. This phenomenon was further supported by Moons et al. (2009), who found that in addition to the general IOT phenomenon, the motivation of the listener to process a message plays a significant role in their acceptance of a persuasive argument. When people were not motivated to process a message, repetition was more significant in persuasion than the strength of the message. When subjects were motivated to process, the strength of an argument played a more significant role than repetition. Repetition, however, can lose its potency and can cause a negative outcome (Cacioppo & Petty, 1979, 1985), and should be used in a measure that will be effective to foster change.

This section provided a small sample of adult change theories. Similar to the discourse on the other elements of the conceptual framework (cognitive development and learning theories), this section is intended to provide examples of theories that may have contributed to

faculty's efficacy in fostering and assessing educator dispositions and the level of difficulty attributed to those tasks, and that shaped the research questions and hypotheses.

Both on the survey and during the research interviews, participants were asked about which, if any, theories of cognitive development, learning, and change they consider when attempting to foster and assess dispositions in students. Those theories may have been articulated in this section or may have emerged on the survey or during the interviews. This conceptual framework was intended to be general because the research used a pragmatic constructivist approach through which participants were asked to reflect on their practice and build meaning about what works.

CHAPTER FOUR: RESEARCH QUESTIONS AND HYPOTHESES

This section begins with the research questions and hypotheses of this study. As a convergent mixed method study, a quantitative survey and semi-structured qualitative interviews were used to answer the same research questions, confirm or disconfirm findings, and integrate results. Qualitative interviews were based on research questions 1- 4 in this section as well as those listed in Appendix G.

Research Questions and Hypotheses

RQ 1. What are the similarities and differences in fostering and assessing dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses in educator preparation programs?

> *Hypothesis 1A: Faculty perceive that they are more effective at fostering and assessing dispositions in students enrolled in face-to-face courses than they are at fostering and assessing dispositions in students enrolled in asynchronous online courses.*

> *Hypothesis 1B: Faculty perceive that assessing dispositions in students enrolled in asynchronous online courses is more difficult than assessing dispositions of students enrolled in face-to-face courses.*

> *Hypothesis 1C: Faculty and administration give more importance to fostering and assessing specific dispositions in students enrolled in face-to-face courses than to fostering and assessing dispositions in students enrolled in asynchronous online*

courses.

Hypothesis 1D: Faculty give greater consideration to theories of learning, cognitive development, and adult change when trying to foster and assess dispositions in students enrolled in face-to-face courses than when teaching students enrolled in asynchronous online courses.

Hypothesis 1E: Faculty give greater consideration to specific theories such as cognitivism, behaviorism, constructivism, social constructivism, humanism, transformational learning, and experiential learning, when fostering dispositions in students enrolled in face-to-face courses than when fostering dispositions in students enrolled in asynchronous online courses.

RQ2: How do students nonverbal communication and impromptu discussions and teacher immediacy behaviors in face-to face courses correlate to the level of efficacy and difficulty that faculty perceive is associated with fostering and assessing dispositions in students enrolled in face-to-face courses?

Hypothesis 2A: Faculty reliance on non-verbal communication, impromptu discussions and teacher immediacy behaviors is positively correlated to faculty's perception regarding their efficacy in fostering and assessing dispositions in students who are enrolled in face-to-face courses.

Hypothesis 2B: Faculty reliance on non-verbal communication, impromptu discussions and teacher immediacy behaviors is negatively correlated to faculty's perception regarding the level of difficulty they perceive in fostering and assessing dispositions of students who are enrolled in face-to-face courses.

RQ 3. How does faculty educational experience relate to how effective or difficult faculty

perceive the fostering and assessing of dispositions in students enrolled in face-to-face and asynchronous online courses?

Hypothesis 3A: Faculty who completed at least one online course when they were students perceive they are more effective at fostering dispositions and that it is less difficult to foster dispositions in students enrolled in asynchronous online courses than faculty who did not complete any online course when they were students.

Hypothesis 3 B: Faculty who took at least one course in online instructional design might find they are more effective, and it is less difficult to foster and assess dispositions in students enrolled in asynchronous online courses than faculty who have not had any courses in online instructional design.

Hypothesis 3C: Faculty who have had at least one course in their educational background on fostering and assessing dispositions or adult change perceive they are more effective at and find it less difficult to foster and assess dispositions in asynchronous online students and in face-to-face students than faculty who have not had at least one course in fostering and assessing dispositions.

Hypothesis 3D: Faculty who have had at least one course in instructional design will be more likely to consider theories of learning, cognitive development, or adult change to foster and assess dispositions in students enrolled in asynchronous online courses than those who have not had at least one course in instructional design.

Hypothesis 3E: Hypothesis 3E: Faculty who have at least one course in fostering and assessing dispositions or adult change in their background will give greater consideration to specific learning theories such as, cognitivism, constructivism, social constructivism, experiential learning, humanism, behaviorism, and transformational

learning when fostering dispositions in students enrolled in either face-to-face or

asynchronous online courses than those who do not have that background.

RQ 4. How does the level of importance given to fostering and assessing students'

dispositions relate to faculty's perceived efficacy at and difficulty with fostering and

assessing dispositions in students enrolled in face-to-face and asynchronous online courses?

Hypothesis 4A: The level of importance that faculty give to fostering and assessing

dispositions is positively correlated with their efficacy to foster and assess

dispositions.

Hypothesis 4B: The level of importance that faculty give to fostering and assessing

dispositions is positively correlated with the level of difficulty that faculty associate

with fostering and assessing dispositions.

RQ 5: How did a mixed methods study provide greater understanding of the research

questions than either a quantitative or qualitative study could provide independently?

CHAPTER FIVE: RESEARCH METHODOLOGY

This section explains the context, epistemology, approach, and research paradigm used to understand the difference between how faculty foster and assess dispositions in students enrolled in face-to-face courses in educator preparation programs and how they foster and assess dispositions in students enrolled in asynchronous online courses.

Context

This research was a result of a metacognitive moment that I had when doing coursework for a master's degree. At the time, I was enrolled in a fully asynchronous online course focused on diversity. One discussion board prompt asked students to consider whether the United States is a melting pot or salad bowl. The older students in the course had been familiar with the melting pot paradigm from their childhood and its emphasis on Americans blending to form a new people. Students explained that through the melting pot metaphor, they were socialized to focus on similarities and minimize differences amongst people. The assumption was that identifying or singling out differences was socially inappropriate. When the salad bowl metaphor was discussed, the collective sentiment was that it represented a better depiction of an ideal American outlook. That outlook would embrace differences amongst people and celebrate the variety of cultural, religious, racial, and ethnic backgrounds of Americans. This metaphor was intended to represent a unified people that can work towards a greater good while appreciating each other's differences. The discussion seemed to elicit a paradigm shift for many in the cohort through using a cognitive approach. I wondered

however, how the professor would know whether students were parroting a sentiment or genuinely adopted a change in thinking, whether additional activities would be needed to foster a change in dispositions, and how a change in attitude may impact behavior.

I began to wonder how attitudes, values, beliefs – dispositions - are formed and how faculty foster and assess dispositions in their face-to-face and asynchronous online students in programs that serve the helping professions. Although the melting pot-salad bowl discussion encouraged students to reconsider their thoughts, attitudes, and beliefs, I wondered how the professor would measure actual versus purported changes in outlook and dispositions. Continuing in this vein, I was curious about fostering and assessing broad dispositions, such as embracing diversity, an openness to perspectives, collaboration, optimism, and a belief that others are capable. Furthermore, I wondered about the differences between fostering and assessing dispositions in face-to-face and asynchronous courses. In face-to-face courses, faculty may be able to assess actual dispositions through observing students' nonverbal communication, contributions to impromptu discussions, and through proximity to the students during the class. I wondered about what learning activities and assessments would be appropriate for fostering and assessing dispositions in students enrolled in asynchronous online courses. All of those questions led to this research focus. I started exploring the literature on fostering and assessing dispositions across the helping professions and then narrowed the focus to the field of education. This allowed for a broader understanding of disposition development and assessment.

Once I had a foundation for understanding dispositions as a construct, I was able to acquire greater understanding of what is already known about fostering and assessing dispositions of students enrolled in educator preparation programs in particular and what has

yet to be explored and examined. The literature included very few studies regarding fostering and assessing dispositions of students enrolled in asynchronous online courses, creating a need for further exploration in this domain. The discrepancy between the abundance of literature on dispositions in face-to-face educator preparation programs and the dearth of literature on dispositions in asynchronous courses made me wonder about the similarities and differences between fostering and assessing disposition when using each instructional modality and whether "dispositions" is equally important to faculty teaching asynchronous courses. Furthermore, I wondered whether faculty use online learning instructional design or their own experiences in completing online courses to guide how they design learning activities to foster and assess dispositions.

Epistemology

This research was framed by pragmatic constructivist epistemological assumptions. Gordon (2009) explained pragmatic constructivism as a philosophy sprouting from the works of Dewey and used "the term pragmatic to refer to a way of knowing that comes out of purposefully changing the environment and then reflecting on this change" (p. 49). Gordon suggested that according to Dewey, pragmatic constructivism is a belief that "genuine knowledge comes neither by thinking about something abstractly nor by acting uncritically, but rather by integrating thinking and doing, by getting the mind to reflect on the act" (p.49). The research questions were framed to ask participants to reflect on their online teaching practices, including any tasks introduced to develop and assess dispositions. Study participants were asked to think critically and build meaning about what they perceive works and to understand the teaching and learning processes associated with disposition development and assessment, including theories of adult cognitive development, adult

learning, and the psychology of change. This is consistent with Dewey's pragmatism because it is "concerned with conditions and consequences" (Biesta Burbules, 2003, p.45) and allows for multiple perspectives (ibid.) towards answering the research questions.

Research Design

This study used a pragmatic approach to understand "what works and solutions to problems" (Creswell, 2014, p.10). A pragmatic worldview allows researchers to select their methodology based on what will work best to answer the research questions instead of designing research questions that are dictated by one specific paradigm (Kornuta & Germaine, 2019), such as postpositivism (quantitative) and its deductive form of reasoning or constructivism (qualitative) and its inductive reasoning (Creswell, 2014). Mixed methods were selected for this research because the mixing of methods "provides a better understanding of the research problem and question than either method by itself" (Creswell & Guetterman, 2019) and allows for the contributions of multiple perspectives towards forming knowledge (Johnson et al., 2007). While quantitative and qualitative data have independent strengths, the use of both quantitative and qualitative data forms a better and more comprehensive whole, yin yang in Chinese (in-yō in Japanese or "ionmyo 鰭鴟";

Fetters & Molina-Azorin, 2019, p. 17), and can be more powerful than each separately (ibid.).

Fetters and Molina-Azorin (2019) describe yin yang as "unfolding and coordinating multidimensional relationships that are complex and changing" (p. 16), represented by the *taijitu* symbol ☯. The *taijitu*'s interlocking teardrops, one black and one white, each with a circle of the opposite color in the large part of the tear drop shape, represents that within each approach is a dimension of the other (ibid). Yin Yang symbolizes the joining of parts, in this

case, quantitative and qualitative research, to create a whole that moves beyond each individual component, resulting in a new and more sophisticated union. The combining of quantitative and qualitative methods was considered necessary to gain a more comprehensive understanding of the phenomenon under study.

In part, the strength of mixed methods comes as a result of triangulation; the use of more than one method of data collection (Jick, 1979). Jick (1979) cites Denzin (1978) and defines triangulation as "the combination of methodologies in the same phenomenon" (p. 291). The research questions can be examined through a combination of methodologies that are "within methods" or "across methods." That is, multiple methods of data collection can be used within a single research paradigm, e.g., quantitative, or at least one form of data from two or more research paradigms can be collected to study a phenomenon (Jick, 1979; Greene et al., 1989). This study mixed quantitative and qualitative data to achieve triangulation and answer the research questions. Triangulation that includes quantitative and qualitative data "tests the degree of external validity" (Jick, 1979, p. 603). This contributed to the studies strength because

> all methods have inherent biases and limitations, so use of only one method to assess a given phenomenon will inevitably yield biased and limited results. However, when two or more methods that have offsetting biases are used to assess a given phenomenon, and the results of these methods converge or corroborate one another, then the validity of inquiry findings is enhanced. (Greene et al., 1989, p. 256)

Greene et al. (1989) further explain that the type of mixed methods that should be selected for a study depends on the purpose of the triangulation. In addition to convergence, in which quantitative and qualitative methods are compared, mixed methods can be used "to

uncover paradox and contradiction" and identify "areas of non convergence" (p. 268). In part, this study used quantitative and qualitative methods to identify consistencies and inconsistencies in the data.

In addition to comparing the results of quantitative and qualitative findings to identify consistencies and inconsistencies in the data, the intent of this mixed methods study was to integrate findings. According to Fetters (2020), the term triangulation may be more applicable to qualitative research and 'integration' may be a more suitable term to describe the process of comparing quantitative and qualitative results in mixed methods research. Fetters' point is especially germane to this study because in addition to comparing the results from the quantitative and qualitative findings, the results were integrated to produce a more holistic and nuanced understanding of the research phenomenon. Each approach, quantitative and qualitative, were given equal weight and consideration in this Quan + Qual design (Creswell & Guetterman, 2019).

Quantitative data were collected to examine the current state of the fostering and assessment of disposition more broadly through accessing and incorporating the opinions of a larger pool of respondents. Qualitative data was collected to better understand the "human lived experience . . . the life-world as it is lived, felt, undergone, made sense of, and accomplished by human beings" (Schwandt, 2001, p. 84 in Polkinghorne, 2005). Furthermore, the collection of quantitative survey data allowed for greater participation in the study and qualitative data allowed for multiple perspectives to feature more prominently than could be captured through a survey alone. The comparison and integration of both sets of data allowed for a more comprehensive and nuanced understanding of the study results.

Method

Convergent parallel mixed methods (Creswell, 2014) were used to understand how faculty in educator preparation programs foster and assess dispositions. When using convergent parallel mixed methods, quantitative and qualitative data are collected at approximately the same time, data are analyzed separately, and then the researcher "compares the results to see if the findings confirm or disconfirm each other" (p. 219).

Quantitative data were collected via an online SurveyMonkey questionnaire, followed by qualitative semi-structured interviews. The study used a Quan + Qual design (Creswell & Guettterman, 2019), in which quantitative and qualitative data were weighed equally. Quantitative and qualitative data were analyzed separately and then findings were compared to identify convergence and non-convergence (Creswell, 2014), followed by a merging and integration of results (Fetters, 2020). Figure 1 displays the research design for this study (Fetters, 2020; Creswell, 2014).

Figure 1.
Convergent Mixed Methods Research Design
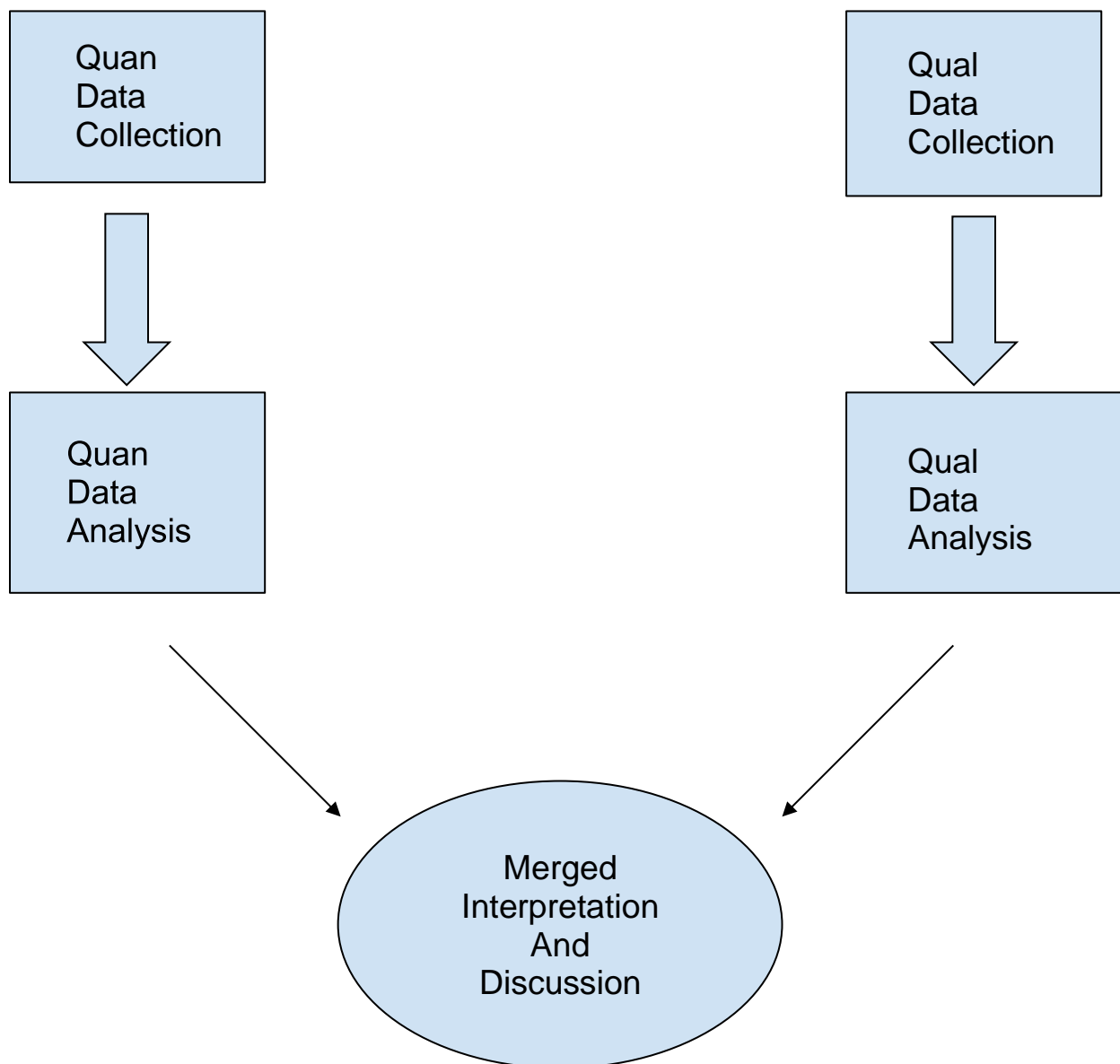
Procedures

Western Institutional Review Board (WIRB) determined that this study was "Exemp"

and does not require IRB review and approval (Appendix B). Participants were over 18 and

participation would entail little or no risk to respondents because respondents were asked to

reflect and report on their teaching experience, obviating the need for signed consent.

 This study used a combination of purposive and snowball sampling. Purposive sampling was

used because certain individuals would be "particularly informative about the topic"

(McMillan, 2012, p.105). A SurveyMonkey questionnaire (Appendix C) was sent as a link in

emails to university deans and program directors in schools of education (Appendix D). The

emails explained the purpose of the study, the anonymity of responses, and the study's

institutional review board exempt status and included a link to the survey. Email recipients

were asked to complete the survey only if they taught at least one asynchronous online or

face-to-face course in an educator preparation program during the two years prior to

receiving the email.

Snowball sampling was also used as a method for reaching out to a larger group of

participants. The snowball sampling was done through asking initial email recipients to

forward the introductory email and survey to faculty and colleagues who would be suitable

participants. A nested relationship existed between survey respondents and interview

participants, in which the interview participants were a subgroup of the survey respondents

(Fetters, 2020). The nested subgroup of participants was identified through asking survey

respondents to indicate their interest in participating in qualitative interviews through

providing their contact information on the questionnaire. As an incentive to participate and

encourage participation within their institution, email recipients were informed that they could request study results without identifying information.

Participants

A total of 161 introductory emails were sent to university deans, program directors, and faculty at education preparation programs in the United States explaining the study, requesting participation, and asking them to forward the email and survey to their faculty. This total (161) includes 123 institutions that were selected based on their inclusion in the US News and World Report list of the top 100 schools of education, their faith-based mission, or because they were within the geographic region of the research institution supporting this study. Additionally, only institutions that offered face-to-face or face-to-face and online instruction were invited to participate in the survey. The remaining 38 emails were sent to additional personnel at universities that were already contacted about the study because either they were associated with an institution that had more than one division in their school of education (e.g., teacher preparation and leadership as separate divisions), had research or teaching responsibilities that appeared to be congruent to the study, or were recommended as potential participants. Therefore, on an institutional level, 123 emails were sent to universities and colleges requesting participation in the study.

Emails requesting participation in the study were sent between January 17, 2020 and February 26, 2020. Reminder emails were sent February 17, 2020 - March 2, 2020 (Appendix E). A total of 73 respondents started the survey, however, only 59 participants completed the survey and were included in the final sample. Towards increasing participation, additional emails would have been sent to universities that were not previously contacted but campuses began to close at that time due to the COVID-19 pandemic.

Due to the COVID-19 pandemic, the survey was closed early and only responses received before March 16, 2020, were included in the data analysis. This decision was made due to the widespread and continuous school closings across the United States during March and April 2020. As schools were required to move courses online, a concern arose about participants' responses reflecting a situation in which they were forced into online instruction without proper training. That sudden shift to online instruction could have resulted in more respondents reporting that they have experience teaching online then would have been the case before the pandemic. The sudden shift and short preparation time to teach asynchronous online courses, if any preparation time was provided, could have influenced instructors' responses to the survey. Given that it would be impossible to know whether faculty were reporting on their regular instructional methods or methods that they were suddenly catapulted into, further data collection would have threatened the internal validity of the study because it would be difficult or impossible to make accurate inferences (Creswell, 2014) regarding asynchronous online instruction.

Because the timing of the data collection coincided with the onset of the COVID-19 pandemic throughout much of the United States, a decision was made to delay contacting those respondents who agreed to participate in the qualitative interviews. Ten participants indicated that they agreed to participate in qualitative interviews through providing their names and contact information on the survey. Out of the 10 survey participants that agreed to be interviewed for this study, 6 replied to the email (Appendix F) requesting to schedule the interview. Due to the impact of the pandemic on so many aspects of peoples' lives and a concern about being intrusive at that time, only one email was sent to request interviews. Those who responded were contacted to schedule a Zoom meeting. The meetings were

scheduled for 20-30 minutes; however, participants were forthcoming and engaged and interviews lasted from 45 minutes to over an hour. Interview participants responded to scripted and impromptu follow up questions regarding their perceptions about fostering and assessing educator dispositions in students enrolled in face-to-face or asynchronous online courses (Appendix G).

Instrumentation

A quantitative survey and qualitative interview questions were designed to understand the similarities and differences between how faculty foster and assess dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses in educator preparation programs. The quantitative survey will be described first because it was disseminated before the qualitative interviews.

Quantitative survey. A quantitative survey was designed for this study using SurveyMonkey. The online questionnaire had 36 items (Appendix C). Before sending the survey to potential participants it was completed by two individuals to verify that the instructions and questions were clear. The survey was also reviewed by two independent statisticians. The first question was a qualifying question asking whether the respondent taught at least one course in an educator preparation program within the last two years in either a face-to-face or asynchronous format or in both face-to-face and asynchronous formats. A fourth option, "I did not teach during the last 2 years" would disqualify the respondent and link the respondent to a page that ended the survey.

The first section of the survey explained the purpose of the study, an examination and exploration of how faculty foster and assess dispositions in students enrolled in traditional face-to-face courses and students enrolled in asynchronous online courses. Definitions were

provided for terms that feature prominently in the study and for which a common

understanding was crucial to completing the survey. The definitions were provided for the

following terms: dispositions, Face-to-face/F-2-F courses, and asynchronous/asynch courses.

"Dispositions" were defined as the "attitudes, values, and beliefs that are demonstrated

through verbal and nonverbal communication, behavior, and actions, for example, embrace

diversity." Face-to face/F-2-F courses were defined as "classes that meet in person", and

asynchronous/asynch courses was defined as "online classes in which students complete

activities and assignments through a learning management system, on their own schedule,

and in accordance with assignment due dates. They generally do not 'meet' for class at the

same time through electronic platforms, such as video conferencing, and they don't meet in

person."

The survey included multiple choice, fill in, and 4-to-5-point Likert scale questions.

Questions 1-10 were demographic in nature and were divided into three categories: personal

demographics, such as age and gender identification, education and professional

development background, such as taking online courses or courses in fostering adult change,

and affiliated institution demographics, such as the institutions Carnegie Classification based

on the 2018 framework, e.g. R1: Doctoral University - Very High Research Activity, M1:

Master's College or University - Large Programs,

(https://carnegieclassifications.iu.edu/classification_descriptions/basic.php), the size of their

master's and doctoral programs, and the types of institution and programs offered (e.g.

private university, teacher preparation program master's).

Items 11-19 and 26-27 were multiple choice questions, some of which included an

"other" option for respondents to fill in their answers if none of the listed answers

appropriately represented their thoughts or practice. In these questions, respondents were asked to reflect on their perceptions of their school's face-to-face and/ or asynchronous online educator preparation programs. Respondents were asked to report on their perceptions about their institution, administration and/or themselves regarding the extent to which general (professional) or faith based dispositions are included in their school's mission, the program's commitment to general and/or faith based dispositions, the general importance of fostering and assessing dispositions, how and when dispositions are assessed, and the importance of fostering and assessing specific dispositions that were found in the literature or program standards.

Likert scale questions were used to ask participants to report on elements of their face-to-face and asynchronous online teaching and assessment practices, such as consideration of learning theories, as they relate to disposition formation and assessment. When necessary, items included a response option "I don't teach this type of course" and scales included choices such as Not Difficult, Somewhat Difficult, Difficult, Very Difficult, and Extremely Difficult or Not At All, Somewhat Rely, Rely, Very Much Rely, Completely Rely. Respondents were asked to report on their perceived level of efficacy fostering and assessing dispositions, the level of difficulty associated with those tasks, and their reliance on nonverbal communication, impromptu discussions, and teacher immediacy behaviors towards achieving those goals in questions 20-25. Items 28-35 asked participants about their use of theories of learning, cognition, and adult change when trying to foster or assess dispositions. The final question, item 36, asked for the respondent to list contact information if the respondent was willing to participate in a follow-up interview.

Qualitative. Qualitative data were collected through semi-structured interview questions (Appendix G) that mirrored the quantitative research questions and hypotheses and additional supporting questions. Semi-structured interviews are interviews in which questions are open-ended (McMillan, 2012). The interview questions closely reflected the quantitative survey questions to provide corroboration of survey data or identify discrepancies in responses (Greene et al., 1989). The research questions and hypotheses were used as a guide to explore faculty's perceptions of the similarities and differences between fostering and assessing educator dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses. The semi-structured interview questions were supplemented with impromptu questions to clarify or further explore participants' responses and discover ideas, beliefs, and strategies that could not be captured through the survey.

Interviews were conducted through Zoom video conferencing, automatically recorded on two devices, and transcribed through Zoom. The second recording was made on a different device to provide back up in the case that the Zoom recordings or transcripts were unclear. The recordings were used to tweak transcripts when the transcriptions were unclear or when it was obvious that the automatic transcription used the wrong word. Due to the complexities posed by the COVID-19 pandemic and a concern for overburdening participants as well as possession of very clear recordings of the interviews, transcripts were not given to interviewees to review as part of member checking. Transcripts were coded using the research questions in an abbreviated format to represent the essence of the question. For example, the code "Importance" was used to code for the level of importance that the respondent associated with the need to foster and assess dispositions in face-to-face and

asynchronous courses (RQ 1, Hyp 1C). Appendix H includes a list of the research questions and corresponding codes.

Using the codes as a framework, the interview transcripts were reviewed to develop a general sense of the consistency and/or inconsistency of responses to the data in the survey. Next, two interviews were coded and classified into themes. One interview was shared with a colleague to check for interrater reliability. The rating was consistent between the two reviewers and interrater reliability was established. All interviews, including the sample used to check for interrater reliability, were then coded using NVivo qualitative analysis software. While coding the interviews, several "child codes" were added to help home in on themes. The coding was then compared between the interviews to verify consistency once again. Next, the codes were reviewed for patterns and the data was organized as themes. Subsequently, the qualitative themes were compared to the quantitative data, and finally, the qualitative and quantitative data were merged to produce an integrated understanding of the research phenomenon.

Primary themes about fostering and assessing dispositions in face-to-face courses and asynchronous online courses include similarities and differences, the perceived level of difficulty and efficacy, level of importance attributed to dispositions, responsibility of higher education to graduate educators with effective dispositions, and general strategies used to foster and assess dispositions. Specific strategies such as the use of theories to inform fostering and assessing dispositions, the use of nonverbal communication, impromptu discussions, and teacher immediacy behaviors, and relevant background and educational experience that inform how participants foster and assess dispositions comprised the remaining dominant themes.

CHAPTER SIX: RESULTS

The first part of this section will explain the data analysis and results of the quantitative survey. SPSS was used to calculate measures of central tendency, variability, and frequency and to calculate t-tests, ANOVAS (Analysis of Variance), and Pearson correlations. The demographic survey questions will be addressed, followed by the research questions and hypotheses of the study. The second part of this section will include an analysis of the qualitative interview questions.

Before analyzing the survey, the data was screened for errors, outliers, and normality. Seventy-three people started the survey, however, only 59 participants completed the study and were included in the data analysis. No unusual scores or univariate outliers were identified ($z > 3.29$; Tabachnick & Fidell, 2007). A few of the variables were not normal because they were skewed and mildly kurtotic. Square root transformations were done to normalize the data. All hypotheses were tested with the raw variables and with the transformed variables. The pattern of results for the transformed variables was similar to the results of the raw variables and therefore, the raw variables were retained and reported on.

Age, gender, and years of experience were explored for possible effects. Age was positively correlated with respondents' efficacy at fostering dispositions, indicating that older individuals were more effective at fostering dispositions in both face-to-face ($r = .37, p < .05$) and asynchronous online courses ($r = .63, p < .001$) than younger individuals. Older respondents also reported greater efficacy in assessing dispositions in asynchronous online

courses ($r = .67$, $p < .001$). Age was negatively correlated to the level of difficulty associated with assessing dispositions in asynchronous online courses ($r = -.35$, $p < .05$), indicating that older individuals found assessing dispositions in asynchronous online courses to be less difficult than younger respondents. Given that age had an effect on several variables, analyses were run controlling for age and then again without controlling for age to see if results were systematically different. The results were similar and therefore, analyses were done without controlling for age.

Demographics

Items 1-10 were demographic questions. Participants were comprised of 26 (44%) respondents who taught face-to-face and asynchronous online courses, 22 (37%) who taught only face-to-face, and 11 (19%) who taught only asynchronous online courses. Participants had an average age of 54 ($SD = 13$) and the average years that participants worked in higher education was 14.97 ($SD = 10.9$; Table 1). Twenty-eight percent identified as male and 72.4% identified as female. Participants included deans, full professors or full professors and chairs, associate professors, assistant professors, adjuncts, and program directors (Table 2).

Table 1

Average Age and Years Worked in Higher Education (*N* = 54 - 59)

	M	*SD*	Min	Max
Age	53.52	12.473	31	74
Years Worked in Higher Ed	15	11	1	44

Table 2

Professional Title (*N* = 47)

Title	*n*	%
Dean	3	5.1
Full Professor and Chair	3	5.1
Full Professor	4	6.8
Associate Professor	12	20.3
Assistant Professor	7	11.9
Adjunct	12	20.3
Program Director	6	10.2

Using the Carnegie Classification system, participants were asked to select their university's classification. The largest proportion of respondents (39%) indicated that they are employed at R1 Universities: Universities with Very High Research Activity. The lowest response rates were for medium and small master's programs, and 21 (36%) reported that they do not know their institution's Carnegie Classification (Table 3). Institutions ranged in size and programs offered and included institutions that do not offer master's programs to institutions with over 100 doctoral students. (Table 4.) Participants were employed at

institutions that included teacher preparation, leadership education, were CAEP accredited,

and private, public, and faith-based institutions. (Table 5.)

Table 3
Carnegie Classification (*N* = 59)

Carnegie Classification	*N*	%
R1: Doctoral University - Very High Research Activity	23	39.0
R2: Doctoral University - High Research Activity	5	8.5
D/PU: Doctoral/Professional University	3	5.1
M1: Master's College or University - Large Programs	3	5.1
M2: Master's College or University - Medium Programs	2	3.4
M3: Master's College or University - Small Program	2	3.4
I Don't Know	21	35.6

Table 4

Size of Institution and Programs Offered (*N* = 35 - 56)

Category	*n*	%
We Don't Have a Master's Program	3	5.1
1-19 Master's Students	8	13.6
20-50 Master's Students	15	25.4
51-100 Master's Students	9	15.3
More Than 100 Master's Students	24	50.7
We Don't Have a Doctoral Program	7	11.9
1-19 Doctoral Students	9	15.3
20-50 Doctoral Students	9	15.3
51-100 Doctoral Students	8	13.6
More Than 100 Doctoral Students	7	11.9

Note. Respondents were asked to check all that apply.

Table 5

Program and Institution Description (*N* = 15-57)

Description	*N*	%
Undergraduate Teacher Preparation	29	49.2
Master's Teacher Preparation Program	44	74.6
Master's Teacher Leadership	1	1.7
Master's Education Leadership Program	31	52.5
Doctoral Education Program	30	50.8
CAEP Accredited Undergraduate Program	16	27.1
CAEP Accredited Graduate Program	23	39.0
Private University	33	55.9
Public University	16	27.1
Faith Based University	10	16.9

Note. Respondents were asked to check all that apply.

Participants were asked to report on their educational experience and the completion of asynchronous online courses as well as education in online instructional design, fostering adult change, fostering dispositions, and the assessment of dispositions (Table 6).

Table 6

Educational Background (*N* = 33-58)

Education	*N*	%
Graduated From At Least One Asynchronous Online Program	2	3.4
Completed At Least One Asynchronous Online Course but Not An Entire Program	15	25.9
Did Not Complete Any Asynchronous Online Programs	41	69.5
At Least One Course In Online Instructional Design	14	23.7
At Least One Course in Fostering Adult Change, Fostering Dispositions, or Assessing Dispositions	26	44.1

Using 5-point Likert scales, participants were asked to report on the extent that their

institution includes general or faith-based dispositions in its mission statement. General

dispositions were defined as those dispositions that apply to all higher education students

(e.g., valuing service to the community). Faith based dispositions were defined as those

dispositions that are unique to religion (e.g., valuing a religious lifestyle; Table 7)

Table 7

Frequency of Inclusion of General and Faith Based Dispositions in Mission Statement (N = 52-55)

Dispositions	*Don't Know*	*Not Included*	*Minimally Included*	*Included*	*Very Much Included*
	n (%)	*n (%)*	*n (%)*	*n (%)*	*n (%)*
General	6 (10.2)	0	8 (13.6)	15 (25.4)	23 (39.0)
Faith Based	4 (6.8)	30 (50.8)	3 (5.1)	7 (11.9)	11 (18.6)

Participants were asked about their perceptions regarding the level of commitment that their administration and faculty have to fostering general and faith-based dispositions. Respondents reported higher commitment to fostering general dispositions than to fostering faith-based dispositions (Table 8). Participants were also asked about their own attitudes towards fostering and assessing dispositions. A greater number of participants reported that fostering dispositions were 'very important' than those that responded assessing dispositions was 'very important.' The overall results, however, were similar regarding the importance of fostering and assessing dispositions, and the total number of respondents that assigned 'slightly important' to assessing dispositions was somewhat greater than the total respondents who assigned 'slightly important' for fostering dispositions (Table 9).

Table 8

Commitment to Fostering General or Faith Based Dispositions (*N* = 52-54)

Commitment to Foster Dispositions	Not at All Committed	Somewhat Committed	Committed	Very Committed	Extremely Committed
	n (%)	*n (%)*	*n* (%)	*n* (%)	*n* (%)
General	0	9 (15.3)	9 (15.3)	14 (23.7)	20 (33.9)
Faith Based	31 (52.5)	6 (10.2)	2 (3.4)	4 (6.8)	11 (18.6)

Table 9

Importance of Fostering and Assessing Dispositions (*N* = 57-59)

Importance	Not Important	Slightly Important	Important	Very Important
	n (%)	*n* (%)	*n* (%)	*n* (%)
Foster Dispositions	0	3 (5.1)	20 (33.9)	34 (57.6)
Assess Dispositions	1 (1.7)	7 (11.9)	24 (40.7)	27 (45.8)

Research Question 1: What are the similarities and differences in fostering and assessing dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses in educator preparation programs?

> *Hypothesis 1A: Faculty perceive that they are more effective at fostering and assessing dispositions in students enrolled in face-to-face courses than they are at fostering and assessing dispositions in students enrolled in asynchronous online courses.*

Two t-tests for dependent means were used in order to compare respondents' perceptions regarding their efficacy fostering and assessing students' dispositions in face-to-face courses to their efficacy fostering and assessing dispositions in asynchronous online courses (survey items 20 & 21). The first t-test compared the efficacy of fostering dispositions face-to-face and in asynchronous online courses. A significant difference was found, $t(21) = 3.81$, $p < .01$. Faculty perceive that they are more effective at fostering dispositions in face-to-face courses ($M = 3.18$, $SD = .66$) than in asynchronous online courses ($M = 2.50$, $SD = .96$). The second t-test compared the efficacy of assessing dispositions face-

to-face and in asynchronous online courses. A significant difference was found, $t(18) =$ 2.111, $p < .05$. Respondents perceive that they are more effective at assessing students' dispositions in face-to face courses ($M = 3.11$, $SD = .57$) than they are at assessing dispositions of students enrolled in asynchronous online courses ($M = 2.74$, $SD = .93$).

> *Hypothesis 1B: Faculty perceive that assessing dispositions in students enrolled in asynchronous online courses is more difficult than assessing dispositions of students enrolled in face-to-face courses.*

Hypothesis 1B was tested using a t-test for dependent means (survey items 22 &23). A significant difference was found between the two groups $t(30) = -4.00$, $p < .001$. Participants perceived greater difficulty in assessing dispositions in asynchronous courses ($M = 2.84$, $SD = 1.32$) compared to assessing dispositions in face-to-face courses ($M = 2.10$, $SD = 1.14$).

> *Hypothesis 1C: Faculty and administration give more importance to fostering and assessing specific dispositions in students enrolled in face-to-face courses than to fostering and assessing dispositions in students enrolled in asynchronous online courses.*

Hypotheses 1C was tested through conducting 10 t-tests for dependent means (survey item 26 & 27). Ten dispositions were compared and the only significant difference that was found was between fostering and assessing students' collaboration in face-to-face and asynchronous online courses, $t(55) = 2.24$, $p < .05$. Respondents perceive that they place greater emphasis on fostering and assessing collaboration in students enrolled in face-to-face courses ($M = 3.75$, SD 1.44) than in asynchronous online courses ($M = 3.04$, SD 1.79). No significant differences were found in the following dispositions: embrace diversity, belief

that all students can learn, being a lifelong learner, having an ethic of caring, optimism, a

belief that others are capable of solving problems, flexibility, being open to feedback, and

being able to understand the perspectives of others.

>*Hypothesis 1D: Faculty give greater consideration to theories of learning, cognitive*
>
>*development, and adult change when trying to foster and assess dispositions in*
>
>*students enrolled in face-to-face courses than when teaching students enrolled in*
>
>*asynchronous online courses.*

Towards examining whether respondents give greater consideration to theories of

learning, cognitive development, and adult change 3 t-tests for dependent means were done

to test survey items 28 & 29 and another 3 t-tests for dependent means were done for items

32 & 33. No significant differences were found in the level of consideration given to theories

of learning, cognitive development, and change when fostering dispositions in face-to-face

courses compared to in asynchronous online courses. On average, respondents consider

theories of learning, cognitive development, and change when fostering dispositions in both

face-to-face and asynchronous online courses. The range was 3.00-3.41 on a 1-5 scale (1=

Do Not Consider and 5 = Very Significant Consideration).

When comparing theories used to assess dispositions in face-to-face courses and

asynchronous online courses, only one category of theories was significant, cognitive

development, $t(27) = 2.27$, $p < .05$. Participants consider theories of cognitive development

more when assessing dispositions in face-to-face courses ($M = 3.00$, SD 1.59) than in

asynchronous online courses ($M = 2.79$, SD 1.47). The range of scores for assessing

dispositions 2.64-3.00, suggests that respondents give slightly less consideration to theory for

assessing dispositions than fostering dispositions.

Hypothesis 1E: Faculty give greater consideration to specific theories such as

cognitivism, experiential learning, behaviorism, constructivism, social

constructivism, humanism, and transformational learning, when fostering

dispositions in students enrolled in face-to-face courses than when fostering

dispositions in students enrolled in asynchronous online courses.

To examine whether faculty give greater importance to theories that are frequently

associated with adult learning, such as cognitivism, experiential learning, behaviorism,

constructivism, social constructivism, humanism, and transformational learning, 7 t-tests for

dependent means were done (survey items 30 & 31). A significant difference was found for

only two variables. The first significant difference was found in the use of cognitivism when

fostering dispositions face-to-face than in asynchronous online courses, $t(26) = 2.30$, $p < .05$.

Respondents use the theories of cognitivism more when fostering dispositions in students

enrolled in face-to-face courses ($M = 3.52$, $SD = .80$) than when fostering dispositions in

asynchronous online courses ($M = 3.22$, $SD = 1.22$). The second difference was found when

testing experiential education, $t(28) = 2.49$, $p < .05$. Respondents used experiential learning

more when teaching face-face-face ($M = 4.00$, $SD = 1.25$) than when teaching in

asynchronous online formats ($M = 3.62$, $SD = 1.42$).

RQ2: How does students' nonverbal communication and impromptu discussions and

teacher immediacy behaviors in face-to face courses correlate to the level of efficacy and

difficulty that faculty perceive is associated with fostering and assessing dispositions in

students enrolled in face-to-face courses?

Hypothesis 2A: Faculty reliance on non-verbal communication, impromptu discussions and teacher immediacy behaviors is positively correlated to faculty's perception of their efficacy in fostering and assessing dispositions in students who are enrolled in face-to-face courses.

The reliance on non-verbal communication, impromptu discussion, and teacher immediacy behaviors to foster and assess dispositions was tested using Pearson correlations (survey items 20, 21, 24, &25). No correlations were found.

Hypothesis 2b: Faculty reliance on non-verbal communication, impromptu discussions and teacher immediacy behaviors is negatively correlated to faculty's perceptions regarding the level of difficulty they perceive in fostering and assessing dispositions of students who are enrolled in face-to-face courses.

Hypothesis 2b was tested using Pearson correlations to examine whether a correlation exists between reliance on non-verbal communication, impromptu discussions, and teacher immediacy behaviors and the level of perceived difficulty associated with fostering and assessing dispositions (survey items 22, 23, 24, & 25). No correlations were found.

RQ 3. How does faculty educational experience influence how effective or difficult faculty find fostering and assessing dispositions in students enrolled in face-to-face and asynchronous online courses?

Hypothesis 3A: Faculty who completed at least one online course when they were students perceive they are more effective at and that it is less difficult to foster and assess dispositions in students enrolled in asynchronous online courses than faculty who did not complete any online courses when they were students.

Four one-way ANOVA were done to examine whether completion of at least one online course would be correlated to greater efficacy at fostering and assessing dispositions of students enrolled in asynchronous online courses (survey items 9, 20, 21, 22, & 23). Three variables were compared to the level of efficacy fostering dispositions and then the level of assessing dispositions. The three variables were also compared to the level of difficulty fostering and assessing dispositions. No significant difference was found when testing for the completion of at least one online course and entire program separately. The two variables were then combined to increase the *n* and test dichotomous variables; completing at least one online course and no online courses completed. No significant difference was found when testing the dichotomous variables for the level of efficacy and difficulty associated with fostering and assessing dispositions in asynchronous online courses.

> *Hypothesis 3 B: Faculty who took at least one course in online instructional design perceive they are more effective, and it is less difficult to foster and assess dispositions in students enrolled in asynchronous online courses than faculty who have not had any courses in online instructional design.*

Hypothesis 3B was tested using four t-tests for independent means (survey items 10, 20, 21, 22, & 23). No significant differences were found between those who had at least one course in online instructional design and those who didn't vis-a-vis the level efficacy and difficulty associated with fostering and assessing dispositions in asynchronous online courses.

> *Hypothesis 3C: Faculty who have had at least one course in their educational background on fostering and assessing dispositions or adult change perceive they are more effective and find it less difficult to foster and assess dispositions in*

asynchronous online students and in face-to-face students than faculty who have not

had at least one course in fostering and assessing dispositions.

Hypothesis 3C was tested using eight t-tests for independent means (survey items 10, 20, 21, 22, & 23). Significant differences were found for 4 out of 8 variables. Those who have a background in fostering and assessing dispositions or adult change perceive that they are more effective fostering dispositions face-to-face ($M = 3.38$, $SD = .59$) compared to those who did not have that educational background ($M = 2.85$, $SD = .82$), $t(46) = -2.50$, p .05. Those who have a background in fostering and assessing dispositions or adult change perceive that they are more effective assessing dispositions face-to-face ($M = 3.42$, $SD = .51$) compared to those who did not have that educational background ($M = 3.00$, $SD = .69$), $t(39)$ $= -2.20$, p .05. Those who have a background in fostering and assessing dispositions or adult change perceive that they are more effective fostering dispositions in asynchronous courses ($M = 3.06$, $SD = .90$) compared to those who did not have that educational background ($M = 2.33$, $SD = .90$), $t(30) = -2.28$, p .05. Those who have a background in fostering and assessing dispositions or adult change perceive that they are more effective at assessing dispositions in asynchronous courses ($M = 3.20$, $SD = .77$) compared to those who did not have that educational background ($M = 2.46$, $SD = .97$), $t(26) = -2.24$, p .05. No differences were found for the level of difficulty associated with fostering and assessing dispositions.

Hypothesis 3D: Faculty who have had at least one course in instructional design will

be more likely to consider theories of learning, cognitive development and adult

change to foster and assess dispositions in students enrolled in asynchronous online

courses than those that did not have a course in online instructional design.

Hypothesis 3D was tested using 6 t-tests (survey items 10, 29, and 33). Significant differences were found for respondents who had training in instructional design. Respondents who had at least one course in instructional design were more likely to consider learning theories and cognitive development when fostering dispositions than those who did not complete any courses in instructional design. No significant differences were found for those that considered adult change when fostering dispositions. Respondents who had at least one course in instructional design were more likely to consider cognitive development when assessing dispositions in asynchronous online courses than those who did not have a background in instructional design. No significant differences were found for those who consider learning theories and theories of adult change when assessing dispositions. See Table 10 for the results of the analysis.

Table 10

Use of Theories: Comparing Those Who have a Background in Instructional Design and Those Who Do Not

Theories	Foster			
	Background	No Background		
	M(SD)	M(SD)	t	P
Learning	4.00 (1.08)	3.14 (1.27)	-2.11	.042[*]
Cognitive Development	4.17 (1.11)	2.86 (1.52)	-2.60	.014[*]
Adult Change	3.85 (1/21)	3.04 (1.48)	-1.72	.093
	Assess			
	Background	No Background	t	P
	M(SD)	M(SD)		
Learning	3.43 (1.34)	2.50 (1.34)	-2.03	.050
Cognitive Development	3.57 (1.34)	2.41 (1.26)	-2.63	.013*
Adult Change	3.21 (1.31)	2.65 (1.64)	-1.09	.285

*p < .05.

> *Hypothesis 3E: Faculty who have at least one course in fostering and assessing*
>
> *dispositions or adult change in their background will give greater consideration to*
>
> *specific learning theories such as, cognitivism, constructivism, social constructivism,*
>
> *experiential learning, humanism, behaviorism, and transformational learning when*
>
> *fostering dispositions in students enrolled in either face-to-face or asynchronous*
>
> *online courses than those who do not have that background.*

Hypothesis 3E (survey items 30 & 31) was tested using 14 t-tests for independent

means. Significant differences were found for respondents who had training in fostering and

assessing dispositions or adult change. Respondents who had at least one course in fostering

and assessing dispositions or adult change were more likely to consider cognitivism,

behaviorism, constructivism, and transformational learning when fostering dispositions in

face-to-face courses than those who did not have that educational background. No significant

differences were found for social constructivism, humanism, and experiential learning when

fostering dispositions in face-to-face courses. Respondents who had at least one course in

fostering and assessing dispositions or adult change are more likely to consider theories of

constructivism when fostering dispositions in asynchronous online courses than those who

did not have that educational background. No significant differences were found for the other

theories. See Table 11 for the results of the analysis.

Table 11

Use of Specific Theories: Comparing Those Who have a Background in Fostering and Assessing Dispositions or Adult Change and Those Who Do Not

Theories	Face-to-face			
	Background	No Background		
	M(SD)	M(SD)	t	P
Cognitivism	3.71 (.72)	3.12 (.93)	-2.40	.021*
Behaviorism	3.36 (1.05)	2.46 (1.23)	-2.73	.009**
Constructivism	4.63 (.50)	3.68 (1.49)	-2.41	.022*
Social Constructivism	4.06 (.80)	3.40 (1.35)	-1.79	.082†
Humanism	3.45 (1.53)	2.58 (1.53)	-1.98	.054†
Transformational Learning	3.86 (1.21)	2.41 (1.50)	-3.68	.001**
Experiential Learning	4.27 (1.08)	3.89 (1.13)	-1.20	.235
	Asynchronous			
	Background	No Background	t	P
	M(SD)	M(SD)		
Cognitivism	3.50 (1.15)	2.74 (1.19)	-1.98	.056†
Behaviorism	3.29 (1.16)	2.58 (1.22)	.-1.80	.081†
Constructivism	4.11 (.90)	3.30 (1.45)	-2.04	.049*
Social Constructivism	4.06 (.80)	3.40 (1.35)	-1.79	.082†
Humanism	3.50 (1.50)	2.55 (1.47)	-1.97	.057†
Transformational Learning	3.72 (1.27)	2.95 (1.61	-1.63	.112
Experiential Learning	4.06 (1.16)	3.75 (1.52)	-.69	.494

† $p < .10$. *$p < .05$. **$p < .01$.

RQ 4. How does the level of importance given to fostering and assessing students'

dispositions relate to faculty's perceived efficacy at and difficulty with fostering and

assessing dispositions in students enrolled in face-to-face and asynchronous online courses?

Hyp 4A: The level of importance that faculty give to fostering and assessing

dispositions is positively correlated with their efficacy to foster and assess

dispositions.

Hypothesis 4A was tested using Pearson correlations (survey items 13, 20 & 21). The

level of importance to fostering dispositions was moderately, positively correlated with the

efficacy of fostering dispositions face-to-face and not with fostering dispositions

asynchronously. The level of importance given to assessing dispositions was not correlated

with the efficacy of assessing dispositions face-to-face or asynchronously. See Table 12.

Table 12
Correlations of Importance Given to Fostering and Assessing Dispositions with Efficacy in
Fostering and Assessing Dispositions Face-to-Face and Asynchronously

	1	2	3	4	5
1. Importance Fostering	-				
2. Importance Assessing	.74***	-			
3.Effective fostering Face-to-face	**.31***	.31*	-		
4.Effective Fostering Asynchronous	**.11**	.12	.52*	-	
5. Effective Assessing Face-to-face	.19	**.19**	.76***	.47*	-
6. Effective Assessing Asynchronous	.03	**.03**	.67**	.85***	.58**

Note: Bold = Hypotheses 4A; * *p* < .05. **p* < .01, *** *p* <.001

Hypothesis 4B: The level of importance that faculty give to fostering and assessing dispositions is positively correlated with the difficulty in fostering and assessing dispositions.

Hypothesis 4B was tested using Pearson correlations (survey items 13, 22 & 23). Partial support was found. The importance placed on fostering dispositions was significantly, positively correlated with the difficulty fostering dispositions asynchronously. Importance placed on assessing dispositions was significantly, positively correlated with the difficulty assessing dispositions asynchronously (see Table 13). The correlations were not significant when teaching face-to-face courses. See Table 13.

Table 13

Correlations of Importance Given to Fostering and Assessing Dispositions with Difficulty in Fostering and Assessing Dispositions Face-to-Face and Asynchronously

	1	2	3	4	5
1. Importance Fostering	-				
2. Importance Assessing	.74***	-			
3. Difficulty fostering Face-to-face	**.14**	.10	-		
4. Difficulty Fostering Asynchronous	**.43****	.26	.69***	-	
5. Difficulty Assessing Face-to-face	.25	**.19**	.58***	.55**	-
6. Difficulty Assessing Asynchronous	.49**	**.33***	.28	.78***	.28

Note: Bold = Hypotheses 4B; * *p* < .05. ***p* < .01, *** *p* <.001

Qualitative Analysis

This section will discuss the research questions using a qualitative paradigm. A qualitative approach provided an opportunity to collect and analyze data about the same phenomenon using a different lens. The qualitative data complemented the quantitative data

and contributed to findings through showing consistency and inconsistency with the quantitative results and thereby, strengthening or decreasing the significance of findings. Furthermore, the qualitative data provided a more nuanced understanding of the research phenomenon through integrating the findings of both data sources.

The quantitative questionnaire asked respondents to provide their contact information if they were interested in participating in qualitative interviews. Ten respondents consented to participate in interviews. Due to the interview time frame overlapping with the height of the COVID-19 pandemic in several states, and a sensitivity to the possibility that the survey participants or a loved one could have the virus or be overwhelmed by a myriad of factors, only one email was sent to each volunteer to schedule an interview. Six out of the ten initial volunteers participated in separate interviews. The sample included two people who serve(d) as deans and currently hold professorships, one of which also served as provost and vice president of academic affairs. The other four participants included one associate dean and assistant professor, one program director and assistant professor, and two district instructional supervisors who have steady adjunct positions. Two participants were employed by universities ranked amongst the top ten schools of education in the United States (based on the US News and World Report 2019 rankings) and four participants teach in R1 Carnegie classified institutions. Participants included 3 men and 3 women, all with extensive experience in the field of education and educator preparation. To protect anonymity, one initial or other letter was used to represent each participant's name in the results and discussion.

Towards establishing a common vocabulary at the outset, interview participants were asked how they and their colleagues refer to the collection of attitudes, values, and beliefs

that inform verbal and nonverbal actions, behaviors, and discourse. All of the participants used the term 'dispositions' to refer to this construct and had similar understandings of the term. Furthermore, all interview participants stated that the term 'dispositions' was likewise used by their colleagues and in their programs. Dispositions were considered a central feature in their educator preparation programs and may have been the most compelling reason that would lead to counseling a student out of the program. One participant, Dr. A., who had extensive experience supervising public school teachers, commented about the reasons that a student may not be suitable for the field of education. She stated that,

Sometimes it was knowledge. Typically, it was dispositions. Now, it was the lack of people skills, the lack of self-awareness and awareness of what others are doing around them, you know, the inability to control any kind of a classroom setting. You know, just one of those who - there are some individuals who are just not made for teaching. I mean, I'm not made to sit in front of a computer all day. You know, some people just aren't cut out for it. And unfortunately, there have been, you know, many universities - they somehow don't catch it - but it's the, I think it's the soft skills, the people skills. The, like you said, the dispositions that are lacking in those individuals.

Dr. A. continued to comment on the importance of dispositions and the responsibility of universities to serve as gatekeepers for the profession. She shared her disappointment that higher education has not been taking this responsibility as seriously as it should through reflecting on her experience supervising classroom teachers,

I can't tell you how many times in my career where I've had a student teacher in a building, with some situation where we get this kid, and all of a sudden, this child should not be in front of students, you know. And you know you've got this 22-year-old who's been through four years of schooling and now is a disaster. And we're the ones counseling out. And I can't tell you how many times we've been sort of angry at higher ed for not doing their job and saying, look at this individual - this is not good. And so, I absolutely think this is hugely, hugely important.

When asked to elaborate more on what type of gatekeeping responsibilities Dr. A. believed were the purview of higher education institutions, she continued the dialogue and stated,

Well, I think they owe it to the profession to be a gatekeeper. You know, this has happened. I mean, it's happened more times than I would like to say, where we've had poor student teachers who just don't have it and what it takes to be an effective classroom teacher. And why they got it - they made it through a program - we don't know. I mean, I had one through [named a university] in my district who shouldn't have been . . . This is not just, you know, every school, but they haven't always been very good at that, the universities.

A second interviewee, Dr. C. who is an associate dean and assistant professor described her sense of responsibility as a gatekeeper and that dispositions were a significant reason to counsel a student out of the program if a student doesn't recognize on their own

that they might be better suited to a different field. She shared that the university is

committed to foster and assess dispositions and has a guiding rubric. Furthermore, the

department has a protocol to address situations in which they are concerned about students'

dispositions. The protocol includes engaging in discussions with students about their

dispositions to foster self-awareness, developing strategies for improvement, monitoring for

change, subsequent meeting(s), and reassessments. In the case that a student is lacking

certain dispositions and the feedback and reflective practice activities have not had an impact

they have counseled students out of the program. Dr C. explained,

> *I have counseled people out. But it's not in a way that I'm saying I'm kicking you out.*
> *I'm saying, are you sure this is a fit for you? Because you're going to be working with*
> *a diverse population of students and parents. And are you sure this is a fit because*
> *you're having difficulty with interpersonal skills, interacting with your peers in the*
> *classroom, and some of the teachers in your building? [It's] More about helping*
> *them reflect on whether or not teaching is a profession that's a good fit.*
> *And usually they can pull themselves out [of the program] because they realize - I*
> *don't think I really want to do this. This is not a fit for me. And that doesn't happen a*
> *lot, but when it does, they usually decide that it's not a fit for them. The only times I*
> *would say that there's program dismissal is when it's something sort of more*
> *egregious and we've gone through all the steps with the meeting because we have a*
> *protocol, and because we tried to retain our candidates. We try to support them.*

This protocol is an added intervention for students whose dispositions may benefit

from more direct intervention than the typical learning activities. It further reflects the

importance that the department places on dispositions. The protocol that Dr. C. described is used any time more extensive feedback is needed. Dr. C. explained the protocol in more detail and stated,

> *There's always a conference and action plan and then they agree to this action plan. And then if they don't meet the goals of the action plan, we come back and we revisit it. And then if they don't meet it again, it gets to the point where they don't pass the course because they haven't met the requirements of the course that were connected to the plan. And so then, you know, if they don't pass the course, they won't pass other times, you're eventually not going to pass, you're going to be dismissed from the program. [That] Has happened over the years. I coordinated the undergraduate program in elementary ed [education] for 13 years. And so, we've had cases where we had some program dismissals, but not a lot. And we've had those cases that students realized it was not a good fit for them, so they changed their majors. We do our best to retain them and teach them the attitudes, dispositions, and beliefs associated with behaviors that we hope to see, that would make someone an effective teacher to work with a diverse population of diverse learners.*

Other respondents had a similar approach when they need to address a student whose dispositions are not congruent to the habits of effective teachers. They too will try to foster increased self-awareness and ask the student if they're sure that they are really interested in teaching, and whether they believe teaching is the right field for them. Both Dr. A and Dr. C's comments addressed two considerations; the responsibility of higher education faculty to

serve as gatekeepers for the profession and the importance of dispositions towards effective teaching.

When interviewing Dr. D., a program director, he mirrored the sentiments shared by others about the responsibility of universities to serve as gatekeepers, the importance of dispositions, and intentionality in fostering and assessing dispositions. He delineated his approach and shared that

I'm the one that ends up usually being the heavy in these because I'm the one that looks [the student] in the eye and says, hey, we're not going to license you. And it's usually like one or two people a year in our program, probably one or two people a year. I think in seven years, we've had one year where we didn't have anybody that I didn't have to have a conversation with. And you know, I think, we do look at some evidence. So, we do collect some evidence. We do something called a candidate evaluation form. So, the candidate evaluation is just a survey that we do have their mentor cooperating teacher, their supervisor [who] comes out from the university, and their instructor who they work with here on campus [complete]. And we asked questions in there that are definitely disposition questions, and we sort of rate them on a five-point scale . . . [If] We do have someone who's obviously scoring ones and twos, on that, then we've got some evidence there that several people [have similar impressions]. We triangulate that, and if I have three people who are all experts in the field saying this person is not connecting with kids or doesn't feel a connection with kids, that's evidence for me. Observations are also a very important piece of what we do. So the cooperating teacher, the supervisor, and certainly the instructor

all do observations. We do informal observations when they're in the office and they're talking with us and those kinds of things. So that can become evidence. Sometimes we get evidence that the candidate brings forth, it might be a lesson plan. It might be the grading that they're doing [and] feedback to students. It could be emails. I've got one candidate right now where dispositions - if I had to give him a license right now, I probably wouldn't because I don't think he's going to be the kind of person I'd want my kids to have.

Similarly, Dr. P., a district supervisor and steady adjunct professor, conveyed her sense of gatekeeping responsibilities as a responsibility to protect children. She explained the need to provide immediate feedback when dispositions are concerning and said,

I don't wait. I address it. You have to address it . . . Well, first of all you're doing the children harm if you let somebody go through a program and not be prepared. You know, that's the ultimate, and in terms of my own integrity . . . you know when there are some red flags or if you're [the student is] not meeting standard.

Dr. D. shared that he uses a 'three strikes and you're out' approach and warns students about the possibility of expulsion if they do not progress in the areas of concern. In some cases, faculty may not have enough evidence of dispositions until it is late in students' tenure in the program. In those situations, Dr. D. might grant a diploma for the coursework, but will not endorse a candidate for a teaching license. Dr. D. reiterated that when they can make solid conclusions about students' dispositions earlier in their education path, they will

ask candidates if they are sure that they want to "endure the pain" they have had thus far in this field. Generally, students will recognize that they are not suitable for the field and pursue a different path.

Dr. D. explained that although he prefers a strong evidence-based approach to evaluating dispositions and a student's suitability to the field, he often has pressure from faculty to terminate a student's enrollment, even before student teaching begins, due to concerns about dispositions. This reflects a collective sense of responsibility in his department to serve as gatekeepers for the field. Dr. D. conveyed that

One of the battles I often have here is, I have some people who would like to not allow someone to student-teach because they don't have the dispositions, and I said, we haven't seen them with kids. Yeah. And I've seen enough candidates who, I think, oh my God, they're going to get eaten alive and they go out and they're amazing with 14-year-olds or they're amazing with 8-year-olds. And so, I've said, we got to put them in the water. And so, let's put them in the water. So, that's where I get in this whole thought police thing. It's that I can't predict how someone is going to be in the classroom until I see them in the classroom. If we have them do student teaching and we have a lot of evidence I just described from student teaching and observations, you know, then, then I start to think, well, maybe they're not, they're not going to be ready, or we don't want to license them because we don't want to do that.

All of the other interviewees also mentioned that they or their departments were very intentional about fostering and assessing dispositions in their face-to-face courses. The range of techniques included complete courses geared towards fostering and assessing dispositions,

to content that includes significant reflective practice, using cartoons and roundtable discussions, end of year assessments, student self-assessments, monthly or twice monthly coaching during a course on reflective practice, submission of reflective journals or notes and follow up meetings, inventories of dispositions that are mapped to accreditation standards and course content, the use of rubrics to evaluate dispositions, and especially nonverbal communication and impromptu discussions.

Dr. D. specified however, that if they continue to teach fully online or even introduce a new program that combines asynchronous learning with occasional in-person class, he will revamp his approach to fostering and assessing dispositions to be consistent with effective online instructional design. He looks for the same types of dispositions in both online and face-to-face students. Dr. D. also questioned the best possible approach to and differences between fostering and assessing dispositions in face-to-face and asynchronous courses. He mentioned that the university has a department currently studying this phenomenon so that they can inform the school of education about best online practices to achieve this goal.

When participants were asked about their perceptions regarding the difficulty of fostering and assessing dispositions and their efficacy at doing so, responses were mixed. Two of the most senior and experienced interviewees, Dr. S. a dean and full professor, and Dr. R., past provost and currently full professor, did not find it difficult to foster and assess dispositions during face-to-face courses and they believed they were highly effective at doing so. Dr. R. also perceived that he was highly effective at fostering and assessing dispositions when teaching asynchronous courses. Dr. S. believes that completely asynchronous courses would impede faculty's ability to foster and assess dispositions to a great extent, and therefore his department is moving away from asynchronous courses, nonetheless, he

perceived specific strategies as effective towards assessing dispositions when teaching asynchronously.

The other four participants spoke about some difficulty fostering and assessing dispositions, but they also believed that they were effective at fostering and assessing dispositions in face-to-face courses. Their experiences online were more nuanced. Dr. D. shared his concerns about fostering and assessing dispositions in asynchronous courses, which he considered more complex than teaching knowledge or skills, and shared,

So, one of the big problems with dispositions, is that we try to measure what's in someone's heart or what's inside someone's brain and you can't do that. You have to measure behaviors. And so then the next step is to say, well, how did these dispositions show up as behaviors and what can we actually see and measure in some way. Otherwise, we're just talking about people's opinions, we're talking about perceptions or their opinions, and we're not talking about actual behaviors. You know, we got some dispositions that we believe in. But then what does that actually look like? How would that show up in real life? And that's what we want to be able to measure. So that's where I think we've been really cautious. We've been very conservative.

Dr. D. continued to describe his hesitations about assessing dispositions and that although he believes dispositions are extremely important, he is very cautious with his approach because he doesn't want the department to be the "thought police." Dr. D. described his concerns and shared,

I get very nervous that I'm going to measure how someone feels. I have a real hard time with that. I mean, we're interested in just getting opinions, but if you're going to start deciding whether someone is going to go on and do student teaching or whether someone's going to get a license, you better have something more than 'I think that's how they are.' It's got to be more concrete than that, and we just haven't been able to put that together yet.

Although Dr. D. commented that certain observable behaviors or students' contributions to discourse are indicative of effective or ineffective teaching practice, he questioned whether dispositions can be taught or are intrinsic traits. He asked whether someone "can unlearn" a disposition and believes that fostering and assessing dispositions in both synchronous and asynchronous courses is more difficult than in face-to-face instruction, in part due to the lack of or limit of informal dialogue. In his opinion, the informal discussions with students in face-to-face courses can contribute to important relationship building, a teacher immediacy behavior. He also described the use of teacher proximity, such as bending down near a student, verbal and nonverbal communication, and formal and informal discussion, about coursework or other topics, as integral components to his teaching. Additionally, he shared that "off-hand" questions or comments, even small ones, can lead to important discussions and that asynchronous online learning would prevent the impromptu discussions that can lead to relationship building or human development. He stated that being connected or together were essential to his ability to be an effective educator. Dr. D. conveyed his belief that those elements of teaching cannot be replicated in online courses. Additionally, he mentioned that,

One of the hardest things about teaching, I think, is how we respond to each other's verbal and nonverbal communication, and again, in good ways and bad ways, and I have not yet seen a way to replicate that or practice it unless you're with other human beings, certainly with kids . . . maybe less so with adults. For example, when we do student teaching here [in the university] and we act like 14-year-olds, it's just not the same . . . I don't think you could assess the same dispositions. I think there are some dispositions that you could, just, you would not be able to assess in the same way. That's why we're hurting so badly right now that we can't do student teaching [due to the pandemic related school closures] . . . My big worry is that legislation will do away with student teaching. And the reason why we have to have it is what we're talking about right now. There has to be a moment where we engage a teacher candidate in a classroom surrounded by twenty-five students and [see] what happens there. It's interpersonal relationships and intrapersonal relationships. It's interpersonal in how I [the student] react to other people and intrapersonal in how I [the student] make decisions at the moment . . . I tell students that one day they will have a student that nobody likes or [if he were a student, he] would be frightened of, and the teacher needs to be the best teacher the child ever had. That's a powerful SEL moment when we will know if a teacher has what it takes to be that kind of teacher. I don't think it can be done [asynchronously] because there's just some physical things that happen. There's tone of voice, there's nonverbals there's verbals there's all kinds of things that don't happen if you were synchronous or asynchronous. I just don't think you can replicate it, at least, it wouldn't be the same.

In a similar vein, Dr. P. mentioned that "education is relational in many aspects. It is a people kind of thing." She shared a concern that teaching online, which is void of voice and visual engagement with students, may prevent faculty from detecting dispositions. In her words,

> *Some people are really good at meeting deadlines, and they can do the work. There is another element there. It's the people skills . . . I don't know how you would do it [assess dispositions in asynchronous courses]. I don't know how you do it because you can pass the test. You can read a book. I've got, I've got somebody now in my cohort who's brilliant - brilliant in the work. And the work around skill sets and dispositions - I'm getting gray. {laughs} You cannot see in terms of the questioning, the interaction, the areas that you need to push to unearth, some thinking, and some doing, and seeing them in the work. {sighs} For me, it's not a flat no [fostering and assessing dispositions in an asynchronous course], but it's something I wouldn't want to do and [be able] to feel that this person is going to lead other people. Because you got an "A" on a paper, doesn't mean that you can lead a community. I've seen so many people fail who are brilliant students.*

> SB *So, does that mean for you to succeed at fostering and assessing dispositions, you need some face-to-face time?*

> Dr. P. *I have got to have some face-to-face time. I've got to have some viewing time of their practice. I'm asking folks to facilitate some capacity*

building in real time. I don't think you can do it blind. It's not a blind

profession. Maybe if it were business? I don't even know if it were a business.

I don't know. I don't know.

Dr. P. continued to explain that the difference between face-to-face and asynchronous instruction is not just the need to observe students' interactions. She believes that physical proximity to students is important.

Dr. P. *You know when you're in this kind of work and supporting students, as*

sometimes things can be emotional, or people just need you to hold their hands going

through some difficulty when engaging with others, or learning something new, or

you're breaking down work around mental models and biases and all the stuff that

comes up, and you're not physically there [in asynchronous courses]. The power of

presence is altered in this situation, so I could not reach out and just touch you on

your shoulder and say, hey, you know, [are you] okay . . . so, there are times when

the physical presence is needed.

Dr. C. also described the benefits of teacher proximity when fostering and assessing dispositions making face-to-face courses conducive to this aspect of teacher training. She explained,

I would say that connection is stronger [in face-to-face course] than just screen [in synchronous online courses] because when I'm walking around and there's proximity and people are interacting, you know, knowing students. Well, you know, students will sometimes signal me, you know, just by my proximity and indicate something's not right. And I can pick up on that a whole lot easier than if it was somebody in front of a screen and everybody can see everybody that way. So, um, yeah, I would say, face to face - it's easier for me to know my students and for them to really connect to me in ways that they would not be able to do just through online. {If they feel} unsafe, for example, in the classroom by the comments other students are making or you know it's maybe a sensitive topic - they can signal to me and I'll know okay - this is making you feel uncomfortable, right. And I can address it, either within the class setting or after the class setting, to kind of resolve it, because some topics are more sensitive than others depending on what we're talking about . . . And again, that's sort of fosters dispositions because students are making sense of things in different ways, based on what they're learning

Somewhat consistent with Dr. P and Dr. C.'s assertion about fostering and assessing dispositions of students enrolled in asynchronous courses, Dr. A. was at first more optimistic, but ambivalent, and stated,

I would have a very difficult time trying to assess that [dispositions], I think in an asynchronous situation. And yet, I'm sure, it could be done. I guess it could be done. I think it would be difficult though.

With continued probing about how to identify authentic versus parroted dispositions in students enrolled in asynchronous courses, Dr. A. stated,

> *There is no way [that dispositions could be fostered or assessed] if that course had been entirely asynchronous. No, no way. There is no way if that course had been entirely asynchronous.*

Dr. S., likewise, was apprehensive about fully asynchronous courses. His department had used asynchronous instruction in the past but would be eliminating courses that lack face-to-face time so that every student must have some face-to-face time with faculty. He described,

> *Where I have not been in the physical presence of someone, I found it hard [to foster and assess dispositions] and taking a long time to get to know them . . . I have found it generally helpful to have had some physical interaction with people. And that, I think, is hardest [in an] online asynchronous experience. So actually, we have now decided to move away from a fully online course in the future. And we're going to be working on hybrid experiences from now on, and that has persuaded me to, to make sure that everybody at some point has some physical presence with the faculty.*

Although Dr. S. was in the process of eliminating fully asynchronous courses, he also mentioned the benefits of using students' writings to assess dispositions. He posited that,

> *. . . the writing does allow for more candid and more open expressions of vulnerability and resilience. So, I find, personally, that the asynchronous online work*

can reveal a lot more about character traits and development of students into teachers than the on campus ones can too - these types of essays, or responses, if they're writing what they know they should be parroting or if they're writing their authentic and true opinions. Because they do so much writing, in an asynchronous [course]. Twelve, 12 -15-week course involves a lot of writing, you know, up to 50,000 words over the time of the semester. It is true to say that some of those people I've never met . . . Obviously, there are phone calls and zoom calls along the way. So I will kind of see them face to face, but I think it's the experience of the faculty member and the sense that these are graduate students or working for a graduate degree, so it gives me a feeling that they're being honest with me and I'm helping them in their growth and development, which is what what they want to do by being in the course. So I don't have any precedent [or] have any objective criteria for that . . . the extra time that's given in an asynchronous environment might actually help faculty to get a better understanding of students' dispositions and where students are at.

Dr. R., one of the participants with the most experience in higher education and amongst the oldest participants, was far more confident and optimistic about his abilities and the abilities of others to foster and assess dispositions when teaching asynchronous courses. Dr. R. discussed paying attention to cues that can identify dispositions in face-to-face courses, such as nonverbal communication or listening carefully and asking probing questions when people discuss what they are passionate about. Additionally, Dr. R. suggested that assignments which require copious reflective writing enable faculty to foster and assess

dispositions, even when teaching asynchronous courses. Dr. R. mentioned that faculty might even be more effective at assessing dispositions in students enrolled in asynchronous courses because there is only so long that someone can hide behind a screen and faculty learn to read between the lines without the distraction of how the person appears. Dr. R. also believed that he could foster dispositions effectively in asynchronous courses because he provides extensive feedback to students' written work. A key factor to faculty efficacy, Dr. R. explained, is training to identify dispositions and make inferences about perceptions of effective educators and leaders. He explained,

> *You can actually tell by what you read, if it's parroting, or if it's sincere. But there's no easy way to do that. You have to use yourself as an instrument to be able to make those kinds of assessments, those inferences, they're very, very high-level inferences . . . So I developed a couple of courses that are asynchronous courses that the ultimate goal is to see if we can help people develop their dispositions and improve their dispositions. And I do it with a variety of materials, but the course actually presents a whole variety of materials and then the person has to reflect on them, and then apply them to their own life and situation. And what I've discovered is that through using these various resources. I'm collecting some at least rudimentary evidence that dispositions are changing. They'll be [the learning activities] usually documentaries, Ted Talks, videos, YouTube's that try to appeal to young folks . . . And then the major part is to reflect and see how it applies to their lives. And it's a course that is very popular. So I have lots of students. And when you have a course with 20 writing assignments and one hundred fifty students, it makes for a very labor-intensive kind of*

course, but I read them all and I give them feedback. And I think it changes

dispositions, you change their attitudes, values and belief system . . .

When describing his system to foster and assess disposition through reflective writing, Dr. R. described a three-prong approach to foster change, engage students emotionally, provide an experience, and ask students to reflect on the experience. He suggested that

One is [students need] to do something. You have to give them an experience. And

then the second one is you have to provide them with an opportunity to reflect onto

[that experience]. Give them some experiences that have relatively high emotional

impact on them and then ask them to reflect [on] that . . . That's the only way I know

to do it. The same is true, actually, to any written scenarios and to their reflections . .

. I use four criteria and the dispositions research. If you use those [criteria] . . . and

you know it's a matter of training, you can actually tell by what you read . . . that[it]

is possible [to foster and assess dispositions asynchronously] but it has to be through

written materials. It has to be materials that authentically engage the person's

dispositions, that's the, that's the crux of it. If you can find something that they're

really passionate about. Their disposition will shine through and clear.

All of the participants believed that people could change, but one was concerned about the possibility and extent to which that was possible. Several interviewees specified that the degree of change required could be unrealistic or that enough warning signs were evident at the time of admissions to bar entry to the program. The overwhelming attitude of

interviewees was an obligation to help their students develop the necessary dispositions that would enable them to be effective teachers and leaders. Dr. D explained that in addition to supporting students to change, part of that process includes being transparent about the desired dispositions and dispositional goals. Dr. D's approach can be captured by the following,

> *And so I think he [the instructor] has to be clear about . . . what the dispositions [are] of a teacher that you're trying to develop or hire. You should be able to delineate those and explain what those are in the same way that we're trying to describe, you know, when we do evaluation of teachers. You know what's a proficient teacher - you know that question really gets at dispositions and skill, it gets at dispositions and skill, and knowledge. I think it's all three of those things. And so I think you have to define those things. I think you have to have a clear way that you're going to evaluate them that's fair and equitable. And then I think you have to be willing - and this is only because we're in education - I think you have to be willing to give people that feedback and give them a chance and give them support to change to meet those [dispositions] if that's what they want . . . I think we have to give people that chance and I, I usually live with the three strikes and you're out role. And again, I'm kind of infamous around here because I got people who are like after the second [chance] they're like we should just get rid of them. And I'm like, let's give them a third chance. And I make it very clear to the candidates. This is your third chance. If you do not {improve they will be dismissed or won't get a license], and so we're very clear. I think that's the other thing you have to be very clear and concrete.*

All of the participants used theories to foster and assess dispositions. Theories ranged from theories about eye movement, to perceptual psychology, experiential learning, transformational learning, humanism, mindfulness, constructivism, social constructivism, and others. For example, Dr. P discussed her use of constructivist and social constructivist theory and said,

> *I'm not the person who's taking all of my knowledge and giving it to you. You are really engaging in the learning process as you participate with others to to learn about something. So I might suggest or create certain situations like when I have them break off into small groups and ask them to figure out [how] to Tap into each other's thinking in order to solve a particular problem around the world . . . Learning is social. We used to think it wasn't, but it is.*

Similarly, Dr. A. used social constructivism to foster an inquisitive mind. She shared that

> *Of course, we looked at change theory and that kind of thing. But in terms of what I did. You know, I had them interact with one another in their assignments. So, you know, you would submit something and then you would comment on some others, you know, and that would foster some really good conversation when we met face to face, you know, online or face to face. So, I guess you know kind of fostering that inquisitive kind of mind was something that I really worked on.*

Dr. C. mentioned several theories that she uses to guide how she fosters and assesses dispositions and Dr. R. relied heavily on several theories as noted by the following comments:

> Dr. C *So I have beliefs about constructivist Learning - activism - and I believe that we learn interacting with others and in through experience so experiential Learning transformative learning - make sure we reflect on new experiences with prior knowledge and a lot of critical thinking, where there's a lot of problem posing and thinking about the dilemma or the problem. And then trying to really have a lot of activities where you're really [having] inquiry-based activities.*

> Dr. R. *I lean heavily and always have leaned heavily toward the humanistic theories and psychologies.*

All of the participants stated that they had educational experiences that informed their work in fostering and assessing dispositions. That included completing courses in human development, business, adult change, developmental psychology, and taking fully online courses as part of university professional development. Dr. C., who took several online courses as part of professional development, was able to articulate how she integrated certain learning activities into her own teaching because she saw how effective they were when she had to complete those types of tasks. Of particular note, she praised the use of videos because the student can pause the video, process the information, and revisit it at a later date. She suggested that this may allow for deeper or better learning than

> *trying to take a million notes while they're talking and missing half of it because*
>
> *you're still processing what was there before. I liked [it]. I often pause the video and*
>
> *go back and rethink it and then write it down and then play it again and rethink it.*

Additionally, Dr. C. said that she models her online courses after the structure of an online course that she thinks was particularly effective and understands the benefits and social learning provided by discussion boards because she saw the direct impact that they had on her learning.

One of the frequently recurring themes throughout the interviews was the use of reflective practice. Reflective prompts were used both to foster and assess dispositions. Students were prompted to build meaning from experiences, discussions, and other learning activities and use that information to foster and assess their dispositions. For example, Dr. C. shared a process of students completing self-assessments, faculty completing assessments of students, and then the students comparing the two results to help them reflect and become more self-aware. Additionally, Dr. S. requires students to interview a child in an area that corresponds to the class content and write a response to the interview and explain how they would handle that child's issue. Interview participants overwhelmingly discussed the use of copious writing to foster and assess dispositions. Dr. S., who shared his hesitancy about fully asynchronous online courses, stated,

> *Writing does allow for more candid and more open expressions of vulnerability and*
>
> *resilience. So, I find, personally, that the asynchronous online work can reveal a lot*

more about character traits and development of students into teachers than the on-

campus ones can.

When asked how they know whether students' writings are authentic reflections of who they are or whether students submit assignments that seem to parrot faculty, interviewees were rather confident that they can identify the difference, because in the words of Dr. C.

I get to know my students. And so, I mean, you can, just like in a relationship with anybody else, you can tell if it's authentic or not.

Dr. C. even suggested that she could be equally effective at assessing students' dispositions in face-to-face and asynchronous online courses

. . . because I'm going to still make an attempt to get to know my learner's. In the environment where there's not, we are not face-to-face . . . I'm going to make it work. I'm going to\get to know them. It's just going to be in a different way . . . It'll work.

Finally, Dr. R., a big supporter of using nonverbal communication and discussion skills to identify authentic dispositions, posited that with training, highly accurate inferences about dispositions could be drawn through analyzing students' writings. He suggested that when assessing dispositions of asynchronous online students,

I think you can be fairly accurate, if again, if you choose what you have students respond to. I think you can come to fairly accurate [assessment].

This section shared a summary of interviewees' key points about the similarities and differences between fostering and assessing dispositions of students enrolled in face-to-face courses and students enrolled in asynchronous online courses. Interviewees shared their perceptions about the difficulty they might have when fostering and assessing dispositions in each modality, their perceived efficacy at doing so, the importance that they and their departments attribute to dispositions, their gatekeeping responsibilities, use of teacher-student proximity (a teacher immediacy behavior), nonverbal communication, and impromptu discussions, and learning and assessment practices. Participants also explained what theories guide their practices of fostering and assessing dispositions and educational or professional experiences that informed their learning and assessment activities. Towards providing a greater understanding of the research phenomenon the quantitative and qualitative findings will be compared and integrated in the discussion.

CHAPTER SEVEN: DISCUSSION

This section will provide an overview of the study, discuss findings, and address Research Question #5, which asked how using mixed methods resulted in greater understanding of the research questions. Quantitative and qualitative findings will be integrated and interpreted, and implications, limitations, and future research will be discussed.

Discussion Overview

Higher education programs which serve the helping professions, and specifically, educator preparation programs, focus on three domains: teaching knowledge, skills, and dispositions. Those programs are required by accreditation standards to foster and assess the dispositions of their students and serve as gatekeepers for the profession to protect society and ensure that candidates are suitable to the field (Sykes, 2005). This gatekeeping may be especially important in faith-based educator preparation programs. The greater trust K-12 students may have in religious education teachers and leaders may make students and families more vulnerable to maltreatment or abuse, increasing the need for preparation programs to monitor participants' dispositions. Furthermore, the link between dispositions and educator efficacy (Taylor and Wasicsko, 2000) makes this an important aspect of educator preparation and development.

The fostering and assessing of dispositions when teaching face-to-face courses may include drawing inferences from students' nonverbal communication and students'

contributions to impromptu discussions as well as the use of teacher immediacy behaviors to create psychological closeness with students. While nonverbal communication, impromptu discussion, and teacher immediacy behaviors may be considered or utilized when fostering and assessing dispositions in face-to-face courses, their use is limited or absent when teaching asynchronously. The rapid increase of enrollment in asynchronous online courses in higher education, even prior to the COVID-19 pandemic (Ortagus, 2017), makes understanding how faculty foster and assess dispositions when teaching asynchronously an important goal. Few, if any studies, have been published thus far on fostering and assessing dispositions of students enrolled in asynchronous online higher education courses. The purpose of this mixed methods study was to explore the similarities and differences between fostering and assessing dispositions in face-to-face and asynchronous online courses in educator preparation programs. Towards that end, the following research questions guided the study:

> RQ 1. What are the similarities and differences in fostering and assessing dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses in educator preparation programs?

> RQ2: How do students nonverbal communication and impromptu discussions, and teacher immediacy behaviors in face-to face courses correlate to the level of efficacy and difficulty that faculty perceive is associated with fostering and assessing dispositions in students enrolled in face-to-face courses?

> RQ 3. How does faculty educational experience relate to how effective or difficult faculty perceive the fostering and assessing of dispositions in students enrolled in face-to-face and asynchronous online courses?

> RQ 4. How does the level of importance given to fostering and assessing students' dispositions relate to faculty's perceived efficacy at and difficulty with fostering and assessing dispositions in students enrolled in face-to-face and asynchronous online courses?

> RQ 5: How did a mixed methods study provide greater understanding of the research questions than either a quantitative or qualitative study could provide independently?

Findings and Interpretations

Study participants included a combination of fifty-nine deans, program directors, department chairs, full professors, associate professors, assistant professors, and adjuncts with 15 - 44 years teaching experience in higher education. Using the Carnegie Classification, the majority of respondents were associated with R1 institutions. Most of the institutions that were represented had at least a master's program with over 100 students, and the majority of respondents were affiliated with institutions that had doctoral programs. The number of small, medium, and large doctoral programs represented in this study was approximately the same in each size category.

The average age of survey respondents was 54 with the youngest 31 and oldest 74. This data led to an incidental and germane finding. That is, older respondents reported greater efficacy than younger faculty members when fostering and assessing dispositions during face-to-face and asynchronous courses and less difficulty assessing dispositions when teaching asynchronous online courses. Responses during qualitative interviews were consistent with this finding. Although only a small sample and all interviewees perceived that they were highly effective at fostering and assessing dispositions in face-to-face courses, younger interviewees were generally more skeptical about accurately assessing dispositions when teaching asynchronously than older interviewees. Conversely, the two oldest interviewees (who were also amongst the oldest set of all survey respondents) were the most confident in their ability to assess dispositions of students enrolled in asynchronous courses. This correlation was consistent with the literature on social-cognitive functioning and

understanding social inferences vis-à-vis age (see Hess et al., 2005). Hess et al. (2005) found

that due to the ongoing development of social-cognitive functioning throughout adulthood,

older adults had greater understanding of context than younger adults when drawing social

inferences. With extensive social experience, younger adults can also develop sophisticated

social-cognitive abilities, but social-cognitive complexity generally improves with increasing

age (Hess et al., 2005). The findings in this study may indicate that the correlation between

age and social-cognitive complexity described by Hess et al. (2005) also applies to

interactions that lack physical presence. That would explain why older study participants

appear more efficacious at fostering and assessing dispositions (which requires social-

cognitive skills) in asynchronous courses and find that task less difficult than younger study

participants.

Overall, survey respondents reported that they were more effective at fostering and

assessing dispositions when teaching face-to-face courses than asynchronous online courses.

Faculty also reported that they had more difficulty assessing dispositions when teaching

asynchronous online courses than when teaching face-to-face courses. Those results were

consistent with the hypotheses; faculty would report greater efficacy and less difficulty

fostering and assessing dispositions when teaching face-to-face courses than when teaching

asynchronous online courses. This supports a need to study how faculty can best foster and

assess dispositions when teaching asynchronous online courses.

The two interviewees that were the most confident in their abilities to accurately

assess dispositions asynchronously (were from the oldest set of survey and interview

participants) claimed that it would be nearly impossible for students to hide behind their

computer screens and portray inauthentic dispositions throughout the semester. They

believed that the extensive writing demands in their courses enabled them to identify their students' authentic dispositions. They used carefully crafted, thought provoking, or reflective writing prompts and suggested that universities provide faculty professional development opportunities so others in higher education could implement this approach. While the time intensive nature of providing feedback to copious writing assignments was acknowledged by these interviewees, they believed that evaluating students' dispositions based on their writings may result in a more accurate and more equitable assessment of dispositions than face-to-face interactions, which, ironically, can be subject to bias.

The perspective of these interviewees on assessing dispositions asynchronously provided one of the most prominent instances in which the selection of a mixed methods design was supported. In this study, a larger pool of respondents could be accessed to complete the quantitative survey than could be accessed for interviews. The quantitative data identified the level of difficulty and efficacy that a greater number of faculty perceive regarding fostering and assessing dispositions in face-to-face and asynchronous online courses. At the same time, the qualitative data, while a small set, provided information about how and why fostering and assessing dispositions in asynchronous online courses is similar or different than fostering and assessing dispositions when teaching face-to-face courses, which was not captured by the survey. The qualitative data also allowed for interviewees to contribute suggestions that could be implemented into practice.

The selection of mixed methods was further supported when one of the interviewees suggested that asynchronous online courses have a particular advantage over traditional courses. He posited that asynchronous courses enable students to feel safer and more comfortable sharing their authentic thoughts and selves than they would in-person. He

perceived that the writing in asynchronous online courses "allow[s] for more candid and more open expression." This is an important insight because students' sense of safety and trust can play a significant role in their learning and development. When a classroom environment is a safe space, it provides "protection from psychological or emotional harm" (Holly & Steiner, 2005, p. 50). A safe space would enable students to disclose information without risk of judgment, while encouraging them to reach beyond their comfort zone (ibid.). At the same time, "A classroom in which safe means no conflict, and that no one is ever feeling challenged or uncomfortable is likely to be a classroom in which little learning and growth are occurring" (Holly & Steiner, 2005, p. 52).

Creating a safe space combined with a healthy dose of discomfort may be especially important in schools of education (and other helping professions) and when using reflective practice exercises (see Casey et al., 2021) to support students' professional and dispositional development. Because the nature of preservice and in-service teacher development requires participants to be somewhat vulnerable, faculty need to consider how they will create a safe space for the type of self-reflection and exchange of ideas that will facilitate growth. Towards that end, Fassinger (1995) suggested using learning activities that would lead to "positive emotional climates" (p.93) and increased confidence. The foremost strategy for faculty to create a safe space may be obvious; to remain unbiased and nonjudgmental (Holley & Steiner; 2005). Holley and Steiner (2005) also encouraged faculty to share about themselves, to use appropriate cultural content, and for faculty to remain "laid-back, flexible, or calm" (p. 60).

Careful consideration of how to build a safe and growth-oriented climate in an asynchronous online environment may be a prerequisite for designing a successful online

course. During asynchronous online courses, students and faculty may be less impulsive when interacting on discussion boards and in assignments, which can result in increased classroom safety. Nonetheless, faculty should be prudent when crafting learning activities, responding to students, and moderating discussion boards to ensure that the disinhibition (of students and faculty), does not create a toxic environment. Cultivating relationships with students and between students may also contribute to the classroom as a safe space and lead to greater learning outcomes. As Bryk and Schneider (2002) found, the overall performance of schools is better when the social relationships within a school are trusting, including teacher-student and student-student relationships.

The impact of faculty-student relationships on learning outcomes was emphasized by all interviewees, including those who believed they were highly effective at assessing dispositions when teaching asynchronously. Interviewees advocated for meeting students at least once, even when teaching online courses, so that both students and faculty could develop better insights into each other. Such meetings allow for teacher immediacy behaviors and nonverbal communication, which can contribute to relationship building, an essential element of good teaching (Palmer, 2017), and fostering and assessing dispositions. As stated in the literature review, Mehrabian (1971) suggested that nonverbal communication may provide a more accurate reflection of a person's attitudes, values, and beliefs than what one articulates in words, making in-person meetings valuable towards fostering and assessing dispositions. While meeting students in-person was a preference for the oldest study participants, those interviewees believed that they could accurately assess dispositions if that was not possible. These findings may highlight the benefits of meeting students enrolled in asynchronous courses at least once in-person. If that isn't possible, the advantages and

limitations of meeting through video conferencing can be considered. Both strategies, providing an environment that fosters emotional and psychological safety and meeting students in-person, may be important strategies to consider when teaching asynchronously.

Recognizing that traditional and asynchronous online instruction are different, several survey items were intended to identify whether fostering and assessing dispositions were given equal prominence when teaching in both milieus. Participants were asked about the inclusion of faith based or general dispositions in their institution's mission statement and about the level of commitment that their institutions have towards fostering and assessing faith-based and general dispositions. These items were included in the survey to identify whether differences existed between fostering and assessing dispositions in faith-based and non-sectarian institutions due to the possibility that dispositions may be considered more critical when preparing teachers to serve in the field of religious education, as discussed in the literature review. Survey results, however, indicated that the number of participants who worked at faith-based institutions were too few to run meaningful analyses. Additionally, 23 respondents reported that their universities were at least somewhat committed to fostering and assessing faith-based dispositions even though only 10 respondents reported that they teach at faith-based institutions. Therefore, the remaining analyses focused only on non-sectarian, general educator dispositions and correlations controlling for faith based and non-sectarian schools were discontinued. The general findings, nonetheless, have broad implications and can inform faith-based schools because the desired dispositions are universal in nature. It should be noted that the overwhelming majority of respondents believe fostering and assessing dispositions are important. Interestingly, a slightly smaller percentage of respondents believed it was less important to assess dispositions than to foster them.

Interview participants attributed a high level of importance to fostering and assessing dispositions and the same level of importance to each activity. That was not surprising given that interviewees volunteered to participate in interviews about fostering and assessing dispositions.

Based on the high level of importance that each interviewee attributed to fostering and assessing dispositions, follow-up questions inquired about whether they believe higher education should serve as gatekeepers to the field, and if so, how they approached that responsibility. All of the interviewees strongly believed that educator preparation program faculty should serve as gatekeepers to the field, and when necessary, students should be counseled out or dismissed from a program due to their ineffective educator dispositions. When asked whether she believed that educator preparation programs should serve as gatekeepers to the field, one interviewee who serves both as an adjunct in an educator preparation program and as a district supervisor responded,

> Absolutely, absolutely. And I can't tell you how many times in my career where I've had a student teacher in a building or some situation where we get this kid, and all of a sudden, this child should not be in front of students. And you've got this 22-year-old who's been through four years of schooling and now is a disaster. And we're the ones counseling out. I can't tell you how many times we've been sort of angry at higher ed for not doing their job and saying, look, this individual. This is not good. And so, so I absolutely. I think this is hugely, hugely important . . . Well, I think they [schools of higher education] owe it to the profession to be a gatekeeper.

Interviewees described similar processes in their gatekeeping systems. They all believed in supporting students and helping them to develop. If growth was not advancing, they would ask students to self-assess whether this is the right field for them. Automatic dismissal was reserved for instances when something egregious occurred. The interviewees' approach reflected a belief that dispositions are mutable and can be developed (Nelsen, 2014), one of the approaches discussed in the literature review. At the same time, those interviewees who were involved in admissions explained that they would try to assess dispositions before accepting students to ensure that candidates possessed a certain level of educator dispositions (see Wasicsko, 2007) before offering admissions. Consistent with the literature review, interview participants expressed that the duration of a program is too brief to assist those who need extensive development.

An additional hypothesis regarding the relationship between the level of importance of fostering and assessing specific dispositions in face-to-face and asynchronous education was explored. The only difference between the ten dispositions that were listed in the survey was in the area of collaboration. Survey respondents conveyed they attribute more importance to fostering and assessing collaboration in face-to-face students than asynchronous online students. The diminished focus on fostering and assessing collaboration was particularly intriguing because one well-established approach to asynchronous online education is the Community of Inquiry (CoI) framework, in which collaboration plays an integral role (Garrison & Arbaugh, 2007; Garrison et al., 2000). The collaborative component of the CoI model lends itself to fostering collaborative dispositions and has been used in the helping professions (Kennedy, 2017). Per contra, qualitative interviewees seemed to

attribute equal importance to all of the dispositions listed when fostering and assessing dispositions in both face-to-face and asynchronous online programs. This shared belief may be due to the self-selected nature of using a nested sample from the survey to solicit interviewees.

Respondents were also asked about whether they consider theories of learning, cognitive development, and adult change (described in the theoretical framework of this study) when fostering and assessing dispositions in-person or asynchronously. This question was intended to identify whether faculty provide the same level of research-based andragogy to foster and assess dispositions in both learning modalities because a lack of theory driven teaching may result in different learning outcomes. No significant difference was found for the overall use of theories to foster dispositions in face-to-face or asynchronous online courses. On average, faculty consider theories of learning, cognitive development, and change to foster dispositions in both face-to-face and asynchronous online courses. When testing each theory separately, cognitive development was considered more when assessing dispositions in face-to-face courses than when teaching asynchronously. This was surprising given the compatibility of cognitive development theories to asynchronous online learning (Arghode et al., 2017), as described in the theoretical framework of this study. Perhaps this discrepancy is due to respondents thinking about online instructional design through a face-to-face teaching lens and a limited understanding of how cognitive development theories can guide online asynchronous instructional design. If that is the case, then this study further supports Kreber and Kanuka (2006) who suggest that developing higher order thinking in the online classroom may be more difficult because faculty tend to teach online using their face-to-face teaching methods and they may not know how to translate that to asynchronous

courses. The need for faculty to develop proficiency in online teaching methods was already articulated in the 1990s by Spitzer (1998) and Martin and Taylor (1997). The decreased emphasis on considering theories of cognitive development when assessing dispositions in asynchronous environments, may be an indication of a continued skills deficit and need for further professional development in online instructional design.

Another interesting finding was that the range of scores for assessing dispositions suggests that faculty give slightly less consideration to theories when assessing dispositions than fostering dispositions. This finding was perplexing because to understand whether dispositions were actually fostered, faculty need to use meaningful and congruent assessments to evaluate the targeted dispositions. Without a theoretical basis, assessments may be subjective or biased, resulting in less reliable evaluations. If assessment is omitted altogether, the importance of dispositions "are probably interpreted by teachers and their students as mere rhetoric, 'signifying nothing'" (Katz & Raths, 1986, p. 13). Interview participants were equally theory driven in their responses to questions about both face-to-face and asynchronous online instruction.

When asked about specific learning theories, such as cognitivism, experiential learning, behaviorism, constructivism, social constructivism, humanism, and transformational learning, survey respondents reported less use of two learning theories when fostering dispositions in asynchronous online instruction than in face-to-face courses. The first, cognitivism, was used less to foster dispositions when teaching asynchronously than when teaching face-to-face. This is somewhat similar to the finding that faculty use theories of cognitive development less when assessing dispositions in asynchronous online courses than in face-to-face courses. Consistent with what was already discussed, a decreased use of

cognitivism may contribute to the greater difficulty developing higher order thinking in asynchronous courses that was reported by Kreber and Kanuka (2006). A decreased use of cognitivism to foster dispositions when teaching asynchronously is remarkable because cognitivism was presented as a suitable theory to guide online instructional design as early as the 1990s (Ertmer & Newby, 1993), when online learning was still in its infancy. Referring to Winne (1985), Ertmer and Newby (1993) explain that cognitivism aims to change the learner and "learners' thoughts, beliefs, attitudes, and values are also considered to be influential in the learning process" (Cognitivism, Item 2). Being that attitudes, values and beliefs serve as the basis of dispositions, the consideration of attitudes, values, and beliefs in cognitivism, and that cognitivism is well-suited to asynchronous online instruction, cognitivism seems to be a logical theory to foster and assess dispositions when teaching asynchronously.

The second learning theory that faculty reported they used less frequently to foster and assess dispositions when teaching asynchronously than when teaching face-to-face courses was experiential learning. This was surprising given the compatibility of experiential learning with online learning. Kolb's (1984) theory of experiential learning outlined four steps in experiential learning: full participation in the experience, openly reflecting on the experience from different angles and perspectives, creating new insights and theories to solve problems, and testing the theories and using them to solve problems, all of which can be done in asynchronous online courses. In fact, interview participants described their use of experiential learning to foster and assess dispositions when teaching asynchronously. This process appears especially compatible to fostering and assessing dispositions when teaching asynchronously because students can engage in learning activities independently and reflect

on those experiences to build meaning either as groups (i.e., discussion boards) or through reflective assignments submitted to faculty for feedback.

In addition to understanding how theories informed fostering and assessing dispositions when teaching face-to-face or asynchronously, this research sought to understand the role of nonverbal communication (see Mehrabian, 1971), impromptu discussions (see Ritchart, 2002), and teacher immediacy behaviors (see Andersen, 1978) when fostering and assessing dispositions. Particular focus was placed on clarifying whether relying on the aforementioned trio was correlated to increased efficacy or decreased difficulty when fostering and assessing dispositions in face-to-face courses. This was important because if faculty rely on those forms of data when teaching face-to-face courses and that kind of data is limited or non-existent in asynchronous online courses, an obvious gap will need to be addressed in this domain.

All interviewees said that they rely on observing nonverbal communication, impromptu discussion, and using teacher immediacy behaviors to foster and assess dispositions. All but one participant reported that they would find fostering and assessing dispositions much more difficult without the benefits of nonverbal communication, impromptu discussions, and teacher immediacy behaviors. At the same time, survey data did not find any correlation between faculty reliance on nonverbal communication, impromptu discussions, and teacher immediacy behaviors and respondents' efficacy at or perceived difficulty with fostering or assessing dispositions. This was an interesting finding because those strategies may be considered important techniques in fostering and assessing dispositions of students in face-to-face courses and they are not as amenable to online learning. The quantitative data, however, was hovering near significance, which may have

been due to the small pool of survey respondents. A similar pattern was identified for several other hypotheses that were not significant. With as few as six additional respondents, several hypotheses would likely have significance, including the hypotheses regarding the reliance on nonverbal communication, impromptu discussions, and teacher immediacy behaviors to foster and assess dispositions. The unanimous and extensive reliance of interview participants on nonverbal communication, impromptu discussions and the use of teacher immediacy behaviors when fostering and assessing dispositions in face-to-face courses, may strengthen one of the most important questions regarding the similarities and difference between fostering and assessing dispositions when teaching face-to-face and asynchronously. Understanding how to foster and assess disposition in asynchronous online courses without relying on nonverbal communication, impromptu discussions, and the use of teacher immediacy behaviors for information may be more important than the survey results indicate.

Towards understanding what factors contribute to faculty's efficacy and ease with fostering and assessing dispositions when teaching asynchronously, and relating to the theoretical framework for this study, survey items asked about participants' experience completing (as students) at least one asynchronous online course, a course in online instructional design, and one course in either fostering and assessing dispositions or adult change. These items were included because a background in those areas may facilitate greater efficacy and less difficulty fostering and assessing dispositions when teaching asynchronously. Those items were also important towards understanding how educational experiences could influence how faculty foster and assess dispositions, whether they are effective, and the level of difficulty they attribute to the task. Quantitative results indicated that respondents who completed at least one course online did not perceive any greater

efficacy or ease with fostering and assessing dispositions when teaching asynchronously than respondents who did not complete any online courses as a student. Likewise, survey respondents' perceptions about their efficacy with and difficulty at fostering and assessing dispositions when teaching asynchronously was not impacted by completing at least one course in instructional design. What did make a difference was having an educational background that included coursework in either fostering and assessing dispositions or adult change. Respondents who had completed at least one course in either fostering and assessing dispositions or adult change found they were more effective at fostering and assessing dispositions in both face-to-face and asynchronous online courses than those who did not complete coursework in those areas. No significant difference was found between respondents regarding the level of difficulty involved with fostering and assessing dispositions in either face-to-face or asynchronous online courses. An obvious discrepancy in this study was the small number of survey respondents who had learned online instructional design and the greater number of participants who had experience teaching asynchronous online courses. This may be an important area for professional development of current and future faculty given the increased enrollment in online learning and overall lack of training to teach online.

While the survey items were designed to test correlations between educational background and the efficacy with and difficulty at fostering and assessing dispositions, the qualitative interviews allowed faculty to discuss how their educational background informed their teaching practices in both traditional and asynchronous courses. All of the interview participants had coursework in either adult change or fostering and assessing dispositions and found the content of those courses guided their practice in that domain. One interviewee

shared that she modeled her asynchronous courses after the teaching strategies that were used when she was a student in asynchronous courses.

The pool of interviewees was too small to draw substantial conclusions about how educational backgrounds can impact asynchronous teaching practices, nonetheless, it was obvious that education and training have an impact and inform practice. For example, one interviewee quoted his mentor to describe an approach to foster adult change. He conveyed that to help foster dispositions,

What you really need to do is put them [people] around people who have positive

dispositions, and it happens automatically. It's just, it's the same thing that

happens if we're around people who are negative, you know, our roots

decline and we become more negative.

Because affect can be contagious, as described by this interviewee, admissions committees may be inclined to accept applicants who already possess positive dispositions.

Additionally, the theoretical framework of the study led to a hypothesis about the perceptions of faculty who completed at least one course in online instructional design and the degree to which they consider theories about learning, cognitive development, and adult change when fostering and assessing dispositions in asynchronous online courses. This item was included because if they have a background in instructional design faculty may be more likely to consider theories of learning, cognitive development, and adult change to foster and assess dispositions in asynchronous online courses than those who did not take a course in online instructional design. A series of t-tests were conducted, and a significant difference was found. Respondents who took a course in online instructional design were more likely to consider cognitive development and learning theories when fostering dispositions of students

enrolled in asynchronous online courses than respondents who did not complete any coursework in online instructional design. No significant difference was found for considering adult change. Respondents who had at least one course in instructional design also give more consideration to cognitive development theories when assessing dispositions in asynchronous online courses than those who did not complete at least one course in online instructional design. Interview participants appeared to make equal use of learning theories and theories of change in their face-to-face and asynchronous online courses.

Also relating directly to the theoretical framework, respondents were asked about the extent to which they consider specific theories of learning when fostering and assessing dispositions in face-to-face or asynchronous online courses. A series of t-tests were used to understand the relationship between a background in fostering and assessing dispositions or adult change and the use of seven learning theories germane to online learning as described in the theoretical framework of the study: Cognitivism, Behaviorism. Constructivism, Social Constructivism, Humanism, Transformational Learning, and Experiential Learning. Respondents who had at least one course in fostering and assessing dispositions or adult change are more likely to consider Cognitivism, Behaviorism, Constructivism, and Transformational Learning when fostering dispositions in face-to-face courses than respondents who did not have that educational background. No significant difference was found for Social Constructivism, Humanism, and Experiential learning. Respondents who had a background in fostering and assessing dispositions or adult change were also more likely to consider theories of Constructivism, when fostering or assessing dispositions of students enrolled in asynchronous courses. No significant differences were found for the other theories. It should be noted, however, that Cognitivism, Behaviorism, and Social

Constructivism were all hovering close to significant. This hypothesis would likely have been significant with six additional respondents, as mentioned earlier in this discussion.

All of the qualitative interviewees had a background in fostering and assessing dispositions or adult change and all shared theories that they use to foster and assess dispositions face-to-face and in asynchronous online courses. Theories they described included all of the theories that were listed in the survey; however, Constructivism, Social Constructivism, Experiential Learning, and transformational learning were discussed most frequently. At least two participants provided extensive descriptions of how they use constructivist approaches in their face-to-face courses and would likewise use constructivist approaches when teaching asynchronously. This intentional use of theory likely reinforces the link between the level of importance attributed to dispositions, faculty educational experience, and the use of theories to facilitate development. Furthermore, interviewees shared extensive descriptions of the learning activities that they incorporate to foster and assess dispositions. Reflection activities were mentioned most frequently as part of facilitating increased self-awareness, an assessment technique embraced by several scholars and described in the literature review.

Two of the most important hypotheses in this study were: 1. a positive correlation would be found between the level of importance faculty attribute to fostering and assessing dispositions and the level of perceived efficacy in achieving that goal, and 2. A positive correlation would be found between the perceived level of importance given to fostering and assessing dispositions and the level of perceived difficulty that entails. The first hypothesis was based in part on Bandura's (1977a) triadic reciprocality, in which Bandura suggested that thoughts and feelings play a prominent role (together with the environment and behavior

itself) to influence behaviors and outcomes. Triadic reciprocality (ibid) shaped this hypothesis because if faculty believe a goal is important then they might give it more focus and attention and learn more about it, resulting in greater efficacy and better outcomes. The second hypothesis was contextualized by the Dunning-Kruger Effect (Dunning, 2011; Kruger & Dunning, 1999). The Dunning-Kruger Effect explains how those with less knowledge often overestimate their ability to perform a task due to their ignorance about the task or knowledge required. Similar to the Dunning-Kruger Effect, faculty who give less importance to fostering and assessing dispositions may dedicate less time and focus to learning how to foster and assess dispositions, and due to insufficient knowledge, they may perceive the task is easier than those who have a better understanding of the complexity and nuances in this domain.

Both hypotheses were partially correct. Using Pearson correlations, the level of importance attributed by respondents to fostering dispositions was moderately, positively correlated with the efficacy of fostering dispositions in face-to-face courses and not with fostering dispositions when teaching asynchronously. The level of importance attributed to fostering dispositions in asynchronous courses was moderately to strongly, positively correlated with the level of difficulty of fostering dispositions when teaching asynchronously. The level of importance given to assessing disposition was moderately, positively correlated with the difficulty associated with assessing dispositions in asynchronous online courses. No significant difference was found between perceived difficulty and fostering and assessing dispositions in face-to-face courses.

All of the interview participants attributed great significance to fostering and assessing dispositions in face-to-face and asynchronous online courses. They all believed

they were effective at fostering and assessing dispositions. Nonetheless, they all mentioned that it was difficult in both face-to-face and asynchronous courses.

Integration of Methods

This study used a mixed methods design with the aim of triangulating (Greene et al., 1989) and integrating (Fetters, 2020) quantitative and qualitative data. That approach is intended to provide greater reliability to the study through confirming consistency or acknowledging discordance between the datasets (Greene et al., 1989) and then merging the data to better understand the research phenomenon (Fetters, 2020). Consistent with yin yang philosophy, using a combination of quantitative and qualitative research approaches can result in a more complete understanding of the research phenomenon (Fetters & Molina-Azorin, 2019). Through comparing the quantitative and qualitative findings and then merging the results, a more complete and nuanced understanding of the research questions emerged. The mixing of methods produced a better understanding of the use of theories, such as reflective practice, learning activities, and training towards fostering and assessing dispositions in face-to-face and asynchronous online courses. It also provided insights into factors such as the gatekeeping responsibilities of higher education for the profession and drawing inferences from nonverbal communication, impromptu discussions, and the use of teacher immediacy behaviors to foster and assess dispositions. Due to the survey findings that faculty perceive fostering and assessing dispositions challenging and a small sample interview participants who explained approaches to develop proficiency in this area, further examination of this foci and increased professional development may be warranted.

Implications

Dispositions appear to be an important goal of educator preparation programs. One

strategy that was mentioned by almost all qualitative interviewees, even those who were

unsure about their abilities to foster and assess dispositions fully asynchronously, was

requiring students to submit assignments throughout the semester that would demand copious

writing. In the words of one interviewee, students "could not hide behind the screen" for the

long haul and their authentic dispositions would be evident given appropriate prompts. In

addition to writing activities such as reflective journaling about their professional practice

(mentioned in the literature as an effective technique in this domain; see Da Ros-Vosales &

Moss, 2007), submitting reactions to video clips, movies, or cartoons, for example, and using

prompts that would facilitate digging deep within themselves and meaning-making were

mentioned during interviews. One interviewee, who had extensive knowledge of and

experience in fostering and assessing dispositions was confident that with training,

dispositions can be fostered and assessed when teaching asynchronous courses.

Additionally, all of the qualitative interviewees explained theories that they use to

guide learning activities to foster and assess dispositions. Although the quantitative data

results indicate the use of constructivism, the data did not indicate a correlation between

several other theories that are used in online learning or fostering and assessing dispositions

when teaching asynchronously. Although several other theories were hovering around

significance, experiential or transformational learning were not. This was an interesting

discrepancy between the quantitative and qualitative findings because experiential learning

and transformational learning theories may be effective approaches to fostering and assessing

dispositions due to their meaning-making strategies. Additionally, experiential and

transformational learning may be particularly suited to online instructional design (Arghode,

Brieger, & McLean, 2017). This may indicate the need for faculty to further explore online

teaching and learning as a different paradigm than teaching face-to-face. Pelz (2010) for example, described how he re-thought his approach to online instruction and the role of the teacher and student, resulting in a model that was better suited to online learning. Palloff and Pratt (2001), likewise, present several instructional differences between teaching face-to-face and asynchronous courses, which reinforces the need for professional development in asynchronous online instruction.

Furthermore, the interviewee who was most confident about fostering and assessing dispositions asynchronously believed that faculty can be effective in this sphere if they have the right training. Although he might be an outlier, he also has extensive knowledge of this construct and may be considered an expert opinion, making his recommendation for training and professional development more significant. For educator professional development to be effective however, it must be given sufficient time (Garet et al., 2001). Garet et al. (2001) found that teacher professional development was more effective when more time was allocated to professional development activities and when a longer span of time was dedicated to the process. They found that "Professional development is likely to be of higher quality if it is both sustained over time and involves a substantial number of hours" (Garet, et al., 2001, p. 933).

Allocating sufficient time to professional development may be especially necessary when fostering and assessing dispositions. Attitude change and changing the behaviors that influence attitudes may require a significant investment of time and focus. In their study of a one-hour diversity training program, Chang et al. (2019) only found very modest results, with more significant gains in a population that had stronger biases than those whose biases may have been less firm. These weak results are not surprising given the literature on the need to

allocate significant time to professional development to impact change (Garet, et al., 2001).

Finally, the gatekeeping responsibilities of higher education faculty serving preparation programs in the helping fields include ensuring that students have appropriate dispositions in addition to knowledge and skills (Kerl et al., 2002). This may support a policy to admit only those candidates who already possess favorable dispositions, monitoring and evaluating students' dispositions, and trying to foster improved dispositions when possible, leaving program dismissal as a last, but necessary resort when all else fails (Freeman et al., 2019). Forrest et al. (1999) explained that "training students and making effective decisions regarding their competence is a critical obligation for a profession to fulfill its public commitments" (p. 628). This can prove complicated as programs in the helping fields often have components of classroom instruction and separate internships, clerkships, or student teaching in which students practice their skill sets while deepening their knowledge in authentic settings. Higher education instructors may identify students' dispositions during early classroom instruction and predict their suitability to the field. Sometimes however, deficiencies are first recognized during field placements, at which point it may become difficult to counsel a student out of the program due to several factors. Those factors include the financial and time investments that students already contributed to their program, a student's desire to enter a particular field, or the value placed on the degree. Additionally, when students are disqualified at a later stage of their program, the potential for litigation may increase (Wayne, 2004). The responsibility to serve as gatekeepers for society and simultaneously to provide timely and accurate feedback to students may increase the need to identify students' strengths and limitations before admissions or during the early classroom instruction phase, even though some dispositions may be difficult to detect before observing

students in the field.

The proximity of teacher and student during traditional classroom settings may provide opportunities to observe students' dispositions and verbal and nonverbal behaviors as they interact with their peers and respond to impromptu discussions. When classes are taught in asynchronous online formats, teacher proximity, nonverbal behaviors, and impromptu discussions are reduced or eliminated, thus decreasing the avenues through which teachers can assess students' actual versus parroted dispositions. If a valid and standardized assessment tool is not utilized, faculty may not be able to assess students' dispositions thoroughly and accurately until field placement, at which time, students may have a complaint about the untimely feedback (Raths & Lyman, 2003) and possibly pursue litigation. This further supports the need to identify effective strategies for fostering and assessing dispositions when teaching asynchronous online courses.

In summary, a closer examination of asynchronous online instructional design, learning theories, and theories of change combined with well-structured professional development (allocating a substantial number of hours to professional development over a significant span of time) may enable faculty to foster and assess dispositions more effectively and with greater ease when teaching asynchronously. This is important towards meeting program goals as well as towards fulfilling gatekeeping responsibilities.

Limitations

This study has several limitations. One, the sample size is small. Several results were hovering around significance and statistical analyses indicated that with possibly as few as six additional participants more results would be significant. Due to the COVID-19 pandemic and sudden shift to online learning throughout the United States, the survey was closed

earlier than planned. Data collection was stopped out of a concern for the studies validity. This concern arose because faculty, who did not have asynchronous online teaching experience prior to the pandemic, may report that they have online experience based on their pandemic era courses. An additional concern was whether respondents would be able to accurately convey their level of efficacy or difficulty fostering and assessing dispositions when teaching asynchronously online when many other factors may have been impacting faculty and students during the early days of the pandemic, e.g., health issues, poor internet connections, food insecurity, social isolation, and lack of personal space.

Another limitation may be in the survey design. The survey had been designed to direct respondents to different surveys according to their teaching experience (only face-to-face, face-to-face and asynchronous online, and only asynchronous online) but was not working properly when tested. Due to the dissertation timetable, survey questions were combined to allow for all participants to respond to the same survey. That however, made the survey longer and more cumbersome and may be responsible for at least 15 respondents failing to complete the survey and being removed from the pool of participants.

Furthermore, the "n" for this study was too small to test the hypotheses based on the type of program, and therefore results include faculty who taught in any type of educator preparation program, for example, teacher preparation, school leadership, teacher leadership, and curriculum design. Those who teach in leadership development programs may have students who already have been engaged in development of their dispositions during their teacher preparation programs. That prior work on dispositions may make it easier for faculty of leadership programs to foster and assess dispositions than faculty who serve in introductory programs, resulting in a perception of greater efficacy in fostering and assessing

dispositions from respondents who teach in advanced programs.

Finally, this research used a nested design in which respondents to the quantitative survey indicated that they would volunteer to be interviewed as part of the qualitative section of this study. This self-selected group may have had a particular interest in dispositions, a positive bias towards the importance of dispositions, and may pay particular attention to this construct. Using interview data from this group may limit the value of comparing their responses to the quantitative data. The qualitative interviews were able to enhance the research through providing information that could not be captured in the survey.

Future Research

One of the most interesting findings of this study may have been unintended. That is, older faculty members had greater efficacy fostering and assessing dispositions in both face-to-face and asynchronous modalities and had less difficulty assessing dispositions in asynchronous courses than younger faculty members. The reason(s) for this discrepancy cannot be identified through the data collected in this study and may be due to several factors. One possibility is that the older people in this study were able to tap into their greater (or longer) life experience and a better understanding of social contexts (due to increased social-cognitive development) when fostering and assessing dispositions of their students. Another possibility may be a link between respondents' age and smartphone and social media usage. Participants' age ranged between 31 and 74, with an average age of 54. Participants' higher education teaching work experience ranged between 1 year and 44 years, with an average of 15 years serving the field. Those whose age placed them at the older end of survey respondents as well as those whose higher education work experience may be closer to the maximum, may have had different influences on their child and adult

development than those who were younger. The social emotional and cognitive development of older participants may have been more informed by human interactions than digital natives. The absence of social media during child, adolescent, and early adult development may have helped older faculty hone certain social skills, emotional intelligence, and intuitions that they can tap into when fostering and assessing dispositions. The impact of social media and smartphone usage on the ability to understand verbal and nonverbal communication, and what Combs et al. (1969) refer to as using oneself as instrument as well as the impacts of social media and smartphone usage on developing social cognitive skills to draw inferences about students' dispositions, may benefit from further study.

Although the introduction to this study discussed fostering and assessing dispositions across the helping fields, this research study examined only educator preparation programs. Future research can address studying how faculty in other helping professions foster and assess dispositions in their students in face-to-face, synchronous, and asynchronous online courses. Fields to be studied include social work, psychology, policing, nursing, pastoral counseling, and medicine.

Furthermore, this study focused on educator preparation programs and had a relatively small "*n.*" Repeating a study with a more targeted survey and larger group of survey and interview respondents could be beneficial towards identifying best practices to foster and assess dispositions when teaching asynchronously as well as synchronously online. In a similar vein, faculty background and training may contribute to their ability to foster and assess dispositions. Further research about what training would enable faculty to foster and assess dispositions when teaching asynchronously and how best to provide that training may be warranted.

Additionally, this study was not focused on determining how specific dispositions could be fostered or assessed when students are taught asynchronously. Further study of effective methods of instruction for essential dispositions may be warranted. This may include using a more rigid theoretical framework, such as exploring the literature on attitude formation and assessment through the cognitive, affective, and behavior (CAB; Maio et al., 2019) model.

Finally, separate studies or controlling the data for initial educator preparation programs and advanced educator preparation programs will provide greater insight into similarities and differences between fostering and assessing dispositions when teaching face-to-face and asynchronously.

References

Albarracin, D., & Shavitt, S. (2018). Attitudes and Attitude Change. *Annual Review of Psychology*, *69*, 299.

Allen, J. G., Wasicsko, M. M., & Chirichello, M. (2014). The Missing Link: Teaching the Dispositions to Lead. *International journal of educational leadership preparation*, *9*(1), n1.

Allen, J. G., Wasicsko, M., & Wirtz, P. J. (2018). Using dispositions in the EdD admissions process: A perceptual approach. *Impacting Education, 3*(2) doi:10.5195/ie.2018.69

Altan, S., Lane, J. F., & Dottin, E. (2019). Using Habits of Mind, Intelligent Behaviors, and Educational Theories to Create a Conceptual Framework for Developing Effective Teaching Dispositions. *Journal of Teacher Education*, *70*(2), 169. https://doi.org/10.1177/0022487117736024

American Psychological Association. (2015). Standards of Accreditation for Health Service Psychology and Accreditation Operating Procedures https://www.apa.org/ed/accreditation/about/policies/standards-of-accreditation.pdf

Andersen, J.F. (1978). *The Relationship Between Teacher Immediacy And Teaching Effectiveness* (Order No. 7900859). Available from ProQuest Dissertations & Theses Global. (302887436).

Anthony, E. (2019). (Blended) Learning: How Traditional Best Teaching Practices Impact Blended Elementary Classrooms. *Journal of Online Learning Research*, *5*(1), 25–48.

Arbaugh, J. B. (2001). How instructor immediacy behaviors affect student satisfaction and learning in web-based courses. *Business Communication Quarterly, 64*(4), 42-54.

Arghode, V., Brieger, E. W., & McLean, G. N. (2017). Adult Learning Theories: Implications for Online Instruction. *European Journal of Training and Development*, *41*(7), 593–609.

Ariail, M. & Averitt Miller, S. (2017). Georgia Educators' Task Force Professional Behaviors and Dispositions Assessment (PBDA) – Spring   2017. https://www.gcsu.edu/sites/files/page-assets/node-1074/attachments/pbda_rubric_.pdf https://www.gcsu.edu/sites/files/page-assets/node-1074/attachments/pbda_guidelines_.pdf

Armor, D., Conroy-Oseguera, P., Cox, M., King, N., McDonnell, L., Pascal, A. Pauly, E., & Zellman, G. (1976). *Analysis of the school preferred reading programs in selected Los Angeles minority schools*. (Report No. R-2007-LAUSD). Santa Monica, CA:

Rand Corporation (ERIC Document Reproduction Service No. 130 243).

Arnett, J. J. (2004). *Emerging adulthood : The winding road from the late teens through the twenties*. New York: Oxford University Press.

Arnstine, D. (1967). Philosophy of education: Learning and schooling.

Arnstine, D. (1984). The Educational Foundations in the Preparation of Teachers. *Teacher Education Quarterly*, *11*(2), 22–28.

Association for Advancing Quality in Educator Preparation. (n.d.). *Recognition.* https://aaqep.org/recognition

Association for Advancing Quality in Educator Preparation. (n.d.). *Standard-1.* *https://aaqep.org/standard-1*

Association for Supervision and Curriculum Development, W. D. (1962). *Perceiving Behaving Becoming. A New Focus for Education*.

Ausubel, D. P. (1969). A cognitive theory of school learning. *Psychology in the Schools, 6*(4), 331-335. doi:10.1002/1520-6807(196910)6:4<331::AID-PITS2310060402>3.0.CO;2-W

Babad, E. (1985). Some Correlates of Teachers' Expectancy Bias. *American Educational Research Journal, 22*(2), 175-183. doi:10.2307/1162838

Babad, E. Y., & Inbar, J. (1981). Performance and personality correlates of teachers' susceptibility to biasing information. *Journal of Personality and Social Psychology*, *40*(3), 553–561.

Babad, E. Y., Inbar, J., & Rosenthal, R. (1982). Pygmalion, Galatea, and the Golem: Investigations of biased and unbiased teachers. *Journal of Educational Psychology*, *74*(4), 459–474. https://doi.org/10.1037/0022-0663.74.4.459

Babylonian Talmud, Eruvin, 54:b

Bandura, A. (1977a). *Social learning theory*. Prentice Hall.

Bandura, A. (1977b). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall, Inc.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* W H Freeman/Times Books/ Henry Holt & Co.

Bandura, A., & Walters, R. H. (1963). Social learning and personality development.

Bar-On, R. (1997). Emotional intelligence. *International Journal of Sociology and Social Policy*, *29*, 164-175.

Basseches, M. (1984). Dialectical thinking. *Norwood, NJ: Ablex*.

Batalova, J., Hanna, M., & Levesque, C. (2021, February 11). Frequently Requested Statistics on Immigrants and Immigration in the United States. Retrieved May 21, 2021 from https://www.migrationpolicy.org/article/frequently-requested-statistics-immigrants-and-immigration-united-states-2020

Bell, B. S., & Federman, J. E. (2013). E-learning in postsecondary education. The Future of Children, 23(1), 165-185. Retrieved 3/29/2019, from Cornell University, School of Industrial and Labor Relations site: http://digitalcommons.ilr.cornell.edu/articles/928

Bertolini, K. (2017). Utilizing the Act Method and Wdep Process to Help Teacher Candidates Improve Their Professional Dispositions for the Classroom. *International Journal of Choice Theory & Reality Therapy*, *37*(1), 40–45.

Berry, B., Bastian, K. C., Darling-Hammond, L., Kini, T., & Learning Policy Institute. (2021).
The Importance of Teaching and Learning Conditions: Influences on Teacher Retention and School Performance in North Carolina. Research Brief. In *Learning Policy Institute*. Learning Policy Institute.

Biesta, G. J., & Burbules, N. C. (2003). *Pragmatism and educational research*. Rowman & Littlefield.

Binghamton University, State University of New York. (2021, October 27). *Teaching, Learning,*
and Educational Leadership: Dispositions. *https://www.binghamton.edu/tlel/resources/professional-dispositions.html#:~:text=Professional%20dispositions%20include%20the%20values,the%20educator's%20own%20professional%20growth.*

Blondy, L. C. (2007). Evaluation and application of andragogical assumptions to the adult online learning environment. *Journal of Interactive Online Learning, 6*(2), 116.

Bowe, C. M., Lahey, L., Kegan, R., & Armstrong, E. (2003). Questioning the 'big assumptions'. part II: Recognizing organizational contradictions that impede institutional change. *Medical Education, 37*(8), 723-733.

Boyatzis, R. E. (1982). *The competent manager : a model for effective performance*. Wiley. https://doi.org/10.1177/135050768301400208

Boyatzis, R. E., Goleman, D., & Rhee, K. (2000). Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI). *Handbook of emotional intelligence*, *99*(6), 343-362.

Breckler, S. J., & Wiggins, E. C. (1991). Cognitive responses in persuasion: affective and evaluative determinants. *Journal of Experimental Social Psychology*, (2), 180

Breese, L., & Nawrocki-Chabin, R. (2007). The social cognitive perspective in dispositional development. *Dispositions in teacher education*, 31-52.

Brophy, J. E. (1983). Research on the self-fulfilling prophecy and teacher expectations. *Journal of educational psychology*, *75*(5), 631.

Bryk, A., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. Russell Sage Foundation.

Cacioppo, J. T., & Petty, R. E. (1979). Effects of message repetition and position on cognitive response, recall, and persuasion. *Journal of personality and Social Psychology*, *37*(1), 97.

Cacioppo, J. T., & Petty, R. E. (1985). Central and peripheral routes to persuasion: The role of message repetition. *Psychological processes and advertising effects*, *911*.

Caena, F. (2011). Literature review Teachers' core competences: requirements and development. *European Commission Thematic Working Group 'Professional Development of Teachers*.

Carnegie Corp. of New York, NY., Carnegie Corporation (New York, NY) Task Force on Teaching as a Profession, Carnegie Forum on Education, the Economy. Task Force on Teaching as a Profession & the Economy Staff. (1986). A Nation Prepared: Teachers for the 21st Century: the Report of the Task Force on Teaching as a Profession, Carnegie Forum on Education and the Economy, May 1986. The Forum.

The Carnegie Classification of Institutions of Higher Education (n.d.). *About Carnegie Classification*. Retrieved from http://carnegieclassifications.iu.edu/2010

The Carnegie Classification of Institutions of Higher Education (n. d.). *Definitions.* https://carnegieclassifications.iu.edu/classification_descriptions/basic.php

Caruso, D. R., & Rees, L. T. (2018). *A Leader's Guide to Solving Challenges with Emotional Intelligence*. EI Skills Group.

Casey, K., Schultz, T., & Toms, O. (2021). Can You Teach Intrinsic Values? Creating a

Rubric to Support and Assess Professional Dispositions Development. *International Journal of Special Education*, *36*(1), 13–26. https://doi-org.ezproxy.yu.edu/10.52291/ijse.2021.36.2

Chang, E. H., Milkman, K. L., Gromet, D. M., Rebele, R. W., Massey, C., Duckworth, A. L., & Grant, A. M. (2019). The mixed effects of online diversity training. *Proceedings of the National Academy of Sciences*, *116*(16), 7778-7783.

Clark, C. M., Peterson, P. L., & Michigan State Univ., E. L. I. for R. on T. (1984). *Teachers' Thought Processes. Occasional Paper No. 72*.

Cochran-Smith, M., & Zeichner, K. M. (Eds.). (2009). *Studying teacher education: The report of the AERA panel on research and teacher education*. Routledge.

Collinson, V., Killeavy, M., & Stephenson, H. J. (1998). Exemplary Teachers: Practicing an Ethic of Care in England, Ireland, and the United States

Combs, A. W. (1962). A Perceptual View of the Adequate Personality in Association for Supervision and Curriculum Development, W. D. (1962). *Perceiving Behaving Becoming. A New Focus for Education*.

Combs, A. W. (Ed.). (1962). *Perceiving, behaving, becoming: A new focus for education.* National Education Association.

Combs, A. W. (1969). Florida Studies in the Helping Professions. University of Florida Monographs Social Sciences--No. 37.

Combs, A. W. (1999). *Being and Becoming : A Field Approach to Psychology*. Springer Publishing Company.

Combs, A., Blume, R., Newman, A., & Wass, H. (1974). The professional education of teachers: A humanistic approach to teacher education. *Boston: Allyn*.

Combs, A. W., Soper, D. W., Gooding, C. T., Benton, J. A., Dickman, J. F., & Usher, R. H. (1969). Florida studies in the helping professions. Social Science Monograph #37. Gainsville, FL. University of Florida Press. Retrieved from http://fieldpsychtrust.org/newsite/wp-content/uploads/2013/09/Florida_Studies.pdf

Combs, A. W., & Snygg, D. (1959). Individual behavior: A perceptual approach to behavior. New York: Harper.

Conderman, G., & Walker, D. A. (2015). Assessing Dispositions in Teacher Preparation Programs: Are Candidates and Faculty Seeing the Same Thing? *Teacher Educator*, *50*(3), 215–231.

Costa, A. L., & Association for Supervision and Curriculum Development, A. V. (1991).

Developing Minds: A Resource Book for Teaching Thinking. Revised Edition, Volume 1.

Costa, A. L., & Kallick, B. (2000). Habits of mind. Alexandria, VA: Association for Supervision and Curriculum Development.

Costa, A.,& Kallick, B. (2014) Disposition: Reframing teaching and learning. Thousand Oaks, CA: Corwin

Costa, A. L., Kallick, B., & Association for Supervision and Curriculum Development. (2008). *Learning and Leading with Habits of Mind: 16 Essential Characteristics for Success*. Association for Supervision and Curriculum Development.

Council for the Accreditation of Educator Preparation. (2020). *History of CAEP.* http://caepnet.org/about/history

Council for the Accreditation of Educator Preparation. (2015). CAEP Accreditation Standards. http://caepnet.org/~/media/Files/caep/standards/final-board-amended-20150612.pdf

Council for the Accreditation of Educator Preparation. (2013). *2013 CAEP Standards.* *http://caepnet.org/standards/2013/introduction* http://caepnet.org/~/media/Files/caep/standards/caep-standards-one-pager-0219.pdf?la=en

Council of Chief State School Officers. (2013, April). Interstate Teacher Assessment and Support Consortium InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0: A Resource for Ongoing Teacher Development. Washington, DC: Author.

Council on Social Work Education. (2019). Educational Policy and Accreditation Standards (2015) https://www.cswe.org/Accreditation/Standards-and-Policies

Covaleskie, J. F. (2007). Response: Knowledge, Skills, and Dispositions: Do I Need a Philosophy of Education, Too?. *Philosophy of Education Archive*, 209-211.

Creswell, J. D. (2017). Mindfulness interventions. *Annual review of psychology*, *68*, 491-516.

Creswell, J. W. (2014). *Research design: Qualitative and mixed methods approaches*

Creswell, J. W. & Guetterman, T. G. (2019). *Educational research: Planning, conducting, and evaluating quantitative* and qualitative research. Upper Saddle River, NJ: Pearson.

Da Ros-Voseles, D., & Moss, L. (2007). The role of dispositions in the education of future teachers. *Young Children*, *62*(5), 90.

DeVillers, R. (2007). The six C's framework for e-learning. *N. Buzzetto-More, Advanced principles of effective e-learning*, 1-25.

Dewey, J. (1922). *Human nature and conduct: An introduction to social psychology*. New York: Henry Holt and Company.

Dewey, J. (1985). Democracy and education 1916: The middle works of John Dewey, 1899-1924 (Vol. 9). Carbondale: Southern Illinois University Press.

Dewey, J. (1988). *Human nature and conduct* (Vol. 14, pp. 1925-1953). Carbondale: Southern Illinois University Press.

Dewey, J. (1997). *Experience and education*. Simon & Schuster.

Demmon-Berger, D. (1986). *Effective teaching: Observations from research.* ERIC.

Denzin, N. K. (1978). *The research act : a theoretical introduction to sociological methods* (2d ed.). McGraw-Hill in Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, *24*(4), 602-611.

Diener, D. (2015). *Plato: The great philosopher-educator*. Camp Hill, PA: Classical Academic Press.

Diez, M. (2007). *Dispositions in Teacher Education*. Information Age Publishing.

Diez, M. E. (2006). Assessing Dispositions: Context and Questions. *New Educator*, *2*(1), 57–72.

Donohoo, J. (2017). *Collective efficacy: How educators' beliefs impact student learning*. Corwin Press.

Dottin, E. S. (2009). Professional judgment and dispositions in teacher education. *Teaching and Teacher Education*, *25*(1), 83–88.

Dottin, E. S. (2010). *Dispositions as habits of mind: Making professional conduct more intelligent*. University Press of America.

Dunning, D. (2011). The Dunning–Kruger effect: On being ignorant of one's own ignorance. In *Advances in experimental social psychology* (Vol. 44, pp. 247-296). Academic Press.

Dweck, C. S. (1989). Motivation. In A. Lesgold, & R. Glaser (Eds.), Foundations for a psychology of education (pp. 87-136). Hillsdale, NJ: Erlbaum.

East Tennessee State University (n.d.) *Residency Handbok and Resources.* https://www.etsu.edu/coe/educator-preparation/residency/handbook_resources.php

Eberly, J. L., & Rand, M. K. (2003). *Identifying and Describing Perceptual Factors Used for Inferring Teacher Candidate Dispositions from Online Case-Based Discussions*.

Eberly, J. L., Rand, M. K., & O'Connor, T. (2007). Analyzing Teachers' Dispositions towards Diversity: Using Adult Development Theory. *Multicultural Education*, *14*(4), 31–36.

Ehret, P. J., Monroe, B. M., & Read, S. J. (2015). Modeling the Dynamics of Evaluation: A Multilevel Neural Network Implementation of the Iterative Reprocessing Model. *Personality & Social Psychology Review (Sage Publications Inc.)*, *19*(2), 148–176. https://doi.org/10.1177/1088868314544221

Enriquez, A. (2010). Assessing the effectiveness of synchronous content delivery in an online introductory circuits analysis course. *Educating Engineers in the Wild, Wild West, 48*

Erickson, P., Hyndman, J., & Wirtz, P. (2005). Why is the study of dispositions a necessary component of an effective educator preparation program?. *Essays in education*, *13*(1), 4.

Ertmer, P. A., & Newby, T. J. (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly, 6*(4), 50-72. https://doi.org/10.1002/piq.21143

Fassinger, P. A. (1995). Understanding Classroom Interaction: Students' and Professors' Contributions to Students' Silence. *Journal of Higher Education*, *66*(1), 82–96. https://doi.org/10.1080/00221546.1995.11774758

Feiman-Nemser, S. (2014). Preparing Jewish Educators: The Research We Have, the Research We Need. *Journal of Jewish Education*, *80*(3), 229–255.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching.

Fenwick, T. J. (2003). Learning through experience: Troubling orthodoxies and intersecting questions. Malabar, FL: Krieger.

Fetters, M. D. (2020). *The mixed methods research workbook: Activities for designing, implementing, and publishing projects*. SAGE Publications.

Fetters, M. D., & Molina-Azorin, J. F. (2019). A Call for Expanding Philosophical Perspectives to Create a More "Worldly" Field of Mixed Methods: The Example of Yinyang Philosophy. *JOURNAL OF MIXED METHODS RESEARCH*, *13*(1), 15–18. https://doi-org.ezproxy.yu.edu/10.1177/1558689818816886

Fitzgibbons, R., & O'Leary, D. (2011). Sexual Abuse of Minors by Catholic Clergy. *The Linacre quarterly*, *78*(3), 252–273. doi:10.1179/002436311803888276

Fischer, K. W. (1980). A theory of cognitive development: The control and construction of hierarchies of skills. *Psychological Review, 87*(6), 477-531. doi:10.1037/0033-295X.87.6.477

Florida State University. (2015). Educator Preparation Unit Dispositional Evaluation Rubric. https://education.fsu.edu/sites/g/files/upcbnu3146/files/Dispositions-Rubric-FINAL.pdf

Føllesdal, H., & Hagtvet, K. (2013). Does emotional intelligence as ability predict transformational leadership? A multilevel approach. The Leadership Quarterly, 24(5), 747-762.

Forrest, L., Elman, N., Gizara, S., & Vacha-Haase, T. (1999). Trainee impairment: A review of identification, remediation, dismissal, and legal issues. *The Counseling Psychologist*, *27*(5), 627-686.

Freeman, B. J., Garner, C. M., Scherer, R., & Trachok, K. (2019). Discovering Expert Perspectives on Dispositions and Remediation: A Qualitative Study. *Counselor Education & Supervision*, *58*(3), 209–224.

Friedman, I. A. (1991). High and low-burnout schools: School culture aspects of teacher burnout. *The Journal of Educational Research*, *84*(6), 325-333.

Freeman, L. (2007). An overview of dispositions in teacher education. In M. Diez and J. Raths (Eds.) *Dispositions in Teacher Education* (3-29). Information Age Publishing.

Friedrich, A., Flunger, B., Nagengast, B., Jonkmann, K., & Trautwein, U. (2015). Pygmalion effects in the classroom: Teacher expectancy effects on students' math achievement. *Contemporary Educational Psychology*, *41*, 1–12. https://doi.org/10.1016/j.cedpsych.2014.10.006,

Gagne, M., & Shepherd, M. (2001). Distance Learning in Accounting: A Comparison between a Distance and a Traditional Graduate Accounting Class. *T.H.E. Journal*, *28*(9), 58–60.

Gagne, R. M., Briggs, L. J., & Wager, W. W. (1992). Principles of Instructional Design (4th ed.) Orlando: Harcourt Brace

Gardner, D. P. (1983). A Nation At Risk: The Imperative For Educational Reform. An Open Letter to the American People. A Report to the Nation and the Secretary of Education.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What Makes Professional Development Effective? Results from a National Sample of Teachers. *American Educational Research Journal*, *38*(4), 915–945.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. The Internet and Higher Education, 2(2-3), 87−105

Garrison, D. R., & Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *The Internet and higher education*, *10*(3), 157-172.

Georgia Educators Task Force Professional Behaviors and Dispositions Assessment. (2017)

Georgiou, S. N., Christou, C., Stavrinides, P., & Panaoura, G. (2002). Teacher Attributions of Student Failure and Teacher Behavior toward the Failing Student. *Psychology in the Schools*, *39*(5), 583–595.

Goddard, R. D. (2001). Collective efficacy: A neglected construct in the study of schools and student achievement. *Journal of Educational Psychology*, *93*(3), 467–476. https://doi.org/10.1037/0022-0663.93.3.467

Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2004). Collective Efficacy Beliefs: Theoretical Developments, Empirical Evidence, and Future Directions. *Educational Researcher*, *33*(3), 3–13.

Goldhaber, D & Ronfeldt, M. (2020). Toward causal evidence on effective teacher preparation. In Carinci, J. E. (Ed.), *Linkining Teacher Preparation Program Design and Implementation to Outcomes for Teachers and Students*. Information Age Publishing.

Golding, C. (2011). The Many Faces of Constructivist Discussion. *Educational Philosophy & Theory*, *43*(5), 467–483. https://doi.org/10.1111/j.1469-5812.2008.00481.x

Goldstein, N. J., Vezich, I. S., & Shapiro, J. R. (2014). Perceived perspective taking: When others walk in our shoes. *Journal of Personality and Social Psychology, 106*(6), 941-960. doi:10.1037/a0036395

Gonzalez, F. J. (2009). *Knowledge and Virtue as Dispositions in Plato's Theaetetus.* In De Gruyter. *Gregor Damschen, Robert Schnepf, & Karsten Stüber. (2009). Debating Dispositions : Issues in Metaphysics, Epistemology and Philosophy of Mind. De Gruyter.* doi:10.1515/9783110211825.47

Gordon, M. (2009). Toward a Pragmatic Discourse of Constructivism: Reflections on Lessons from Practice. *Educational Studies: Journal of the American Educational Studies Association*, *45*(1), 39–58.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational evaluation and policy analysis*, *11*(3), 255-274.

Guthrie, E. R., & Powers, F. F. (1950). Educational psychology.

Haberman, M. (1995). Selecting "Star" Teachers for Children and Youth in Urban Poverty. *Phi Delta Kappan*, *76*(10), 777–781.

Haberman, M., Gillette, M., & Hill, D. A. (2018). *Star teachers of children in poverty.*. West Lafayette, IN: Kappa Delta Pi.

Haddock, G., Maio, G. R., Arnold, K., & Huskinson, T. (2008). Should persuasion be affective or cognitive? The moderating effects of need for affect and need for cognition. *Personality & Social Psychology Bulletin*, (6), 769.

Hare, S. (2007). We teach who we are: The intersection of teacher formation and educator dispositions. *Dispositions in teacher education*, 139-152.

Hasher, G. L. D., & Toppino, T. (1977). Frequency and the conference of referential validity. *Journal of Verbal Learning and Verbal Behavior*, *16*(1), 107–112. https://doi.org/10.1016/S0022-5371(77)80012-1

Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hattie, J. (2015). The applicability of Visible Learning to higher education. *Scholarship of Teaching and Learning in Psychology, 1*(1), 79–91. https://doi.org/10.1037/stl0000021

Hattie, J. (2016, July). Mindframes and maximizers. In *Third annual visible learning conference. Washington, DC. Abstract retrieved from http://www. Sage publications. com/images/eblast/CorwinPress/PDF/AVL-program-2016. Pdf.*

Healer's Art (n.d.). Retrieved from http://www.rishiprograms.org/healers-art/

Heider, F. (1958). The psychology of interpersonal relations. New York, NY: Wiley.

Ichikawa-Fukumi, V. (1986). Japanese parents' and childrens' causal beliefs about academic achievement. Asian American Psychological Association Journal, 1, 22–25

Hess, T. M., Osowski, N. L., & Leclerc, C. M. (2005). Age and experience influences on the complexity of social inferences. *Psychology and aging*, *20*(3), 447. DOI: 10.1037/0882-7974.20.3.447

Holley, L. C., & Steiner, S. (2005). Safe space: Student perspectives on classroom environment. *Journal of Social Work Education, 41*(1), 49-64. https://doi.org/10.5175/jswe.2005.200300343

Hoffman, D. M. (1996). Culture and Self in Multicultural Education: Reflections on Discourse, Text, and Practice. *American Educational Research Journal*, (3) in Mueller, M., & Hindin, A. (2011). An Analysis of the Factors that Influence Preservice Elementary Teachers' Developing Dispositions about Teaching All Children. *Issues in Teacher Education*, *20*(1), 17–34.

Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and teacher education*, *21*(4), 343-356. https://doi.org/10.1016/j.tate.2005.01.007

Hsiu-Fang Hsieh, & Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*, *15*(9), 1277–1288.

Hunter, R. (2004). *Madeline Hunter's mastery teaching: Increasing instructional effectiveness in elementary and secondary schools*. Corwin Press.

Interstate New Teacher Assessment and Support Consortium. (1992). Model standards for beginning teacher licensing and development: A resource for state dialogue.

Interstate New Teacher Assessment and Support Consortium (2001). Model standards for licensing general and special education teachers of students with disabilities: A resource for state dialogue. Washington, DC: Council of Chief State School Officers.

Jansen, L. (2009). Aristotle's Theory of Dispositions: From the Principle of Movement to the Unmoved. In Damschen, G., Schnepf, R., & Stüber, K.. (2009). Debating Dispositions : Issues in Metaphysics, Epistemology and Philosophy of Mind. De Gruyter.

Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, *24*(4), 602-611.

Johnson, L. E., & Reiman, A. J. (2007). Beginning teacher disposition: Examining the moral/ethical domain. *Teaching and Teacher Education*, *23*(5), 676-687. doi:10.1016/j.tate.2006.12.006

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, *1*(2), 112–133.

Kalina, C., & Powell, K. C. (2009). Cognitive and social constructivism: Developing tools for an effective classroom. *Education*, *130*(2), 241-250.

Kapp, A. (1833). *Platon's Erziehungslehre, als Pädagogik für die Einzelnen und als Staatspädagogik. Oder dessen praktische Philosophie aus den Quellen dargestellt von Alexander Kapp*. F. Essmann.

Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly, 24*, 163–204.

Katz, L. G., & ERIC Clearinghouse on Elementary and Early Childhood Education, U. I. (1993). *Dispositions as Educational Goals. ERIC Digest*.

Katz, L. G. (1995). *Talks with teachers of young children: A collection*. Ablex Publishing Corporation, Norwood, NJ

Katz, L. G., & Chard, S. C. (2000). *Engaging children's minds: The project approach*. Greenwood Publishing Group.

Katz, L. G., & Chard, S. D. (1992). The Project Approach.

Katz, L. G., & Raths, J. D. (1985). Dispositions as goals for teacher education. *Teaching and Teacher Education*, *1*(4), 301-307. https://doi.org/10.1016/0742-051x(85)90018-6

Katz, L. G., & Raths, J. D. (1986). Dispositional Goals for Teacher Education: Problems of Identification and Assessment.

Kegan, R. (1980). Making meaning: The constructive-developmental approach to persons and practice. The Personnel and Guidance Journal, 373-380.

Kegan, R. (1994). In over our heads. Cambridge, MA: Harvard University Press

Kegan, R., & Lahey, L. L. (2009). *Immunity to change: How to overcome it and unlock potential in yourself and your organization* Harvard Business Press.

Kennedy. M. M. (2008). Sorting out Teacher Quality. *The Phi Delta Kappan*, *90*(1), 59–63.

Kennedy, S. (2017). *Designing and teaching online courses in Nursing*. Springer Publishing Company.

Kerl, S. B., Garcia, J. L., McCullough, C. S., & Maxwell, M. E. (2002). Systematic Evaluation of Professional Performance: Legally Supported Procedure and Process. *Counselor Education & Supervision*, *41*(4), 321. https://doi.org/10.1002/j.1556-6978.2002.tb01294.x

Kern National Network for Caring and Character in Medicine (2019). Retrieved from https://www.medednext.org/KNN/About.htm

Kerr, J.-A., & Dils, K. (2011). Meeting NCATE Standard 4: One University's Plan to Help Preservice Teachers Develop the Knowledge, Skills, and Professional Dispositions Necessary to Ensure That All Students Learn. *Educational Considerations*, *38*(2), 13–19.

Kieval, H. J. (2000). 4. Pursuing the Golem of Prague: Jewish Culture and the Invention of a Tradition. In *Languages of Community* (pp. 95-113). University of California Press.

Kirwan, J. R., & Roumell, E. A. (2015). Building a Conceptual Framework for Online Educator Dispositions. *Journal of Educators Online*, *12*(1), 30–61

Knowles, M. S. (1988). *The modern practice of adult education: From Pedagogy to andragogy* (Revised Edition ed.) Cambridge Book Co.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2015). *The adult learner: The definitive classic in adult education and human resource development.* (8th ed.). New York, NY: Routledge.

Koeppen, K. E., & Davison-Jenkins, J. (2007). Teacher Dispositions: Envisioning Their Role in Education. *Rowman & Littlefield Education*.

Koeppen. K. E. & Davidson-Jenkins, J. (2004, November). Cooperating teachers' perspective of teacher dispositions: Potential bridges and barriers in a secondary education program. *Paper presented at the Third Annual Symposium on Educator Dispositions*, Eastern Kentucky University, Richmond, KY.

Kolb, D. A. (1984). *Experiential learning : experience as the source of learning and development*. Prentice-Hall.

Kornuta, H. M. & Germaine, R. W. (2019). *A concise guide to writing a thesis or dissertation educational research and beyond*. London: Routledge.

Kraft, N. P. (2001). Standards in Teacher Education: A Critical Analysis of NCATE, INTASC, and NBPTS (A Conceptual Paper/Review of the Research).

Kreber, C., & Kanuka, H. (2006). The scholarship of teaching and learning and the online classroom. Canadian Journal of University Continuing Education, 32(2), 109–131. Retrieved from http://www.extension.usask.ca/cjuce/

Kruger, J. M., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. Journal of Personality and Social Psychology, 77, 1121–1134.

Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student

development. *Journal of Educational Psychology*, *105*(3), 805–820. https://doi.org/10.1037/a0032583

Kyllonen, P., Walters, A. M., & Kaufman, J. C. (2005). Noncognitive constructs and their assessment in graduate education: A review. *Educational Assessment*, *10*(3), 153-184

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge university press.

Lee, E., & Hannafin, M. (2016). A design framework for enhancing engagement in student-centered learning: own it, learn it, and share it. *Educational Technology Research & Development*, *64*(4), 707–734. https://doi.org/10.1007/s11423-015-9422-5

Lee, Y., & Choi, J. (2011). A review of online course dropout research: Implications for practice and future research. *Educational Technology Research and Development, 59*(5), 593.

Leithwood, K. (1990). The Principal's Role in Teacher Development. In Joyce, B., & Association for Supervision and Curriculum Development, A. V. (1990). *Changing School Culture through Staff Development: 1990 Yearbook of the Association for Supervision and Curriculum Development*.

Leithwood, K., & Jantzi, D. (1999). The relative effects of principal and teacher sources of leadership on student engagement with school. *Educational Administration Quarterly*, *35*, 679–706. https://doi.org/10.1177/00131619921968798

Leonard, D. C. (2002). *Learning Theories: A to Z : A to Z*. Westport, Conn: Greenwood.

Liaison Committee on Medical Education. (2019).http://lcme.org/publications/#Standards

Loeng, S. (2017). Alexander Kapp – the first known user of the andragogy concept. *International Journal of Lifelong Education*, *36*(6), 629.

Ma, K., Chutiyami, M., & Nicoll, S. (2021). Transitioning into the first year of teaching: changes and sources of teacher self-efficacy. *The Australian Educational Researcher: A Publication of the Australian Association for Research in Education*, 1–18. https://doi-org.ezproxy.yu.edu/10.1007/s13384-021-00481-5

Machamer, P. (2009) *The Dispositions of Descartes* in Gregor Damschen, Robert Schnepf, & Karsten Stüber. (2009). *Debating Dispositions : Issues in Metaphysics, Epistemology and Philosophy of Mind*. De Gruyter.

Maio, Gregory R., Geoffrey Haddock, and Bas Verplanken. *The psychology of attitudes and attitude change*. Sage, 2019.

Maimonides, M. (1180). *Mishneh Torah*. Roma.

Martin, M., & Taylor, S. A. (1997). The virtual classroom: The next steps. *Educational Technology*, *37*(5), 51-55.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), Emotional development and emotional intelligence: Educational implications (pp. 3-31). New York: Basic Books in Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional Intelligence: Theory, Findings, and Implications. *Psychological Inquiry*, *15*(3), 197–215. https://doi.org/10.1207/s15327965pli1503_02

Mayer, J. D., Salovey, P., & Caruso, D. R. (n.d.). Mayer-Salovey-Caruso Emotional Intelligence Test. *PsycTESTS*. http://www.mhs.com/msceit

Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). TARGET ARTICLES:" Emotional Intelligence: Theory, Findings, and Implications". *Psychological inquiry*, *15*(3), 197-215.

Mayring, P. (2000). Qualitative content analysis. Forum: Qualitative Social Research, 1(2). https://doi.org/10.17169/fqs-1.2.1089

Mayring, P. (2004). Qualitative content analysis. *A companion to qualitative research*, *1*(2), 159-176.

Mazer, J. (2013). Associations among teacher communication behaviors, student interest, and engagement: A validity test. *Communication Education, 62*(1), 86.

McGraw, D. M., Ebadi, M., Dalenberg, C., Wu, V., Naish, B., & Nunez, L. (2019). Consequences of abuse by religious authorities: A review. *Traumatology*. https://doi.org/10.1037/trm0000183

McKnight, D. (2004). An Inquiry of NCATE's Move Into Virtue Ethics by Way of Dispositions (Is This What Aristotle Meant?). *Educational Studies*, *35*(3), 212–230. https://doi.org/10.1207/s15326993es3503_2

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies.

Mehrabian, A. (1971). *Silent messages* (Vol. 8). Belmont, CA: Wadsworth.

Meissner, B. (2009). *Dispositions in Greek Historiography.* In Damschen, G., Schnepf, R., & Stüber, K. (2009). *Debating Dispositions : Issues in Metaphysics, Epistemology and Philosophy of Mind*. De Gruyter. doi:10.1515/9783110211825.47

Merriam, S. B., & Bierema, L. L. (2014). *Adult learning: Linking theory and practice*. John Wiley & Sons.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood.* San Francisco, CA: Jossey Bass.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass, 350 Sansome Street, San Francisco, CA 94104-1310.

Mezirow, J. (2000). Learning to think like an adult. *Learning as transformation: Critical perspectives on a theory in progress*, 3-33.

Miller, A. (1981). Conceptual Matching Models and Interactional Research in Education. *Review of Educational Research*, *51*(1), 33–84.

Mitchell, A. (2000). NCATE 2000: Teacher education and performance-based reform. *Washington, DC: National Council for Accreditation of Teacher Education*.

Mooney, R. L., & Gordon, L. V. (1950). Manual: the Mooney Problem Checklist. Psychological Corporation New York.

Moons, W. G., Mackie, D. M., & Garcia-Marques, T. (2009). The impact of repetition-induced familiarity on agreement with weak and strong arguments. *Journal of Personality and Social Psychology*, *96*(1), 32–44. https://doi.org/10.1037/a0013461

Morante, A., Djenidi, V., Clark, H., & West, S. (2017). Gender differences in online participation: Examining a history and a mathematics open foundation online course. *Australian Journal of Adult Learning*, *57*(2), 266-293.

Most, W. M. (1996). Teaching for America's future. *Report of the National Commission on*.

Mumford, S. (2003). *Dispositions*. Clarendon Press.

Murrell Jr, P. C., Diez, M. E., Feiman-Nemser, S., & Schussler, D. L. (2010). *Teaching as a Moral Practice: Defining, Developing, and Assessing Professional Dispositions in Teacher Education*. Harvard Education Press. Cambridge, MA..

National Association of School Psychology (NASP). (2010) https://www.nasponline.org/standards-and-certification/nasp-standards-revision

National Association for Education Statistics (NAES) . (2019). Retrieved from https://nces.ed.gov

National Board for Professional Teaching Standards, A. V. (2002). *What Teachers Should Know and Be Able To Do*

National Board for Professional Teaching Standards. (2021, June 10). *Mission-history.* https://www.nbpts.org/mission-history/

National Board for Professional Teaching Standards. (2021, June10). *What Teachers Should Know and Be Able to Do.* (2016). http://accomplishedteacher.org/wp-content/uploads/2016/12/NBPTS-What-Teachers-Should-Know-and-Be-Able-to-Do-.pdf

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. *The Elementary School Journal*, *84*(2), 113-130.

National Commission on Teaching, A. F. N. Y. N. (1996). *What Matters Most: Teaching for America's Future. Report of the National Commission on Teaching & America's Future*.

National Council for Accreditation of Teacher Education. (2002). Unit Standards in Erickson, P., Hyndman, J., & Wirtz, P. (2005). Why is the study of dispositions a necessary component of an effective educator preparation program?. *Essays in education*, *13*(1), 4

National Council for Accreditation of Teacher Education. (2008). *Professional standards Accreditation of Teacher Preparation Institutions.* http://caepnet.org/~/media/Files/caep/accreditation-resources/ncate-standards-2008.pdf?la=en

National Council for Accreditation of Teacher Education (NCATE). (2010). NCATE accreditation unit standards 2010. Retrieved from www.ncate.org/standards/tibid/aspx

Nelsen, P. J. (2014). Intelligent dispositions: Dewey, habits and inquiry in teacher education. *Journal of Teacher Education*, *66*(1), 86-97. https://doi.org/10.1177/0022487114535267

Nieto, S. (2000). Placing equity front and center: Some thoughts on transforming teacher education for a new century. *Journal of teacher education*, *51*(3), 180-187.

Notar, C. E., Riley, G. W., Taylor, P. W., Thornburg, R. A., & Cargill, R. L. (2009). Dispositions: Ability and assessment. *International Journal of Education*, *1*(1), 1-14.

Oja, S. N. & Reiman, A. J. (2007). A constructivist-developmental perspective. In M. E. Diez & J. Raths (Eds.), Dispositions in teacher education (pp. 93-117). Charlotte, NC: Information Age Publishing.

Ortagus, J. C. (2017). From the periphery to prominence: An examination of the changing profile of online students in American higher education. *The Internet and Higher Education*, *32*, 47–57. https://doi.org/10.1016/j.iheduc.2016.09.002

Ovid. (2018). *Metamorphoses : The New, Annotated Edition: Vol. New, annotated edition*. Indiana University Press.

Palmer, P. J. (1998). *The courage to teach : exploring the inner landscape of a teacher's life* (1st ed.). Jossey-Bass.

Palmer, P. J. (2017). *The courage to teach: Exploring the inner landscape of a teacher's life*. John Wiley & Sons.

Palloff, R. M. & Pratt, K. (2001). *Lessons From the Cyberspace Classroom : The Realities of Online Teaching*. Jossey-Bass.

Pelz, B. (2010). (My) three principles of effective online pedagogy. *Journal of Asynchronous Learning Networks*, *14*(1), 103-116.

Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). Attitudes and attitude change. Annual Review of Psychology, 48, 609–647. doi: 10.1146/annurev.psych.48.1.609

Phillips, D. C. (1995). The Good, the Bad, and the Ugly: The Many Faces of Constructivism. *Educational Researcher*, *24*(7), 5–12.

Piaget, J. (1971). The theory of stages in cognitive development.

Piaget, J. (2003). *The psychology of intelligence. [electronic resource]*. Routledge. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=cat01251a&AN=yulis.5230438&site=eds-live&scope=site

Piaget, J., & Cook, M. (1952). *The origins of intelligence in children. [electronic resource]* W.W. Norton & Co.

Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, *52*(2), 137–145. https://doi.org/10.1037/0022-0167.52.2.137

Powers, S. M. (1999). *Transmission of Teacher Dispositions: A New Use for Electronic Dialogue*.

Pregot, M. (2016). Identifying the Administrative Dispositions Most Preferred by Urban School Leaders and School Leadership Candidates. *Leadership and Research in*

Education, *3*(1), 34-51.

Proverbs 2:6

Prus, J. S., & Strein, W. (2011). Issues and trends in the accreditation of school psychology programs in the United States. *Psychology in the Schools*, *48*(9), 887–900. https://yulib002.mc.yu.edu:3180/10.1002/pits.20600

Pufpaff, L. A., Sciuchetti, M. B., & Taylor, L. (2017). Dispositions by committee for educator preparation programs. *Teacher Educator, 52*(3), 268.

Purkey, W. W., & Novak, J. M. (1996). *Inviting school success: A self-concept approach to teaching, learning, and democratic practice*. Wadsworth, Inc., Distribution Center, 7625 Empire Drive, Florence, KY 41042-2978..

Raths, J. (2001). *Teachers' Beliefs and Teaching Beliefs*.

Raths, J., & Lyman, F. (2003). Summative evaluation of student teacher: an enduring problem. *Journal of Teacher Education*, *54*(3), 206+https://link.gale.com/apps/doc/A101939487/AONE?u=nysl_me&sid=ebsco&xid=48a56b81

Reiman, A., & Johnson, L. E. (2003). Promotion teacher professional judgment. Journal of Research in Education, 13(1), 4–14.

Reyna, C. (2008). Ian is intelligent but Leshaun is lazy: Antecedents and consequences of attributional stereotypes in the classroom. *European Journal of Psychology of Education*, *23*(4), 439-458.

Riegel, K. F., & Educational, T. S. (1973). *Dialectic operations: The final period of cognitive development.*

Rike, C. J., & Sharp, L. K. (2008). Assessing preservice teachers' dispositions: a critical dimension of professional preparation. *Childhood Education*, *84*(3).

Ritchhart, R. (2001). From IQ to IC: A dispositional view of intelligence. *Roeper Review*, *23*(3), 143-150. https://doi.org/10.1080/02783190109554086

Ritchhart, R. (2002). *Intellectual Character: What it is, why it matters, and how to get it*. San Francisco, CA: Jossey-Bass.

Rodgers, C. (2002). Defining reflection: Another look at John Dewey and reflective thinking. *Teachers college record*, *104*(4), 842-866.

Rogers, C. R. (1969). *Freedom to learn*. Columbus, OH: Merrill.

Rogers, C. R. (1961). *On becoming a person: A therapist's view of psychotherapy*. Boston, MA: Houghton Mifflin Co.

Rosenthal, R. (1994). Interpersonal Expectancy Effects: A 30-Year Perspective. Current Directions in Psychological Science, 3(6), 176–179. https://doi.org/10.1111/1467-8721.ep10770698

Rosenthal, R., & Rubin, D. B. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences*, *1*(3), 377-386.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom; teacher expectation and pupils' intellectual development*. Holt, Rinehart and Winston.

Rosenthal, R., & Jacobson, L. (1968). Pygmalion in the classroom. The urban review, 3(1), 16-20.

Roth, R. A. (2005). University as context for teacher development. In *The role of the university in the preparation of teachers* (pp. 182-197). Routledge.

Ryffel, F. A., & Wirth, W. (2016). Heart versus mind: How affective and cognitive message frames change attitudes. *Social Psychology*, *47*(1), 52–62.

Sacks, Y. (2009). Pirḳe Avot: Yeme Temimim.

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, *9*(3), 185-211.

Schulte, L., Edick, N., Edwards, S., & Mackiel, D. (2005). The development and validation of the Teacher Dispositions Index. *Essays in Education*, *12*(1), 7.

Schunk, D. H., & Zimmerman, B. J. (Eds.). (2012). *Motivation and self-regulated learning: Theory, research, and applications*. Routledge.

Seaman, J. E., Allen, I. E., & Seaman, J. (2018). Grade Increase: Tracking Distance Education in the United States. *Babson Survey Research Group*.

Seligman, L. D., Geers, A. L., Swedish, E. F., Hovey, J. D., & Hurtado, G. (2018). An analogue study examining attitude change theory and its implications for dissemination and implementation of empirically supported treatments. *Journal of Evidence-Based Psychotherapies, 18*(2), 77-96. doi:10.24193/jebp.2018.2.15

Setran, D. (2018). From Worldview to Way of Life: Forming Student Dispositions toward

Human Flourishing in Christian Higher Education. *Journal of Spiritual Formation and Soul Care*, *11*(1), 53. Seton Hall University. Retrieved October 2019. https://www.shu.edu/academics/ma-eds-catholic-school-leadership.cfm

Shussler, D. L. (2006). Defining Dispositions: Wading Through Murky Waters. *Teacher Educator*, *41*(4), 251–268.

Singh, D. K., & Stoloff, D. L. (2008). Assessment of teacher dispositions. *College Student Journal*, *42*(4), 1169-1181.

Skinner, B. F. (1971). *Beyond freedom and dignity.* Pelican Books. USA. Retrieved from https://archive.org/stream/Beyond_Freedom_and_Dignity/Beyond%20Freedom%20&%20Dignity%20-%20Skinner_djvu.txt

Smith, D. E., & Mitry, D. J. (2008). Investigation of higher education: The real costs and quality of online programs. *Journal of Education for Business, 83*(3), 147-152. doi:10.3200/JOEB.83.3.147-152

Snygg, D. & Combs, A. W. (1949). Individual behavior: A new frame of reference for psychology. Harper & Brothers Publishers

Spitzer, D.R. (1998). Rediscovering the social context of distance learning. Educational Technology, 38(5), 52-56.

Stevens, R. & Charles, J. (2005) Preparing Teachers to Teach Tolerance. *Multicultural Perspectives*, *7*(1), 17–25. https://doi.org/10.1207/s15327892mcp0701_4

Stewart, P. J., & Davis, S. (2005). Developing dispositions of preservice teachers through membership in professional organizations.

Summers, J., Waigandt, A., & Whittaker, T. (2005). A Comparison of Student Achievement and
Satisfaction in an Online Versus a Traditional Face-to-Face Statistics Class. *Innovative Higher Education*, *29*(3), 233–250. https://doi.org/10.1007/s10755-005-1938-x

Sykes, G. (2005). No standards or new standards? The future of teacher certification. In *The role of the university in the preparation of teachers* (pp. 37-45). Routledge.

Szumski, G., & Karwowski, M. (2019). Exploring the Pygmalion effect: The role of teacher expectations, academic self-concept, and class context in students' math achievement. *Contemporary Educational Psychology*, *59*. https://doi.org/10.1016/j.cedpsych.2019.101787

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5, pp. 481-498). Boston, MA: Pearson.

Taylor, R. L., & Wasicsko, M. M. (2000, November). The dispositions to teach. In *Annual meeting of the Southern Region Association of Teacher Educators (SRATE) Conference, Lexington, KY. Retrieved May* (Vol. 21, p. 2010).

Teacher Education Accreditation Council. (2014). *About TEAC.* https://www.teac.org/

Thompson, S., Ransdell, M., & Rousseau, C. (2004). What are those teachers doing anyway? the dispositions of master teachers. Paper presented at the *Third Annual Symposium on Educator Dispositions at Eastern Kentucky University, Richmond, KY,*

Thorndike, E. L. (1898). *Animal intelligence; [electronic resource] : an experimental study of the associative processes in animals;* The Macmillan company.

Thorndike, E. L., Bregman, E. O., Tilton, J. W., & Woodyard, E. (1928). Adult learning.

Thornton, Holly. "Dispositions in action: Do dispositions make a difference in practice?." *Teacher Education Quarterly* 33, no. 2 (2006): 53-68.

Titone, C., Sherman, S., & Palmer, R. (1998). Cultivating student teachers' disposition and ability to construct knowledge. *Action in Teacher Education (Association of Teacher Educators), 19*(4), 76-87.

Tomasello, M., Kruger, A. C., & Ratner, H. H. (1993). Cultural learning. *Behavioral and Brain Sciences,* (3), 495.

Tschannen-Moran, M., & Barr, M. (2004). Fostering Student Learning: The Relationship of Collective Teacher Efficacy and Student Achievement. *Leadership and Policy in Schools*, *3*(3), 189–209.

Tschannen-Moran, M., & McMaster, P. (2009). Sources of Self-Efficacy: Four Professional Development Formats and Their Relationship to Self-Efficacy and Implementation of a New Teaching Strategy. *Elementary School Journal*, *110*(2), 228–245.

Usher, D. (2002). Arthur Combs' five dimensions of helper belief reformulated as five dispositions of teacher effectiveness. Paper presented at the First Annual Symposium on Educator Dispositions: Effective Teacher - Effective Person, Richmond, KY.

Varol, Volkan. *Teacher educators' perceptions about teacher dispositions*. The Florida State University, 2011.

Villegas, Ana María. "Dispositions in teacher education: A look at social justice." *Journal of teacher education* 58, no. 5 (2007): 370-380.

Vygotsky, L. S. (1978). Mind in society. Cambridge, MA: Harvard University Press in Oja, S. N. & Reiman, A. J. (2007). A constructivist-developmental perspective. In M. E. Diez &

J. Raths (Eds.), Dispositions in teacher education (pp. 93-117). Charlotte, NC: Information Age Publishing.

Vygotsky, L. S. (1980). *Mind in society: The development of higher psychological processes*. Harvard university press.

Vygotsky, L. S. (2017). The Problem of Teaching and Mental Development at School Age [Problema obuchenija i umstvennogo razvitija v shkol'nom vozraste]. *Changing English: Studies in Culture & Education*, *24*(4), 359–371.

Wadsworth, B. J. (2004). *Piaget's theory of cognitive and affective development* (Classic ed., 5th ed.). Pearson/A and B.

Washington State University. (2021, October 27). *Professional Dispositions.* https://education.wsu.edu/undergradprograms/teachered/professionaldisposition/

Wasicsko, M. (1977a). *The Effect Of Training And Perceptual Orientation On The Reliability Of Perceptual Inferences For Selecting Effective Teachers* (Order No. 7729293). Available from ProQuest Dissertations & Theses Global. (302838978).

Wasicsko, M. M. (1977b). A Research-Based Teacher Selection Instrument.

Wasicsko, M. (2002). Assessing educator dispositions: A perceptual psychological approach. *Washington, DC: ERIC-the Education Resources Information Center (ED 193 193),*

Wasicsko, M. M. (2007). The perceptual approach to teacher dispositions: The effective teacher as an effective person. In M. E. Diez & J. Raths (Eds.), Dispositions in teacher education (pp. 55-91). Charlotte, NC: Information Age Publishing.

Wasicsko, M. M., Callahan, C. J., & Wirtz, P. (2004). Integrating dispositions into the conceptual framework: Four a priori questions. *KCA Journal*, *23*(1), 1-8.

Wasicsko, M. M., Wirtz, P., & Resor, C. (2009). Using dispositions in the teacher admission process. *SRATE Journal, 18*(2), 19-26.

Watson, J. B. (1919). *Psychology from the standpoint of a behaviorist. [electronic resource]*. J. B. Lippincott company. Retrieved from https://search.ebscohost.com/login.aspx?direct=true&db=cat01251a&AN=yulis.4388 196&site=eds-live&scope=site

Watson, J. B. (1925). *Behaviorism*. The People's Institute Publishing Co.

Watson, J. B. (1948). Psychology as the behaviorist views it, 1913. (pp. 457-471). East Norwalk, CT: Appleton-Century-Crofts. doi:10.1037/11304-050

Wayne, R. H. (2004). Legal guidelines for dismissing students because of poor performance

in the field. *Journal of Social Work Education*, *40*(3), 403-414.

Weber, J. E. (2014). Humanism within globalization. *Adult Learning, 25*(2), 66-68. doi:10.1177/1045159514522428

Welch, A., & Napoleon, L. (2015). Professional teaching dispositions of online instructors: Why they matter. *Procedia-Social and Behavioral Sciences*, *171*, 584-589. DOI:10.1016/j.sbspro.2015.01.164

West, C., Baker, A., Ehrich, J. F., Woodcock, S., Bokosmaty, S., Howard, S. J., & Eady, M. J. (2020). Teacher Disposition Scale (TDS): construction and psychometric validation. *Journal of Further and Higher Education*, *44*(2), 185-200.

Wheeler, S. C., Petty, R. E., & Bizer, G. Y. (2005). Self-Schema Matching and Attitude Change: Situational and Dispositional Determinants of Message Elaboration. *Journal of Consumer Research*, *31*(4), 787–797. https://doi.org/10.1086/426613

Witt, P. L., & Wheeless, L. R. (2001). An experimental study of teachers' verbal and nonverbal immediacy and students' affective and cognitive learning. *Communication Education, 50*(4), 327-342.

Wilson, R. A., & Keil, F. C. (Eds.). (2001). *The MIT encyclopedia of the cognitive sciences*. MIT press.

Wilson, S., & Cameron, R. (1996). Student Teacher Perceptions of Effective Teaching: A Developmental Perspective. *Journal of Education for Teaching*, *22*(2), 181–195.

Winne, P. (1985). Cognitive processing in the classroom. *The International Encyclopedia of Education, 2*, 795-808.

Wise, A. (2006, January 16). Response to George Will's column "The truth about teaching." Newsweek. In Borko, H., Liston, D., & Whitcomb, J. A. (2007). Apples and fishes: The debate over dispositions in teacher education.https://doi.org/10.1177/0022487107309977

Yang, B. (2004). Can Adult Learning Theory Provide a Foundation for Human Resource Development? *Advances in Developing Human Resources*, *6*(2), 129–145. https://doi.org/10.1177/1523422304263325

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational psychologist*, *47*(4), 302-314.

Appendix A: CAEP Communication

Mail - Suzanne E Brooks - Outlook - Google Chrome — ☐ X

🔒 outlook.office.com/mail/deeplink?version=20210125001.08&popoutv2=1 ⊕

↩ Reply all | ∨ 🗑 Delete ⊘ Junk ⊘ Block ⋯

[EXT] - Re: CAEP Standards

From: Emerson Elliott [Emerson.Elliott@caepnet.org]
Sent: Tuesday, February 03, 2015 1:40 PM
To: Suzanne E Brooks
Cc: Stevie Chepko
Subject: RE: Dispositions of Other School Professionals

Note for Suzanne Brooks,

While I'll do the best I can to respond to your questions about particular aspects of the CAEP Interim Standards, I need to preface that with a strong caveat about those standards. They were created at a time when TEAC and NCATE were in the first stages of coming together under the new umbrella of CAEP. The Interim Standards were intended to demonstrate the commonality of purpose of the predecessor organizations by amalgamating provisions from the separate standards of both into a single set.

But the label, "Interim", was meant to signal that new standards for the new accreditor were on the way. A high level Commission was established in 2012 to create those new standards, and the Commission completed its work in June of 2013 with recommendations for the CAEP Board. In one of its first actions, the new CAEP Board adopted the Commission's recommendations in full in August 2013. Those 2013 standards are the ones that best represent CAEP's emphases on a higher bar for accreditation, on gathering of evidence and on using data as a basis for preparation improvements. These standards are available on this URL: http://caepnet.files.wordpress.com/2013/09/final_board_approved1.pdf. (As you reference in your email, this past June, the CAEP Board adopted parallel standards for advanced preparation programs: https://caepnet.files.wordpress.com/2014/08/caep_standards_for_advanced_programs1.pdf). The August 2013 standards were newly written, intentionally drawing on research findings as much as possible. Members were well informed as to the perspectives of diverse policy advocates, the then-new and updated InTASC standards and other conditions. At no point was there an intent to construct the new CAEP standards as a continuation of those from NCATE or TEAC, or of the Interim Standards.

On your first question about omission of component 1.5 for advanced preparation, the general answer is that advanced preparation follows preparation at the initial teaching level. The expectation would be that working collaboratively (1.5) would already have been an expectation for initial teacher preparation, and that advanced programs should cover complementary aspects of candidate knowledge and skill or should call for evidence that is unique to the advanced field.

Second, on the 2014 standards for advanced preparation, the model for these, of course, was the August 2013 initial teaching standards. The initial standards incorporate dispositions through integration of the Council of Chief State School Officers "InTASC" standards (in component 1.1), explicitly in 3.3—where your question is directed, and by implication in other places. The CAEP Commission gave frequent consideration to the degree of prescription it should provide. Narrowly prescriptive standards are inconsistent with the ideas that lie behind a "culture of evidence" and using data for "continuous improvement"—ideas that call for higher expectations, more organizational responsibility, and more self motivation from providers. The Commission sought to structure an accreditation process that would encourage providers to make better choices, informed by data. Component 3.3 does include dispositions, as you note, but it also expects that EPPs will monitor their application and systematically study the results.

All of that said, the Commission very deliberately included component 3.3 because the members believed that as important as academic ability/ achievement is, there are other factors—attributes and dispositions—that are important in teaching as well. While they found the research less conclusive about just which particular dispositions are most significant, they thought it important for the field to search them out and understand them through practice and more investigation.

Please feel free to contact me again if you have follow up questions from what I've written here.

Emerson J. Elliott,
CAEP, Special Projects

From: Suzanne E Brooks [mailto:sebrooks@yu.edu]
Sent: Tuesday, January 13, 2015 12:00 PM
To: caep
Subject: Dispositions of Other School Professionals

⊞ 🔍 Type here to search   O 🗐 📧 📁 🌐 📊 📕 📘   ∧ 🔲 📶 🔊 ℓ ENG 4:27 AM 📋
                                                                                      2/8/2021

From: Emerson Elliott [Emerson.Elliott@caepnet.org]
Sent: Tuesday, February 03, 2015 1:40 PM
To: Suzanne E Brooks
Cc: Stevie Chepko
Subject: RE: Dispositions of Other School Professionals

Note for Suzanne Brooks,

While I'll do the best I can to respond to your questions about particular aspects of the CAEP Interim Standards, I need to preface that with a strong caveat about those standards. They were created at a time when TEAC and NCATE were in the first stages of coming together under the new umbrella of CAEP. The Interim Standards were intended to demonstrate the commonality of purpose of the predecessor organizations by amalgamating provisions from the separate standards of both into a single set.

But the label, "Interim", was meant to signal that new standards for the new accreditor were on the way. A high level Commission was established in 2012 to create those new standards, and the Commission completed its work in June of 2013 with recommendations for the CAEP Board. In one of its first actions, the new CAEP Board adopted the Commission's recommendations in full in August 2013. Those 2013 standards are the ones that best represent CAEP's emphases on a higher bar for accreditation, on gathering of evidence and on using data as a basis for preparation improvements. These standards are available on this URL: http://caepnet.files.wordpress.com/2013/09/final_board_approved1.pdf. (As you reference in your email, this past June, the CAEP Board adopted parallel standards for advanced preparation programs: https://caepnet.files.wordpress.com/2014/08/caep_standards_for_advanced_programs1.pdf). The August 2013 standards were newly written, intentionally drawing on research findings as much as possible. Members were well informed as to the perspectives of diverse policy advocates, the then-new and updated InTASC standards and other conditions. At no point was there an intent to construct the new CAEP standards as a continuation of those from NCATE or TEAC, or of the Interim Standards.

On your first question about omission of component 1.5 for advanced preparation, the general answer is that advanced preparation follows preparation at the initial teaching level. The expectation would be that working collaboratively (1.5) would already have been an expectation for initial teacher preparation, and that advanced programs should cover complementary aspects of candidate knowledge and skill or should call for evidence that is unique to the advanced field.

Second, on the 2014 standards for advanced preparation, the model for these, of course, was the August 2013 initial teaching standards. The initial standards incorporate dispositions through integration of the Council of Chief State School Officers "InTASC" standards (in component 1.1), explicitly in 3.3—where your question is directed, and by implication in other places. The CAEP Commission gave frequent consideration to the degree of prescription it should provide. Narrowly prescriptive standards are inconsistent with the

ideas that lie behind a "culture of evidence" and using data for "continuous improvement"—ideas that call for higher expectations, more organizational responsibility, and more self motivation from providers. The Commission sought to structure an accreditation process that would encourage providers to make better choices, informed by data. Component 3.3 does include dispositions, as you note, but it also expects that EPPs will monitor their application and systematically study the results.

All of that said, the Commission very deliberately included component 3.3 because the members believed that as important as academic ability/ achievement is, there are other factors—attributes and dispositions—that are important in teaching as well. While they found the research less conclusive about just which particular dispositions are most significant, they thought it important for the field to search them out and understand them through practice and more investigation.

Please feel free to contact me again if you have follow up questions from what I've written here.

Emerson J. Elliott,
CAEP, Special Projects

Appendix B: IRB Letter

WIRB
Global Leader | Proven Expert

May 29, 2019

Suzanne Brooks
Azrieli Graduate School
Yeshiva University
500 West 185th Street, BH 311
New York, NY 10033

Dear Ms. Brooks:

SUBJECT: IRB EXEMPTION—REGULATORY OPINION
            Investigator OR Sponsor Contact: Suzanne Brooks
            Protocol Title: Fostering and Assessment of Professional Dispositions in Online
            Higher Education Programs

This is in response to your request for an exempt status determination for the above-referenced protocol. Western Institutional Review Board's (WIRB's) IRB Affairs Department reviewed the study under the Common Rule and applicable guidance.

We believe the study is exempt under 45 CFR § 46.104(d)(2), because This is a survey and qualitative interview project, and any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

This exemption determination can apply to multiple sites, but it does not apply to any institution that has an institutional policy of requiring an entity other than WIRB (such as an internal IRB) to make exemption determinations. WIRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions. You are responsible for ensuring that each site to which this exemption applies can and will accept WIRB's exemption decision.

Please note that any future changes to the project may affect its exempt status, and you may want to contact WIRB about the effect these changes may have on the exemption status before implementing them. WIRB does not impose an expiration date on its IRB exemption determinations.

If you have any questions, or if we can be of further assistance, please contact Sean W. Horkheimer, JD, CIP, at 360-252-2465, or e-mail RegulatoryAffairs@wirb.com.

SWH:dao
D2 Exemption – Brooks (05-29-2019)
cc: WIRB Accounting
      WIRB Work Order #1-1188179-1

Western Institutional Review Board
1019 39th Avenue SE Suite 120 | Puyallup, WA 98374-2115
Office (360) 252-2500 | **Fax** (360) 252-2498 | **www.wirb.com**

May 29, 2019

Suzanne Brooks

Azrieli Graduate School

Yeshiva University

500 West 185th Street, BH 311

New York, NY 10033

Dear Ms. Brooks:

SUBJECT: IRB EXEMPTION—REGULATORY OPINION

Investigator OR Sponsor Contact: Suzanne Brooks

Protocol Title: Fostering and Assessment of Professional Dispositions in
Online Higher Education Programs

This is in response to your request for an exempt status determination for the above-
referenced protocol. Western Institutional Review Board's (WIRB's) IRB Affairs
Department reviewed the study under the Common Rule and applicable guidance.

We believe the study is exempt under 45 CFR § 46.104(d)(2), because This is a survey and
qualitative interview project, and any disclosure of the human subjects' responses outside the
research would not reasonably place the subjects at risk of criminal or civil liability or be
damaging to the subjects' financial standing, employability, educational advancement, or
reputation.

This exemption determination can apply to multiple sites, but it does not apply to any
institution that has an institutional policy of requiring an entity other than WIRB (such as an
internal IRB) to make exemption determinations. WIRB cannot provide an exemption that
overrides the jurisdiction of a local IRB or other institutional mechanism for determining

exemptions. You are responsible for ensuring that each site to which this exemption applies can and will accept WIRB's exemption decision.

Please note that any future changes to the project may affect its exempt status, and you may want to contact WIRB about the effect these changes may have on the exemption status before implementing them. WIRB does not impose an expiration date on its IRB exemption determinations.

If you have any questions, or if we can be of further assistance, please contact Sean W. Horkheimer, JD,

CIP, at 360-252-2465, or e-mail RegulatoryAffairs@wirb.com.

 SWH:dao

D2 Exemption – Brooks (05-29-2019)

cc: WIRB Accounting

WIRB Work Order #1-1188179-1

Appendix C: Survey

Responses to this survey will contribute to a doctoral dissertation examining how faculty foster and assess professional dispositions in students enrolled in traditional, face-to-face courses and students enrolled in asynchronous online courses.

For the purpose of this survey:
"Dispositions" are attitudes, values, and beliefs that are demonstrated through verbal and non verbal communication, behavior, and actions, for example, to embrace diversity.

"Face-to-face" or "F-2-F courses" refer to classes that meet in person.

"Asynchronous courses" or "Asynch" refer to online classes in which students complete activities and assignments through a learning management system on their own schedule and in accordance with assignment due dates. They generally do not "meet" for class at the same time through electronic platforms, such as video conferencing, and they don't meet in person.

This survey is intended for faculty and administration who have taught at least one traditional, face-to-face course or at least one asynchronous online course during the last 2 years in an educator preparation program (teacher or school leadership preparation). The survey should take approximately 10-15 minutes to complete.

Thank you for your time and for sharing your insights.

* 1. During the last 2 years, I taught

○ At least one **face-to-face** course **and** at least one **asynchronous online** course in an educator preparation program (teacher or school leadership preparation).

○ At least one **face-to-face** course, and no asynchronous online courses in an educator preparation program (teacher or school leadership preparation).

○ At least one **asynchronous online** course, and no face-to-face courses in an educator preparation program (teacher or school leadership preparation).

○ I **did not teach** during the last 2 years.

Demographic Data

Questions 2-8 ask for demographic information.

2. What is your title?

- ○ Dean
- ○ Associate Dean
- ○ Assistant Dean
- ○ Full Professor and Chair
- ○ Full Professor
- ○ Associate Professor
- ○ Assistant Professor

- ○ Adjunct Professor
- ○ Program Director
- ○ Associate Program Director
- ○ Assistant Program Director
- ○ Online or Distance Education Administrator
- ○ Graduate Student

Other (please specify)

[   ]

3. How many years have you taught in higher education?

[   ]

4. I identify as

- ○ Male
- ○ Female
- ○ Other (please specify)

  [   ]

5. What is your age?

[   ]

6. Please select all of the choices that describe your program and institution.

☐ Undergraduate Teacher Preparation Program

☐ Master's Teacher Preparation Program

☐ Master's Education Leadership Program

☐ Doctoral Education Program

☐ CAEP Accredited for Undergraduate Program

☐ CAEP Accredited for Graduate Program

☐ Private University

☐ Public University

☐ Faith Based University

☐ Other (please specify)

[   ]

7. How would you describe the size of your program(s)? Please check all that apply.

☐ We don't have a Master's Program   ☐ We don't have a Doctoral Program

☐ 1-19 Master's Students   ☐ 1-19 Doctoral Students

☐ 20-50 Master's Students   ☐ 20-50 Doctoral Students

☐ 51-100 Master's Students   ☐ 51-100 Doctoral Students

☐ More than 100 Master's Students   ☐ More than 100 Doctoral Students

8. What is your institution's Carnegie Classification?

◯ R1: Doctoral University - Very High Research Activity   ◯ M2: Master's College or University - Medium Program

◯ R2: Doctoral University - High Research Activity   ◯ M3: Master's College or University - Small Program

◯ D/PU: Doctoral/Professional University   ◯ I Don't Know

◯ M1: Master's College or University - Large Programs

◯ Other (please specify)

[   ]

The remaining 26 questions will directly inform this research.

9. Which best describes your educational experience?

◯ I graduated from at least one asynchronous online program

◯ I completed at least one asynchronous online course, but not an entire asynchronous online program.

◯ I did not complete any asynchronous online courses in any of my programs.

10. Through my education (Undergraduate and Graduate),
(Please check all that apply.)

☐ I've had at least one course in online instructional design.   ☐ I've had at least one course in the assessment of dispositions.

☐ I've had at least one course in fostering adult change.   ☐ None of the above

☐ I've had at least one course in fostering dispositions.

11. To what extent **do you think your university/college** includes general and/or faith based dispositions in its mission? General dispositions are those dispositions that apply to all higher education students (e.g. valuing service to the community). Faith based dispositions would be those dispositions that are unique to religion (e.g. Valuing a religious lifestyle).

	Don't know	Not included	Minimally included - Some mention, but clearly not a focus	Included	Very much Included - A strong part of the mission
General Dispositions	◯	◯	◯	◯	◯
Faith Based Dispositions	◯	◯	◯	◯	◯

12. In **your opinion**, how committed is **your administration and faculty** to fostering general or faith based dispositions?

	Not at all committed	Somewhat committed	Committed	Very Committed	Extremely committed
General Dispositions	◯	◯	◯	◯	◯
Faith Based Dispositions	◯	◯	◯	◯	◯

13. In **your opinion**, how important are **fostering and assessing** dispositions in students?

	Not Important	Slightly Important	Important	Very Important
Foster professional dispositions	◯	◯	◯	◯
Assess professional dispositions	◯	◯	◯	◯

14. How do **you, your administration, or faculty assess** the **dispositions** of **applicants** to your **f-2-f program(s)**? Please check all that apply.

- [ ] I don't work for a f-2-f program
- [ ] Self Assessment
- [ ] Interviewer Checklist
- [ ] Recommendation Letter(s)
- [ ] Essay(s)
- [ ] Discussions
- [ ] Not Assessed
- [ ] I don't know
- [ ] Other (please specify)

    [   ]

15. How do **you, your administration, or faculty assess** the **dispositions** of **applicants** to your **asynchronous online program(s)**? Please check all that apply.

- [ ] I don't work for an asynchronous online program
- [ ] Self Assessment
- [ ] Interviewer Checklist
- [ ] Recommendation Letter(s)
- [ ] Essay(s)
- [ ] Discussions
- [ ] Not Assessed
- [ ] I don't know
- [ ] Other (please specify)

    [   ]

16. When do **you, your administration, or faculty assess** the **dispositions** of students enrolled in **f-2-f courses**?

Check all that apply.

☐ I don't work for a program that offers f-2-f courses

☐ During coursework

☐ Upon completion of coursework

☐ Before beginning fieldwork

☐ During fieldwork

☐ Upon completion of fieldwork

☐ Not Assessed

☐ I don't Know

☐ Other (please specify)

[   ]

17. When do **you, your administration, or faculty assess** the **dispositions of students enrolled** in **asynchronous online courses**?

Check all that apply.

☐ I don't work for a program that offers asynchronous online courses

☐ During coursework

☐ Upon completion of coursework

☐ Before beginning fieldwork

☐ During fieldwork

☐ Upon completion of fieldwork

☐ Not Assessed

☐ I don't know

☐ Other (please specify)

[   ]

18. How do **you, your administration, or faculty assess** the **dispositions** of **students enrolled** in **f-2-f courses**?
Check all that apply.

- [ ] I don't work for a program that offers f-2-f courses
- [ ] Self Assessment
- [ ] Essay
- [ ] Role Play
- [ ] Observations
- [ ] Discussions
- [ ] Not Assessed
- [ ] I don't know
- [ ] Other (please specify)

[   ]

19. How do **you, your administration, or faculty assess** the **dispositions** of **students enrolled** in **asynchronous online courses**?
Check all that apply.

- [ ] I don't work for a program that offers asynchronous online courses
- [ ] Self Assessment
- [ ] Essay
- [ ] Role Play
- [ ] Observations
- [ ] Discussion Boards
- [ ] Not Assessed
- [ ] I don't know
- [ ] Other (please specify)

[   ]

20. How **effective** do you think you are in **fostering** dispositions in students enrolled in **f-2-f** and **asynchronous online** courses?

	I don't teach this type of course	I don't try to foster dispositions	I attempt this, but I'm not effective	Minimally effective	Effective	Very effective
F-2-F Courses	○	○	○	○	○	○
Asynchronous Online Courses	○	○	○	○	○	○

21. How <u>effective</u> do you think you are in **assessing dispositions in students enrolled in f-2-f and asynchronous online** courses?

	I don't teach this type of course	I don't assess dispositions	I attempt this, but I'm not effective	Minimally effective	Effective	Very effective
F-2-F Courses	○	○	○	○	○	○
Asynchronous Online Courses	○	○	○	○	○	○

22. How <u>difficult</u> do you think it is to **foster dispositions in students enrolled in f-2-f** courses and **asynchronous online** courses?

	I don't teach this type of course	Not difficult	Somewhat Difficult	Difficult	Very Difficult	Extremely Difficult
F-2-F	○	○	○	○	○	○
Asynchronous Online Courses	○	○	○	○	○	○

23. How <u>difficult</u> do you think it is to **assess dispositions in students enrolled in f-2-f** courses and **asynchronous online** courses?

	I don't teach this type of course	Not Difficult	Somewhat Difficult	Difficult	Very Difficult	Extremely Difficult
F-2-F	○	○	○	○	○	○
Asynchronous Online Courses	○	○	○	○	○	○

24. To what extent **do you rely** on information gained from students' non-verbal communication and participation in impromptu discussions to **assess** the professional dispositions of students enrolled in **f-2-f courses?**

○ Not at all

○ Somewhat rely

○ Rely

○ Very much rely

○ Completely rely - No other method used

○ I do not assess students' professional dispositions.

○ I do not teach f-2-f courses

25. To what extent **do you rely** on non-verbal communication, impromptu discussions, and verbal and non verbal teacher immediacy behaviors, such as using a student's name or smiling, to **foster** professional dispositions in students enrolled in **f-2-f** courses?

○ Not at all

○ Somewhat rely

○ Rely

○ Very much rely

○ Completely rely - no other method used

○ I do not try to foster professional dispositions in students.

○ I do not teach f-2-f courses

26. How much importance **do you think your administration or faculty** gives the **fostering** and **assessment** of the following **dispositions** in students enrolled in **f-2-f courses**?

	We don't have f-2-f courses	None	Very little	Moderate amount	Significant amount	Very significant amount
Collaboration	○	○	○	○	○	○
Embrace diversity	○	○	○	○	○	○
Belief all students can learn	○	○	○	○	○	○
Lifelong learner	○	○	○	○	○	○
Ethic of caring	○	○	○	○	○	○
Optimism	○	○	○	○	○	○
Belief other's are capable of solving problems	○	○	○	○	○	○
Flexibility	○	○	○	○	○	○
Open to feedback	○	○	○	○	○	○
Understand the Perspectives of Others	○	○	○	○	○	○

27. How much importance **do you think your administration or faculty** gives the **fostering** and **assessment** of the following dispositions in students enrolled in **asynchronous online** courses?

	We don't have asynchronous online courses	None	Very little	Moderate amount	Significant amount	Very significant amount
Collaboration	○	○	○	○	○	○
Embrace diversity	○	○	○	○	○	○
Belief all students can learn	○	○	○	○	○	○
Lifelong learner	○	○	○	○	○	○
Ethic of caring	○	○	○	○	○	○
Optimism	○	○	○	○	○	○
Belief other's are capable of solving problems	○	○	○	○	○	○
Flexibility	○	○	○	○	○	○
Open to feedback	○	○	○	○	○	○
Understand the Perspectives of Others	○	○	○	○	○	○

28. The literature includes many different theories of learning, cognition, and change. To what extent do you consider theories of learning (e.g. Behaviorism), cognitive development (e.g. dialectical thinking), or adult change (e.g. transtheoretical model - Stages of Change) when trying to foster dispositions in students enrolled in f-2-f courses?

	I don't teach f-2-f courses	Do not consider theory	Somewhat consider theory	Consider theory	Significant consideration of theory	Very significant consideration of theory
Theories of Learning	○	○	○	○	○	○
Theories of Cognitive Development	○	○	○	○	○	○
Theories about Adult Change	○	○	○	○	○	○

Other (please specify)

[   ]

29. To what extent do you consider theories of learning, cognitive development, or adult change when trying to foster dispositions in students enrolled in fully asynchronous online courses?

	I don't teach asynchronous online courses	Do not consider theory	Somewhat consider theory	Consider theory	Significant consideration of theory	Very significant consideration of theory
Theories of Learning	○	○	○	○	○	○
Cognitive Development	○	○	○	○	○	○
Theories about Adult Change	○	○	○	○	○	○

Other (please specify)

[   ]

30. To what extent do you consider the following learning theories when trying to foster dispositions in students enrolled in f-2-f courses?

	I don't teach f-2-f courses	I don't consider this theory	Minimal consideration	Consider	Significant consideration	Very significant consideration
Cognitivism	○	○	○	○	○	○
Behaviorism	○	○	○	○	○	○
Constructivism	○	○	○	○	○	○
Social Constructivism	○	○	○	○	○	○
Humanism	○	○	○	○	○	○
Transformational Learning	○	○	○	○	●	○
Experiential Learning	○	○	○	○	○	○

31. To what extent **do you consider** the following learning theories when trying to **foster** dispositions in students enrolled in **asynchronous online** courses?

	I don't teach asynchronous online courses	I don't consider this theory	Minimal consideration	Consider	Significant consideration	Very significant consideration
Cognitivism	○	○	○	○	○	○
Behaviorism	○	○	○	○	○	○
Constructivism	○	○	○	○	○	○
Social Constructivism	○	○	○	○	○	○
Humanism	○	○	○	○	○	○
Transformational Learning	○	○	○	○	○	○
Experiential Learning	○	○	○	○	○	○

32. To what extent **do you consider** theories of learning, cognitive development, or adult change when trying to **assess** dispositions in students enrolled in **f-2-f courses**?

	I don't teach f-2-f courses	Do not consider theory	Somewhat consider theory	Consider theory	Significant consideration of theory	Very significant consideration of theory
Theories of Learning	○	○	○	○	○	○
Cognitive Development	○	○	○	○	○	○
Theories about Adult Change	○	○	○	○	○	○

Please give example(s).

[   ]

33. To what extent **do you consider** theories of learning, cognitive development, or adult change when trying to **assess** dispositions in students enrolled in **asynchronous online courses**?

	I don't teach asynchronous online courses	Do not consider theory	Somewhat consider theory	Consider theory	Significant consideration of theory	Very significant consideration of theory
Theories of Learning	○	○	○	○	○	○
Cognitive Development	○	○	○	○	○	○
Theories about Adult Change	○	○	○	○	○	○

Other (please specify)

[   ]

34. Which **theories** of adult change **do you consider** when trying to **foster** or **assess** professional dispositions in students enrolled in **f-2-f courses**? Please specify which theories inform how you foster professional dispositions and which theories inform how you assess dispositions.

35. Which **theories** of adult change do you consider when trying to **foster** or **assess** professional dispositions in students enrolled in **asynchronous online** courses? Please specify which theories inform how you foster professional dispositions and which theories inform how you assess dispositions.

36. Thank you for your participation in this study. If you would be interested in contributing further to this research and agree to be interviewed, please include your name and contact information below. Identifying information will be kept confidential. Names won't be linked to individual responses.

Name	
Company	
Address	
Address 2	
City/Town	
State/Province	
ZIP/Postal Code	
Country	
Email Address	
Phone Number	

Appendix D: Email to University Deans and Faculty

Dear Dean   ,

 Currently, I am a PhD candidate at Yeshiva University studying the ability of faculty to foster and assess professional dispositions in students enrolled in face-to-face or asynchronous online courses. The first phase of this study focuses on the efficacy of fostering and assessing dispositions in students enrolled in educator preparation courses (both teacher and school leadership preparation). The second phase will study the fostering and assessment of dispositions in students enrolled in courses in other 'helping' fields.

I would be grateful if you would forward a survey link,

https://www.surveymonkey.com/r/PLWTF3V, to faculty and administration who have taught at least one course, face-to-face or asynchronous online, in an educator preparation program during the last two years.

The survey is intended to collect data that will be used to examine the efficacy of fostering and assessing undergraduate and graduate students' professional dispositions when courses are taught in face-to-face or asynchronous online formats. For the purpose of this study, "professional dispositions" or "dispositions" refer to attitudes, values, and beliefs that are demonstrated through verbal or non-verbal communication, discourse, behavior, and actions (e.g. embrace diversity). Your and your faculty's participation can provide important data for educator preparation programs and the wider field of higher education in the 'helping' professions. If you provide identifying information, it will be kept confidential and only aggregate data will be shared. Data collected from those who agree to a follow up interview will be shared without identifiers, and personal information will be kept confidential.

 The survey is expected to take 10-15 minutes. By encouraging your faculty to complete this survey, you will be contributing to a study that will inform effective online instruction. In appreciation for completing this survey and disseminating the survey to your faculty, I can provide results for your institution if the respondents include the name of your institution and department in the last survey question, or I can provide general survey results in summary form. Respondents do not need to provide their names and contact information, unless they would like to participate in a follow-up interview. The WIRB determined that this study is "Exempt", and I can provide documentation if requested. I can be contacted at sebrooks@yu.edu if you have further questions.

Survey link: **https://www.surveymonkey.com/r/PLWTF3V**

Sincerely,

Suzanne Brooks, PhD candidate

Senior Doctoral Fellow and Initiatives Coordinator

Azrieli Graduate School

Yeshiva University

500 W 185th St.

New York, NY 10033

sebrooks@yu.edu

Appendix E: Reminder to Complete Survey Email

Dear   ,

This is a friendly reminder regarding the survey described below. I would greatly appreciate if you and your faculty could complete this survey about fostering and assessing educator dispositions in students enrolled in either face-to-face or online courses. Survey link: **https://www.surveymonkey.com/r/PLWTF3V**

Currently, I am a PhD candidate at Yeshiva University studying the ability of faculty to foster and assess professional dispositions in students enrolled in face-to-face or asynchronous online courses. The first phase of this study focuses on the efficacy of fostering and assessing dispositions in students enrolled in educator preparation courses (both teacher and school leadership preparation). The second phase will study the fostering and assessment of dispositions in students enrolled in courses in other 'helping' fields.

I would be grateful if you would forward a survey link, **https://www.surveymonkey.com/r/PLWTF3V,** to faculty and administration who have taught at least one course, face-to-face or asynchronous online, in an educator preparation program during the last two years.

The survey is intended to collect data that will be used to examine the efficacy of fostering and assessing undergraduate and graduate students' professional dispositions when courses are taught in face-to-face or asynchronous online formats. For the purpose of this study, "professional dispositions" or "dispositions" refer to attitudes, values, and beliefs that are demonstrated through verbal or non-verbal communication, discourse, behavior, and actions (e.g. embrace diversity). Your and your faculty's participation can provide important data for educator preparation programs and the wider field of higher education in the 'helping' professions. If you provide identifying information, it will be kept confidential and only aggregate data will be shared. Data collected from those who agree to a follow up interview will be shared without identifiers, and personal information will be kept confidential.

The survey is expected to take 10-15 minutes. By encouraging your faculty to complete this survey, you will be contributing to a study that will inform effective online instruction. In appreciation for completing this survey and disseminating the survey to your faculty, I can provide results for your institution if the respondents include the name of your institution and department in the last survey question, or I can provide general survey results in summary form. Respondents do not need to provide their names and contact information, unless they would like to participate in a follow-up interview. The WIRB determined that this study is "Exempt", and I can provide documentation if requested. I can be contacted at sebrooks@yu.edu if you have further questions.

Survey link: **https://www.surveymonkey.com/r/PLWTF3V**

Sincerely,
Suzanne Brooks, PhD candidate
Senior Doctoral Fellow and Initiatives Coordinator
Azrieli Graduate School
Yeshiva University
500 W 185th St.
New York, NY 10033
sebrooks@yu.edu

Appendix F: Email to Potential Interviewees

Dear   ,

I hope you and everyone in your orbit are well!

At some point before the COVID-19 Pandemic spread throughout the United States, you graciously completed a survey for my dissertation which examines fostering and assessing educator dispositions in students enrolled in face-to-face courses and students enrolled in asynchronous online courses. You kindly indicated on the survey that you would be interested in participating in a follow up interview.

The COVID-19 Pandemic has impacted people in different ways. While some faculty and administration who intended to participate in interviews may not be available due to health challenges or increased family and work commitments, others have more time available because they are not commuting or have decreased work responsibilities. Are you still able to participate in a 20 minute interview via Zoom or phone? If so, can we schedule for the week of May 11? Can you suggest a few days and times (including the time zone)?

Best wishes,

Suzanne Brooks

Senior Doctoral Fellow and Initiatives Coordinator

Azrieli Graduate School

Yeshiva University

sebrooks@yu.edu

Appendix G: Semi-Structured Qualitative Interview Questions

Have you taught face-to-face, asynchronous online, or both?

How does your program refer to professional dispositions?

What dispositions do you think are necessary to serve in the field of education?

Which dispositions does your program intend to foster?

Which dispositions does your program intend to assess?

When does assessment of dispositions happen (admissions, during coursework, during field work, etc.)?

How important are fostering and assessing dispositions in your program?

How intentional are you and your program about fostering and assessing dispositions?

How important is it for education programs to serve as gatekeepers to the field? What responsibility does higher education have to the field?

How might fostering and assessment of dispositions be similar or different in asynchronous courses than in traditional courses?

Can dispositions be fostered and assessed when teaching asynchronous online courses?

How can dispositions be fostered when teaching asynchronous online courses?

How can dispositions be assessed when teaching asynchronous online courses?

How would you describe your level of efficacy at fostering dispositions in students enrolled in face-to-face courses? Asynchronous online courses?

How would you describe the level of difficulty in assessing dispositions of students enrolled in face-to-face courses? Asynchronous online courses?

What role do students non-verbal communication, impromptu discussion, or teacher's immediacy behaviors (e.g. physical proximity) have when fostering or assessing students' dispositions during face-to-face courses?

How does the lack of non-verbal communication, impromptu discussions, or teacher immediacy behaviors impact your ability to assess the dispositions of students enrolled in asynchronous online courses?

How does your program use learning theories to foster dispositions to foster and assess dispositions?

How do you or your program use psychology of change theories/ adult development theories to foster dispositions? Assess Dispositions?

How do theories of adult online learning guide the design of eLearning courses that include fostering dispositions?

How do theories of adult change/development guide the design of eLearning activities intended to foster dispositions?

How do theories of adult online learning guide the design of assessment of dispositions in online students?

How do theories of adult change guide the design of assessment of dispositions of online students?

How do you know that the assessment tools are reflective of asynchronous online students' dispositions? How do you know they work?

Appendix H: Nvivo Codes

NVivo Codes

Research Questions and Hypotheses	Code
RQ1	Sim
	Dif
Hyp 1A	Effective
Hyp 1B	Difficult
Hyp 1 C, RQ 4A-B Qual Q: How intentional are you and your program about fostering and assessing dispositions?	Importance
Child code	Child code - Responsibility
Hyp 1D	Theories
Hyp 1E	Specific Theories
RQ 2, Hyp 2A -2B	Nonverbal, impromptu, teacher immediacy
RQ 3, Hyp 3A-E	Background
Qual Q: How do you assess dispositions? How do you know that the assessment tools are reflective of asynchronous online students' dispositions? How do you know they work?	Assessment
Qual Q: How do you foster dispositions?	Strategies
Qual Q: Have you taught face-to-face, asynchronous online, or both?	Taught
Qual Q: What dispositions do you think are necessary to serve in the field of education? Which dispositions does your program intend to foster? Which dispositions does your program intend to assess	Specific dispositions
Other germane points shared by interviewee	Other