

Changing Levels of Empathy: The Impact of Social Work Education

by

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ABSTRACT

The development of online program options in higher education has prompted the discussion of how well the modality fits the nature of social work education and the Council on Social Work Accreditation (CSWE) educational standards. To examine the relationship between online education and social work education, this research study focused on empathy. Conceptualized as the ability to share and understand the feelings of others, empathy is at the core of social work education and practice.

The primary purpose of this research study was to examine whether the cultivation of interpersonal empathy and social empathy changes by in-person and online education. An ongoing debate centers on the effectiveness of online instructional delivery in the virtual environment, as compared to in-person instruction in a physical classroom. Therefore, it is valuable to examine if the level of empathy scores for students changes from the beginning to the end of a Master of Social Work (MSW) degree program at Arizona State University, according to the mode of instruction, online versus in-person.

Among the sample of 185 participants in the pre-test survey and 86 participants in the post-test survey, empathy levels were examined by time (pre-test to post-test) and by mode of instructional delivery (online versus in-person). To better understand the constructs and the relationship among the variables, critical theory was applied. In addition, the pedagogical theories of andragogy, transformative learning, and the Community of Inquiry model were informative. Findings revealed that the empathy survey instrument had high reliability, the levels of empathy increased for MSW students over time, and students' empathy levels did not differ by in-person versus online modes

of instruction, with the exception of the social empathy component of contextual understanding.

The study findings have implications for social work education and future research. These implications highlight the need to explore how to best cultivate empathy in social work education, while continuing to examine the association of the mode of delivery with educational outcomes important to the profession of social work.

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CHAPTER 1

INTRODUCTION

The current era of rapid technological advances has challenged higher education institutions in how to meet the needs of the student populations entering academic environments. Many arrive with significant amounts of life and work experience, as well as many time constraints due to various family, work, and civic responsibilities (Aon, 2017). The needs of today's student body has led to the rise of innovative distance education options.

The proliferation of online learners has been reflected in social work education. In 2019, the Council on Social Work Education (CSWE) had 227 accredited undergraduate social work programs offering some version of distance education option, either online or hybrid, and 34 of those programs offered at least 90% of the degree coursework through online delivery (CSWE, 2020). Of the CSWE-accredited graduate social work programs in that same year, 72 offered at least 90% of the coursework through online means of delivery, and 149 reported offering partial online options (CSWE, 2020). The programs that offered at least 90% of the coursework online represent approximately 47.7% and 62.3% of accredited Bachelor of Social Work (BSW) and Master of Social Work (MSW) programs, respectively (CSWE, 2020). Clearly online coursework is a major part of social work education. The emergence of accredited social work program delivery through online education moves the national debate beyond the question of whether or not social work education should be offered in the online environment to the examination of the impact of online delivery of social work education. Innovation, best teaching and

learning practices, equity, and social justice have become more important than the debate about in-person versus online modes of instructional delivery (Afrouz & Crisp, 2020).

Online social work education is a recent phenomenon in social work higher education settings. When virtual means of instructional delivery were first introduced, highly didactic teaching methods were lifted from traditional educational structures and woven throughout online courses. Although nontraditional teaching methods have been prevalent in social work education, the speed of online implementation resulted in more traditional methods being incorporated. This traditional online delivery was influenced by a for-profit orientation in the economic marketplace, with the result of the delivery of online education frequently framed as a business model product, even in social work, as opposed to a cognitive learning experience that requires a creative pedagogical orientation (Chick & Hassel, 2009).

Providing social work education online is not without controversy. The Clinical Social Work Association (CSWA) produced a position paper concluding that online MSW programs lack the crucial implicit learning integral to the CSWE Educational Policy and Accreditation Standards (CSWA, 2013). The CSWA position paper identified an absence of research findings related to the differences between online and in-person programs with regard to coursework, Field Education, instructor contact, and peer contact (CSWA, 2013). The CSWA further articulated ethical concerns regarding the marketing and recruitment practices of online programs, the undermining of human relationships, the higher dropout rates of online students, and the integrity of education standards (CSWA, 2013).

Consideration of the CSWA's concerns suggests there is a need to examine the effectiveness of online social work education in communicating and teaching key concepts. Empathy is key to the profession of social work, and, therefore, there is great importance placed on the examination and cultivation of empathy in social work education. The connection between social work and empathy is strong, given the importance of social interactions and relationships in our society and the great impact of developing and communicating an empathic response to client populations (Frankel, 2017). Both interpersonal empathy and social empathy are desirable for social workers engaging in multiple intervention levels through one-on-one work and social justice advocacy. Interpersonal empathy supports the micro work of professional social workers, and social empathy fuels the macro social work perspective.

While social science research indicates that empathy is a critical piece and potential impetus for action for social work students and professionals engaged in micro and macro work, neuroscientific findings confirm that empathy is a phenomenon that occurs within the brain (Gerdes et al., 2014). The presence of neuroplasticity in the brain has implications for empathy, social work practice, and social work education in that the neural pathways may be developed and changed in both positive and negative ways (Segal, 2014). The implication of this research is that social work practitioners, students, and clients may experience growth and modifications behaviorally and cognitively to enhance empathic affect, cognition, and behaviors (Segal, 2014). Thus it follows that whether empathy is learned by students in social work programs is worthy of examination.

Statement of the Problem

The long-standing theoretical foundations of the social work profession are deeply rooted in empathy, as illustrated in the person-in-environment approach, cognitive-behavioral perspective, strengths perspective, humanistic perspective, and psychodynamic perspective (King, 2011). While previous research has explored the definition of empathy, the connection of empathy with neuroscience, and the link between empathy and the helping professions, academic research has not investigated the impact of the mode of instructional delivery, online versus in-person, on the levels of empathy in social work students. This research study will explore if there is evidence that online education supports the development of empathy in light of the rapid expansion of access and a renewed awareness of the identified needs of nontraditional students who have been historically underserved (Lee, 2017). Given the prevalence of online instruction in accredited social work programs and the importance of empathy in professional social work practice, this is a significant gap for research and understanding.

This study will connect the model of interpersonal and social empathy with the concept that empathy is instrumental in social work practice. These two concepts intersect in social work education, which is undergoing a tremendous change in how curriculum is delivered in many programs nationwide. With the emergence of online instruction in social work education, there is space to examine the connection between the mode of delivery and the cultivation of empathy in social work graduates. This study is based on the assumption that empathy may be taught and learned as a phenomenon that encompasses the skills, knowledge, and values that are deeply integrated in the field of social work. This study will contribute a unique understanding of how levels of empathy

are associated with participation in a graduate social work program delivered in various instructional modes.

The proposed research study is significant to social work due to the connections between empathy, the profession of social work, and social work education. It is with a critical lens that opportunities to impact change become evident, power imbalances are unveiled, and a pathway illuminates the way to social action (Salas et al., 2010).

Therefore, the integration of critical theory in this study will assist in unmasking where and when empathy is needed in social work educational and practice settings and how to identify and approach change opportunities. The key implication of this study may be that the mode of instruction has an association with empathy development in graduate social work programs, thereby potentially impacting the level of empathy in social work professionals. The findings of this research study will have useful implications to inform policy, practice, social work education, and future research.

The differentiation of interpersonal empathy and social empathy is particularly relevant to social work practice. The integration of interpersonal empathy components into social work practice allows professional social workers to establish rapport with clients through involuntary affective response, while simultaneously remaining cognizant that the clients' experiences are uniquely theirs, distinct from the social workers' experience. Successful social workers benefit from utilizing the interpersonal empathy components of perspective-taking and affective mentalizing to imagine and understand the client's situation more fully, while remaining in control of personal emotions. These components weave together to strengthen the social work professional's ability to actively listen, understand situations, respond appropriately, and maintain self-regulation.

Professional social workers benefit not only from high levels of interpersonal empathy, but also from mature social empathy. The skills necessary for social empathy integrate understanding of historical discrimination and inequality with insight into diverse populations, which contribute to social justice action, a core part of the profession's mission. Thus, the social empathy components of contextual understanding and macro perspective-taking support the professional social worker to combine historical understanding of oppression and discrimination with the real-life experiences of unique populations to prepare for advocacy and other macro practice responsibilities core to the social work profession.

Terms

The key constructs in this research design are empathy and social work education instruction. For the purpose of this research study, the complex construct of empathy is broken down into interpersonal empathy and social empathy, which serve as the outcome variables in this study. The predictor variable of greatest interest is the instructional delivery method of graduate social work education, dichotomized in this study as in-person versus online. To best explore and understand these principal variables, empathy and graduate social work education at Arizona State University (ASU) are examined in detail in this section.

Empathy

Empathy is the first key construct in this study. As defined in this research study, empathy is the cognitive, affective, and behavioral identification and response to another person's thoughts and feelings (Baron-Cohen, 2011; King, 2011). In experiencing empathy, one is aware of the distinction between the target of the empathy and one's own

emotions and thoughts to react accordingly (Baron-Cohen, 2011). This study is based on Segal's (2011, 2014) conceptualization of empathy as being subdivided into the comprehensive, yet interwoven concepts of interpersonal empathy and social empathy.

Interpersonal Empathy. Interpersonal empathy consists of the five independent and interdependent components of affective response, affective mentalizing, self-other awareness, perspective-taking, and emotion regulation (Segal, 2011, 2014). In this study, each of these components is examined separately for the unique correlation to each of the other components, as well as to interpersonal empathy, social empathy, and the overall empathy construct.

Affective Response. Affective response is physiologically generated as an automatic mirroring response from input gathered through the senses and imagination and processed along neurological pathways (Segal, 2014, 2018). A critical piece of mirroring is that it is considered to be an unconscious lower-order reflexive aspect of empathy, as compared to a more cognitive higher-order aspect (Debes, 2010). Carroll (2014) described the affective response of mirror reflexes, which are similar to mimicry in mimicking others' postures and facial expressions, as inborn responses that gather information, support coping mechanisms, and coordinate group behaviors. These mirror reflexes form a contagious affective state triggering an activated response that may involve sharing the target's emotions, but not always (Carroll, 2014; Decety & Jackson, 2006). Decety and Jackson (2004, 2006) emphasized the aspect of experiencing the empathy target's affect while maintaining self-integrity, which allows the establishment of a boundary to maintain awareness that the experience belongs to someone else. This

involuntary affective response that is hard wired in the human experience is the foundation for the cognitive aspects of empathy.

Affective Mentalizing. Affective mentalizing bridges the gap between the creation of a mental image that mirrors someone else's experience or the relaying of that experience, and the cognitive awareness of one's own experience (Decety & Jackson, 2004; Segal, 2018). Baird and Roellke (2017) defined mentalizing as understanding another person's social and emotional perspective while being cognizant that one's own perspective is separate and distinct. This mentalizing goes beyond understanding the choices people have made to drawing behavioral inferences regarding why people did not select other choices (Morton, 2014; Weisz & Zaki, 2017).

Self-other Awareness. The cognitive ability to differentiate between and balance one's own experiences and those of another is referred to as self-other awareness (Segal, 2014, 2018). As a mature empathy component, self-other awareness establishes a boundary between what is internal to the observer and what is being observed. In the absence of self-other awareness, the lack of distinction between what is one's experience and what is the experience of someone else may lead to the possibility of emotional contagion, which involves mimicking the emotions of others without any understanding or self-awareness (Segal et al., 2017; Singer & Klimecki, 2014).

Perspective-taking. Perspective-taking involves cognitive processing and intentionality in the assumption of another's point of view (Decety & Batson, 2007; Segal, 2014). This processing entails imagining the other person's narrative, including the emotional and cognitive state of being, while recognizing the individuality of one's own self and of the other (McFee, 2014). Perspective-taking is a higher-order concept that

involves transitioning into another person's situation without an elevated risk of emotional contagion to understand why someone made a certain choice and to glimpse why other choices were not made (Morton, 2014; Segal et al., 2017).

Emotion Regulation. Emotion regulation provides cognitive control as a mediating factor for the other empathy components (Segal, 2014). A strong sense of agency, self-awareness, and emotional disentanglement and distance are key to understanding which signals are self-generated and which are stemming from the environment (Decety & Jackson, 2006). Emotion regulation is critical in social work because complete overlap between oneself and the target of empathy may result in personal distress and compassion fatigue, which are prevalent in the helping professions (Decety & Jackson, 2006; Thomas, 2013). With strong emotion regulation to minimize this overlap and temper vicarious reactions to others' experiences, the opportunity for personal distress to develop in the place of empathy is diminished (Eisenberg, 2002; Segal et al., 2017). Instead, people who maintain high emotion regulation are more likely to be associated with more productive empathic concern, as opposed to personal distress (Thomas, 2013).

Social Empathy. The second level of empathy in Segal's model is social empathy, which builds on interpersonal empathy to incorporate the additional interconnected components of contextual understanding and macro perspective-taking in order to impact empathy application on the systemic level (Segal, 2011, 2014; Segal & Wagaman, 2017).

Contextual Understanding. Contextual understanding emerges from an exploration of how populations have been treated historically to gain insight regarding

systems and structures of inequality and disparity on the macro level (Segal, 2014). This informative understanding facilitates the transition from interpersonal empathy to social empathy as awareness develops regarding the influence of powerful external forces and the resulting consequences for differing and different non-dominant and dominant populations. The examination of barriers, inequalities, and oppressive acts within the cultural and societal contexts allows for the expansion of empathic understanding toward social responsibility (Segal, 2011; Segal & Wagaman, 2017).

Macro Perspective-taking. This contextual insight supports enriched macro perspective-taking regarding systemic considerations of external factors and social conditions for groups (Segal, 2014; Segal et al., 2017). Macro perspective-taking builds on the interpersonal empathy component of perspective-taking to expand the ability to step into someone else's perspective on a broader level, that of other populations different from one's own. The skill of macro perspective-taking enhances understanding of different groups and establishes a commitment to social justice and social responsibility (Segal, 2011; Segal & Wagaman, 2017). Macro perspective-taking requires contextual understanding to build awareness of how external factors have impacted the experiences of groups in order to ensure congruence with cultural and historical context (Segal, 2014; Segal et al., 2017). Combined, contextual understanding and macro perspective-taking undergird social justice considerations that may become the catalysts for social action.

Social Work Educational Formats

Social work educational delivery is the second key construct examined in this research study conducted at the ASU, a large public university located in the

Southwestern United States. The understanding of the educational delivery of the ASU graduate social work program sets the context for this study.

The ASU School of Social Work provides students with two options for graduate social work education: through the MSW online program and the in-person MSW program. These two programs have the same core curriculum, CSWE accreditation, and professors with shared faculty governance structure for the delivery options of the MSW program. There are several design and delivery differences between the two program delivery modes. These differences include second-year concentration options, length of semester sessions, required credit hours, number of electives, and tuition rates.

In-person Standard MSW Program. The in-person standard MSW program at ASU is a 60-credit hour graduate social work degree program that involves students meeting on the university campus in the traditional 15-week fall and spring semesters, as well as the eight-week optional summer semesters. The in-person MSW program is delivered in three locations in the state: the Downtown Phoenix campus, the West campus in the Phoenix area, and the Tucson component. The graduate tuition rate is calculated based on the enrolled credit hours, with a set tuition for seven or more credit hours and delineation between resident, nonresident, and international tuition rates.

The in-person MSW program offers options to pursue a concentration in Advanced Direct Practice or Policy, Administration, and Community Practice on a full-time or part-time basis. The program of study consists of a foundation year and a concentration year. The foundation year of study is the same for all in-person MSW students, with curricular differences in the second year of study based on the concentration selected. The foundation curriculum includes human behavior in the social

environment, foundation practice, research methods, social policy, diversity and oppression in a social work context, practice seminar, macro social work practice, and one Field Education internship of 480 hours. The Advanced Direct Practice concentration includes the specialization choice of Children, Youth and Families; Health/Behavioral Health with Adults; or, Public Child Welfare. For each of these specializations, the concentration year involves core coursework related to that area of social work, an integrative seminar, a second 480-hour Field Education internship, and two approved electives. In contrast, there are no specializations with the Policy, Administration and Community Practice concentration. The coursework involved with this concentration includes program evaluation, program planning, policy, social work administration, community participation strategies, one Field Education internship of 480 hours, and three approved electives. Students are free to choose between the two concentrations.

In-person MSW Advanced Standing Program. The in-person MSW advanced standing program offered at the ASU School of Social Work is the full-time 39-credit hour program option available to students who graduated with at least a 3.2 grade point average from an accredited BSW program in the previous six years. The advanced standing program is offered on campus in the mandatory eight-week summer sessions and the 15-week fall and spring semesters. These students are required to complete the bridge seminar and social work skills seminar courses in the summer sessions. The MSW advanced standing program offers the same concentration options and specializations available as the in-person MSW program.

MSW Online Program. The 60-credit-hour MSW online program with a concentration in Advanced Generalist Practice is delivered one hundred percent

asynchronously in the digitally immersed environment. All courses, with the exception of the Field Education internships, are scheduled in seven and a half week sessions in fall and spring, and eight-week sessions in optional summer semesters. Field Education is in-person and the only course delivered in the 15-week fall and spring semesters, as well as in the eight-week summer sessions.

The foundation-year core coursework for the MSW online program is the same as the in-person MSW program, with the addition of a professional seminar for the online students. The second year of the MSW online program allows students the opportunity to complete courses specialized in Advanced Generalist studies, in a similar fashion as the MSW in-person program. The foundation and concentration years are prescribed for all MSW online students and include coursework in human behavior in the social environment, foundation practice, research methods, social policy, diversity and oppression in a social work context, professional seminar, macro social work practice, advanced social work practice, program evaluation, and two Field Education internships of 480 hours each. There are no electives required for the MSW online program. The tuition rate is set per credit hour for all courses, with no distinction between in-state and out-of-state tuition rates.

The MSW online program is open to enrollment of students nationally and internationally, without any geographic restrictions due to Arizona state participation in the National Council for State Authorization Reciprocity Agreements (NC-SARA), which provides reciprocity for universities to deliver online education to students residing in NC-SARA member states (Hitchcock et al., 2019). The university invests financial resources to maintain reciprocity agreements with states that are not members of NC-

SARA so that residents of all states within the United States may attend online programs delivered by the university. The MSW online program is supported through a partnership with the online division of the university and a for-profit marketing and recruitment educational provider.

The MSW online program is delivered using the primary instructor model of instruction. The ASU School of Social Work adopted the primary instructor model of instruction for the MSW online program to scale and support the delivery of the graduate social work curriculum to a large number of students enrolled in the asynchronous learning environment. As the university instructors of record, the primary instructors are the main point of contact for students, provide leadership with the course subject matter and the maintenance of the syllabi, learning management sites, activities, and assessments. Primary instructors must be members of the full-time faculty ranks in the School of Social Work. In addition, the primary instructors collaborate with content-expert academic associates who are typically graduate-level professional social workers hired as adjunct faculty to lead small groups of students within the larger course environment facilitated by the primary instructor.

Purpose and Research Questions

This study examined the relationship between the mode of instructional delivery (online versus in-person) and levels of empathy for students enrolled in a graduate social work program. The primary research question that was explored posits:

1) Among MSW students at a large CSWE accredited university, does the mode of instruction, online versus in-person, impact the level of change in empathy scores from

the beginning to the end of their program, when controlling for demographic characteristics?

The secondary research questions were: 2) Among MSW students at a large CSWE accredited university, does the mode of instruction, online versus in-person, impact the level of change in interpersonal empathy scores from the beginning to the end of their program, when controlling for demographic characteristics? 3) Among MSW students at a large CSWE accredited university, does the mode of instruction, online versus in-person, impact the level of change in social empathy scores from the beginning to the end of their program, when controlling for demographic characteristics?

Summary

Empathy is core to the research question. This research looked at how MSW program graduates' levels of empathy changed from the beginning to the end of their graduate program. In this research study, the relationship between the constructs of empathy and social work education was examined to understand how the mode of instructional delivery was correlated with empathy, as well as with the components of interpersonal empathy and social empathy. It is through the changes in empathy scores that we may glimpse into the educational preparation of master-level social work graduates to meet the demands and responsibilities of their profession. It is of value to analyze the mode of instructional delivery and the program specifics to build an understanding of how empathy may be cultivated within specific learning environments.

CHAPTER 2

LITERATURE REVIEW

This section explores a summary of the relevant available literature in both the area of empathy and in the study of online education. Over the past several decades, there has been a rich conversation in the academic literature regarding the definition and components of empathy, with theoretical and research contributions from multiple disciplines combining various perspectives to create an integrated overview. The literature on the online delivery of higher education has not been as extensive, as this is an emerging field of study, and has focused primarily on the potential and outcomes of online versus in-person instructional delivery and emerging associated challenges.

This research study connects the two constructs of empathy and online education to allow for the examination of how the mode of instructional delivery for the MSW program is associated with the levels of empathy essential to the field of social work. Graduates of social work programs are poised to integrate empathy into their social work commitment to social justice and empowerment, as well as to cultivate trust and acceptance with client populations. Therefore, it is valuable to ascertain whether the mode of instructional delivery impacts students' levels of empathy.

Empathy

An overview of the empathy literature provides part of the context for this research study. Our current understanding of empathy evolved from an abstract aesthetic concept of the simple sharing in someone else's emotions to the more complex social and physiological construct explored by psychologists and social-cognitive neuroscientists (Segal, 2014; Singer & Klimecki, 2014). Researchers continue to contribute to the

scholarly discussion regarding what constitutes empathy, whether empathy is best conceptualized as a combination of related components versus being a distinct and separate phenomenon, and how empathy differs from similar constructs, such as emotional intelligence, sympathy, and emotion contagion (Batson, 2011; Zahavi, 2012).

The concept of empathy is deeply rooted in many spheres of public and private life. Singer and Klimecki (2014) described empathy as being a crucial element to organize actions and communicate effectively when inferring the emotions of others, while Davis (2017) defined empathy as a cognitive process, an understanding, and a sharing of emotions. Beam (2018) summarized, “Empathy is an interruption of power, and empathy is mutual vulnerability” (p. 219). Batson (2011) analyzed eight distinct phenomena related to empathy and concluded that each phenomenon exists separately and significantly within context. Regardless of how empathy is defined, the agreement that empathy is a complex human quality involving affective response, cognitive processing, and empathic action has directed much of the research, with a focus on interpersonal empathy specifically (Butters, 2010; Gerdes et al., 2011).

Empathy Development

To fully understand empathy as a complex and dynamic human experience, it is first necessary to explore empathy development across the lifespan. From infancy throughout human development, empathy forms the foundation for social relationships, rapport, caring, and emotional attunement (Goleman, 2005; Howe, 2008). We have a fundamental neurobiological need for connectedness that propels us to and through interpersonal relationships from infancy throughout adulthood (Jordan, 2018). This

involuntary need and response to others develops throughout the typical life span to form the foundation for the development of more cognitively associated empathy components.

Empathy is considered a result of genetics and environment, with secure attachment associated with increased empathic concern and responsivity (Davis, 1994; Decety, 2011). Fausto-Sterling (2017) encouraged the consideration of iterative development in bridging the conceptual divide between nature and nurture in the formation of empathy. This innovative approach helps us understand that empathy is constantly developing and changing based on everything that has occurred up until the moment when empathic response is experienced and expressed, including preceding and co-occurring cultural and environmental factors contextualizing ascribed meanings (Fausto-Sterling, 2017).

Studies have documented social connection and mimicry in newborns who demonstrate affective response by crying when they are exposed to other newborns crying (Coplan & Goldie, 2014; Hoffman, 2000). As babies mature, this mimicry develops into egocentric empathic distress as toddlers in the second year of life recognize emotional upset in others and continue to respond as if the distress is their own (Hoffman, 2000). During this life stage, babies and toddlers use their facial expressions, their vocalizations, and their movements to communicate an unconscious emerging empathic concern (Decety, 2015).

By the middle of the second year of life, egocentric empathic distress gives way to what Hoffman (2000) termed as veridical empathic distress, which involves the emergence of self-other awareness as the toddlers begin to recognize that the distress belongs to someone else. The awareness is supported through the formation of self-

identity as toddlers interact with others, particularly caregivers (Laible et al., 2004).

While emotion regulation remains undeveloped in this stage, toddlers begin to experience higher-order emotions and improved control and executive attention (Eisenberg & Eggum, 2009; Wagers & Kiel, 2019).

Early childhood supports the growth in cognitive functioning, including awareness of others' perspectives and affective mentalizing. As young children develop a deeper awareness of their own experiences and emotions, they express increasing empathic concern in their social interactions with others (Decety, 2011; Hoffman, 2000). Children's social interactions transition from being primarily with caregivers in early childhood to reciprocal peer interactions through games, sports, and imaginary play to develop self-other awareness and conflict resolution further (Hoffman, 2000).

In childhood and adolescence, empathic capacity increases through perspective-taking and affective mentalizing as the prefrontal cortex in the brain matures, self-awareness deepens, and cognitive functions advance (Decety, 2011). In these life stages, empathy may serve as a protective factor against social discrimination and rejection as empathy extends beyond the immediate interpersonal situation into application with entire groups (Chiao, 2017). Empathy is assumed to facilitate prosocial behavior while also decreasing antisocial behavior (Vachon & Lynam, 2016). In addition, empathy may have an important role in protecting against instances of bullying and victimization that may occur in these developmental years (Williford et al., 2015). Empathy activates initially for those similar to us; however, brief exposure to people who are different from us may impact and promote empathy development.

As we grow older, empathic responses become increasingly complex, and we develop abilities to listen, comfort, build rapport, and establish intimate relationships (Howe, 2008). There is evidence of a robust association between exposure to the perspective of someone in need and increased positive attitudes, even in those who previously had extremely negative and change-resistant attitudes (Batson et al., 2002). It is recognized, however, that positive attitudes may not be consistently associated with behavioral change and action (Batson et al., 2002), necessitating further research in this area related to exposure and social empathy expression.

Because people's emotions are communicated to a large degree through non-verbal cues, including tone, gestures, and expressions, empathy is often integrated as the most powerful form of listening that involves identifying the emotions lingering between and behind words spoken (Goleman, 2005). This is significant because the ability to connect emotionally and communicate effectively has an impact on levels of both interpersonal and social empathy (Howe, 2008).

Empathy in Neuroscience

As an interdisciplinary construct, empathy has been the focus of inquiry in several fields, including social work, psychology, nursing, and neuroscience. Social neuroscience has begun to cross over with social science research, resulting in a valuable combination of empirical evidence and theory (Decety & Batson, 2007). The interdisciplinary nature of research conducted in the area of empathy has significant findings relevant to social work and social work education.

Mirror neurons are cells that have sensorimotor properties central to emotion perception and mirroring response (Singer & Decety, 2011). There is evidence that the

mirror neural network is part of the empathy process of decoding observations and making emotional inferences (Singer & Decety, 2011). At the beginning of the 1990's, mirror neurons were identified as essential in understanding how people experience brain simulation in cortical pathways in similar ways when we experience sensation firsthand and when we observe someone else's experience (Coplan & Goldie, 2014; Debes, 2010). Further research studies involving imaging have had divergent outcomes regarding whether this mirror neuron system occurs in the same neural circuits and cortical connections that are activated when observing others' actions and sensation expressions, as when the actions and sensations were one's own (Decety & Jackson, 2006; Gerdes et al., 2011; Segal et al., 2017; Singer & Decety, 2011).

Neuroscientific breakthroughs have progressed the understanding of what occurs in the brain when empathy is experienced (Preston et al., 2007). Research involving positron emission tomography contrasts, self-reports of emotional intensity, psychophysiology observations of heart rates, and magnetic resonance imaging suggest that the cognitive and affective aspects of empathy occur in different parts of the brain with dedicated neural substrates (Preston et al., 2007). These results support the developmental view of empathy that starts with the bottom-up affective aspect and evolves to the top-down cognitive aspect of empathy (Preston et al., 2007).

As neuroscience has progressed, neuron activity research, such as that undertaken by Kogler and Stueber, has unveiled new information about human culture and cooperative behavior (Hollan, 2012). In a breakthrough research study, scientists mapped participants' brain activity using functional magnetic resonance imaging while the participants reflected on their responses to emotionally triggering vignettes (Immordino-

Yang & Sylvan, 2010). This study resulted in the documentation of the complex relationship between the high-level neural systems associated with cognition and the low-level neural systems associated with action (Immordino-Yang & Sylvan, 2010). The distinction between basic empathy and complex empathy assists in framing the difference between the basic involuntary empathic biological mechanisms of sensing the emotions of another person and the more complex conscious-level empathy involved when we take the next step to try to understand why people behave in certain ways (Hollan, 2012).

Neuroscience research has documented the connection between brain activities and social behaviors, emotions, and motivations, suggesting that cognition and emotion are interdependent and reliant on cultural and societal context (Immordino-Yang & Sylvan, 2010). Emotional arousal has been documented in studies of physiological manifestations, such as facial expressions and autonomic nervous system responses (Levenson & Ruef, 1992). Interestingly, neuropsychology and neuro-imaging research indicates that there is dysfunction in the amygdala and orbital frontal cortex in individuals who display psychopathy (Blair, 2011). As an outcome of this research, empathy is believed to be a neurological phenomenon rooted in physiology, as well as a key ingredient in social learning growth and cooperative experiences found in relationships, groups, communities, and society (Segal, 2018). Advances in neuroscience have concluded that interpersonal empathy is uniquely wired and processed when we engage with those who share membership in our groups, as opposed with those who are considered “others” positioned outside of our membership groups (Segal, 2018). This has implications for interpersonal and social empathy.

Research in neuroscience has also discovered that empathy activates many parts of the brain, the autonomic nervous system; the endocrine systems responsible for the regulation of bodily states, reactions, and emotions; and, the limbic system that specializes in the regulation of the autonomic and endocrine functions of the body (Decety, 2011; VanCleave, 2016). The limbic system is also associated with the release of the hormones oxytocin and dopamine that promote the establishment of relationships, social interactions, and empathy (VanCleave, 2016). Neuroimaging research has shown that caring for others results in dopamine being released from the brainstem through the neural pathways, with empathic responsiveness regulated through neuropeptides, specifically oxytocin, opioids, and prolactin (Decety, 2011). For example, research has recognized the release of endorphins in therapeutic social workers who effectively communicated empathic concern to clients, resulting in a feeling of pleasure for the social workers, as well as resiliency and trust for the social workers and clients (VanCleave, 2016).

Gray matter density in the affective and cognitive regions of the brain is impacted by empathy practice and lays the foundation for decision-making, prediction of responses, and interpersonal communication (VanCleave, 2016). The affective aspect of empathy, defined as the emotional sharing or arousal triggered by emotions experienced by another person, has been documented as an automatic bottom-up process that is hard-wired in our brains. The more automatic lower-level systems are rigid and hard-wired, while the higher-level systems maintain flexibility in information processing and resulting responses (Decety, 2011). In fact, neuroscientific research has documented the

neuroplasticity of this part of the brain to change and evolve neural pathways and patterns (Segal, 2014).

Empathy Frameworks

There are several empathy frameworks presented in the literature that inform this study. King's (2011) empathy framework helps break down the conceptualization of empathy into interwoven constructs organized into affective, cognitive, and behavioral dimensions. This framework introduces the possibility that empathy is not a single construct, but instead a complex combination of independent concepts. Baron-Cohen (2011) conceptualized empathy with a double-minded focus that splits attention between one's own interests and the interests of another person while incorporating an appropriate emotional response acknowledging the thoughts and feelings of the other individual. This definition frames empathy as a construct associated with self-other awareness.

The research conducted by Batson (2002; 2017) examined the "empathy-altruism hypothesis" regarding empathy being the source of altruism, defined as having an ultimate goal of benefiting others without any intended benefit to oneself, but potentially with secondary unintended benefits. The consideration of empathy to be an emotional state preceding and facilitating helping acts highlights the affective connection between empathy and the helping behaviors studied by Preston and de Waal (2011). This research reveals empathy to be a potential motivation for social workers to reduce suffering and meet observed needs (Batson, 2002; Coplan & Goldie, 2014). Combine these research findings with the findings of de Vignemont and Singer (2006) that empathic emotion sharing is not automatic, and an alternative empathy approach emerges rooted in context, with modulatory influencing factors on brain activity. Empathy was conceptualized in

this model as having two parts: first, an external affective state that has been triggered by someone else's affective experience and, second, an awareness that the other person is the source of one's affective state (de Vignemont & Singer, 2006).

Decety and Jackson (2004; 2006) broadly incorporated three primary components of empathy into affective response, cognitive perspective-taking, and emotion regulation: all interacting together to produce empathy. These researchers identified self-other awareness, mental flexibility, and self-regulation as additional essential empathy components, with emotion sharing considered to be implicit, and perspective-taking, emotion regulation, and affective mentalizing identified as explicit processes (Decety & Jackson, 2004). Out of this research came the two different aspects of empathy processing; the bottom-up aspect of mirror expression that represents a more unconscious and automatic response and the top-down aspect of using imagination to put oneself into another's shoes to generate a cognitive intentional response (Decety & Jackson, 2006; Molnar-Szakacs, 2011).

The conceptualization of empathy most fitting for this research project is Segal's division of empathy into the two levels of interpersonal empathy and social empathy previously discussed (2011, 2014). In this model, interpersonal empathy is comprised of the five major components: affective response, affective mentalizing, self-other awareness, perspective-taking, and emotion regulation (Segal, 2011, 2014). These components together comprise the first level of interpersonal empathy, but alone each is an individual psychological phenomenon central to empathy within the social work profession. When interpersonal empathy is combined with the social empathy components of contextual understanding and macro perspective-taking, then empathy has

the opportunity to move to a new level. Information regarding historical discrimination and oppression of marginalized populations and the analysis of their contextual situations provide the foundation for the emergence of social empathy (Segal, 2011). With this conceptualization of empathy, it is possible to transition to the discussion of the importance of empathy in the profession of social work.

Empathy in Social Work

Interpersonal empathy and social empathy are essential interconnected constructs for the field of social work. The social work charge to help others elevates the importance of interpersonal empathy, as reflected in the profession's commitment to human behavior in the social environment, diversity, and clinical practice skills. Interpersonal empathy elevates the delivery of interventions on the micro and mezzo levels, thereby increasing the effectiveness of social work practitioners. In addition, the social work mission and strong commitment to social justice position social empathy to be equally as important for professional social workers.

Social workers' ability to empathize is impacted by their values, beliefs, and worldviews, and the privilege typically present in social workers by virtue of their profession may challenge that ability due to personal and cultural biases and assumptions (Marsiglia & Kulis, 2016). Empathy in social work is characterized by an open attitude of learning about others' experiences, suspension of judgment and personal bias, ability to step into the emotional world of another individual while maintaining emotion regulation, and aptitude to generate empathic responses demonstrating understanding of the other person's feelings (Birkenmaier et al., 2014).

Empathy is a core element for social workers to cultivate in order to navigate feelings with clients, delve deeply into possible solutions, effectively deliver interventions, and advocate on behalf of clients through the tools most appropriate and accepting to the client population (Birkenmaier et al., 2014; Hitchcock et al., 2019; Wagaman & Segal, 2014). Empathy is an effective investigative tool for gathering information about clients, their relationships, and their environments in order to decrease distress and avoid harmful behaviors in therapeutic relationships (Vachon & Lynam, 2016). Knowledge about others, interpersonal skill, and empathic understanding comprise the foundation for purposefully reflecting needs and concerns while guiding interventions (Eriksson & Englander, 2017; Gair, 2017; King, 2011).

Expressed empathy in therapeutic settings helps clients know that they are not alone and that they have value in the eyes of the practitioner (Howe, 2008). Social workers rely on eye contact, facial expressions, posture, affect, and tone to accurately hear the messages being communicated by clients. In addition, these visual cues allow social workers to mirror affect and to develop appropriate behavioral and verbal empathic responses. Indeed, the most powerful tool for engaging with a client exhibiting anger or hostility may be empathy, thereby communicating calm recognition of the emotion and availability to help (Birkenmaier et al., 2014). Research has shown that clinical tools such as discourse and positioning shed light on the presence of empathy in the helping professions serving as a potentially significant positive determinant of therapeutic success (Sinclair & Monk, 2005).

Research findings have also documented that educational programs and training may impact levels of empathy in participants. These findings focused on the extent of

demonstrated empathy for others (Singer & Klimecki, 2014), as well as training techniques, including card games, role plays, videos, visualizations, and exposure to the stories of victims, that have been effective in increasing cognitive and affective empathy (Butters, 2010; Hudnall & Kopecky, 2020). These research findings open the door to examining more closely if empathy is a teachable and learnable skill, a consideration relevant to this research study.

Research has documented the positive impact of helping professionals demonstrating empathy not only on the effectiveness of client treatment and therapeutic outcomes, but also on the professionals themselves (Robieux et al., 2018; Teding van Berkhout & Malouff, 2015). Emotion regulation has been identified in research findings as both a protective factor against exhaustion, burnout, and dissatisfaction, and a facilitator of professional satisfaction and feelings of personal well-being (Robieux et al., 2018). In addition, perspective-taking has been instrumental in limiting on how much one's own state may match the state of another person, according to study results that highlighted an overlap between cognitive empathy and personal feelings (Decety & Batson, 2007; McFee, 2014). This underscores the potential importance of findings from this research study.

This essential nature of empathy in social work practice constitutes the rationale for this research study. The assumption that empathy lies at the heart of the profession of social work intersects with the provision of online education in social work programs and forms the premise that it is of value to explore how the mode of instructional delivery impacts levels of empathy in social work graduate students.

Social Work Online Education

An overview of social work online education combined with an overview of empathy in the literature provides the context for this research study. Higher education has long symbolized the hope of economic and social mobility in the United States, as well as a valuable investment in the public good. Colleges and universities have been consistent cultural and economic anchors providing many societal and economic benefits to communities, largely due to the higher taxes, innovation, and productivity infused into the economy by college graduates (Hensley et al., 2013; Kvaal & Bridgeland, 2018). In addition, higher education has a tremendous impact on societal commitment to service, civic engagement, human rights awareness, and tolerance for diversity (Hensley et al., 2013). College graduates tend to become leaders in the workforce and philanthropy, contributing their knowledge and skill in communication, practice, and critical thinking (Association of Public & Land-Grant Universities, n.d.; Haworth & Conrad, 1995). This is relevant in the social work profession, as graduates from social work programs bridge theoretical concepts to professional practice.

Throughout history as a nation, the purpose of higher education and the associated funding structures have evolved to become increasingly complex, particularly in recent years due to a shift toward neoliberal free marketplace in higher education operations. A college degree is a significant and valued form of currency in the American economy, and graduates are expected to enter the workforce with the employable skills and knowledge necessary to meet the demands of employers and societal needs. However, not everyone is situated to benefit equally or in the same way from higher education achievements, as admission, financial support, and professional and economic benefits

are not universally accessible (Hensley et al., 2013, Nerad et al., 1997). Ensuring access to higher education is a social justice issue aligned with social work values, as the education of women and minority students is essential to these populations' ability to participate and compete in the global economy (Kurzman, 2013).

Due to the expanding geographic reach of many institutions of higher education accompanied by the decrease in public tax support allocated to higher education and the premium on physical space, universities have had to rethink their strategic operational and recruitment plans. The competitive atmosphere for higher education has led to incredible growth in online education programs, with technology increasingly incorporated into higher education as a means of privatization and commodification of students (Thomas & Yang, 2013). Universal access to higher education is related to social justice; however, there is also a tension with maintaining the elite status of a college degree (House-Peters et al., 2017). This increase in online program options in higher education is an important consideration in this study.

Online Education

With the emergence of technological advances and online delivery of instruction, there have been significant changes within higher education over the past 50 years. In the year 2015, online education served more than six million higher education students, representing nearly 30% of the enrollment in all higher education in the United States (Allen & Seaman, 2017). Enrollment in for-profit institutions of higher education has declined while distance enrollment at public and private non-profit institutions increased over the past seven years, with public institutions providing distance education to more than two thirds of the enrolled learners (Allen & Seaman, 2017).

COVID-19 Pandemic

More recently in the year 2020, the novel coronavirus disease 2019 (COVID-19), caused by SARSCoV-2, necessitated a global response that included social distancing precautions that affected the delivery of higher education and this research study (Centers for Disease Control and Prevention, 2020). As the number of global cases skyrocketed, the number of US cases also drastically increased from only 24 active cases in February 2020 to more than four million cases nationwide just four months later in July 2020 (CDC, 2020). Stay-at-home orders were issued at the local, state, and national levels, prohibiting big gatherings and necessitating alternatives to in-class meetings for courses (Johnson et al., 2020).

The impact of the COVID-19 pandemic was felt worldwide by approximately 1.5 billion learners at all levels of education from elementary school up to university, as well as by higher education institutions across 188 countries (Amaya & Melnyk, 2020; Kandri, 2020; Toquero, 2020). Higher education administrators and faculty across the nation were faced with the immediate need to identify solutions to address the needs that arose as a result of the COVID-19 pandemic (Joosten, 2020).

Many universities responded to the COVID-19 pandemic by rapidly transitioning in-person courses to the virtual environment, at times with only a weekend or a few days of preparation (Kandri, 2020). In March of 2020, most of the delivery of higher education was conducted online or through virtual platforms, using a variety of synchronous and asynchronous modes and methods (Alexander, 2020). Faculty assumed heavier workloads in the transition of courses to the online environment and significant modification of assignments and assessments while navigating the delivery of the course

content through the online delivery mode (Alexander, 2020). One study led by Johnson et al. (2020) found that nearly all institutions of higher education surveyed had implemented emergency transitions, with many faculty learning new teaching approaches, changing assignments and assessments, lowering expectations, and modifying grading to be pass/fail. The universities that already had existing online programs, such as ASU, may have experienced a smoother emergency transition of in-person classes to remote teaching environments (Thompson & Moskal, 2020). Kandri (2020) described the differentiation between the emergency remote teaching and learning that emerged in March 2020 from the planned and well-developed theoretically-based online education that has been in development for decades.

Online Social Work Education

The social work profession is uniquely impacted by online education because digital literacy and access to technology are essential for client populations in the modern age (Blackmon, 2013). Even though some social work higher education programs have embraced online education, overall, the social work field has been slow to support the utilization of technology and the integration of online modes of instructional delivery, compared to other professions such as nursing (Blackmon, 2013). In 1994, 11% of social work programs surveyed provided distance education courses (Levin et al., 2018). That percentage had increased to 16 just two years later in 1996, 68% in 2007, and 76.5% in 2015 (Levin et al., 2018).

According to a national workforce survey, nearly 89% of the BSW graduates in 2017 reported that they attended their degree program primarily in-person, in comparison with only one percent attending primarily online (Salsberg et al., 2018). In that same year

on the graduate level, nearly 80% of MSW graduates reported participating in their degree program primarily in-person, with about 14% primarily online and seven percent through a blended version of online and in-person (Salsberg et al., 2018). Salsberg et al. (2018) provided an interesting breakdown of MSW students who primarily enrolled in in-person and online programs by race/ethnicity. Of the students who reported their race/ethnicity as American Indian/Alaskan, approximately 89% attended MSW programs taught primarily in-person, while 11% attended programs taught primarily online and none attending a blended version (Salsberg et al., 2018). Of the Asian or Pacific Island students, 76% attended in-person, with 18% attending online and more than five percent in a blended format (Salsberg et al., 2018). Seventy percent of those who reported being Black/African American attended primarily in-person, with nearly 26% online and four percent in a blended version of online and in-person delivery (Salsberg et al., 2018). Eighty-one percent of students who are White attended in-person primarily, almost 11% were online, and more than seven percent were in a blend of online and in-person (Salsberg et al., 2018).

Online Education Outcome Evaluations

There have been many exploratory research studies examining specific variables within the online and in-person social work programs. Many of the outcome evaluations conducted on these programs have been qualitative, which is a helpful methodology to determine the themes associated with online learning. For example, a qualitative comparison of online delivery with in-person instruction suggested that online and in-person courses may be comparable when they are designed strategically and rigorously (Jones, 2014). However, there have only been a handful of large-scale studies, none of

which may be generalized. There are multiple variables that influence the exploration of differences in program delivery options, including variations in instructor preparation, training, and understanding of how online education impacts the delivery of the educational experience (Reamer, 2013). Therefore, there is a need for additional exploratory studies to contribute to the body of knowledge regarding online education.

Research studies have investigated differences in demographics, cross-cultural empathy, perceptions and demonstration of empathy, skill and knowledge outcomes, course and program satisfaction, and career readiness. Studies on the outcomes of social work education have resulted in inconsistent findings regarding changes in student perspectives typically associated with social work values and goals (Weiss et al., 2005). Several studies conducted to examine empathy in social work students have identified that a reflective deep learning approach may be a good method of social work preparation and empathy development (Gair, 2017). Research has documented that undergraduate students who were exposed to empathy through rich course discussions about personal experiences, internship placements, and psychodrama exercises, including creative role plays, narrative journaling, and virtual reality, tended to experience increases in empathy levels (VanCleave, 2016). Findings seem to point to the importance of documenting baseline student views upon enrollment to understand better the impact of the educational process and the social work curriculum (Weiss et al., 2005). There are interesting implications for curricular and course development associated with the cultivation of empathy among social work students.

Comparative evaluations of online and in-person MSW cohorts found statistically significant differences in age, work experience, quantitative GRE scores, time in the

program, and ratings on pre-test practice skills and internship evaluations between the online and in-person student groups (Wilke & Vinton, 2006). Other study findings showed that MSW online students demonstrated knowledge through assignment and assessment grades and course grades, as well as satisfaction related to technology use, instructor interactions and engagement, and flexibility, at the same level or better than their in-person counterparts (Cummings et al., 2015). The results of a related longitudinal study of graduate social work students revealed differences between online and in-person students related to increased knowledge and higher grade point averages for the campus students, and increased skills, more positive perceptions of faculty, higher internship scores, and greater practice preparedness for the students who participated in the online program (Cummings et al., 2019). Several other recent exploratory studies comparing online and in-person social work programs found no statistically significant differences in program outcomes related to practice skills, student satisfaction with courses, and career preparation (Davis, 2017).

A qualitative study of MSW students enrolled in online and in-person course sections underscored the importance of recognizing the cultural, social, and spatial issues that impact learning in the online environment (Okech et al., 2014). These findings were consistent with the literature emphasizing the importance of ensuring strong course organization and connecting learning to real-life experiences (Okech et al., 2014). While research findings do not link online communication with a decrease in interpersonal connection, results point in the direction of online interactions supporting connections with those with whom there is already an established relationship (Segal, 2018). A shared

identity and/or membership, the development of trust, and networking around resources may be connected with elevated empathy levels in online settings (Segal, 2018).

There is a commonly held and recently documented perception among social work faculty that in-person instructional delivery is more effective than online delivery in supporting students in the mastery of most social work competencies (Levin et al., 2018). Given this widespread attitude held by faculty and the diverse findings stemming from this body of research, additional research is required to better understand outcomes.

Overview of Theory

Critical theory serves as the primary theoretical foundation for this research design. Critical theory provides the broader conceptual application and critique relevant to this study because empathy is a complex construct embedded in culture, space, place, and time impacted by power dynamics. There is an opportunity to examine online higher education through the critical perspective, reflecting the care and compassion essential in social work while honoring student determinism, the development of critical self-awareness, and course community. In addition, several pedagogical theories, including andragogy, transformative learning, and the Community of Inquiry model, frame the research approach for this study.

Critical Theory

Critical theory originally was concerned with oppression and exploitation based on class and has evolved to include systems of discrimination grounded in the complexities of race, ethnicity, gender, and other differences and intersectionalities of the human experience (Rexhepi & Torres, 2011). The critical analysis of complex structures of power and oppression constitutes the foundation to better understand, critique, and

impact change (Bentz & Shapiro, 1998). It is essential to examine critically the cultural and societal norms supporting dominant institutions and structures that hold power through support by the ruling hegemony (Payne, 2014). This includes higher education systems and institutions that constitute the backdrop for this research study.

Critical theory strives to raise consciousness through the expansion of freedom and justice (Bentz & Shapiro, 1998). Freire (1973) asserted that critical thinking must incorporate reflective action in the pursuit of critical consciousness, which is vital for cultural emancipation. Freire felt that the relationship that humans have to their world is one of a critical nature rooted in reflection with the capacity to change reality through contextual integration and a critical and flexible attitude. Consciousness-raising may be promoted through praxis, dialogue, and conscientization to support people in determining and taking action to change systems of oppression and inequality supported in the dominant paradigm (Payne, 2014). The power of reflection moves forward the integration process for individuals and communities and combats the emergence of dissonance, while building social responsibility and engagement (Freire, 1973). This is essential in both the profession of social work and in social work education.

For this research study, it was anticipated that critical theory would serve as the backdrop for the study design and data analysis to assist with the development of an explanation of the research findings (Rubin & Babbie, 2005). Through the lens of critical theory, online education, specifically social work online education, may be examined in the historical neoliberal context of the development of distance education, including its origins and delivery methods prior to the Internet (Lee, 2017). In addition, critical theory may be applied to how online education is incorporated in social work higher education

as an instructional delivery option, while considering how learning is structured within the digitally immersed course environment.

Pedagogy

Pedagogical theories frame this research study. Learners are not empty vessels void of experience and knowledge; instead, all learning involves the transfer of knowledge and understanding from previous experiences to the current experience of the learner, with support of prompting, metacognition, and reciprocal teaching (Bransford et al., 2000). Pedagogies related to social work online education are rooted in the behavioral, humanist, cognitive, social cognitive, and constructivist approaches, resulting in a rich mix of theoretical and practical concepts (Merriam et al., 2006). It is critical to understand adult learning theory to take into account characteristics that are unique to adult learners, including life and work experience, motivation, and resources (Orey, 2010). Of particular relevance to this study are andragogy, transformative learning, and the Community of Inquiry model. These education models together form the basis for understanding the pedagogy behind online learning.

Andragogy. The first education model relevant to this study is andragogy. This framework initially conceptualized by Knowles incorporates a primary focus on the adult learner's life situation and experiences to best distinguish adult learning from learning in the other life stages (Merriam et al., 2006). Andragogy assumes that adult learners' experiences form a rich reservoir for learning, knowledge application has the potential of being immediate, and motivation to learn is internal (Merriam et al., 2006). Knowles (1962) anticipated that adult education would shift from knowledge transmission to strengthening the capacity to learn in a system increasingly responsive to the real-life

needs of individuals and society. Andragogy focuses increased attention to intrinsic motivation and self-reliance (Lee, 2017). This paradigm fits well within critical theory and Freire's conceptualization of praxis and conscientization.

At the heart of andragogy is self-directed learning, with motivation being the key to success (Orey, 2010). Culture may play a role in motivation and norms associated with self-directed learning, which is highly associated with dominant Western teaching (Merriam & Bierema, 2014). Self-directed learning is relevant to online education because the asynchronous nature of many online programs contributes to the expectation that students engage in self-directed learning. However, it is recognized that not all learners desire to learn through self-directed strategies or possess the capacity of self-directed learning (Merriam & Bierema, 2014).

Transformative Learning. Transformative learning is the second pedagogical model associated with online education and this research study. Overall, transformative learning encompasses the key concepts of life experience, critical reflection, and development (Merriam et al., 2006). Transformative learning assumes that adults possess experiences that are rich resources for learning, not only for the learner, but also for others (Merriam et al., 2006). When a learner encounters what Orey (2010) describes as a "disorienting dilemma", the learner must engage in critical reflection to examine and question his or her own cognitive framework, beliefs, and accompanying assumptions associated with the experience in order to become more discriminating and to create meaning framing the assimilation of the experience (Merriam et al., 2006). As learners participate in experiential activities, meaningful reflection, discourse, and social action,

they actively transform their beliefs, attitudes, and perspectives as they grow personally and intellectually (Merriam et al., 2006; Orey, 2010).

Relationships and social engagement within a course environment are instrumental to transformative learning, with instructors mindfully cultivating critical questioning and experiences that include identification of assumptions, role plays, and journaling (Merriam et al., 2006; Orey, 2010). Cultivating interpersonal relationships in the classroom environment may lead to opportunities for students to integrate socially, with connectedness facilitated in the learning environment through instructor lectures, interactive assignments, and technology (Davis, 2017; Palmer, 2007).

Community of Inquiry Model. As the third and final theoretical approach associated with this study, the Community of Inquiry model is a powerful way to conceptualize online learning through the integration of teaching presence, cognitive presence, and social presence (CoI, 2017). Arbaugh et al. (2010) defined teaching presence as encompassing how the course is designed and directed to maximize learning outcomes through cognitive and social activities. Teaching presence relies on clear course organization and strong instructional design to support instruction and class discourse (Arbaugh et al., 2010; Lambert & Fisher, 2013). The second component of the Community of Inquiry, cognitive presence, includes the construction and subsequent confirmation of meaning by the learner and is cultivated through self-reflection and dialogue (Arbaugh et al., 2010). Cognitive development emerges through the phases of exploring an event or material through critical reflection and dialogue, integrating the meaning in the learner's experience, and demonstrating knowledge application by the student (Garrison et al., 2010; Lambert & Fisher, 2013). Social presence involves the

students connecting both socially and emotionally in order to cultivate open communication and ultimately develop cohesive relationships with classmates, instructors, and the course content (Arbaugh et al., 2010; Lambert & Fisher, 2013). The discourse and sense of community that are developed through social presence are essential for higher-level cognitive learning, student retention, and engagement (Lambert & Fisher, 2013; Thomas et al., 2017).

The teaching presence, cognitive presence, and social presence encompassed within the Community of Learning model may be key components to the development of interpersonal and social empathy in online social work courses. Student interactions with classmates, their instructors, and the material form and strengthen the basis for the core components of interpersonal empathy to be identified, researched, and practiced within the curriculum. Teaching presence reinforces the aspects of empathy development to allow the cognitive presence to ignite a pathway to social empathy understanding and action.

Contributions of the Proposed Research

The literature on the topic of empathy has become more sophisticated and complex over the past several decades with the emergence of neuroscientific research and intersectional interest among fields such as psychology, health sciences, and social work. There remains an inconsistency in the definition of empathy in the literature, which heavily focuses on what may be defined as interpersonal empathy, without extending consideration to social empathy. In addition, the implications of the more recent research advances are not clearly identified for social work practice. There has been a historical separation between neuroscience and social work that has made the combination of the

two with regard to empathy difficult to navigate. Because the applicability of the current knowledge base to social work is somewhat indirect, there is a gap in direct application to social work practice and social work education.

The intervention strategies for teaching and learning empathy in the higher education setting have not been explored thoroughly, as much of the scant existing literature on empathy acquisition focuses on training programs and does not clearly define how to teach empathy (Gair, 2012). In fact, it is debatable whether empathy may be learned through activities that explore stereotypes, racism, and perspective-taking (Gair, 2012). Therefore, there is a gap in knowledge connecting how empathy may be cultivated through the social work curriculum, various types of assignments and assessments, and instructional delivery modes. It also would be of interest to examine the connection among traditional and nontraditional student characteristics with empathy development. The findings of this research study may have useful contributions for policy, practice, social work education, and future research.

Furthering of Empathy in Policy

Social work has deep traditional roots in radical social justice advocacy. High levels of interpersonal and social empathy are required to understand the complexities and causes of social injustices, along with the intricate solutions based in interpersonal and social empathic relationships established with clients, clients' families, surrounding environments, community partners, advocates, and policymakers. The conscious combination of empathy and social justice advocacy critically influences the conceptualization, implementation, and evaluation of social policy. There are tremendous

implications for how the study findings may impact the design and implementation of social policy advocacy by current and future MSW graduates.

This research study may inform policies governing the national support of online social work programs by social work professional organizations, such as the National Association of Social Workers (NASW) and CSWE. As the body of knowledge about the impact of instructional delivery mode is investigated through research, the findings will become instrumental in providing data to guide new directions for social work educational policies on the national level, as well as in university settings.

As online program delivery methods mature, there will be opportunity to make significant contributions to the development of policies governing online instructional options in higher education. While technology is viewed to be a powerful tool associated with globalization, communication, and expanded exposure to new perspectives in diverse communities, technology may actually inhibit the contextual aspects of communication and the development of empathy by providing an avenue for anonymity and detachment from the situations of others (Segal, 2018). Future research directions can inform this area of policy.

There are multiple avenues for policy application of interpersonal and social empathy in social work and other helping professions, as exemplified in the Truth and Reconciliation Commission (TRC) hearings in post-Apartheid South Africa. Designed as a complex national healing process, the TRC hearings facilitated the meeting of perpetrators of violence with those who were impacted by the violence to hear each other's experience (Gobodo-Madikizela, 2003). Similarly, reflection upon and recollection of lynchings in the United States underscore the need for development of

social empathy on a national level in addition to the cultivation of interpersonal empathy (Ore, 2019). This study is poised to inform the direction of these types of policies through ensuring that social work students and professionals have the opportunity to develop high levels of empathy.

Furthering of Empathy in Social Work Practice

These research project findings may inform the integration of empathy in social work practice, as well as the prevention and amelioration of the compassion fatigue frequently associated with high levels of empathy and low levels of emotion regulation (Wagaman et al., 2015). Social workers benefit from an awareness of clients' experiences of empathy, as empathy has been correlated with positive outcomes, secure attachments, prosocial behavior, and the inhibition of antisocial behavior and aggression (Segal, 2014). Higher levels of interpersonal empathy may mitigate the risk of harming clients by connecting vitally important information about the client and the client's environment; understanding client perspectives, motivations, and goals; accurately diagnosing conditions; strengthening inter-professional relationships; and accentuating the ethical responsibilities mandated by the NASW Code of Ethics. Without social empathy, professional social workers are at risk of focusing solely on micro-level conditions, mistaking consequential social issues to be individual problems, and ignoring the problems of social issues that are rooted in institutional oppression and traditions of power-based discrimination.

The concerns raised regarding the integration of empathy in the profession of social work give warning to be mindful of emotion regulation. Social workers may be at higher risk of secondary trauma if they experienced trauma in their pasts and then are

positioned to empathize with clients in similar trauma situations or other triggering crises (Grant, 2014). In addition, persistent empathic distress may be related to negative health impacts on behalf of the helping professional, and even potentially lead to unethical approaches in an attempt to relieve the traumatic stress (Gair, 2011; Singer & Klimecki, 2014). It is essential to remain aware of complexities arising from professional empathic response to clients, particularly when the social work professional is of the dominant culture and the recipient of the empathy is not (Gair, 2011). The literature advocates for the incorporation of professional boundaries and careful attention to compassion fatigue, transference, and burnout to avoid overly engaging with clients (Gair, 2011).

Interpersonal empathy can foster these skills.

Furthering of Empathy in Social Work Education

The application of critical theory in social work education sheds light on the exploration of the development of interpersonal and social empathy in settings that encourage praxis and dialogue. Higher education learning environments, both online and in-person, should support the exchange of ideas, rich reflection, and integration of empathy in professional identity. It is through the recognition of power dynamics and the ensuing critical discourse that students may have the opportunity to incorporate interpersonal empathy with the skills of macro perspective-taking and contextual understanding that are instrumental in social empathy.

A potential contribution of this research study could be the examination of whether or not educational outcomes are meeting the needs of the student population regarding the development of empathy (Davis et al., 2018). A deep examination of the effectiveness of the modes of instructional delivery are essential, as opposed to

supporting assumptions that in-person instruction is superior and more effective (Afrouz & Crisp, 2020). It is recognized that the foundation for competent teaching in social work has been a combination of a safe relationship between instructor and students; the modeling of necessary sensitivity and skill in the field; and reflective and reflexive awareness (Fox, 2013). The online environment may enhance the power disparity between instructors and students, among students, between students and administration, and between administration and faculty, thus discouraging the cultivation of empathy. Technology should facilitate communication and community through the democratic sharing of ideas, the great equalization of social status, and the open discourse supportive of critical thinking; however, the practice is very different if students are isolated in the online environment.

This study highlights the need for empathy to be integrated throughout the graduate social work curriculum in order for students to develop practice skills associated with compassion empathy, empathy responses, cognitive empathy, and empathic discrimination (VanCleave, 2016). This assumes that it is possible to teach and learn empathy through social work higher education. Social work education provides the setting for interpersonal empathy to be cultivated and demonstrated through interactions and relationships with classmates, the course instructor, and the course content (Segal & Wagaman, 2017; Weisz & Zaki, 2017). This commitment is strongly articulated in the CSWE 2015 Educational Policy 3.0 that specifies that the social work learning environment should reflect diversity and support student learning about differences in order to foster affirmation and respect (CSWE, 2015).

Social work higher education provides those striving to become professional social workers with a formal and practical education in theory, skills, and values associated with the profession. The social work curriculum is comprised of explicit and implicit elements essential to the student experience. The explicit curriculum that consists of the formal courses and Field Education internship experience provides the formal structure for the degree programs (CSWE, 2019). The implicit curriculum is the learning environment that involves diversity, admissions procedures, student support services of advising and retention, student engagement in program oversight, faculty, and overall structure (CSWE, 2019). It is through the combination of the formal course content and the implicit importance of developing empathic relationships that communicate the dignity and worth of the individual within the positive learning environment that helps students develop confidence in their own competence as social work practitioners (Peterson et al., 2014). There is opportunity to intentionally foster professional student-teacher relationships to support student acquisition of professional values, norms, knowledge, and skills inherent to social work (Holosko et al., 2010).

The interpersonal direct contact supported by in-person delivery of education may impact social work professional identity formation in ways that vary from courses delivered in the online format. It is of interest to explore further how this happens and what is the relationship of this identity formation and symbolic connection to society and empathy. Through exposure to the social work curriculum, students may develop greater self-awareness and attentiveness to diversity issues on the interpersonal empathy level, as well as issues and complexities associated with social problems, oppression, and discrimination on the social empathy level (Segal, 2011).

Because empathy is comprised of the components of mentalizing, experience sharing, and empathic concern woven together in a way that modifying one component impacts the others, attempts to increase empathy should focus on growth in empathic ability and motivation (Weisz & Zaki, 2017). As students are exposed to more affective experiences associated with interpersonal empathy through role plays and case studies, there is greater opportunity for affective mentalizing, which may lead to growth in cognitive reasoning (Segal, 2018). The presentation of vignettes in the learning environment may serve to prompt cognitive and experiential learning exploration of critical empathy, an exploration of racism and privilege, and an opportunity to participate in critical reflection (Gair, 2017).

The Human Behavior and the Social Environment courses examine human development from infancy throughout the lifespan and equip future professional social workers with understanding of the biological, social, and emotional aspects of the human experience. This exposure to human growth and development is purposeful in the cultivation of self-awareness, along with the key empathy components of affective response, affective mentalizing, self-other awareness, perspective-taking, and emotion regulation. The concept of “person-in-environment” that is central to social work constructs is rooted in understanding another person’s positionality as being distinct from one’s own, thereby laying the foundation for empathy in relationships.

Throughout the MSW curriculum, students are challenged to cultivate a strong sense of self, as well as insight into others’ sense of self, which matches with the empathy component of self-other awareness (Segal, 2018). With the presence of self-other awareness, there is a distinction drawn between the experience of oneself and the

experience of another, so that there is no confusion about who is having the experience (Singer & Klimecki, 2014). Amplified self-other awareness provides an excellent foundation for the development of perspective-taking and strong professional boundaries (Segal, 2018). In courses such as Diversity and Oppression and other social work foundation courses, students explore the perspectives of others in the context of social work historical development, oppressive systems, and patterns of discrimination. The study of the history, strengths, and needs of diverse populations strengthens students' perspective-taking skills and knowledge of unique world-views, potentially impacting growth in social empathy (Segal, 2018).

In the social work graduate curriculum, students receive instruction and guidance regarding how to control emotions and respond to situations while maintaining professional emotion regulation, affective responses, and professional boundaries (Segal, 2018). This is a central theme moving through the curriculum, as emotion regulation serves to both connect and temper the interpersonal empathy components of affective response, self-other awareness, perspective-taking, and affective mentalizing (Segal, 2018). Without a strong core of emotional regulation, social work students and professionals may be challenged to achieve interpersonal empathy that integrates all components in a balanced and productive manner.

Social empathy development and support in the social work classroom can serve to deepen the understanding of social and political factors affecting social issues and bridge students from interpersonal empathy to social empathy (Wagaman et al., 2018). In social work courses, students are exposed to topics of social justice, advocacy, and civic engagement, all of which tie closely with social empathy. Segal introduced a model of

learning social empathy based on exposure to diverse perspectives, populations, and experiences; exploration of the historical differences in opportunities and challenges related to those diverse perspectives, populations, and experiences; and, finally, experience imagining having different group memberships and characteristics that change life dynamics and trajectories (2014; 2018). These skills that enhance social empathy fit well in the social work curriculum.

Macro perspective-taking may be cultivated through pedagogical techniques of role plays, policy analyses, and exposure to cultural perspectives and humility (Segal & Wagaman, 2017). Key to social empathy is the creation of course experiences that expose students to the lives and situations of oppressed populations (Segal, 2011). Such exposure often happens in students' required field placements, so it is essential to develop an awareness of the role that discourse and positionality play in the development of empathy in social workers. As students learn to identify and manage their personal biases, they are exposed to the impact that external factors may have on communities, cultivating the macro perspective-taking that is at the heart of the profession's advocacy and social justice work (Segal, 2018).

Social work programs in higher education settings are increasingly invested in developing empathy that involves a heightened critical consciousness, movement toward a radical orientation toward social justice, and an awareness of ethical thinking and action, promoted by NASW and demonstrated through CSWE-accredited university course assignments, assessments, and internship learning activities (Einolf, 2008; Gair, 2011, 2017; King, 2011; NASW, 2017). The promotion of empathy necessitates the combination of a social justice commitment, anti-oppression advocacy, and openness to

political diversity in the social work classroom (Rosenwald et al., 2012). Wiener and Rosenwald (2008) suggest that social justice may be incorporated in the social work curriculum by building awareness of the power and possibilities involved with transformation, as well as understanding of how transformation occurs. Through discourse, socialization, and critical thinking in their social work program, students are expected to develop a complex construct of political ideologies, which are related to social empathy. Students benefit from identifying their own ideologies and engaging in critical discussion that involves active listening and empathy to learn from another person's perspective (Rosenwald et al., 2012). These are essential considerations of how empathy may be furthered in social work education.

Furthering of Theory

This research study may further theory through the application of critical theory to online social work education, as empirically significant data may contribute knowledge and understanding of the need for the critical lens. A critical approach to social work cultivates social justice and empathy through posing provocative questions, examining assumptions underlying policies and programs, and challenging how social issues have been framed historically (Reisch & Andrews, 2002). Because empathy is considered to be core to social transformation, the findings of this research study may expose the power of utilizing critical theory to examine structures and relationships among variables to benefit social work students and professionals, as well as the populations served (VanCleave, 2016). This research may support the emergence of theoretical approaches to empathy development in social work higher education programs.

The elements of praxis, dialogue, and reflection promote a deepening of the critical theoretical understandings. Therefore, given the nature of critical theory, the use of this theoretical lens and approach in research may assist to further develop and understand the implications and administrations of pedagogical theory. As critical theory is applied to more systems and structures, possibilities for further sophisticated theory development may emerge.

Implications

There are a number of aspects of social work education that are important to consider in relation to this research. Some of the issues present promising ways to improve social work education, while others raise concerns as online education expands. The findings from this research are examined in relation to these emerging concerns.

Social Justice

Empathy links closely with several key concepts in social work, including social justice. The global definition of social work approved by the International Federation of Social Workers emphasized the strength of the profession in being practice-based and academic, with the goal of promoting social change, cohesion, and empowerment, and the accompanying principles of social justice, human rights, and diversity (International Federation of Social Workers, 2019). The NASW Code of Ethics is centered on the core values of service, social justice, and the importance of human relationships, all of which support an empathic mission of enhancing well-being and promoting social change to meet the needs of individuals and society (NASW, 2017).

Social justice is defined as a commitment to fighting oppression, in the form of micro expressions and macro institutional forces (Wiener & Rosenwald, 2008). As a core

tenet of social work, social justice is not only a theoretical and complex phenomenon that invokes fairness, equality, and basic rights, but it also represents the opportunity for action (Segal & Wagaman, 2017). Both as a philosophical construct and a call to action, social justice bears a strong link with social work and social work education, as evident by a review of mission statements for Schools of Social Work across the United States (Segal & Wagaman, 2017). The combination of empathy, respect, social justice, and commitment to empowerment in the social work holistic tradition comprises the foundation for the evolution of trust and acceptance to emerge between social workers and client communities (Ferguson, 2008).

The connection between empathy and social justice supports the active incorporation of the core social work values in social work pedagogy and academic services. In addition, an empathic orientation toward social justice helps to ensure that students are supported with appropriate resources so the outcomes they achieve are just and equitable. For example, Sayre and Sar (2015) articulated the importance of a social justice focus in social work education, especially with regard to students who are admitted but are not prepared in the areas of academic and professional written communication. Viewing social work pedagogy through the lens of interpersonal and social empathy allows consideration of individual and group experiences and perspectives to best inform policy and procedures.

Greater Outreach to Diverse Students

There are multiple implications resulting from the recent proliferation of online social work degree programs. With this new trend toward online delivery in social work education, it is important to examine the ways in which the online social work student

population differs from the in-person student population. In the online learning environment in social work programs, there are more first generation college enrollees who come from lower socio-economic backgrounds and reside in geographically diverse and isolated communities. Because students enrolled in online programs are disproportionately nontraditional, socially disempowered, and isolated, higher education symbolizes a valuable cultural currency that may previously have been unobtainable (Chick & Hassel, 2009). For remote and rural communities that do not include brick and mortar higher education institutions, online delivery provides a means to access, as long as the technological infrastructure is established and well-functioning. Students must navigate challenging technologies in the online learning environment while being separated physically and geographically from a strong physical community of classmates, instructors, support staff, and resources (CSWE, 2018). This has great relevance to this study, as one of the comparison groups of students consists of students who enrolled in coursework in the virtual environment.

Online technology may facilitate greater access to course content than students may experience in the in-person classroom setting, with the digital divide continuing to expand with the arrival of new technologies and models (Bridgeland & Kvaal, 2018; Lee, 2017). Increasingly non-traditional and uncomfortable in the learning space, the non-traditional student population is more diverse and disadvantaged now than ever, as they are impacted by their discomfort and lack of knowledge and skill in navigating the system influenced by the neoliberal nature of online education (Chick & Hassel, 2009). Disparity in the access to technology has further disadvantaged certain populations in education, social engagement, and the economy, while opening doors to other

populations simply through the expansion of connectivity (Hitchcock et al., 2019).

Access to higher education needs to actively recruit and admit those who traditionally have been excluded from higher education, while accommodating students' needs and understanding their culture, context, and life situations (Lee, 2017).

Cost-effectiveness versus Personal Fit

With the increased popularity of online social work education, social justice concerns have surfaced regarding the student experience (Reamer, 2013). Online courses are viewed as advantageous because the courses delivered in the virtual environment tend to be developed in a highly cost-effective universal structure that is conducive to being taught repeatedly by different instructors and scaled for high-enrollment courses.

However, maintaining this “one size fits all” approach to the delivery of content avoids meeting the needs of diverse and different student populations that have unique requirements related to readiness and learning style (House-Peters et al., 2017; Reamer, 2013). First and second-generation college students need social integration and instructional interaction, which are not readily supported in digitally enhanced environments (Winslow, 2017). Students identify that the online course format can inhibit the establishment of relationships and meaningful engagement with course instructors, leaving students feeling overwhelmed, “e-solated”, and required to rely on themselves (Okech et al., 2014). In addition, the perceived distance within the course and the feeling of isolation may increase the risk of academic dishonesty, and the decreased interpersonal contact may limit opportunities for staff and faculty to provide necessary and expected gatekeeping, student support, and interventions. These are potential implications associated with this study.

Flexibility for Students

The final aspect of social work education important for consideration is flexibility that is created for students as a result of the mode of instructional delivery. Online social work programs provide flexibility regarding when and how to access and complete coursework. Technology can open access while alleviating challenges related to finances and time associated with traveling to campus and attending class in person (Reamer, 2013). Some benefits to social work students of utilizing technology in coursework are the extended access to curriculum and context, regardless of geographic location, and the expansion of the classroom to encompass global practice knowledge and resources (Hitchcock et al., 2019). Additional benefits include an enriched curriculum as an outcome of partnerships among educators and universities, and, further familiarity and comfort with technology that may be helpful in professional social work practice (Hitchcock et al., 2019). As the surge of online social work programs continues, technology becomes more vitally positioned within social work education and practice with the emergence of online self-help groups, Internet resources, cybertherapy, avatar therapy, and advanced information technology strategies (Reamer, 2013).

Summary

Research on the construct of empathy has become more sophisticated and diverse in approach and methodology over the past several decades. As a core element of both the human experience and the profession of social work, empathy may be broken down into interpersonal empathy and social empathy. Interpersonal empathy centers on affective and cognitive engagement with another person's emotional state while simultaneously recognizing that the emotional state is that of the other person and

experiencing one's own regulated response to that state. Alternatively, social empathy combines contextual understanding and macro perspective-taking to build upon interpersonal empathy to consider social responsibility on a systemic level.

Because empathy is a critical part of social work professional practice on the micro and macro levels, it is essential that the graduate social work curriculum be effective in preparing students through the development of interpersonal and social empathy central to the social work profession. University faculty are positioned to cultivate an understanding of what empathy is, how it works, how to enhance empathy in others, and how to effectively express empathy to others in a meaningful way appropriate for context, culture, and background.

As social work academia experiences a sharp increase in the prevalence of online programs, the question arises whether the mode of instructional delivery, online versus in-person, impacts the level of change in empathy scores from the beginning to the end of a graduate social work program. This question is best examined through the lens of critical theory.

CHAPTER 3

STUDY METHODOLOGY

Research Approach

The theory-based methodology determined to be most conducive to address the proposed research question was a quantitative inductive approach to facilitate the documentation of observations and patterns and lead to tentative conclusions (Krysiak, 2018). As a quantitative research project, this study relied on observations to ensure that the phenomena studied connected with how the world is explained (Slife & Williams, 1995). The quantitative methodology formed the foundation for the statistical analyses to compare pre-test and post-test scores for the two student groups participating in the MSW program in the online versus in-person mode of delivery, and the empirical evidence guided the analysis of findings and the formation of conclusions through the lens of critical theory (Rubin & Babbie, 2005).

Critical theory affected the selected research methodology in the quest to understand the structure of higher education delivery and the potential impact on the variable of interest, which is the level of empathy in graduates from the MSW program. This research study was structured with multiple-choice questions and Likert scales to question the intervening variable of online education, with an open mind to the findings. The narrow research question supported a precise approach in this research study, while still sustaining the exploratory nature (Royse, 2008).

Research Design

For this research study, an exploratory longitudinal design with pretest-posttest was utilized for conducting the study, given the quantitative inductive methodology.

There is foundational research on the constructs of empathy, online higher education, and social work education; however, there are research gaps regarding the relationships among these variables. Therefore, it was determined that an exploratory design would best contribute to the body of knowledge.

This study examined differences in empathy between two non-equivalent comparison groups with non-random assignment. The design consisted of a pre-test survey administered in two stages, the administration of the MSW program intervention in the online and in-person modes of delivery, and a post-test survey. In this non-experimental exploratory research design study, the Social Policy and Human Relations Survey (SPHRS), which included indices to measure interpersonal and social empathy, was administered as the pre and post-test survey to document the levels of empathy at the beginning and the end of the MSW program for the online and in-person delivery modes.

Participants

Sampling considerations include the possibility of incorporating a probability sample, the sample frame, the sample size, and the rate of response (Fowler, 2014). It was not possible in this research study to include a probability sample, as the study sample was a convenience sample based on self-selection, which violates the standard of the probability of selection (Fowler, 2014). The sample frame consisted of students enrolled in graduate-level, first-year social policy and human behavior in the social environment course sections in the Fall 2018 semester and the students who enrolled in the MSW advanced standing bridge seminar course in the Summer 2019 semester at an accredited large Southwestern university. All students in the sample frame were invited to participate in the research study, and it is hoped that the participating students accurately

represented the target population with survey responses descriptive of actual population attributes and characteristics (Fowler, 2014).

It was anticipated that approximately 500 students would be enrolled in these course sections, and it was desired to achieve a 35% participation rate of all enrolled students over the age of 18 years, for a total of approximately 175 students participating in this study. This target participation rate was based on response rates of 33% and 39% in previous empathy studies of college students (Wagaman et al., 2018; Wagaman & Segal, 2014).

The overall sampling design was considered to be strong, given the constraints related to the convenience sample, the anticipated response rate of the participants, the potential sampling error, and bias (Fowler, 2014). This research design maximized the availability of the sample to respond to the invitation to complete the survey at the most optimal time possible at the beginning of the initial academic semester in which the students were enrolled, before too many demands were placed on the students' time, energy, and resources. It is recognized that these participants may have been more receptive to being part of a research project than other research subjects, given that they were recently admitted into a graduate social work program and possibly excited about the prospect of contributing to the furthering of a knowledge base in higher education.

In the selection of the course sections from which to develop the sampling frame, it was recognized that some students may not have been given the opportunity to participate in the survey due to already completing the targeted courses prior to starting the MSW program, or not being able to access the invitation to participate in the research study in their university email. In addition, those students who were more responsive to

their university email or had more availability within their schedule may have been more likely to participate in the survey.

Number of Participants

Pre-Test Survey. There were 511 students in the pre-test survey sample. (Please refer to Appendix A.) The stage one pre-test survey sample consisted of 405 students: 94 in-person students in the standard MSW program in Phoenix, 27 in-person standard students in the MSW program in Tucson, and 284 in the MSW online program. The stage two pre-test survey sample included 106 students: 95 in-person students in the MSW advanced standing program in Phoenix, 11 in-person students in the MSW advanced standing program in Tucson, and none in the MSW online program, due to the MSW online program not including an advanced standing program option. After removing 27 incomplete and duplicated survey responses, there were 167 participants in the stage one of pre-test data collection out of a possible 405 students included in the convenience sample, reflecting a 41.2% response rate. There were 18 participants in the second pre-test data collection round out of a possible 106 students, representing a 17.0% response rate. Combined, the response rate was 36.2%, with a total of 185 participants out of a total possible 511 students.

Post-Test Survey. There was an examination of the list of students who started the MSW program since Fall 2018 to identify the students who did not matriculate post admission and/or who have since exited the program. After removing the students who were no longer active in the program from the sample, the final post-test survey sample size was 399. Of the 129 post-test surveys that were submitted, 73 were 100% complete and 14 surveys were 70 – 91% complete with all or most of the Social Empathy Index

(SEI) questions answered and were considered complete enough to include in the study. It was determined that one survey was a duplicate survey. Therefore, 86 post-test surveys were deemed to be complete and were included in the post-test survey analysis, for a response rate of 21.6%.

Demographics by Time

Appendix A provides a summary of participant socio-demographics associated with age, race/ethnicity, gender¹, sexuality, class, employment, undergraduate major, MSW program, geographic area, experience living in another country, experience studying abroad, experience travelling to a developed or impoverished country, political party affiliation, political ideology, and plan to graduate by time and mode of instructional delivery. The first table in Appendix A displays the demographics of the participant groups that completed the pre-test survey ($n = 185$) and the post-test survey ($n = 86$) samples. In both samples, the participant age ranged from early twenties to mid-fifties, with the mean age of 32 for the pre-test and 33 for the post-test. The majority of participants were White/Caucasian, female, heterosexual/straight, employed, online students, and leaned liberal in their political orientation.

Pre-Test Survey. The ages reported by the pre-test survey study participants had a mean of 32.29 ($SE = .691$) and a median of 29.50. The range was 36, with a minimum of 21 years and a maximum of 57 years reported. Of the pre-test survey study sample, 11 (5.9%) described their ethnic group as African American, Black; six (3.2%) as American

¹Guidance about survey questions related to identities is always evolving. The original survey instrument asked participants to identify their gender, and offered them the choices of male, female, transgender, and other. Today, I would likely revise these options to read "man, woman, nonbinary, other." This acknowledges that trans men are men/trans women are women, that nonbinary is a unique gender, and that anyone who does not see themselves reflected could respond using the "other" category. If needed, I would develop a two-stage set of gender questions in order to collect demographic data on the cisgender or transgender status of study participants.

Indian, Indigenous, Native American; five (2.7%) as Asian; 33 (17.8%) as Latino/a, Hispanic, Chicano/a; 121 (65.4%) as White, Caucasian; seven (3.8%) as multiracial; and, one (.5%) as other. There were 27 male participants (14.6%), 154 female participants (83.2%), and three participants who described themselves as transgender (1.6%). Eight of the participants self-described their sexuality as lesbian (4.3%); one as gay (.5%), 150 as heterosexual, straight (81.1%); 17 as bisexual (9.2%); five as queer (2.7%); and, four as other (2.2%). Study respondents were asked to respond categorically to how they would describe their family when they were growing up, with 20 participants choosing poor (10.8%), 68 working class (36.8%), 65 middle class (35.1%), 31 upper middle class (16.8%) and one wealthy (.5%). Regarding employment, 142 study participants indicated they were employed (76.8%) and 40 were not employed (21.6%).

Interestingly, 61 participants (33.0%) studied social work in their undergraduate major area of study and 52 psychology (28.1%), with the remainder divided among criminal justice (4.9%), nursing (.5%), education (2.7%), business (1.1%), communication (1.6%), and other (27.6%). The following is the breakdown of enrollment in the MSW program: 32 in-person standard MSW program in Phoenix (17.3%), 10 in-person standard MSW program in Tucson (5.4%), 14 in-person MSW advanced standing program in Phoenix (7.6%), four in-person MSW advanced standing program in Tucson (2.2%), 120 MSW online program (64.9%), and two other (1.1%). Therefore, 120 participants were enrolled in the MSW online program (64.9%) versus 60 participants enrolled in the in-person MSW program options on both the Phoenix and Tucson campuses (32.5%).

The majority (60.5%) of the participants resided in the Southwest region of the United States, with representation from all other regions. More than three quarters of the participants reported that they had not lived in another country (76.8%), only 11.4% had studied abroad, and approximately half (50.8%) had traveled to a developing or impoverished country. Of the study participants, 23 (12.4%) described themselves as strong Democrat, 42 (22.7%) as Democrat, 26 (14.1%) as leaning towards Democrat, 37 (20.0%) as Independent, 12 (6.5%) as leaning towards Republican, 10 (5.4%) as Republican, four (2.2%) as strong Republican, 28 (15.1%) as not having identification with a political party, and three (1.6%) as other. The participants were asked about their political ideology, with 33 (17.8%) identifying as consistently liberal, 62 (33.5%) as mostly liberal, 70 (37.8%) as mixed, 12 (6.5%) as mostly conservative, and five (2.7%) as consistently conservative.

The participants disclosed that 92 (49.7%) planned to graduate in May 2020, 50 (27.0%) planned to graduate in August 2020, and 39 (21.1%) planned to graduate in a different time frame.

Post-Test Survey. The post-test survey study participants reported a mean age of 33.01 ($SE = .906$) and a median of 31.00. The range was 33, with a minimum of 22 years and a maximum of 55 years reported. Of the post-test survey study sample, four (4.7%) described their ethnic group as African American, Black; two (2.3%) as American Indian, Indigenous, Native American; one (1.2%) as Asian; 17 (19.8%) as Latino/a, Hispanic, Chicano/a; 59 (68.6%) as White, Caucasian; and, three (3.5%) as multiracial. Nine of the participants identified as male (10.5%), 76 identified as female (88.4%), and one participant selected other (1.2%). Two participants self-described their sexuality as

lesbian (2.3%); 70 as heterosexual, straight (81.4%); seven as bisexual (8.1%); three as queer (3.5%); and, three as other (3.5%). In describing their childhood family status, 13 participants chose poor (15.1%), 28 working class (32.6%), 29 middle class (33.7%), 14 upper middle class (16.3%) and two wealthy (2.3%). Regarding employment, 52 study participants indicated they were employed (60.6%) and 34 were not employed (39.5%).

Of the study respondents, 24 (27.9%) studied social work in their undergraduate major area of study and 30 majored in psychology (34.9%), with the remainder divided among criminal justice (2.3%), nursing (1.2%), education (2.3%), business (1.2%), communication (2.3%), and other (27.9%). The following is the breakdown of enrollment in the MSW program, as self described in the post-test survey: 25 in-person standard MSW program in Phoenix (29.1), three in-person standard MSW program in Tucson (3.5%), nine in-person MSW advanced standing program in Phoenix (10.5%), and 49 MSW online program (57.0%). Therefore, 49 participants were enrolled in the MSW online program (57.0%) versus 37 participants enrolled in the in-person MSW program options on both the Phoenix and Tucson campuses (43.0%). Of these students, 20 (23.3%) reported that their MSW program concentration was Advanced Direct Practice, 18 (20.9%) reported a concentration in Policy, Administration, and Community Practice, and 48 (55.8%) reported a study concentration in Advanced Generalist.

The majority (61.6%) of the participants resided in the Southwest region of the United States, with representation from all other regions. More than three quarters of the participants reported that they had not lived in another country (77.9%), only 12.8% had studied abroad, and approximately half (54.7%) had traveled to a developing or impoverished country. When asked about their political party affiliation, 18 (20.9%)

described themselves as strong Democrat, 21 (24.4%) as Democrat, 12 (14.0%) as leaning towards Democrat, 13 (15.1%) as Independent, five (5.8%) as leaning towards Republican, four (4.7%) as Republican, two (2.3%) as strong Republican, nine (10.5%) as not having identification with a political party, and two (2.3%) as other. In addition, the participants were asked about their political ideology, with 18 (20.9%) identifying as consistently liberal, 28 (32.6%) as mostly liberal, 25 (29.1%) as mixed, five (5.8%) as mostly conservative, and one (1.2%) as consistently conservative.

The participants disclosed that 26 (30.2%) had planned originally to graduate in May 2020, 19 (22.1%) had planned to graduate in August 2020, and 29 (33.7%) had planned to graduate in a different time frame. Nearly 75% stated that this was their original graduation date.

Participants Who Completed Pre and Post Surveys. There were 20 study participants who completed both the pre-test survey and the post-test survey. These “matched” participants were separated from the remainder of the “not matched” study participants who completed only either the pre-test survey or the post-test survey. Then, pre and post differences in demographics, social empathy, interpersonal empathy, political ideology, political affiliation, and attitudes toward policies between the matched set of participants and the set of participants who were not matched were examined.

Demographics by Mode of Delivery

The second table summary in Appendix A details the study participant demographics associated with age, race/ethnicity, gender, sexuality, class, employment, undergraduate major, MSW program, geographic area, experience living in another country, experience studying abroad, experience travelling to a developed or

impoverished country, party affiliation, political ideology, and plan to graduate by the online mode of instructional delivery ($n = 169$) and the in-person mode of delivery ($n = 97$).

Online Mode of Delivery. The ages reported by the online study participants had a mean of 33.13 ($SE = .683$) and a median of 30.00. The range was 35, with a minimum of 22 years and a maximum of 57 years reported. Of the online group, 10 (5.9%) described their ethnic group as African American, Black; five (3.0%) as American Indian, Indigenous, Native American; four (2.4%) as Asian; 28 (16.6%) as Latino/a, Hispanic, Chicano/a; 115 (68.0%) as White, Caucasian; and, seven (4.1%) as multiracial. Of the student respondents enrolled in the MSW online program, there were 21 male participants (12.4%), 144 female participants (85.2%), and two participants who described themselves as transgender (1.2%). Eight of the participants self-described their sexuality as lesbian (4.7%); one as gay (0.6%), 140 as heterosexual, straight (82.8%); 12 as bisexual (7.1%); four as queer (2.4%); and, four as other (2.4%). Study respondents were asked to respond categorically to how they would describe their family when they were growing up, with 25 participants choosing poor (14.8%), 63 working class (37.3%), 55 middle class (32.5%), 25 upper middle class (14.8%) and one wealthy (0.6%). Regarding employment, 136 study participants indicated they were employed (80.5%) and 30 were not employed (17.8%).

Interestingly, 41 participants (24.3%) studied social work in their undergraduate major area of study and 63 psychology (37.3%), with the remainder divided among criminal justice (5.3%), nursing (1.2%), education (2.4%), business (1.2%), communication (1.8%), and other (26.6%). Forty-five percent of the participants resided

in the Southwest region of the United States, with representation from all other regions. More than three quarters of the participants reported that they had not lived in another country (82.2%), only 7.1% had studied abroad, and a little more than half (52.7%) had traveled to a developing or impoverished country. Of the study participants, 14 (8.3%) described themselves as strong Democrat, 38 (22.5%) as Democrat, 28 (16.6%) as leaning towards Democrat, 32 (18.9%) as Independent, nine (5.3%) as leaning towards Republican, 13 (7.7%) as Republican, five (3.0%) as strong Republican, 27 (16.0%) as not having identification with a political party, and three (1.8%) as other. The participants were asked about their political ideology, with 23 (13.6%) identifying as consistently liberal, 58 (34.3%) as mostly liberal, 63 (37.3%) as mixed, 11 (6.5%) as mostly conservative, and six (3.6%) as consistently conservative.

The participants disclosed that 46 (27.2%) planned to graduate in May 2020, 62 (37.9%) planned to graduate in August 2020, and 49 (29.0%) planned to graduate in a different time frame.

In-person Mode of Delivery. The in-person MSW program participants reported a mean age of 31.46 ($SE = .949$) and a median of 28.00. The range was 33, with a minimum of 21 years and a maximum of 54 years reported. Of the students in the online program, five (5.2%) described their ethnic group as African American, Black; two (2.1%) as American Indian, Indigenous, Native American; one (1.0%) as Asian; 21 (21.6%) as Latino/a, Hispanic, Chicano/a; 63 (64.9%) as White, Caucasian; and, three (3.1%) as multiracial. Of the in-person MSW participants, 14 identified as male (14.4%), 82 identified as female (84.5%), and one participant selected other (1.0%). Two participants self-described their sexuality as lesbian (2.1%); 75 as heterosexual, straight

(77.3%); 12 as bisexual (12.4%); four as queer (4.1%); and, three as other (3.1%). In describing their childhood family status, eight participants selected the option of poor (8.2%), 30 working class (30.9%), 38 middle class (39.2%), 19 upper middle class (19.6%) and two wealthy (2.1%). Regarding employment, 56 study participants indicated they were employed (57.7%) and 41 were not employed (42.3%).

Of the study respondents, 42 (43.3%) studied social work in their undergraduate major area of study and 17 majored in psychology (17.5%), with the remainder divided among criminal justice (2.1%), education (2.1%), business (1.0%), communication (2.1%), and other (30.9%). The following is the breakdown of enrollment in the in-person MSW program: 57 in-person standard MSW program in Phoenix (58.8), 13 in-person standard MSW program in Tucson (13.4%), 23 in-person MSW advanced standing program in Phoenix (23.7%), and four in-person MSW advanced standing program in Tucson (4.1%). Therefore, 80 participants were enrolled in the MSW program options (standard and advanced standing) in Phoenix (82.5%) versus 17 participants in the standard and advanced standing MSW program options delivered in-person in Tucson (17.5%).

A great majority (87.6%) of the in-person participants resided in the Southwest region of the United States, with representation from the regions in the North, Northeast, Northwest, Southeast, and Midwest. Approximately two thirds of the in-person participants reported that they had not lived in another country (68.0%), only 19.6% had studied abroad, and approximately half (51.5%) had traveled to a developing or impoverished country. When asked about their political party affiliation, 26 (26.8%) described themselves as strong Democrat, 24 (24.7%) as Democrat, 10 (10.3%) as

leaning towards Democrat, 16 (16.5%) as Independent, eight (8.2%) as leaning towards Republican, one (1.0%) as Republican, one (1.0%) as strong Republican, nine (9.3%) as not having identification with a political party, and two (2.1%) as other. In addition, the participants were asked about their political ideology, with 25 (25.8%) identifying as consistently liberal, 32 (33.0%) as mostly liberal, 30 (30.9%) as mixed, and six (6.2%) as mostly conservative.

The participants disclosed that 70 (72.2%) had planned originally to graduate in May 2020, four (4.1%) had planned to graduate in August 2020, and 17 (17.5%) had planned to graduate in a different time frame.

Instrumentation

Empathy was measured in this study using the SPHRS, which was developed to assess both interpersonal and macro-level empathy in individuals from diverse backgrounds. This instrument was purposefully titled the “Social Policy and Human Relations Survey” to avoid the inclusion of the term “empathy” to minimize the influence on study participants’ preconceived biases related to empathy levels. It was recognized that empathy may be a highly socially desirable trait for those enrolled in an MSW program, thereby potentially leading to skewed research findings. The SPHRS was developed around the Empathy Assessment Index (EAI) and the Social Empathy Index (SEI), both of which are self-report instruments measuring empathy.

The EAI was created as an assessment tool that could be correlated with observations, self-report, and brain activity (Gerdes et al., 2011). The EAI reflects a comprehensive approach to defining empathy from the perspectives of neuroscience research, developmental psychology, and social justice in social work by exploring the

five components believed to comprise interpersonal empathy: affective response, perspective-taking, self-awareness, emotion regulation, and empathic attitudes (Gerdes et al., 2011). Over time, the EAI was modified to replace self-awareness and empathic attitudes with self-other awareness and affective mentalizing. The SEI was created to expand on the measurement of interpersonal empathy to include contextual understanding and macro perspective-taking and is designed to examine beliefs and behaviors corresponding with social responsibility and social justice (Segal et al., 2012).

The SPHRS is a summated rating scale consisting of multiple statements combined into one scale to measure quantitatively the underlying concept of empathy (Spector, 1992). This type of a scale is not typically structured to measure knowledge; instead, respondents select one of several displayed choices as best matches their experience or opinion, and results are not based on having right and wrong answers (Spector, 1992). This type of scale tends to have good psychometric properties in terms of reliability and validity (Spector, 1992).

The stage one pre-test survey SPHRS incorporated demographic questions, the EAI subscale, the SEI subscale, questions related to policy attitudes, and six final questions related to political ideology, degree completion, and political and social actions. See Appendix I for the SPHRS pre-test survey that was distributed in Fall 2018.

The SPHRS begins with demographic questions that capture participant age, race/ethnicity, gender, sexuality, family of origin socio-economic background, employment status and job (if applicable), undergraduate major area of study, type of MSW program (in-person standard, in-person advanced standing, or online standard), geographic region of residency, country of origin, overseas living/studying experience,

travel to developing or impoverished countries, personal party affiliation, and party affiliation of parents/guardians.

The demographic questions are followed by the EAI and SEI subscales. The 22-item EAI subscale is measured on a six-point Likert scale, with possible response choices ranging from *never* to *always*. Two questions are reverse scored. The EAI subscale consists of questions representing the five components of interpersonal empathy; affective response, affective mentalizing, self-other awareness, perspective-taking, and emotion regulation. Example items include, “I can tell the difference between someone else’s feelings and my own”, and “I can imagine what it’s like to be in someone else’s shoes”.

The 18-item SEI subscale is measured on a six-point Likert scale, with the same response choices as the EAI. No questions are reverse scored in this section. The SEI subscale consists of nine questions devoted to the component of contextual understanding and nine questions representing macro perspective-taking. Example items include, “I take action to help others even if it does not personally benefit me”, and “I think it is the right of all citizens to have their basic needs met”.

The EAI and SEI subscales are followed by 12 questions on attitudes toward policy that are designed to explore how participants feel about social issues, such as government assistance, immigration, and affordable health care. These policy attitude questions were structured based on survey questions utilized by the Pew Research Center (Segal & Wagaman, 2017). This survey question orientation contributed well-tested phrasing over years of experience and the option of comparing results to national scores (Segal & Wagaman, 2017). Of these questions on policy attitudes, ten were included in

previous empathy surveys that included the EAI and SEI. For the purpose of this research study, two questions were added reflecting emerging social issues to inquire about attitudes regarding racial and ethnic diversity and acceptance of refugees fleeing violence into the country. The policy attitude questions are measured on a four-point Likert scale, with possible response choices including *completely disagree*, *mostly disagree*, *mostly agree*, and *completely agree*. Five of these questions are reverse scored. Example items include, “The government should help more needy people even if it means going deeper in debt”, and “The government needs to do more to make health care affordable and accessible”.

The remaining questions in the SPHRS include questions regarding what the participant hopes to learn upon completion of the MSW degree, the participant’s anticipated graduation month and year, and the participant’s political ideology with possible response choices of *consistently liberal*, *mostly liberal*, *mixed*, *mostly conservative*, and *consistently conservative*. The two concluding open-ended questions ask about the participant’s political and social actions over the preceding year.

The stage two pre-test survey SPHRS followed the same format, with the only difference being different response options for the type of MSW program (*Advanced Standing Program on the Phoenix Downtown campus*, *Advanced Standing Program on the Tucson campus*, or *Other*) that would not be chosen by students until entering their second year of study. See Appendix J for the SPHRS pre-test survey that was distributed in Summer 2019.

The post-test survey SPHRS included several modifications to the pre-test survey versions. (See Appendix K.) The type of MSW program options were expanded to

include both the stage one and stage two pre-test survey options for this question. The additional question of MSW program concentration was added, with the response options of *Advanced Direct Practice; Policy, Administration and Community Practice*; and, *Advanced Generalist (ASU Online MSW Program)*. In place of the question regarding what the participant hopes to learn upon completion of the MSW degree, respondents were asked to what extent they felt learned or were trained regarding historical events; walking in the shoes of clients; separating personal feelings from those of clients, groups, and communities; recognizing injustices and barriers to opportunities; and, accepting clients' life decisions. In addition, the post-test survey included an open-ended question about what the respondent understood better now than upon entering the MSW program and what the respondent wanted to have learned more about in the MSW program. Follow-up questions were added to the question of the anticipated graduation month and year to inquire if that was the original planned date of graduation and why it changed, if it had changed since starting the MSW program.

Because the survey is Internet-based and self-administered, there was room for participant error based on limited understanding of the instructions, poor Internet connection, and lack of time to complete the full survey. Benefits of this type of data collection included minimal error in understanding and recording responses because the respondents answered the survey questions directly; ease of navigation with clear instructions and a consistent question format and structure utilized throughout the survey; and, comfort of survey completion when it was most convenient for the respondent. The SPHRS questions and subscales are clearly worded and composed of several series of similarly formatted questions. Instructions are simple and precise, limited to only one

short statement in a larger font at the top of the page above each subscale. This is conducive to the participants being more likely to identify the instructions as directives separate from the survey questions. Due to the sample consisting of college students successfully admitted to the graduate degree program, there is an assumption that the participants possess the minimal reading and writing skills needed to navigate and complete the SPHRS independently.

In this research study, it was necessary to assess the use of the SPHRS, the SEI subscale, and the EAI subscale as valid measures of the construct of empathy. Carmines and Zeller (1979) identified that a measure can be valid for one purpose and context, but lack validity in another. Therefore, in this study, it is appropriate that there were different subscales to measure the unique components of empathy. Due to resource limitations, it was not possible to gather concurrent validity evidence that empathy scores correlated with success in the role of professional social worker; however, there is predictive validity in that empathy may help predict how much empathy research participants may have in the future (Carmines & Zeller, 1979).

Carmines and Zeller (1979) stressed when a construct is abstract, such as empathy, it can become more difficult to identify assessment criteria, with the process of establishing content validity becoming exceedingly complex. If the research is accurate regarding the identification of the empathy components, then there may be the assumption of content validity. In this research study, the inclusion of well-constructed questions from each empathy component supports content validity. Every time the EAI and SEI subscales are incorporated as measures in a research study, the results contribute to the overall construct validity.

The original version of the EAI subscale was rigorously tested, resulting in the examination of concurrent validity and the elimination of several component items that corresponded with survey limitations (Gerdes et al., 2011; Segal et al., 2013). After conducting an exploratory factor analysis of the SEI through a combination of expert review and statistical analysis, the original 38 items were narrowed down to the 18 items currently part of the SPHRS (Segal et al., 2013). As a result of this extensive process of examining the SPHRS, content validity was established with the conclusion that the scale was considered to be a valid measure of both interpersonal and social empathy. For the purpose of this study, the SPHRS appears to be a valid tool for measurement, and it is expected that the subscales and overall scale will be strongly correlated in future research studies. Further administration of the SPHRS will assist in establishing external validity as results are examined in light of statistical significance to generalize from the sample to the overall populations. Statistical conclusion validity will also be considered to explore covariation between variables. Considerations will include statistical power, violations of statistical testing assumptions, measure and implementation reliability, and variance that may exist in the experimental environment (Shadish et al., 2002).

Data Collection

The pre-test survey was administered at the beginning of the degree program for MSW online program students, in-person MSW standard program students, and in-person MSW advanced standing program students. Information regarding the study was disseminated to the student population in the first week of the Fall 2018 (pre-test stage one) and Summer 2019 (pre-test stage two) semesters, and initial data collection took place throughout that week for a total of seven days. See Appendix C for the pre-test

survey stage one Fall 2018 recruitment resources and Appendix E for the pre-test survey stage two Summer 2019 recruitment resources. Outreach was conducted to the targeted course instructors to request support for the survey recruitment activities and to compile a list of student email addresses for the post-test survey recruitment. The list of email addresses was analyzed to ensure that only graduate students enrolled in the targeted course sections were included in recruitment emails.

Students were invited to participate via a combination of several email messages and a course video announcement posted in the learning management system course shell for online course sections and shown during class periods for in-person course sections. The emails and the video announcement provided a link to the online survey administered through Qualtrics, an online data collection and analysis platform (<https://www.qualtrics.com>). When students clicked on the survey link, they were routed to the online survey administered in English. Study participants had the opportunity to review the confidentiality guidelines and the consent statement (see Appendix D and Appendix F) before creating a uniquely replicable identifying code to link their pre-test and post-test surveys for data analysis with protected anonymity. It was anticipated that the online survey would take approximately 15 minutes to complete.

In order to examine differences in changes in levels of empathy across the varying MSW program types, the online post-test survey was administered in late Spring of 2020, close to the anticipated graduation date for most of the study participants. A similar administrative procedure as employed for the pre-test was followed to recruit and inform student participants and to provide the online post-test survey link. (See Appendix G.) A series of recruitment emails with an attached three-minute recruitment video presentation

were sent to the list of student email addresses gathered from the pre-test participant pool to invite participation in the post-test and to provide the link to the online survey. On the first page of the online survey, the participants were asked to review the confidentiality guidelines (see Appendix H), give informed consent to initiate the online post-test survey, and enter the replicable identifying code to link the post-test survey to the pre-test survey.

Human Subjects & Confidentiality

This research study #00007409 was approved by the Arizona State University (ASU) Institutional Review Board (IRB) on 07/30/2018. (See Appendix B). On 04/09/2019, the ASU IRB approved the requested modification to include a stage two pre-test survey data collection in May 2019. An additional IRB notification of approval was received for this study on 03/19/2020, when there were modifications submitted to include virtual focus groups with this study. The virtual focus groups are outside the parameters of this research study. There were no identified risks to the study participants, and the only direct benefit to the participants for participating in the study survey was the opportunity to assist in advancing scientific knowledge.

Because the data included demographic information, the data has been stored in a password-protected file on the university secure server, available to only the study researchers. All research findings will be presented in aggregate to minimize the chance of identifying a study participant according to demographic characteristics. The data will be retained for three years after the data collection.

The replicable identifying code created by study participants at the beginning of the pre-test and post-test surveys involved a formula used by study participants to create and replicate the unique ID, without identification by the research team. Therefore, there

was no need to maintain a master list of participants, and it will not be possible to link the surveys and research results to the participants. The formula for creating the unique identifying code included the first two letters of the participant's mother's first name, followed by the day of the month of the participant's birthday (recorded with two digits, for example, "04" for the fourth day of the month), and concluded with the first two numbers of the participant's street address.

Students were informed of their rights as prospective research participants in the course announcements and emails at the point of recruitment for the pre-test and post-test. (See Appendix D, Appendix F, and Appendix H.) When the students clicked on the link to each online survey, the first screen consisted of the introduction to the survey and a more detailed description of study participant rights. Participants were notified on that first screen that if they chose to begin the survey, they were confirming that they understood their rights as research participants and giving consent to participate in the research study. To maintain anonymity for this study involving a minimal level of risk, written consent was not collected. Students were able to exit the survey at any time.

Only data from those respondents who were age 18 years and older were included and no special subset of students was targeted or excluded from the sample population. There was an assumption that the students who applied for and were accepted into the MSW program were capable of protecting themselves through understanding potential risk and giving informed consent (Sieber & Tolich, 2013). It was recognized that while MSW students may typically possess low cognitive vulnerability, they may have been vulnerable to authority and/or display deferential authority in their willingness to be a research participant (Sieber & Tolich, 2013). Therefore, it was necessary to separate the

survey invitation from the course instructors, who represented authority figures (Sieber & Tolich, 2013). Instead, the survey invitation was initiated through a course announcement video created by a member of the research team, and the same researcher sent the follow up email containing the online survey link.

There is the recognition of the presence of hegemony in the higher education environment in that the predominance of the Western higher education structure and system has an impact on students who reside in cultures that do not follow the Western tradition (Ortega & Busch-Armendariz, 2013). Ortega and Busch-Armendariz (2013) express that the scientific knowledge and understanding may be benevolent, but “tainted by hegemony” (p. 114). This has significance in the impact on people from diverse cultural backgrounds and traditions who encounter the dominant culture in their quest for their graduate degree in social work. There may be an inherent bias woven into the delivery of the MSW program from the dominant United States western perspective on the social work profession. It is key to identify and examine researcher bias and assumptions throughout the research study process in order to achieve the highest form of objectivity possible (Slife & Williams, 1995).

Data Analysis

The completed pre-test survey raw data were exported from Qualtrics to Microsoft Excel in order to be examined, cleaned, and coded in preparation for import into the SPSS statistical software (<https://www.ibm.com/analytics/spss-statistics-software>). In the data analysis, non-responses were coded accordingly in order to remove them from the statistical analysis and avoid potentially skewing the results. The post-test survey data were processed in the same manner to import the post-test survey data into a

second data file in the SPSS software. Then the two files were merged in order to analyze the overall data effectively.

The plan for data analysis was to conduct a univariate analysis to carefully examine each variable independently and create a frequency distribution profile of measures of central tendency appropriate to the level of measurement (Royse, 2008). The assumptions for each type of statistical procedure were examined to ensure an appropriate fit with this research design. Then, the primary hypothesis and the secondary hypotheses were tested.

Data analysis included several statistical tests to examine the primary research question of whether the mode of instruction (online versus in-person) impacted the change in the empathy scores from the beginning to the end of an MSW program, when controlling for demographic characteristics. For both the pre-test survey and post-test survey, the data were examined to identify the missing empathy component and composite mean scores. In order to correct the missing component mean scores, the existing scores within the same empathy component were added up for each participant with a missing composite score. Then, this subtotal was divided by the number of existing scores to obtain the missing component mean score, which then allowed for the composite mean scores to be calculated.

First, the analysis of the Pearson's r correlation of the social empathy and interpersonal empathy composite scores together and with the individual components disclosed the extent and direction of the linear relationship of the overall social and interpersonal empathy scores with each of the empathy component scores. These analyses highlighted the reliability of the SEI and EAI scales with regard to how much variability

is shared between the compared scores. Hierarchical regression analyses explored the predicted values of the empathy scores from the mode of instructions, while controlling for demographic variables. Then, one-way analysis of variance and post hoc test statistics investigated specific differences among the empathy scores means of the students enrolled in the in-person standard MSW program, the in-person advanced standing MSW program, and the MSW online program.

CHAPTER 4

FINDINGS

To test the primary hypothesis and the secondary hypotheses, the research findings from this study focused on statistical power, assumption testing, attrition, the reliability of the various empathy scales, and the relationship between overall empathy, interpersonal empathy, and social empathy scores, and the mode of instructional delivery from the beginning to the end of an MSW program, when controlling for demographic characteristics. There were many additional statistical tests conducted that did not have results relevant to this study. Because these findings were not informative in association with the study hypotheses, a summary of these tests is available in Appendix L.

Statistical Power

A key consideration associated with determining statistical power is the careful selection of statistical tests appropriate for the assumptions related to the data, the sampling, and the sophistication of the relationship being tested (Lipsey, 1990). Additional considerations included the set alpha level, the sample size, and the effect size (Lipsey, 1990). The alpha level was set at .05 to establish the standard for the probability of a statistical error to be limited to five percent; thereby reducing the possibility of a Type I error of inaccurately reporting an effect when there is not an actual effect (Lipsey, 1990).

A G*Power analysis conducted on a linear multiple regression of a fixed model indicates that a sample size of greater than 138 would support the study in having a higher likelihood of being successful 95% of the time. With the initial sample size of 179 participants, the researchers may be 95% confident that the sampling error has decreased

to be within plus or minus four percentage points (Fowler, 2014). The effect size resulting from each statistical test was examined closely, with the understanding that it is difficult to set a standard for the effect size due to the lack of related documented research findings that may serve as comparisons (Lipsey, 1990).

Assumptions Testing

The assumptions for each type of statistical procedure were examined to ensure an appropriate fit with this research design, and several extreme outliers were identified in the data. It was determined that the best option to address the outliers was to Winsorize and replace the outliers with the next highest or lowest score that is not an outlier and run the analysis again. The Winsorized data analyses produced no statistically significant results that differed from the original results. Therefore, the original analyses were used. All other assumptions for the statistical tests were met, as specified below.

The assumptions for *t*-test analyses were met in this analysis. The central limit theorem states that if the sample size is greater than 30, then the assumption of normality is met. Levene's Test for Equality of Variances accounted for the homogeneity of variance, with results reflecting the outcome of Levene's Test in each analysis. Cases were determined to be independent and unrelated, and there was a linear relationship among variables, confirming the assumptions of additivity and linearity.

The assumptions for the one-way analysis of variance (ANOVA) were examined and confirmed to have been met. The homogeneity of variance was checked using Levene's test to assure that variances were the same across the groups, and Welch's *F* was used when the homogeneity of variance assumption was shown to be violated with a

statistically significant result for the Levene's test. The assumption of independence was confirmed in that the cases in the dataset were independent of one another.

In addition, the assumptions for regression analyses were checked. There were no influential cases, per the Cook's Distance absolute values being less than one.

Scatterplots were examined for linearity, with no concerns noted. Non-zero variance was checked by exploring the descriptive statistics. The assumption of the independence of errors and lack of autocorrelation was checked by the Durbin-Watson test results being close to two. Homoscedasticity was confirmed that there were equal variances by examining the results of plotting residual values against the predicted values and not observing funnel or curvilinear shapes. In addition, normally-distributed errors were observed, and there was no multicollinearity identified in the collinearity diagnostics reported by the Tolerance VIF values in the regression output.

An exploration of the Chi Square assumptions revealed that there was independence of data and there was no expected frequency below five for the statistically significant relationships for most of the analyses conducted for this research study. In the examination of the statistically significant relationship between the type of MSW program and political ideology, it was identified that two cells (33.3%) had expected frequencies less than five; however, this is acceptable for a table larger than 2x2.

Attrition

Attrition is an important consideration in this study. While innovative online program delivery improves accessibility for students with work and caregiving responsibilities, attrition remains a concern (Detres et al., 2020). In fact, there are lower retention rates (20% lower) for online students than for students who attend class in

person (Detres et al., 2020). Student factors, program factors, and environmental factors can all contribute to student retention and attrition rates (Detres et al., 2020).

After the post-test round of data collection, attrition was examined to understand the impact on statistical power and the threat to internal validity. Because attrition may be more systematically biased, as opposed to randomly biased, it is highly desirable to retain the participants who completed the initial survey (Shadish et al., 2002). Therefore, every effort was made to invite and encourage students who were included in the initial survey sample to also participate in the final survey. It was recognized that participants may choose to only complete the pre-test survey or the post-test survey, and some participants may exit the MSW program prior to graduation.

Comparison of Pre-Test Survey and the Post-Test Survey Participant Groups

This research analysis included an examination of the relationship between demographic variables by pre-test survey participant group versus the post-test survey participant group. It was necessary to collapse categories for the variables of race/ethnicity (Latino/a, Hispanic, Chicano/a, White, Caucasian, Other); gender (male, female); sexuality (lesbian/gay, heterosexual/straight, other); family of origin socioeconomic background (poor, working class, middle class, upper middle class/wealthy); undergraduate major (social work, psychology, other); party affiliation (Democrat, Independent, Republican, Other/No party affiliation); and, political ideology (liberal, mixed, conservative) to avoid having more than 20% of expected frequencies fall below five. The variables of employment, experience living in another country, experience studying abroad, and experience travelling to a developed or impoverished country were dichotomous variables.

The Chi Square statistical analysis revealed the lack of any statistically significant relationships between the variable of time (pre-test versus post-test) and the following demographic variables: race/ethnicity, gender, sexuality, family of origin socio-economic background, undergraduate major, experience living in another country, experience studying abroad, experience travelling to developing or impoverished countries, party affiliation, and political ideology.

Of the study participants who completed the pre-test, 142 (73.2%) were employed. For the post-test, that number decreased to 62.3 (26.8%). There was a statistically significant relationship between the variable of time (pre-test versus post-test) and employment status ($X^2 (1) = 9.007, p = .003$) (see Table 1). The odds of being employed for those who completed the pre-test survey were two times higher compared to those who completed the post-test survey. The effect size was low ($Phi = .183$).

Table 1

Employment Status by Time

	Pre-test survey		Post-test survey		X^2
	<i>n</i>	%	<i>N</i>	%	
Employment					9.007*
Yes	142	78.0	52	60.5	
No	40	22.0	34	39.5	

* $p < .01$

Matched Set of Participants Who Completed Pre and Post Surveys

There were multiple analyses conducted for the “matched” sets of participants who completed both the pre-test survey and post-test survey with those “not matched” participants who only completed either the pre-test survey or the post-test survey. First, Chi Square analyses allowed for the examination of the two subgroups of study participants with regard to demographics of race/ethnicity, gender, sexuality, and family of origin socio-economic background. There were no statistically significant differences for any of these variables for the pre-test and post-test survey data by the “matched” and “not matched” groups.

Comparison matched *t*-test analyses were conducted of the pre-test and post-test survey data for party affiliation, with no statistically significant differences found between the “matched” and “not matched” groups. In addition, *t*-test analyses were completed of the empathy levels for the “matched” sets with those “not matched” participants pre-test survey (see Table 2) and post-test survey (see Table 3). There were no statistically significant differences in levels of interpersonal empathy, social empathy, or any of the empathy components between these two groups of study participants.

Table 2*Empathy Levels by Matched Sets - Pre-test Survey*

Empathy	Matched set			Not matched set			<i>t</i>	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.594	0.489	20	4.522	0.478	165	-1.526	183
Affective response	4.940	0.495	20	4.796	0.778	165	-0.805	183
Affective mentalizing	4.725	0.683	20	4.617	0.610	165	-0.741	183
Perspective-taking	4.870	0.666	20	4.614	0.567	165	-1.872	183
Self-other awareness	4.662	0.771	20	4.464	0.672	165	-1.230	183
Emotion regulation	4.275	0.499	20	4.117	0.682	165	-1.006	183
Social empathy	5.006	0.597	20	4.970	0.612	165	-0.249	183
Contextual understanding	5.100	0.794	20	5.075	0.731	165	-0.143	183
Macro perspective-taking	4.911	0.576	20	4.864	0.613	165	-0.326	183

Table 3*Empathy Levels by Matched Sets - Post-test Survey*

Empathy scores	Matched set			Not matched set			<i>t</i>	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.793	0.494	20	4.778	0.468	66	-0.129	84
Affective response	5.140	0.668	20	5.100	0.627	66	-0.246	84
Affective mentalizing	4.888	0.690	20	4.875	0.637	66	-0.075	84
Perspective-taking	4.900	0.610	20	4.882	0.606	66	-0.117	84
Self-other awareness	4.638	0.772	20	4.686	0.667	66	0.272	84
Emotion regulation	4.400	0.620	20	4.345	0.624	66	-0.348	84
Social empathy	5.281	0.488	20	5.241	0.465	66	-0.332	84
Contextual understanding	5.406	0.660	20	5.383	0.544	66	-0.426	84
Macro perspective-taking	5.156	0.505	20	5.099	0.525	66	-0.129	84

Demographics

This research analysis included an examination of the relationship between demographic variables to understand which variables may be indicators for other variables for the pre-test and post-test survey results. Of particular interest was the analysis of the relationship between the type of MSW program and several of the demographic variables, including employment, undergraduate major area of study, experience living in another country, and political ideology.

Statistical analyses revealed a lack of a statistically significant relationship between the variable of type of MSW program and the following demographic variables in the pre-test survey: race/ethnicity, gender, sexuality, family of origin socio-economic background, country of origin, experience living in another country, experience studying abroad, travel to developing or impoverished countries, party affiliation, and political ideology.

There was a statistically significant relationship between the mode of delivery and employment status ($X^2 (1) = 13.640, p < .001$) (see Table 4). The odds of being employed for those in the in-person MSW program were .25 times lower compared to those in the MSW online program. The effect size was moderate ($Phi = .278$). Of the in-person students at the start of the MSW program, 63.3% were employed and 36.7% were not employed. In comparison, 87.2% of the online students held jobs and 12.8% did not work outside of their internships and coursework.

Table 4*Employment Status by Mode of Instructional Delivery – Pre-test Survey*

Mode of delivery	Employment status				X^2
	Employed		Not employed		
	<i>f</i>	%	<i>f</i>	%	
In-person	38	21.5	22	12.4	13.640*
Online	102	57.6	15	8.5	

* $p < .001$

This difference was not statistically significant in the post-test survey ($X^2(1) = 3.793, p = .051$) (see Table 5). At the time of the post-test, 48.6% of the in-person students were employed and 51.4% were not employed. Of the online students, 69.4% had jobs and 30.6% did not.

Table 5*Employment Status by Mode of Instructional Delivery – Post-test Survey*

Mode of delivery	Employment status				X^2
	Employed		Not employed		
	<i>F</i>	%	<i>f</i>	%	
In-person	18	20.9	19	22.1	3.793
Online	34	39.5	15	17.4	

In addition, there was a statistically significant relationship between the type of MSW program and undergraduate major area of study ($X^2 (1) = 6.222, p = .045$) (see Table 6). The effect size was low to moderate ($Phi = .186$).

Table 6

Mode of Instructional Delivery by Undergraduate Major Area of Study – Pre-test Survey

	Mode of delivery				X^2
	In-person		Online		
	<i>F</i>	%	<i>F</i>	%	
Undergraduate major					6.222*
Social work	25	14.0	34	19.0	
Psychology	10	5.6	40	22.3	
Other	24	13.4	46	25.7	

* $p < .05$

Chi Square analyses revealed no statistically significant relationships between the variable of type of MSW program and the following post-test survey demographic variables: race/ethnicity, gender, sexuality, family of origin socio-economic background, travel to developing or impoverished countries, and party affiliation. The examination of the relationship between the type of MSW program and experience studying abroad exposed the lack of meeting required assumptions to conduct that particular analysis. However, the type of MSW program has a relationship with the variables of participants' undergraduate majors, experience living in another country, and political ideology.

There was a statistically significant relationship between mode of instructional delivery and undergraduate major area of study ($X^2 (1) = 12.392, p = .002$) (see Table 7),

with a moderate effect size ($\Phi = .380$). Another statistically significant relationship that was revealed was between the type of MSW program and experience living in another country ($\chi^2 (1) = 4.003, p = .045$) (see Table 8). The odds of having experience living overseas for those in the in-person program were 2.874 times higher compared to those in the online program. The effect size was low to moderate ($\Phi = .217$). The third statistically significant relationship that emerged from this data analysis was between the type of MSW program and political ideology ($\chi^2 (1) = 6.610, p = .037$) (see Table 9). The effect size was moderate ($\Phi = .293$).

Table 7

Mode of Instructional Delivery by Undergraduate Major Area of Study – Post-test Survey

	Mode of delivery				χ^2
	In-person		Online		
	F	%	f	%	
Undergraduate major					12.392*
Social work	17	19.8	7	8.1	
Psychology	7	8.1	23	26.7	
Other	13	15.1	19	22.1	

* $p < .01$

Table 8*Mode of Instructional Delivery by Experience Living in Another Country – Post-test**Survey*

	Experience living in another country				X^2
	Yes		No		
	<i>f</i>	%	<i>f</i>	%	
Mode of delivery					4.033*
In-person	12	14.0	25	29.1	
Online	7	8.1	42	48.8	

* $p < .05$ **Table 9***Political Ideology by Mode of Instructional Delivery – Post-test Survey*

	Mode of delivery				X^2
	In-person		Online		
	<i>f</i>	%	<i>f</i>	%	
Political ideology					6.610*
Liberal	24	31.2	22	28.6	
Mixed	9	11.7	16	20.8	
Conservative	0	0.0	6	7.8	

* $p < .05$ **Reliability of the Empathy Scales**

The scale reliability for the Social Policy and Human Relations Survey was examined using the statistical test Cronbach's alpha for multiple analyses, including the full empathy survey comprised of both the EAI and SEI, the interpersonal empathy

composite subscale, the social empathy composite subscale, and the individual component subscales for affective response, affective mentalizing, self-other awareness, perspective-taking, emotion regulation, contextual understanding, and macro perspective-taking. These analyses were conducted for the pre-test survey and the post-test survey (see Table 10).

Table 10

Empathy Scale and Subscales Reliability

Scale and subscales	<i>n</i> Items	Sample questions	Pre-test survey α	Post-test survey α
Overall empathy	40		.895	.877
Interpersonal empathy	22		.869	.874
Affective response	5	When I am with someone who gets sad news, I feel sad for a moment too.	.719	.624
Affective mentalizing	4	I am good at understanding other people's emotions.	.727	.802
Perspective-taking	5	I can imagine what it's like to be in someone else's shoes.	.673	.725
Self-other awareness	4	I can tell the difference between someone else's feelings and my own.	.640	.705
Emotion regulation	4	Emotional stability describes me well.	.631	.645
Social empathy	18		.882	.817
Contextual understanding	9	I think it is the right of all citizens to have their basic needs met	.863	.808
Macro perspective-taking	9	I take action to help others even if it does not personally benefit me.	.756	.692

The Cronbach's alpha for overall pre-test survey empathy instrument ($\alpha = .895$) was high, as was the Cronbach's alpha for the EAI ($\alpha = .869$) and the SEI ($\alpha = .882$). There was a high Cronbach's alpha for the empathy components of affective response ($\alpha = .719$), affective mentalizing ($\alpha = .727$), contextual understanding ($\alpha = .863$), and macro

perspective-taking ($\alpha = .756$). There was a medium-to-high Cronbach's alpha for perspective-taking ($\alpha = .673$), self-other awareness ($\alpha = .640$), and emotion regulation ($\alpha = .631$).

Similar to the pre-test survey, the Cronbach's alpha for overall post-test survey empathy instrument ($\alpha = .877$) was high, as was the Cronbach's alpha for the EAI ($\alpha = .874$) and the SEI ($\alpha = .817$). There was a high Cronbach's alpha for the empathy components of affective mentalizing ($\alpha = .802$), perspective-taking ($\alpha = .725$), self-other awareness ($\alpha = .705$), and contextual understanding ($\alpha = .808$). There was a medium-to-high Cronbach's alpha for affective response ($\alpha = .624$), emotion regulation ($\alpha = .645$), and macro perspective-taking ($\alpha = .692$).

Relationship between Empathy and Time

Empathy scores were examined to understand any differences between the pre-test and post-test scores for the empathy composite and component scales, as well as the potential correlations between interpersonal empathy and social empathy.

Empathy Mean Scores from Pre-test Survey to Post-test Survey

There was an analysis of the empathy composite and component scale frequencies for the pre-test survey ($n = 185$) and the post-test survey ($n = 86$) to examine if there were any differences in the pre and post student groups (see Table 11). Independent means t -tests were completed for interpersonal empathy, affective response, affective mentalizing, perspective-taking, self-other awareness, emotion regulation, social empathy, contextual understanding and macro perspective-taking to determine if the difference in scores for each empathy composite and component subscale from pre to post-test was statistically significant.

Table 11*Empathy Levels by Time*

Empathy scores	Time						<i>t</i>	<i>df</i>
	Pre-test survey			Post-test survey				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.540	0.481	185	4.781	0.472	86	-3.862***	269
Affective response	4.812	0.753	185	5.109	0.633	86	-3.177**	269
Affective mentalizing	4.628	0.617	185	4.878	0.646	86	-3.053**	269
Perspective-taking	4.642	0.582	185	4.886	0.603	86	-3.182**	269
Self-other awareness	4.485	0.684	185	4.674	0.688	86	-2.117*	269
Emotion regulation	4.134	0.665	185	4.358	0.620	86	-2.633**	269
Social empathy	4.973	0.609	185	5.250	0.467	86	-4.103***	269
Contextual understanding	5.078	0.735	185	5.388	0.569	86	-3.794***	209.857
Macro perspective-taking	4.869	0.608	185	5.112	0.518	86	-3.202**	269

* $p < .05$; ** $p < .01$; *** $p < .001$

The mean for the pre-test survey interpersonal empathy score was 4.540 ($SD = 0.481$). The individual component score means for interpersonal empathy were as follows: 4.812 ($SD = 0.753$) for affective response; 4.628 ($SD = 0.617$) for affective mentalizing; 4.642 ($SD = 0.582$) for perspective-taking; 4.485 ($SD = 0.684$) for self-other awareness; and, 4.134 ($SD = 0.665$) for emotion regulation. The mean for the pre-test survey SEI score was 4.973 ($SD = 0.609$). The individual component score means for social empathy were as follows: 5.078 ($SD = 0.735$) for contextual understanding and 4.872 ($SD = 0.600$) for macro perspective-taking.

The mean for the post-test survey interpersonal empathy score was 4.781 ($SD = 0.472$). The individual component score means for interpersonal empathy were as follows: 5.109 ($SD = 0.633$) for affective response; 4.878 ($SD = 0.646$) for affective

mentalizing; 4.886 ($SD = 0.603$) for perspective-taking; 4.674 ($SD = 0.688$) for self-other awareness; and, 4.358 ($SD = 0.620$) for emotion regulation. The mean for the post-test survey SEI score was 5.250 ($SD = 0.467$). The individual component score means for social empathy were as follows: 5.388 ($SD = 0.569$) for contextual understanding and 5.112 ($SD = 0.518$) for macro perspective-taking.

On average, the study participants had higher levels of empathy from pre-test to post-test across all types of empathy and empathy components (See Table 11).

Independent means t-tests indicated that the results were statistically significant for all empathy components and composites. For interpersonal empathy, $t(269) = -3.862, p < .001$, 95% Confidence Interval (CI) [-0.364, -0.118], with Cohen's $d = 0.506$, indicating a medium effect size. For affective response, $t(269) = -3.177, p = .002$, 95% CI [-0.482, -0.113], with Cohen's $d = 0.427$, indicating a small to medium effect size. For affective mentalizing, $t(269) = -3.053, p = .002$, 95% CI [-0.410, -0.089], with Cohen's $d = 0.396$, indicating a small to medium effect size. For perspective-taking, $t(269) = -3.182, p = .002$, 95% CI [-0.396, -0.093], with Cohen's $d = 0.412$, indicating a small to medium effect size. For self-other awareness, $t(269) = -2.117, p = .035$, 95% CI [-0.189, -0.089], with Cohen's $d = 0.276$, indicating a small effect size. For emotional regulation, $t(269) = -2.633, p = .009$, 95% CI [-0.391, -0.056], with Cohen's $d = 0.348$, indicating a small to medium effect size.

For social empathy, $t(211.151) = -4.103, p < .001$, 95% CI [-0.409, -0.144], with Cohen's $d = 0.510$, indicating a medium effect size. For contextual understanding, $t(209.857) = -3.794, p < .001$, 95% CI [-0.471, -0.149], with Cohen's $d = 0.472$, indicating a medium effect size. For macro perspective-taking, $t(269) = -3.202, p = .002$,

95% CI [-0.392, -0.094], with Cohen’s $d = 0.430$, indicating a small to medium effect size.

Empathy Correlations from Pre-test to Post-test

In addition to the pre-test survey and post-test survey empathy means examined above, the empathy composites were analyzed using Pearson’s r correlation to understand the potential relationship between interpersonal empathy and social empathy in the pre-test survey and post-test survey. These findings disclosed the extent and direction of the linear relationship of the overall social and interpersonal empathy scores and highlighted the reliability of the SEI and EAI scales with regard to how much variability is shared between the compared scores.

Pearson’s correlation analysis of the pre-test survey indicated there was a medium positive relationship between social empathy composite scores and interpersonal empathy composite scores ($r = .327, p = .001$) (see Table 12). As the score on the social empathy composite increased, the score on the interpersonal empathy composite increased. Approximately 11% of the variability in the social empathy composite score was shared by the interpersonal empathy composite score ($R^2 = .106$).

Table 12

Correlation between Social Empathy and Interpersonal Empathy

Social empathy correlations	Pre-test survey	Post-test survey
Interpersonal empathy	.327***	.350*

* $p = .001$

Similar to the pre-test survey findings, the Pearson's correlation analysis of the post-test survey indicated there was a medium positive relationship between social empathy composite scores and interpersonal empathy composite scores ($r = .350, p = .001$) (see Table 12). As the scores on the social empathy composite increased, the scores on the interpersonal empathy composite also increased. Approximately 12% of the variability in the social empathy composite score was shared by the interpersonal empathy composite score ($R^2 = .122$).

Empathy by Age, Gender, Political Ideology, and Party Affiliation

The differences in empathy score means for subgroups within the sample were examined utilizing correlation and *t*-test analyses. Of primary interest were the relationships between empathy and the variables of age, gender, political ideology, and party affiliation. In order to conduct the *t*-test analyses, the variables of interest were polarized, including gender (male, female), political ideology (liberal, conservative), and party affiliation (Democrat, Republican). Then it was possible to compare the differences in empathy means between the two attribute groups for each variable.

Empathy Scores by Age

The potential relationship between age and empathy scores was analyzed using Pearson's *r* correlation for the pre-test survey and post-test survey. These findings disclosed the extent and direction of the linear relationship of age and each of the social and interpersonal empathy composite and individual component scores and disclosed how much variability is shared between the compared variables.

Pearson's correlation analysis of the pre-test survey indicated there was a small positive relationship between age and emotion regulation ($r = .158, p = .034$) (see Table

13). As age increased, the emotion regulation composite score increased. Approximately two percent of the variability in age was shared by the emotion regulation composite score ($R^2 = .024$).

Table 13

Correlation between Age and Empathy

Age correlations	Pre-test survey	Post-test survey
Interpersonal empathy	.142	.311**
Affective response	.089	.182
Affective mentalizing	.104	.182
Perspective-taking	.070	.229*
Self-other awareness	.094	.276*
Emotion regulation	.158*	.280**
Social empathy	-.050	-.003
Contextual understanding	-.118	-.066
Macro perspective-taking	.044	.068

* $p < .05$, ** $p < .01$

Similar to the pre-test survey findings, the Pearson's correlation analysis of the post-test survey indicated there was a small to medium positive relationship between age and the interpersonal empathy composite scores ($r = .311, p = .004$), age and emotion regulation component scores ($r = .280, p = .009$), a small positive relationship between age and perspective-taking component scores ($r = .229, p = .035$), and a small relationship between age and self-other awareness ($r = .276, p = .011$) (see Table 13). As age increased, interpersonal empathy composite scores and the component scores of emotion regulation, perspective-taking, and self-other awareness increased. Nearly nine

percent of the variability in age was shared by the interpersonal empathy composite score ($R^2 = .097$). Nearly eight percent of the variability in age was shared by the emotion regulation component score ($R^2 = .078$), approximately five percent of the variability in age was shared by the perspective-taking component ($R^2 = .052$) and nearly eight percent of the variable in age was share by the self-other awareness component ($R^2 = .076$).

Empathy Levels by Gender

In the examination of empathy levels by gender, study participants were divided into two groups for comparison: male and female. In the pre-test survey results, on average, female participant scores reflected higher levels for interpersonal empathy, social empathy, and all empathy components (see Table 14). Independent means *t*-tests indicated that the following results were statistically significant: interpersonal empathy $t(179) = -2.759, p = .006, 95\% \text{ CI } [-0.468, -0.078]$, with Cohen's $d = 0.568$, indicating a medium effect size; and, affective response $t(179) = -3.510, p = .001, 95\% \text{ CI } [-0.842, -0.236]$, with Cohen's $d = 0.781$, indicating a medium to large effect size.

Table 14*Empathy Levels by Gender – Pre-test Survey*

Empathy scores	Gender						<i>t</i>	<i>df</i>
	Male			Female				
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.316	0.486	27	4.588	0.471	154	-2.759*	179
Affective response	4.356	0.616	27	4.894	0.755	154	-3.510**	179
Affective mentalizing	4.426	0.743	27	4.669	0.592	154	-1.889	179
Perspective-taking	4.444	0.606	27	4.684	0.576	154	-1.976	179
Self-other awareness	4.287	0.638	27	4.528	0.693	154	-1.682	179
Emotion regulation	4.064	0.634	27	4.166	0.663	154	-0.733	179
Social empathy	4.800	0.734	27	5.001	0.585	154	-1.348	32.049
Contextual understanding	4.860	0.824	27	5.109	0.716	154	-1.634	179
Macro perspective-taking	4.741	0.754	27	4.893	0.586	154	-0.995	31.726

* $p < .01$; ** $p < .001$

However, this drastically changed in the post-test survey (see Table 15), with male participants reporting higher levels of interpersonal empathy, social empathy, affective mentalizing, emotion regulation, perspective-taking, self-other awareness, contextual understanding, and macro perspective-taking, on average. Only in affective response, did female participants report a higher level, on average. The independent means *t*-test findings indicated that the differences in means were statistically significant for the following: interpersonal empathy $t(83) = 2.410$, $p = .018$, 95% CI [0.067, 0.699], with Cohen's $d = 0.792$, indicating a large effect size; perspective-taking $t(83) = 2.378$, $p = .020$, 95% CI [0.080, 0.897], with Cohen's $d = 0.878$, indicating a large effect size; self-other awareness $t(83) = 2.293$, $p = .024$, 95% CI [0.070, 0.993], with Cohen's $d =$

0.776, indicating a large effect size; and emotion regulation $t(83) = 3.488, p = .001, 95\%$ CI [0.310, 1.131], with Cohen's $d = 1.192$, indicating a large effect size.

Table 15

Empathy Levels by Gender – Post-test Survey

Empathy scores	Gender						<i>t</i>	<i>df</i>
	Male			Female				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	5.134	0.521	9	4.751	0.443	76	2.410*	83
Affective response	5.089	0.625	9	5.129	0.624	76	-0.182	83
Affective mentalizing	5.083	0.545	9	4.868	0.647	76	0.955	83
Perspective-taking	5.333	0.520	9	4.845	0.589	76	2.378*	83
Self-other awareness	5.167	0.718	9	4.635	0.651	76	2.293*	83
Emotion regulation	5.000	0.625	9	4.280	0.582	76	3.488**	83
Social empathy	5.364	0.447	9	5.235	0.474	76	0.780	83
Contextual understanding	5.395	0.206	9	5.382	0.569	76	0.065	83
Macro perspective-taking	5.333	0.347	9	5.087	0.534	76	1.880	13.008

* $p < .05$; ** $p < .001$

Empathy Scores by Political Ideology

The next set of statistical analyses focused on the relationship between political ideology and levels of empathy reflected in the pre-test and post-test surveys.

Correlation between Political Ideology and Empathy. There were several statistically significant correlations identified in the analysis of political ideology and social empathy. In the pre-test survey, Pearson's correlation analysis revealed a small positive relationship with emotional response ($r = .157, p = .035$); a medium negative relationship between political ideology and social empathy ($r = -.386, p = .001$); a

medium-to-strong negative relationship with contextual understanding ($r = -.496, p < .001$); and, a small negative relationship with macro perspective-taking component scores ($r = -.173, p = .019$) (see Table 16). As political ideology became more liberal, the scores for social empathy, macro perspective-taking, and contextual understanding increased; while, emotional response decreased.

Table 16

Correlations between Political Ideology and Empathy

Political ideology correlations	Pre-test survey	Post-test survey
Interpersonal empathy	.033	.008
Affective response	-.017	.078
Emotion regulation	.157*	.064
Affective mentalizing	-.060	-.017
Perspective-taking	-.009	-.106
Self-other awareness	.043	.010
Social empathy	-.386**	-.461**
Contextual understanding	-.496**	-.631**
Macro perspective-taking	-.173*	-.145

* $p < .05$, ** $p = .001$

For the post-test survey, Pearson's correlation analysis revealed a medium negative relationship between political ideology and social empathy composite scores ($r = -.461, p = .001$) and contextual understanding ($r = -.631, p < .001$) (see Table 16). Therefore, as political ideology became more liberal, scores in social empathy and contextual understanding increased.

Empathy by Political Ideology. Average empathy score means were examined by political ideology, which was divided into the groups of liberal and conservative, for the sake of this analysis. On average in the pre-test survey, liberal participants reported higher levels of social empathy, affective mentalizing, perspective-taking, contextual understanding, and macro perspective-taking; whereas, conservative participants reported higher levels of interpersonal empathy, affective response, self-other awareness, and emotion regulation (see Table 17). An independent *t*-tests indicated that the difference in means between liberal and conservative participants was statistically significant for social empathy, $t(110) = 5.320, p < .001, 95\% \text{ CI } [0.435, 0.953]$, Cohen's $d = 1.337$, indicating a very large effect size. In addition, the differences in means were statistically significant for contextual understanding, $t(110) = 6.884, p < .001, 95\% \text{ CI } [0.780, 1.411]$, Cohen's $d = 1.800$, indicating an extremely large effect size; and, macro perspective-taking, $t(110) = 2.086, p = .039, 95\% \text{ CI } [0.015, 0.570]$, Cohen's $d = 0.503$, indicating a medium effect size.

Table 17*Empathy Levels by Political Ideology – Pre-test Survey*

Empathy scores	Political ideology						<i>t</i>	<i>df</i>
	Liberal			Conservative				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.509	0.457	95	4.559	0.558	17	-0.402	110
Affective response	4.823	0.734	95	4.882	0.803	17	-0.302	110
Affective mentalizing	4.642	0.605	95	4.574	0.636	17	0.427	110
Perspective-taking	4.618	0.578	95	4.518	0.548	17	0.664	110
Self-other awareness	4.434	0.669	95	4.603	0.806	17	-0.928	110
Emotion regulation	4.029	0.685	95	4.221	0.612	17	-1.078	110
Social empathy	5.134	0.486	95	4.440	0.550	17	5.320**	110
Contextual understanding	5.342	0.602	95	4.246	0.616	17	6.884**	110
Macro perspective-taking	4.926	0.511	95	4.634	0.642	17	2.086*	110

* $p < .05$; ** $p < .001$

For the post-test survey, liberal participants reported higher levels of social empathy, contextual understanding, and macro perspective-taking; whereas, conservative participants reported higher levels of interpersonal empathy, affective response, affective mentalizing, perspective-taking, self-other awareness, and emotion regulation (see Table 18). Independent *t*-tests for the post-test survey indicated that the differences in means between liberal and conservative participants were statistically significant for affective response, $t(12.365) = -3.835$, $p = .002$, 95% CI [-0.935, -0.259], Cohen's $d = 1.182$, indicating a very large effect size; and, contextual understanding, $t(5.175) = 3.612$, $p = .014$, 95% CI [0.383, 2.211], Cohen's $d = 1.975$, indicating an extremely large effect size.

Table 18*Empathy Levels by Political Ideology – Post-test Survey*

Empathy scores	Political ideology						<i>t</i>	<i>df</i>
	Liberal			Conservative				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.792	0.454	46	5.113	0.398	6	-1.649	50
Affective response	5.070	0.648	46	5.667	0.301	6	-3.835**	12.365
Affective mentalizing	4.897	0.680	46	5.208	0.641	6	-1.061	50
Perspective-taking	4.935	0.623	46	5.067	0.450	6	-0.500	50
Self-other awareness	4.750	0.673	46	5.000	0.632	6	-0.861	50
Emotion regulation	4.310	0.608	46	4.625	0.542	6	-1.206	50
Social empathy	5.406	0.363	46	4.694	0.732	6	2.344	5.325
Contextual understanding	5.630	0.319	46	4.333	0.872	6	3.612*	5.175
Macro perspective-taking	5.181	0.521	46	5.056	0.691	6	0.536	50

* $p < .05$; ** $p < .01$

Empathy Scores by Party Affiliation

Similar to political ideology, the study participants were divided into two groups according to party affiliation as a Democrat or Republican, for the purpose of comparing the average empathy score means. On average in the pre-test survey, participants who identified as Democrat reported higher levels of social empathy, contextual understanding, and macro perspective-taking; whereas, participants who self-identified as Republican reported higher levels of interpersonal empathy, affective response, affective mentalizing, perspective-taking, self-other awareness, and emotion regulation (see Table 19). Independent *t*-tests indicated that the differences in means between Democrat and Republican participants were statistically significant for social empathy, $t(115) = 5.279$, $p < .001$, 95% CI [0.358, 0.788], Cohen's $d = 1.204$, indicating a very large effect size; and,

contextual understanding, $t(115) = 7.020, p < .001, 95\% \text{ CI } [0.675, 1.206]$, Cohen's $d = 1.553$, indicating an extremely large effect size.

Table 19

Empathy Levels by Party Affiliation – Pre-test Survey

Empathy scores	Party affiliation						<i>t</i>	<i>df</i>
	Democrat			Republican				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.552	0.467	91	4.640	0.531	26	-0.829	115
Affective response	4.892	0.692	91	4.946	0.799	26	-0.338	115
Affective mentalizing	4.582	0.626	91	4.692	0.614	26	-0.793	115
Perspective-taking	4.654	0.587	91	4.660	0.560	26	-0.040	115
Self-other awareness	4.508	0.686	91	4.529	0.772	26	-0.131	115
Emotion regulation	4.121	0.639	91	4.375	0.686	26	-1.758	115
Social empathy	5.168	0.497	91	4.595	0.454	26	5.279*	115
Contextual understanding	5.331	0.600	91	4.390	0.612	26	7.020*	115
Macro perspective-taking	5.005	0.528	91	4.800	0.452	26	1.800	115

* $p < .001$

For the post-test survey, participants who identified as Democrat reported higher levels of social empathy, perspective-taking, contextual understanding, and macro perspective-taking; whereas, participants who identified themselves as Republican reported higher levels of interpersonal empathy, affective response, affective mentalizing, self-other awareness, and emotion regulation (see Table 20). Independent t -tests indicated that the differences in means between Democratic and Republican participants were statistically significant for social empathy, $t(11.572) = 3.347, p = .006, 95\% \text{ CI } [0.221, 1.056]$, Cohen's $d = 1.273$, indicating a very large effect size; affective response,

$t(23.726) = -2.402, p = .025, 95\% \text{ CI } [-0.668, -0.050]$, Cohen's $d = 0.651$, indicating a medium effect size; and, contextual understanding, $t(10.989) = 4.691, p = .001, 95\% \text{ CI } [0.565, 1.565]$, Cohen's $d = 1.849$, indicating an extremely large effect size.

Table 20

Empathy Levels by Party Affiliation – Post-test Survey

Empathy scores	Party affiliation						<i>t</i>	<i>df</i>
	Democrat			Republican				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.775	0.466	51	4.980	0.544	11	-1.285	60
Affective response	5.114	0.651	51	5.473	0.393	11	-2.402*	23.726
Affective mentalizing	4.912	0.691	51	5.000	0.742	11	-0.379	60
Perspective-taking	4.918	0.583	51	4.836	0.662	11	0.410	60
Self-other awareness	4.642	0.690	51	4.977	0.702	11	-1.457	60
Emotion regulation	4.289	0.603	51	4.614	0.595	11	-1.622	60
Social empathy	5.381	0.363	51	4.742	0.610	11	3.347**	11.572
Contextual understanding	5.590	0.349	51	4.525	0.736	11	4.691***	10.989
Macro perspective-taking	5.172	0.509	51	4.960	0.605	11	1.214	60

* $p < .05$; ** $p < .01$; *** $p < .001$

Political Ideology by Time

There was an analysis of the study participants' self-identified political ideology for the pre-test survey ($n = 112$) and the post-test survey ($n = 52$) to examine if there were any differences in the pre and post student groups (see Table 21). An independent means t -test finding revealed no statistically significant difference in political ideology by time.

Table 21*Political Ideology by Time*

	Time						<i>t</i>	<i>df</i>
	Pre-test survey			Post-test-survey				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Political ideology	1.150	0.360	112	1.120	0.323	52	0.622	162

Party Affiliation by Time

Similarly, there was an analysis of the study participants' self-identified party affiliation for the pre-test survey ($n = 154$) and the post-test survey ($n = 75$) to examine if there were any differences in the pre and post student groups (see Table 22). An independent means *t*-test finding revealed no statistically significant difference in party affiliation by time.

Table 22*Party Affiliation by Time*

	Time						<i>t</i>	<i>df</i>
	Pre-test survey			Post-test-survey				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Party affiliation	1.580	0.765	154	1.470	0.741	75	1.043	227

Correlation between Political Ideology and Party Affiliation

In the pre-test survey, Pearson's correlation analysis revealed a strong positive relationship between political ideology and party affiliation ($r = .712, p < .001$) (see Table 23). As political ideology became more liberal, participants reported a greater

tendency to be Democrat as their party affiliation. In addition, in the post-test, there was a strong positive correlation between political ideology and party affiliation ($r = .848, p < .001$) in that as political ideology became more liberal, more participants reported Democrat as their party affiliation.

Table 23

Correlation between Political Ideology and Party Affiliation

Political ideology correlation	Pre-test survey	Post-test survey
Party affiliation	.712***	.848*

* $p = .001$

Relationship between Empathy and Mode of Instructional Delivery

Study data were examined to understand whether the mode of instructional delivery, online versus in-person, impacts the level of change in interpersonal empathy and social empathy scores from the time students matriculate into a graduate social work program until close to the time of their anticipated graduation.

Comparison of Empathy Means by Mode of Delivery

There was an examination of the differences in empathy levels according to mode of delivery. This examination was conducted in three ways; overall combined data from all participants over the course of the research study, pre-test survey data, post-test survey data.

First, there was an analysis conducted for all data collected for the research study, including pre-test and post-test. On average, the study participants who participated in the

MSW program in person, had higher levels of interpersonal empathy, affective mentalizing, perspective-taking, social empathy, contextual understanding, and macro perspective-taking, along with lower levels of affective response, emotion regulation, and self-other awareness, than those participants enrolled in the MSW online program (see Table 24).

Table 24

Empathy Levels by Mode of Instructional Delivery - Overall

Empathy scores	Instructional delivery						<i>t</i>	<i>df</i>
	In-Person			Online				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.621	0.488	97	4.614	0.497	169	0.110	264
Affective response	4.870	0.727	97	4.925	0.733	169	-0.594	264
Affective mentalizing	4.768	0.607	97	4.675	0.654	169	1.151	264
Perspective-taking	4.779	0.595	97	4.685	0.601	169	1.232	264
Self-other awareness	4.490	0.700	97	4.575	0.690	169	-0.970	264
Emotion regulation	4.198	0.652	97	4.210	0.668	169	-0.137	264
Social empathy	5.134	0.553	97	5.014	0.601	169	1.615	264
Contextual understanding	5.278	0.608	97	5.102	0.747	169	2.091*	234.183
Macro perspective-taking	5.000	0.609	97	4.926	0.586	169	0.845	264

* $p < .05$

Independent means *t*-tests indicated that the results were not statistically significant for any of these empathy composites or components, with the exception of contextual understanding (see Table 24). On average, in-person MSW program respondents reported higher levels of contextual understanding ($M = 5.278$, $SD = 0.608$), compared to online MSW program respondents ($M = 5.102$, $SD = 0.747$). An independent

means *t*-test examining the relationship between contextual understanding and the mode of instructional delivery indicated that the results were statistically significant, $t(234.183) = 2.091, p = .038, 95\% \text{ CI } [0.010, 0.342]$. Cohen's $d = 0.258$, indicating a small effect.

The data were examined separately for the pre-test survey and the post-test survey. In the pre-test survey results, the students who were enrolled in the in-person MSW program had, on average, a higher mean empathy score in affective mentalizing, perspective-taking, social empathy, and contextual understanding than those who participated in the MSW online program. The students enrolled in the MSW online program had a higher mean score in interpersonal empathy, affective response, self-other awareness, emotion regulation, and macro perspective-taking, on average (see Table 25). In examining the difference in pre-test survey empathy score means of the study participants in the in-person MSW program versus those in the online MSW program, there was no statistically significant difference in the means for interpersonal empathy, social empathy, or the empathy components of affective response, affective mentalizing, perspective-taking, self-other awareness, emotion regulation, contextual understanding or macro perspective-taking.

Table 25*Empathy Levels by Mode of Instructional Delivery – Pre-test Survey*

Empathy scores	Instructional delivery						<i>t</i>	<i>df</i>
	In-person			Online				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.528	0.484	60	4.543	0.486	120	0.837	178
Affective response	4.773	0.749	60	4.825	0.761	120	-0.432	178
Affective mentalizing	4.642	0.590	60	4.621	0.637	120	0.212	178
Perspective-taking	4.672	0.590	60	4.623	0.580	120	0.537	178
Self-other awareness	4.438	0.732	60	4.504	0.670	120	-0.610	178
Emotion regulation	4.112	0.640	60	4.144	0.686	120	-0.294	178
Social empathy	5.009	0.572	60	4.944	0.637	120	0.666	178
Contextual understanding	5.148	0.634	60	5.017	0.783	120	1.204	142.367
Macro perspective-taking	4.870	0.639	60	4.871	0.604	120	-0.011	178

Similar to the pre-test survey, the investigation of the difference in post-test survey empathy score means of the study participants in the in-person MSW program versus those in the online MSW program revealed no statistically significant difference in the means for interpersonal empathy, social empathy, or any of the seven empathy components (see Table 26). The students who were enrolled in the in-person MSW program had, on average, a higher mean score in affective mentalizing, perspective-taking, social empathy, contextual understanding, and macro perspective-taking than those who participated in the MSW online program. The students enrolled in the MSW online program had a higher mean score in interpersonal empathy, affective response, self-other awareness, and emotion regulation, on average.

Table 26*Empathy Levels by Mode of Instructional Delivery – Post-test Survey*

Empathy scores	Instructional delivery						<i>t</i>	<i>df</i>
	In-person			Online				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Interpersonal empathy	4.773	0.460	37	4.787	0.485	49	-0.142	84
Affective response	5.027	0.672	37	5.171	0.601	49	-1.048	84
Affective mentalizing	4.973	0.586	37	4.806	0.685	49	1.189	84
Perspective-taking	4.951	0.568	37	4.837	0.629	49	0.871	84
Self-other awareness	4.574	0.645	37	4.750	0.716	49	-1.175	84
Emotion regulation	4.338	0.657	37	4.372	0.598	49	-0.255	84
Social empathy	5.337	0.460	37	5.184	0.467	49	1.506	84
Contextual understanding	5.490	0.501	37	5.311	0.608	49	1.459	84
Macro perspective-taking	5.183	0.509	37	5.058	0.524	49	1.107	84

Predicted Empathy Scores from Mode of Instruction

Hierarchical regression analyses expanded this examination of the relationship between mode of instruction and empathy to explore the predicted values of the empathy scores from the mode of instruction, while controlling for demographic variables. This analysis was performed in two steps for each empathy composite and the associated components. Due to the strong correlation between the two variables of political ideology and party affiliation, it was determined that only one of these two variables, political ideology, would be included in the hierarchical regression.

Interpersonal Empathy by Mode of Instructional Delivery. There were statistically significant findings in the regression models for overall interpersonal empathy, as well as the interpersonal empathy components of affective response, affective mentalizing, perspective-taking, self-other awareness, and emotion regulation.

First, hierarchical regression analyses were completed to determine the relationship between interpersonal empathy and mode of instruction, while controlling for the demographic variables of age, gender, and political ideology. The first model included the demographics of age, gender, and political ideology ($F[5, 242] = 3.338, p = .006, R^2 = 0.065$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 2.771, p = .013, R^2 = 0.065$). As seen in Table 27, both the first and second models were significant, accounting for 6.5% of the variance in interpersonal empathy. Of the demographic variables in the second model, age ($b = 0.011, p = .003, 95\% \text{ CI } [0.004, 0.018]$), and gender ($b = -0.213, p = .024, 95\% \text{ CI } [-0.399, -0.028]$) were statistically significant variables. Every year increase in age was associated with a .011 increase in interpersonal empathy. On average, male participants had interpersonal empathy scores that were 0.213 points lower than their female counterparts. The variable of interest, mode of instructional delivery, ($b = 0.005, p = .940, 95\% \text{ CI } [-0.123, 0.132]$), was not statistically significant in the model.

Table 27*Regression Analyses Predicting Interpersonal Empathy*

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	<i>B</i>
Intercept	4.320	0.131		4.314	0.155	
Age	0.011**	0.004	.200	0.011**	0.004	.200
Gender (ref cat: female)						
Male	-0.213*	0.094	-.146	-0.213*	0.094	-.146
Transgender	-0.400	0.280	-.089	-0.401	0.280	-.090
Other	-0.779	0.482	-.101	-0.781	0.484	-.101
Political ideology	-0.012	0.033	-.023	-0.012	0.033	-.023
Mode of delivery (ref cat: online)						
In-person				0.005	0.065	.005
<i>F</i>		3.338**			2.771*	
<i>R</i> ²		0.065			0.065	
ΔR^2					0.000	

Note: * $p < .05$; ** $p < .01$

Affective Response by Mode of Instructional Delivery. For affective response, the first model included the demographics of age, gender, and political ideology ($F[5, 242] = 4.027, p = .002, R^2 = 0.077$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 1.725, p = .003, R^2 = 0.078$). Both the first and second models were significant accounting for 7.8% of the variance in affective response (see Table 28). Of the demographic variables in the second model, gender ($b = -0.538, p < .001, 95\% \text{ CI } [-0.814, -0.261]$) was a statistically

significant variable. On average, male participants had affective response component scores that were 0.538 points lower than their female counterparts. The variable of interest, mode of instructional delivery, ($b = 0.049, p = .609, 95\% \text{ CI } [-0.140, 0.239]$), was not statistically significant in the model.

Table 28

Regression Analyses Predicting Affective Response

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	<i>B</i>
Intercept	4.563	0.194		4.500	0.230	
Age	0.014	0.005	.166	0.013	0.005	.163
Gender (ref cat: female)						
Male	-0.539**	0.140	-.247	-0.538**	0.140	-.246
Transgender	-0.165	0.416	-.025	-0.171	0.417	-.026
Other	-1.165	0.717	-.101	-1.189	0.720	-.103
Political ideology	-0.010	0.049	-.013	-0.014	0.050	-.018
Mode of delivery (ref cat: online)						
In-person				0.049	0.096	.032
<i>F</i>		4.027*			3.390*	
<i>R</i> ²		0.077			0.078	
ΔR^2					0.001	

* $p < .01$; ** $p < .001$

Affective Mentalizing by Mode of Instructional Delivery. For affective mentalizing, the first model included the demographics of age, gender, and political

ideology ($F[5, 242] = 2.055, p = .072, R^2 = 0.041$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 1.903, p = .081, R^2 = 0.045$). As seen in Table 29, neither model was statistically significant.

Table 29

Regression Analyses Predicting Affective Mentalizing

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	<i>B</i>
Intercept	4.525	0.172		4.642	0.204	
Age	0.011*	0.005	.149	0.011*	0.005	.156
Gender (ref cat: female)						
Male	-0.215	0.124	-.113	-0.218	0.124	-.115
Transgender	-0.204	0.369	-.035	-0.193	0.369	-.033
Other	-1.039	0.636	-.103	-0.995	0.637	-.099
Political ideology	-0.058	0.043	-.087	-0.051	0.044	-.076
Mode of delivery (ref cat: online)						
In-person				-0.091	0.085	-.068
<i>F</i>		2.055			1.903	
<i>R</i> ²		0.041			0.045	
ΔR^2					0.005	

* $p < .05$

Perspective-taking by Mode of Instructional Delivery. For perspective-taking, the first model included the demographics of age, gender, and political ideology ($F[5,$

242] = 1.506, $p = .189$, $R^2 = 0.030$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 1.360$, $p = .232$, $R^2 = 0.033$). As seen in Table 30, neither model was statistically significant.

Table 30

Regression Analyses Predicting Perspective-taking

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	<i>B</i>
Intercept	4.594	0.161		4.676	0.191	
Age	0.008	0.004	.118	0.008	0.004	.123
Gender (ref cat: female)						
Male	-0.116	0.116	-.065	-0.118	0.116	-.066
Transgender	-0.454	0.346	-.084	-0.446	0.346	-.082
Other	-0.786	0.595	-.084	-0.755	0.597	-.081
Political ideology	-0.046	0.041	-.074	-0.041	0.041	-.066
Mode of delivery (ref cat: online)						
In-person				-0.064	0.080	-.052
<i>F</i>		1.506			1.360	
<i>R</i> ²		0.030			0.033	
ΔR^2					0.003	

Self-Other Awareness by Mode of Instructional Delivery. For self-other awareness, the first model included the demographics of age, gender, and political ideology ($F[5, 242] = 2.074$, $p = .069$, $R^2 = 0.041$). The second model included the

control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 1.925, p = .077, R^2 = 0.046$). Neither model was statistically significant (see Table 31).

Table 31

Regression Analyses Predicting Self-Other Awareness

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept	4.200	0.187		4.072	0.221	
Age	0.012*	0.005	.149	0.011*	0.005	.143
Gender (ref cat: female)						
Male	-0.174	0.134	-.085	-0.171	0.134	-.083
Transgender	-0.334	0.400	-.053	-0.346	0.400	-.055
Other	-1.300	0.688	-.120	-1.349	0.689	-.124
Political ideology	0.001	0.047	.002	-0.006	0.047	-.009
Mode of delivery (ref cat: online)						
In-person				0.100	0.092	.070
<i>F</i>		2.074			1.925	
<i>R</i> ²		0.041			0.046	
ΔR^2					0.005	

* $p < .05$

Emotion Regulation by Mode of Instructional Delivery. For emotion regulation, the first model included the demographics of age, gender, and political ideology ($F[5, 242] = 2.938, p = .014, R^2 = 0.057$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 2.459, p = .025, R^2 =$

0.058). Both the first and second models were significant accounting for 5.7 and 5.8% of the variance respectively in affective response (see Table 32). Of the demographic variables in the second model, age ($b = 0.011, p = .028, 95\% \text{ CI } [0.001, 0.021]$) and gender ($b = -0.847, p = .028, 95\% \text{ CI } [-1.599, -0.094]$) were statistically significant variables. Every year increase in age was associated with a .011 increase in emotion regulation. On average, participants who identified as transgender had emotion regulation component scores that were 0.847 points lower than their female counterparts. The variable of interest, mode of instructional delivery, ($b = 0.030, p = .736, 95\% \text{ CI } [-0.144, 0.203]$), was not statistically significant in the model.

Table 32*Regression Analyses Predicting Emotion Regulation*

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>B</i>	<i>SE B</i>	<i>β</i>
Intercept	3.716	0.178		3.678	0.211	
Age	0.011*	0.005	.149	0.011*	0.005	.147
Gender (ref cat: female)						
Male	-0.022	0.128	-.011	-0.021	0.128	-.011
Transgender	-0.843*	0.381	-.139	-0.847*	0.382	-.139
Other	0.395	0.656	.038	0.381	0.659	.036
Political ideology	0.054	0.045	.078	0.052	0.045	.075
Mode of delivery (ref cat: online)						
In-person				0.030	0.088	.022
<i>F</i>		2.938*			2.459*	
<i>R</i> ²		0.057			0.058	
ΔR^2					0.000	

**p* < .05

Social Empathy by Mode of Instructional Delivery. There were statistically significant findings in the regression models for overall social empathy, as well as the two components of social empathy: contextual understanding and macro perspective-taking. For social empathy, the first model included the demographics of age, gender, and political ideology ($F[5, 242] = 10.826, p < .001, R^2 = 0.183$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 9.012, p < .001, R^2 = 0.183$). As seen in Table 33, both the first and second models

were significant accounting for 18.3% of the variance in social empathy. Of the demographic variables in the second model, political ideology ($b = -0.264, p < .001, 95\%$ CI [-0.338, -0.190]) was a statistically significant variable. On average, more conservative political ideology was associated with lower scores in social empathy. The variable of interest, mode of instructional delivery, ($b = -0.027, p = .712, 95\%$ CI [-0.172, 0.117]), was not statistically significant in the model.

Table 33

Regression Analyses Predicting Social Empathy

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept	5.575	0.148		5.609	0.176	
Age	0.004	0.004	.060	0.004	0.004	.062
Gender (ref cat: female)						
Male	-0.127	0.107	-.072	-0.128	0.107	-.072
Transgender	-0.198	0.318	-.036	-0.194	0.318	-.036
Other	-0.041	0.547	-.004	-0.028	0.549	-.003
Political ideology	-0.266*	0.037	-.427	-0.264*	0.038	-.423
Mode of delivery (ref cat: online)						
In-person				-0.027	0.073	-.022
<i>F</i>		10.826*			9.012*	
<i>R</i> ²		0.183			0.183	
ΔR^2					0.000	

* $p < .001$

Contextual Understanding by Mode of Instructional Delivery. For contextual understanding, the first model included the demographics of age, gender, and political ideology ($F[5, 242] = 19.426, p < .001, R^2 = 0.287$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 16.201, p < .001, R^2 = 0.287$). As seen in Table 34, both the first and second models were significant accounting for 28% of the variance in contextual understanding. Of the demographic variables in the second model, political ideology ($b = -0.392, p < .001, 95\%$ CI [-0.475, -0.308]) was a statistically significant variable. On average, more conservative political ideology was associated with lower scores in contextual understanding. The variable of interest, mode of instructional delivery, ($b = -0.048, p = .560, 95\%$ CI [-0.210, 0.114]), was not statistically significant in the model.

Table 34*Regression Analyses Predicting Contextual Understanding*

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	<i>B</i>
Intercept	6.084	0.166		6.145	0.197	
Age	0.001	0.005	.016	0.002	0.005	.019
Gender (ref cat: female)						
Male	-0.151	0.120	-.071	-0.153	0.120	-.072
Transgender	-0.162	0.356	-.025	-0.156	0.357	-.024
Other	0.051	0.614	.004	0.074	0.616	.007
Political ideology	-0.395	0.042	-.528	-0.392*	0.042	-.523
Mode of delivery (ref cat: online)						
In-person				-0.048	0.082	-.032
<i>F</i>		19.426*			16.201*	
<i>R</i> ²		0.286			0.287	
ΔR^2					0.001	

**p* < .001

Macro Perspective-taking by Mode of Instructional Delivery. For macro perspective-taking, the first model included the demographics of age, gender, and political ideology ($F[5, 242] = 2.605, p = .026, R^2 = 0.051$). The second model included the control variables and the variable of interest, mode of instructional delivery ($F[6, 241] = 2.163, p = .047, R^2 = 0.051$). As seen in Table 35, both the first and second models were significant accounting for 5.1% of the variance in macro perspective-taking. Of the demographic variables in the second model, political ideology ($b = -0.136, p = .001, 95\%$

CI [-0.218, -0.055]) was a statistically significant variable. On average, more conservative political ideology was associated with lower scores in macro perspective-taking. The variable of interest, mode of instructional delivery, ($b = -0.006, p = .937, 95\% \text{ CI } [-0.165, 0.152]$), was not statistically significant in the model.

Table 35

Regression Analyses Predicting Macro Perspective-taking

Predictor	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Intercept	5.065	0.162		5.073	0.193	
Age	0.007	0.004	.100	0.007	0.005	.100
Gender (ref cat: female)						
Male	-0.103	0.117	-.057	-0.103	0.117	-.057
Transgender	-0.234	0.348	-.042	-0.233	0.349	-.042
Other	-0.132	0.599	-.014	-0.129	0.601	-.014
Political ideology	-0.137**	0.041	-.216	-0.136**	0.041	-.215
Mode of delivery (ref cat: online)						
In-person				-0.006	0.080	-.005
<i>F</i>		2.605*			2.163*	
<i>R</i> ²		0.051			0.051	
ΔR^2					0.000	

Note: * $p < .05$; ** $p \leq .001$

Empathy by Time and Mode of Instructional Delivery

A new variable was created to categorize the study respondents by pre versus post-test survey and online versus in-person engagement in the MSW program. Then, one-way ANOVA analyses were conducted to compare the empathy means among the groups of participants by time and mode of instructional delivery. Of these analyses, there were meaningful statistically significant differences found for interpersonal empathy, affective response, and social empathy. These results are reported below. There were no statistically significant differences identified when examining the means for affective mentalizing, perspective taking, self-other awareness, emotion regulation, contextual understanding, and macro perspective-taking by time and mode of instructional delivery.

Interpersonal Empathy by Time and Mode of Instructional Delivery

For the examination of interpersonal empathy, the predictor variable of time by mode of delivery had four attributes: pre-test survey in-person ($n = 60$; $M = 4.528$; $SD = 0.484$); post-test survey in-person ($n = 37$; $M = 4.773$; $SD = 0.460$); pre-test survey online ($n = 120$; $M = 4.543$; $SD = 0.486$); and post-test survey online ($n = 49$; $M = 4.787$; $SD = 0.485$). (See Table 36). Interpersonal empathy was statistically significantly different among the groups ($F(3, 262) = 4.949$, $p = .002$), with a small-to-medium effect size ($\eta^2 = .053$).

Table 36*Regression Analyses Predicting Interpersonal Empathy by Time and Mode of**Instructional Delivery*

Time and mode of delivery	N	Interpersonal empathy
		M (SD)
Pre-test survey online	120	4.543 (.486) ^a
Post-test survey online	49	4.787 (.485) ^b

Note: statistically significant differences, b > a

Because the groups had unequal sample sizes, the Gabriel post hoc test was conducted to determine where the differences lie for these groups. There was one statistically significant difference noted from the Gabriel post hoc test: MSW online program participants, on average, scored higher on interpersonal empathy on the post-test survey than on the pre-test survey ($p = .015$). There were no statistically significant differences among the in-person MSW program participants from pre-test survey to post-test survey.

Affective Response by Time and Mode of Instructional Delivery

For the examination of affective response, the predictor variable of time by mode of delivery had four levels, pre-test survey in-person ($n = 60$; $M = 4.773$; $SD = 0.749$); post-test survey in-person ($n = 37$; $M = 5.027$; $SD = 0.672$); pre-test survey online ($n = 120$; $M = 4.825$; $SD = 0.761$); and post-test survey online ($n = 49$; $M = 5.171$; $SD = 0.601$) (see Table 37). Affective response was statistically significantly different between the groups ($F(3, 262) = 3.761$, $p = .011$), with a small-to-medium effect size ($\eta^2 = .041$).

Table 37*Regression Analyses Predicting Affective Response by Time and Mode of Instructional Delivery*

Time and mode of delivery	N	Affective response
		M (SD)
Pre-test survey online	120	4.825 (.761) ^a
Post-test survey online	49	5.171 (.601) ^b

Note: statistically significant differences, b > c

Given that the groups had unequal sample sizes, a Gabriel post hoc test was conducted to determine where the differences lie for these groups. The Gabriel post hoc test revealed the following statistically significant differences: MSW online program participants, on average, scored higher on affective response on the post-test survey than on the pre-test survey ($p = .023$). There were no statistically significant differences among the in-person MSW program participants from pre-test survey to post-test survey.

Social Empathy by Time and Mode of Instructional Delivery

In the examination of social empathy, the predictor variable of time by mode of delivery had four levels: pre-test survey in-person ($n = 60$; $M = 5.009$; $SD = 0.572$); post-test survey in-person ($n = 37$; $M = 5.337$; $SD = 0.460$); pre-test survey online ($n = 120$; $M = 4.944$; $SD = 0.637$); and post-test survey online ($n = 49$; $M = 5.184$; $SD = 0.467$) (see Table 38). Social empathy was statistically significantly different between the groups ($F(3, 114.477) = 6.625, p < .001$), with a medium effect size ($\eta^2 = .058$).

Table 38*Regression Analyses Predicting Social Empathy by Time and Mode of Instructional**Delivery*

Time and mode of delivery	<i>N</i>	Social empathy <i>M (SD)</i>
Pre-test survey in-person	120	4.944 (.636) ^a
Post-test survey in-person	49	5.184 (.586) ^b

Note: statistically significant differences, $b > a$

The Gabriel post hoc test was conducted to determine where the differences lie for these groups, due to the groups having unequal sample sizes. The Gabriel post hoc test revealed that in-person MSW program participants, on average, scored higher on social empathy on the post-test survey than on the pre-test survey ($p = .036$). There were no statistically significant differences among the online MSW program participants from pre-test survey to post-test survey.

CHAPTER 5

DISCUSSION

Study Rational

This research study was designed in response to the importance of empathy in the profession of social work and the upsurge in online education in order to explore how levels of empathy are impacted by the mode of instructional delivery, online versus in-person, in graduate social work students at ASU. There are several critical constructs in this study. These constructs are empathy, online social work education, and empathy development in social work education. This section will summarize and discuss each construct from the previous literature review outlined in Chapter 2 in the context of the study rationale.

Empathy

The first major construct explored in this study is empathy. Empathy is at the core of the human experience. Interpersonal relationships, group dynamics, and societal interactions depend on mature empathic understanding and actions. The profession of social work relies on empathy to be central to assessments and interventions, both as a well-developed attribute of social workers and as means of effectively working with client populations.

The literature clearly describes empathy as a complex and multifaceted construct encompassing interpersonal empathy and social empathy, both of which are essential in social work. The interpersonal empathy components of affective response, affective mentalizing, and perspective-taking are critical in the establishment of rapport and continued relationship with client populations. The additional interpersonal empathy

components of self-other awareness and emotional regulation serve to distinguish between the social worker's experience and the experiences of client populations. The social empathy components of contextual understanding and macro perspective-taking build on interpersonal empathy to expand the concept of empathy to the broader awareness of power dynamics, systems of oppression, and social responsibility.

Empathy is not only at the heart of professional practice, but also of academic preparation. The purpose of social work higher education is to ensure that social work professionals are well prepared to conduct their responsibilities in an ethical manner reflective of social work values, strong skills, and in-depth knowledge of theoretical approaches and best practices. Because empathy is so essential to social work, the empathy components are woven throughout the social work curriculum and reflected in the CSWE educational standards.

Online Social Work Education

Social work education, specifically online social work education, is the second major construct examined in this research study. The literature describes colleges and universities as cultural and economic anchors in our communities. It is through the provision of quality social work education that social work program graduates are prepared to enter the profession and dedicate their knowledge and skill to the field as productive contributors and leaders.

Historically, social work education has been delivered through in-person instruction, with students and faculty interacting in the physical classroom in meaningful course activities, reflective assignments, and challenging assessments. This emphasis has changed in recent years. Online education has surged in popularity in multiple

disciplines, including social work, over the past 30 years. With nearly 50% of undergraduate and 62% of graduate CSWE-accredited social work programs offering more than 90% of coursework through an online mode of instructional delivery, online education is now a considerable aspect of social work education nationwide (CSWE, 2020). Online pedagogical approaches have focused on how to disseminate the same course content through an online mode of instruction using different but still meaningful activities, assignments, and assessments.

There has been an ongoing debate regarding the effectiveness of this online delivery in social work education, particularly given the essential nature of relationships and empathic development and expression in the profession. The proliferation of online instructional delivery in social work higher education has necessitated the deep examination of how the mode of delivery impacts social work program graduates. With the current push toward remote instruction due to the COVID-19 pandemic, this examination has been elevated in priority over the past year.

Empathy Development in Online Social Work Education

Prior research indicates that the progression of empathy development through childhood, adolescence, and adulthood follows typical human development. This begs the question of whether levels of empathy can be changed at different ages. Interestingly, the research shows that it is possible to impact neural synapses and pathways that continue to evolve throughout the lifespan. This potential for physiological change fits well with interdisciplinary study findings that educational programs have the potential to impact empathy in students. It is logical to extend these findings to suggest that social work students may experience growth and change with regard to empathy over time in an

academic program. In fact, previous research study findings point to empathy being cultivated in social work education through course discussions, creative role plays, journaling, simulations, and other reflective activities that may be integrated in both traditional in-person and online instructional delivery.

Because empathy is not a single construct, but instead a complex phenomenon made of up interdependent and yet independent components, there may be opportunities to impact levels of empathy in multiple ways. To identify and create those opportunities, it is necessary to explore the relationship between the curriculum and educational outcomes associated with empathy levels in order to understand how to adapt the curriculum and instructional delivery to have a positive impact on levels of empathy.

Study Hypotheses

This study contributes to the exploration of the association of this specific MSW program with levels of empathy to add to the academic body of knowledge about online instructional delivery in social work education. The timing of this research study coincided with the COVID-19 pandemic that brought so many changes and disruptions to how higher education has been delivered. As in-person course offerings transitioned to the virtual environment, the discussion of the efficacy of online education delivery escalated to being a priority among university administrators, faculty, students, and community professionals invested in ensuring that graduates are well prepared for the workforce. The motivation to conduct this specific research investigating the intersection of online education, the social work profession, and empathy predated the pandemic, but was intensified by the COVID-19 pandemic. Thus, the study hypotheses became more relevant to both academia and the profession of social work.

The primary research study hypothesis was: 1) Among MSW students at a large CSWE accredited university, does the mode of instruction, online versus in-person, impact the level of change in empathy scores from the beginning to the end of their program, when controlling for demographic characteristics? The secondary research questions were: 2) Among MSW students at a large CSWE accredited university, does the mode of instruction, online versus in-person, impact the level of change in interpersonal empathy scores from the beginning to the end of their program, when controlling for demographic characteristics? 3) Among MSW students at a large CSWE accredited university, does the mode of instruction, online versus in-person, impact the level of change in social empathy scores from the beginning to the end of their program, when controlling for demographic characteristics?

Critical Findings

There were several critical findings from this research study that address the hypotheses. First, the strength of the empathy instrument is apparent. Secondly, the study findings indicate that empathy develops in graduate social work students over the course of their MSW studies. Third, the only statistically significant difference in empathy by mode of instructional delivery was for the component of contextual understanding.

Empathy Instrument

The first meaningful finding from this research study is the strength of the Cronbach's alpha for the overall empathy instrument, the EAI subscale, the SEI subscale, and the individual components for both the pre-test survey and the post-test survey. As noted in Chapter 4, the Cronbach's alpha for overall pre-test survey empathy instrument ($\alpha = .895$), the EAI ($\alpha = .869$), and the SEI ($\alpha = .882$) was very high. There was also a

high Cronbach's alpha for affective response ($\alpha = .719$), affective mentalizing ($\alpha = .727$), contextual understanding ($\alpha = .863$), and macro perspective-taking ($\alpha = .756$). There was a medium-to-high Cronbach's alpha for perspective-taking ($\alpha = .673$), self-other awareness ($\alpha = .640$), and emotion regulation ($\alpha = .631$).

Similar findings resulted from the post-test survey. The Cronbach's alpha was very high for overall post-test survey ($\alpha = .877$), the EAI ($\alpha = .874$), and the SEI ($\alpha = .817$). The Cronbach's alpha was high for affective mentalizing ($\alpha = .802$), perspective-taking ($\alpha = .725$), self-other awareness ($\alpha = .705$), and contextual understanding ($\alpha = .808$). The Cronbach's alpha was medium-to-high for affective response ($\alpha = .624$), emotion regulation ($\alpha = .645$), and macro perspective-taking ($\alpha = .692$).

These results provide confirmation of previous research findings that this empathy survey instrument was well developed and that the individual questions hold together for a consistent reflection of the empathy construct, subscales, and components. The strong internal consistency reduces the probability of a Type I error of misidentifying an effect when there is not one present. The overall empathy survey instrument reflected extremely high internal consistency across the pre-test and post-test surveys. In addition, the reliability measures of the EAI and SEI subscales were also very high in both surveys. For both the pre-test and post-test surveys, the individual empathy components reflected medium-to-high or high levels of reliability as stand-alone measures, indicating that the questions for each of these components hold together well with high internal consistency.

The implications from these results are that the survey questions for the individual empathy components combine together as a internally consistent measure for each specific component, and the components group together well to comprise internally

consistent subscales for measuring interpersonal empathy and social empathy. These subscales may be utilized for reliably measuring interpersonal empathy and social empathy separately or combined for an even more highly consistent comprehensive measure of the overall complex construct of empathy. Therefore, the findings from this survey indicate this empathy instrument may be used to isolate the empathy components, interpersonal empathy, and/or social empathy, while the blend of all survey questions provides an instrument to reliably measure empathy as a complex construct.

Empathy Development by Time

The second meaningful finding from this research study is that empathy levels in MSW students increased from the time of enrollment in the MSW program over the course of their MSW studies. Empathy appears to be well established in graduate social work students at the time of enrollment into the MSW program, as evidenced by the high mean scores for all empathy composite subscales and components (see Table 11). Even though these initial empathy mean scores were already high at the time of the pre-test, they increased even further from pre-test to post-test for each empathy composite and component subscales, on average, with statistically significant differences for all subscales. There was a small effect for self-other awareness; a small-to-medium effect for affective response, affective mentalizing, perspective-taking, emotional regulation, and macro perspective-taking; and, a medium effect for interpersonal empathy, social empathy, and contextual understanding.

It was observed that these social work graduate students possessed high levels of empathy at the time of enrollment in the MSW program. The nature of the relationship between the empathy levels and the career choice of social work is unknown. It may be

that these students chose to pursue a career in social work as a result of their high empathy levels, or their empathy levels may have been impacted by choices made due to their interest in social work. Because empathy is such an integral part of the social work profession, this is an important relationship between high levels of empathy and the pursuit of a graduate degree in social work, and one that warrants further research.

Over the time that the student participants in this study were enrolled in the MSW program at ASU, their levels of empathy increased significantly. The time that lapsed between pre-test and post-test surveys ranged from 10 months for the students enrolled in the MSW advanced standing program to approximately 20 months for the students in the standard MSW program. With the effect size ranging from small for several of the empathy components to medium for contextual understanding, interpersonal empathy, and social empathy, the strength of the relationship of empathy with the time spent in the MSW program varied. The medium effect size for the two subscales and contextual understanding points to a potential opportunity to focus on the development of interpersonal empathy and social empathy in the MSW curriculum.

Interestingly, as the social empathy scores increased, the interpersonal empathy scores also increased on average for both the pre-test and post-test surveys, indicating that interpersonal empathy and social empathy are connected with a medium positive relationship (see Table 12). This is logical, as social empathy is developed on a foundation of interpersonal empathy. In the literature, the individual empathy components are conceptualized as independent, yet interdependent. While each component is essential alone, when combined, all the components work together to form an integrated construct of empathy that is complex and more deeply felt.

This is an expected result that social work students would experience an increase in their levels of interpersonal empathy and social empathy because the MSW curriculum includes activities and assignments that cultivate overall empathy and the empathy components. Through their studies, students engage in mindfulness and self-awareness that form the foundation for the recognition of affective response and the development of self-other awareness. Students expand their affective mentalizing and perspective-taking through role plays, case studies, and real-life application of course concepts. Core teachings in the MSW program promote emotional regulation and professional boundaries needed for self-care. Students learn about historical events and policies that have impacted groups, communities, and populations, with the result of increasing contextual understanding. As students critically reflect on the systemic oppression and life experiences of others through their course discussions, reading, and assignments, they are being exposed to macro perspective-taking. In addition, the Field Education internship placements serve to expose students on an experiential level to all empathy components.

These study findings lead to several implications for social work education. This study serves as confirmation that social work education has a relationship with empathy. The increase in levels of empathy from pre-test survey to post-test survey reflects a social work curriculum that emphasizes empathy and the empathy components to varying degrees. Study data show that interpersonal empathy and social empathy are interconnected with a medium, positive relationship. Therefore, it is essential to focus on both aspects of empathy, as well as the empathy components, to ensure that students are supported in comprehensive empathy development.

While it is an expected result that the MSW coursework and Field Education internships cultivate empathy, there are exciting possibilities for weaving empathy more intentionally throughout the curriculum. Opportunities may be expanded for students to learn about the components of empathy and to cultivate knowledge, skill, and values associated with empathy across the curriculum. Course interactions, activities, and assignments may be redesigned purposefully to encourage growth in affective mentalizing, perspective-taking, self-other awareness and emotion regulation. Contextual understanding and macro perspective-taking have a significant role in the social work curriculum as graduate social work students are exposed to macro social work practice and learn about historical events and systems that have impacted communities and populations. Particularly in this time of intense focus on diversity and inclusion, these social empathy components should be elevated in importance in social work education to prepare graduates for their careers.

In addition to the findings that MSW students had high levels of empathy at the start of their program and that these students experienced increases in empathy over the duration of their studies, there were several interesting findings associated with participant demographics. There were meaningful relationships between empathy and the demographic characteristics of age, gender, political ideology, and party affiliation.

Empathy Development by Age over Time. The demographic variable of age and the interpersonal empathy component of emotion regulation had a positive statistically significant relationship that was small ($r = .158, p = .034, R^2 = .024$) for the pre-test and small to medium for the post-test ($r = .280, p = .009, R^2 = .078$) (see Table 13). In addition, in the post-test survey data, age had a small-to-medium positive

relationship with interpersonal empathy ($r = .311, p = .004, R^2 = .097$) and a small positive relationship with perspective-taking ($r = .229, p = .035, R^2 = .052$) and self-other awareness ($r = .276, p = .011, R^2 = .076$).

While these findings were modest with a small amount of variability shared by age and emotion regulation, interpersonal empathy, perspective-taking, and self-other awareness, these results are significant for understanding the association of age and certain aspects of empathy. College students represent a great diversity in age, ranging from 21 to 57 years for the pre-test and 22 to 55 years for the post-test (see Table A1). The mean age of the study respondents was 32.29 for the pre-test and 33.01 for the post-test.

The literature suggests that emotion regulation may increase over time due to the maturity that occurs during the human life span. As we age, we strengthen our awareness of others' perspectives and the boundary between our own experiences and emotions and those of others. Therefore, it is expected that emotion regulation, perspective-taking, and self-other awareness would improve over time with age. It is not surprising that there also was a statistically significant small-to-medium positive correlation between age and interpersonal empathy because emotion regulation, perspective-taking, and self-other awareness are all components of interpersonal empathy. It is of note that these changes took place in a relatively short amount of time, 10 to 20 months, during the MSW program.

Implications for the social work academic community include the importance of providing students with opportunities for self-identification and reflection of their own life stages, as well as education regarding empathy across the lifespan for typical human

development. This knowledge will support the students acquiring greater understanding and skill in assessment and intervention planning in work with clients according to their chronological ages and developmental stages.

Empathy Development by Gender over Time. There was a surprising finding related to gender and empathy. For the pre-test data, study participants who self-identified as female had mean empathy scores that were higher in all composites and components than those who identified as male (see Table 14). The differences between females and males were statistically significant for interpersonal empathy, $t(179) = -2.759, p = .006, 95\% \text{ CI } [-0.468, -0.078]$, Cohen's $d = 0.568$, and affective response, $t(179) = -3.510, p = .001, 95\% \text{ CI } [-0.842, -0.236]$, Cohen's $d = 0.781$.

Unexpectedly, several of these differences were reversed in the post-test survey data (see Table 15). For the post-test, males had higher empathy means scores for all composites and components except affective response. The findings were statistically significant for interpersonal empathy, $t(83) = 2.410, p = .018, 95\% \text{ CI } [0.067, 0.699]$, Cohen's $d = 0.792$; perspective-taking, $t(83) = 2.378, p = .020, 95\% \text{ CI } [0.080, 0.897]$, Cohen's $d = 0.878$; self-other awareness, $t(83) = 2.293, p = .024, 95\% \text{ CI } [0.070, 0.993]$, Cohen's $d = 0.776$; and, emotion regulation, $t(83) = 3.488, p = .001, 95\% \text{ CI } [0.310, 1.131]$, Cohen's $d = 1.192$. All of these findings included large effect sizes.

There were fewer men included in the study sample, with 27 men reflecting 14.6% of the total respondents in the pre-test, and only nine male respondents representing 10.5% of the post-test participants (see Table A1). These men started the MSW program with lower levels of empathy; however, their empathy levels, with the exception of affective response, surpassed those of their female classmates by the time of

their projected graduation. It is of interest that females consistently scored higher than males in affective response, on average, which may be due to physiological, cultural, or socialization differences. However, this finding was statistically significant only in the pre-test survey data.

There are implications for further examination of empathy levels by gender identification. The intersection of gender, empathy levels, and social work education is an interesting focus for future research to understand empathy development by demographic characteristics and the opportunities for influencing empathy development through social work education. As noted with affective response, socialization and culture may play a tremendous role impacting individual growth in the various empathy components. As social work program graduates enter the workforce with varying degrees of empathy development, they may be armed with empathy levels that are driven in part due to their gender identification. This has tremendous implications for workload distribution, supervision and support, and professional development opportunities for social workers committed to serving their client populations in the best way possible. This raises the question of whether professional development should be designed in a way that is sensitive and response to demographic characteristics, or if education and training should be uniform.

Empathy Development by Political Ideology and Party Affiliation. The research study findings showed that students do not change political ideology and party affiliation over the course of their graduate social work studies (see Tables 21 and 22). In addition, these findings confirmed that there was a strong positive correlation between political ideology and party affiliation in the pre-test survey ($r = .712, p < .001$) and in

the post-test survey ($r = .848, p < .001$) (see Table 23). As expected, as political ideology became more liberal, party affiliation was more likely to be Democrat for both the pre-test and the post-test survey.

Therefore, it was not surprising that the two variables of political ideology and party affiliation had similar, but not the same, relationships with empathy in the research study results. The difference in empathy levels by political ideology of study participants, as categorized as liberal and conservative, was consistently statistically significant only for the component of contextual understanding across the pre-test survey, $t(110) = 6.884, p < .001, 95\% \text{ CI } [0.780, 1.411], \text{ Cohen's } d = 1.800$, and post-test survey, $t(5.175) = 3.612, p = .014, 95\% \text{ CI } [0.383, 2.211], \text{ Cohen's } d = 1.975$ (see Tables 17 – 20). There was a very large effect size indicating a strong relationship between the variables. Liberal participants had a higher level of contextual understanding, on average, than conservative participants.

The differences in empathy levels by participant party affiliation, as dichotomized as Democrat and Republican, were statistically significant in relationship with social empathy for both the pre-test survey, $t(115) = 5.279, p < .001, 95\% \text{ CI } [0.358, 0.788], \text{ Cohen's } d = 1.204$, and post-test survey, $t(11.572) = 3.347, p = .006, 95\% \text{ CI } [0.221, 1.056], \text{ Cohen's } d = 1.273$. In addition, there were differences by party affiliation for contextual understanding for both the pre-test survey, $t(115) = 7.020, p < .001, 95\% \text{ CI } [0.675, 1.206], \text{ Cohen's } d = 1.553$, and the post-test survey, $t(10.989) = 4.691, p = .001, 95\% \text{ CI } [0.565, 1.565], \text{ Cohen's } d = 1.849$. These all had a large effect size indicating a strong relationship between the variables.

These results are of interest with regard to the lack of consistent differences in empathy mean scores when examined by the variable of political ideology. Study participants who self-report being more liberal had higher levels of affective mentalizing, perspective-taking, social empathy, contextual understanding, and macro perspective-taking in the pre-test survey (see Table 17). Conservative participants reported higher levels of interpersonal empathy, affective response, self-other awareness, and emotion regulation in the pre-test survey. For the post-test survey, those who were liberal had higher levels of social empathy, contextual understanding, and macro perspective-taking (see Table 18). Conservative participants reported higher levels of interpersonal empathy, affective response, affective mentalizing, perspective-taking, self-other awareness, and emotion regulation.

In comparison, in the pre-test survey, participants who self-identified as Democrat reported higher levels of social empathy, contextual understanding, and macro perspective-taking (see Table 19). The respondents who identified as Republican had higher levels of interpersonal empathy, affective response, affective mentalizing, perspective-taking, self-other awareness, and emotion regulation. For the post-test survey, participants who identified as Democrat scored higher on average in social empathy, perspective-taking, contextual understanding, and macro perspective-taking (see Table 20). Those who are Republican reported higher levels of interpersonal empathy, affective response, affective mentalizing, self-other awareness, and emotion regulation.

There are fairly consistent results that those who self-identify as liberal and/or Democrat scored higher in the social empathy subscale and components. Those who

identified as being conservative and/or Republican had average score means that were higher in the interpersonal empathy subscale and components. While this was accurate in general, affective mentalizing and perspective taking mean scores were higher for liberals and/or Democrats than conservatives and/or Republicans at several data collection points of time. There are tremendous implications for policy, particularly in the context of the monumental tension between the political parties during the time of this research study. Those who are more liberal perhaps possess a perspective that is characterized as less individualized, more contextually based, and more cognizant of the greater social context. In comparison, those who identify as more conservative may not take into consideration the social and cultural contexts and instead focus on individual connections. Because interpersonal empathy and social empathy are interconnected and both essential to the overall construct of empathy, it is essential to understand how to cultivate both in social work students of varied political ideology and party affiliation. There might not be just one approach, but instead it may require creativity and flexibility to teach and integrate empathy throughout the social work curriculum.

For the purpose of this research study, political ideology was preferred over party affiliation, as political ideology has a deeper, more fluid connotation that is more easily relatable to the construct of empathy and the empathy components. Party affiliation may invoke a more negative impression, given the political tensions and party affiliations that were super charged at the time this study was conducted.

Empathy Development by Mode of Instructional Delivery

The third meaningful finding affirms the lack of a statistically significant relationship between the mode of delivery and the levels of empathy, with the exception

of contextual understanding, during the time that the study participants were enrolled in the MSW program. Study findings provide insight regarding the secondary research questions of if the mode of instruction, online versus in-person, impacts the level of change in interpersonal empathy and social empathy scores from the beginning to the end of their program, when controlling for demographic characteristics. The online students seem not to be different from the in-person students with regard to interpersonal empathy, social empathy, or most of the empathy components. However, there were differences noted in the several demographic characteristics between the two student groups. The differences in employment and political ideology specifically will be discussed first before turning to the examination of differences in empathy.

Employment by Mode of Instructional Delivery. In the pre-test survey, the student participants enrolled in the MSW online program were .25 times more likely to be employed than the students enrolled in the in-person MSW program ($X^2 (1) = 13.640$, $p < .001$) (see Table 4). However, the effect size was moderate ($Phi = .278$), indicating a medium strength relationship between the demographic characteristic of employment and the variable of the mode of instructional delivery. There was not a statistically significant difference in employment by mode of instructional delivery in the post-test ($X^2 (1) = 3.793$, $p = .051$) (see Table 5). The percentages of students who were employed at the beginning of their graduate studies dropped for both student groups; from 63.3% (pre-test) to 48.6% (post-test) for the in-person students and from 87.2% (pre-test) to 69.4% (post-test) for the online students.

The literature on online education suggests that students who enroll in online programs tend to be non-traditional, older, and balancing multiple life demands and

stressors, so it is logical that the online students would be more likely to have jobs in addition to their studies. This difference in employment was not reflected by mode of instruction in the post-test survey. This may be due to students starting their graduate social work studies being employed, but then over the course of their studies making the decision to stop working for a variety of possible reasons. It is also possible that the COVID-19 pandemic affected employment as non-essential businesses and services closed in many communities nation-wide.

This result has implications for the importance of understanding the student population. The MSW program is demanding of time and energy with Field Education internship placements and rigorous coursework, and students may struggle with maintaining employment while engaging fully with their program requirements. It is essential to ensure that student support services are in place to meet the unique needs of students. These services may span from flexible scheduling, success coaching, financial aid, student community engagement opportunities, disability accommodations, child care support, transportation, and technology access.

Political Ideology by Mode of Instructional Delivery. Perhaps one of the other most interesting findings from these analyses is the statistically significant relationship between the type of MSW program instructional delivery and political ideology ($X^2(1) = 6.610, p = .037, Phi = .293$) (see Table 9). There was a moderate effect size.

More participants reporting a politically liberal ideology were enrolled in the in-person MSW program. Conversely, there were more ideologically mixed and politically conservative participants enrolled in the MSW online program than the in-person program. This may reflect the perceived anonymity afforded by the online delivery mode,

the marketing and recruitment strategies employed by the university on national level, and/or the geographic location of more liberal students closer to the physical university campus located in an urban center. This finding augments the importance of understanding the demographics of the student population in order to best design instructional delivery, activities, assignments, course interactions, and assessments that challenge students to engage in deeper critical thinking and self-reflection. As our understanding of the relationship between political ideology and empathy develops further, the student demographic profile may be used to guide best pedagogical practices.

Empathy by Mode of Instructional Delivery. In the examination of the empathy composites and components, there were several statistically significant differences in means scores for participants grouped by mode of instructional delivery. However, the evidence points to the study respondent groups of online students and in-person students being overwhelmingly similar.

Online versus In-person by Time. Overall, the only statistically significant difference in empathy means from pre-test to post-test for study participants grouped by mode of instructional delivery was for contextual understanding in the combined study data, $t(234.183) = 2.091, p = .038, 95\% \text{ CI } [0.010, 0.342]$. Cohen's $d = 0.258$ (see Table 24). There were no statistically significant differences in any empathy composite or component means, excluding contextual understanding, between the two groups of students (online versus in-person) when the data were examined separately for the pre-test and the post-test.

This finding has powerful implications for online social work education. The lack of statistically significant differences in empathy average mean scores between the online

and in-person student groups introduces the possibility that the mode of instructional delivery does not have a relationship with empathy levels. Another possibility is that the online mode of instructional delivery cultivates empathy development similar to how empathy is supported through in-person instructional delivery. Both possibilities have exciting implications that there are limited differences in students' levels of empathy when examined by the mode of instructional delivery. Social work programs may use these findings to explore innovative opportunities for online delivery of courses while supporting students' empathy development. These implications will be discussed further in conjunction with the other study findings.

Demographic Predictor Variables. When controlling for the variables of age, gender, and political ideology discussed earlier, there were limited meaningful findings associated with the relationship of instructional delivery with interpersonal empathy, social empathy, and the individual empathy components. The regression models were statistically significant for some of the empathy composites and components, but not for all. The regression models for affective mentalizing, perspective-taking, and self-other awareness were not statistically significant, indicating that age, gender, political ideology, and mode of instructional delivery were not statistically significant predictors for the mean scores in these interpersonal empathy components. The regression models for the remaining composites and components were statistically significant; however, the mode of instructional delivery, the variable of interest, was not a statistically significant variable for any of the regression models. This confirms that there was no difference in the empathy score means between the MSW online students and the in-person MSW students.

Age was a statistically significant variable for interpersonal empathy and emotion regulation (see Tables 27 and 32). Every year increase in age was associated with a .011 increase in interpersonal empathy and emotion regulation. As discussed previously, the literature has shown that as we mature chronologically, we also experience an increase in the ability to regulate our emotions.

Gender was a statistically significant predictor variable for interpersonal empathy and affective response (see Tables 27 and 28). Males had average interpersonal empathy scores that were 0.213 lower than females and average affective response scores that were 0.538 points lower than females. Gender was also a statistically significant variable with those who identified as transgender scoring 0.847 points lower than females in emotion regulation. However, it is noted that there were only two participants who identified as transgender.

Political ideology was a statistically significant predictor variable for the regression model for social empathy and social empathy components (see Table 33, 34, and 35). On average, more conservative political ideology was associated with lower scores in social empathy, contextual understanding, and macro perspective-taking. The literature supports this difference in empathy between those with conservative political ideology and those with political views that are more liberal. Those who are more liberal tend to pay greater attention to social cues in the context of interactions (Segal, 2018). This may be due to those who are more conservative being less likely to attend to context in their interactions.

Differences in Contextual Understanding. The difference in contextual understanding mean scores for the MSW online students and the in-person MSW students

may be a reflection of the impact of the mode of delivery on the development of contextual understanding in MSW students. Perhaps the structure of the in-person program facilitates the development of contextual understanding more thoroughly and deeply due to the face-to-face nature of in-person instruction. Another possibility is that the difference in contextual understanding is associated with geography, with the in-person students residing in metropolitan areas that may be more diverse and reflective of a greater contextual awareness.

This may be an area of potential exploration to understand how to improve the curriculum delivery online to better equip MSW students to have higher levels of contextual understanding over the course of the MSW program. This is particularly of note given that contextual understanding was the social empathy component that had statistically significant differences from pre-test to post-test. This seems to indicate that it is possible to impact contextual understanding over the duration of the graduate social work studies, and that this impact is associated with mode of instructional delivery.

Deeper Look at Empathy Differences by Mode and Time. In the closer examination of study respondents' empathy scores by pre versus post-test survey and online versus in-person mode of delivery, there were mixed results. For interpersonal empathy, there was a statistically significant difference, $F(3, 262) = 4.949, p = .002$, between the pre-test empathy scores ($n = 120; M = 4.543; SD = 0.486$) and the post-test empathy scores for MSW online program students ($n = 49; M = 4.787; SD = 0.485$) but not for the students enrolled in the in-person MSW program (see Table 36). It may be that the students who chose the in-person option already possessed their optimal levels of

interpersonal empathy. Alternatively, study participants may have been affected differently and, to a greater extent, by their MSW program instructional delivery.

For social empathy, the reverse was found: that there was a statistically significant difference ($F(3, 114.477) = 6.625, p < .001$) in empathy scores from pre-test ($n = 60; M = 5.009; SD = 0.572$) to post-test ($n = 37; M = 5.337; SD = 0.460$) for in-person MSW program students, but not for the online students (see Table 38). The social justice aspect of the graduate social work curriculum may be developed more in the in-person MSW program through the face-to-face interactions in the physical classroom. It is possible that the course content is delivered and explored differently in person. Perhaps the discussions of the macro perspectives of groups different from oneself are more powerful in a face-to-face setting, where students may have more opportunities to engage with instructors and classmates who are different from themselves. This may be particularly true given the structure of the MSW online program primary instructor model that involves the delivery of the course content in a large virtual environment by the primary instructor, with the student divided into small groups facilitated by an academic associate. These factors may contribute to challenges developing social empathy online. The awareness of the differences between modes of instructional delivery may facilitate opportunities to purposefully incorporate activities and assignments that cultivate contextual understanding and macro perspective-taking.

Application of Theory

Theory provides a foundation for approaching the analysis of how online social work education has impacted the university systems, students, faculty, and social work

practice. Critical theory and pedagogical approaches together provide a useful lens for this crucial examination.

Critical Theory

This is an optimal time to critically analyze social work online education origins, delivery methods, and the level of integration of online learning in the higher education setting. It is important to examine whether higher education systems and structures are promoting institutional discrimination associated with the mode of delivery, either in-person or online, and how the mode of delivery affects students and power dynamics within the classroom environment and university interactions. This examination is essential during this time of the COVID-19 pandemic when online education is part of the emergency remote response to ensure safety and social distancing. It is through careful analysis that opportunities for change may become evident.

In addition, it is necessary to encourage critical thinking for administrators, faculty, staff, and most importantly, students who will graduate, become professional social workers, and work toward solutions to social challenges in local and global communities. Through a deeper inspection of cultural and societal norms, indicators will reveal sources of power, determine if power is appropriately placed, and examine social justice implications. Honoring student voice, student engagement, and the life experience of learners are key elements to explore on an ongoing basis, while being sensitive and responsive to demands that necessitate a careful life balance. Classes may be conceptualized and developed to maximize critical consciousness, praxis, dialogue, and conscientization. Students may be mindfully engaged through assignments and class activities promoting reflective action with a change mindset. Learning can be structured

in both in-person and online modes of delivery to incorporate critical thinking with purposeful exposure to the empathy components crucial to the profession of social work.

The complex consideration of whether social work education should be delivered in nontraditional online ways generates innovative teaching styles, structures and systems, and student engagement strategies. The application of theory supports social work programs to deliver a quality educational experience that challenges students cognitively while cultivating empathy. There is opportunity to integrate pedagogy, specifically andragogy, transformative and self-directed learning, and the Community of Inquiry approach.

Pedagogical Approaches

Andragogy recognizes that students bring their prior experiences, education, and unique sets of skills and knowledge with them into the learning environment. In addition, students start their graduate studies with existing levels of interpersonal and social empathy that may facilitate engagement in the higher education learning environment. Learners possess intrinsic motivation for learning that can be maximized through the design and development of in-person and online courses. Students' ability to be self-reliant is of particular importance due to the independence that tends to accompany the online learning modality. The self-directed learning that is embedded within andragogy places the students in the position of directing their own learning experience; however, educational outcomes show that not every student will be highly successful in the more independent online learning environment.

The transformative learning experience spotlights excellent opportunities for growth essential to the acquisition of critical consciousness and praxis espoused through

critical theory. It is critical that students undergo an awakening of understanding and empathy ideally integrated deep within their learning experience to translate beyond graduation into their social work professional career. Online social work courses can include the experiential activities, meaningful reflection, discourse, and opportunities for demonstrated social action that facilitate the transformation of students' beliefs, attitudes, and perspectives essential in the cultivation of empathy. The construct of empathy becomes essential within the class environment to support relationships integral in helping students feel connected with the course content, classmates, faculty, and the university setting - all of which is essential in student academic success.

The cultivation of empathy within the social work programs may be connected with the Community of Inquiry components of teaching presence, cognitive presence, and social presence. It is the active engagement of the course instructor through the planning and organization of the course, as well as the delivery of the course content, that facilitates the students' connection with the curriculum. This connection then is poised to develop into cognitive presence and engagement through critical reflection and discourse valued through critical theory and the conscientization process promoted by Freire. Social presence must be a priority emphasis, as related with empathy development, for all modes of delivery of social work education. It is through the safe social and emotional engagement of the students that true growth and learning may be facilitated to support the higher-level cognition needed in the academic journey.

Overall Implications

The findings from this research study have implications for the high reliability of the empathy instrument, the furthering of empathy in social work education to affect

future social work professional practice, and the online mode of instructional delivery in social work education.

Empathy Survey Reliability

The research findings confirm the empathy survey used in this research study as a highly reliable instrument to measure empathy in higher education. This is essential due to the importance of empathy in the profession of social work. Empathy is a complex and multifaceted construct, with both interpersonal empathy and social empathy being critical elements to examine. Therefore, the ability to measure overall empathy, interpersonal empathy, social empathy, and the individual empathy components is invaluable in developing a greater understanding of the progression of empathy as related to graduate social work studies and the social work profession. This empathy survey instrument provides the depth of analysis needed to examine the complexities of empathy as a whole construct through the interpersonal empathy and social empathy subscales, and in the individual empathy components. Future research studies that utilize this empathy instrument in higher education settings will contribute to the growing body of knowledge about the relationship between empathy and education.

Empathy in Social Work Education

Social work program graduates should be prepared to integrate empathy with the profession's strong commitment to social justice on an interpersonal level, as well as the more macro societal level. Because it is in the best interest of client populations that social workers possess high levels of empathy, further development of interpersonal empathy and social empathy in social work education ultimately serves the profession well. If social work professionals are expected to recognize and promote empathy in their

client populations, while also imbibing the components of interpersonal and social empathy, then empathy should be at the core of social work education at both the undergraduate and graduate levels of study.

Research shows that it is possible for external factors to affect the brain connections that support empathy, thereby impacting the continued development of empathy throughout the lifespan. Empathy levels increased over the duration of the social work program. We know that empathy may be changed over the lifespan, and science shows us that neural connections may evolve over time. The literature further indicates that it is possible to influence levels of empathy through education. While certain components of empathy are based in physiological response, such as affective response, other empathy components may be cultivated through experiences and education. As shown in the literature, it is the social presence in the form of shared identity, trust development, and resource networking that may be associated with the greatest empathy increases in adult learners.

The study findings documented the increased levels of empathy in study participants from the time the students began the MSW program until close to the time of anticipated graduation. The statistically significant relationship between time spent in a graduate social work program and empathy development supports the possibility that the social work curriculum is associated with increased levels of empathy in social work students and future professional social workers. Therefore, it may be possible to teach skills and knowledge that correlate with higher interpersonal and social empathy levels through the MSW curriculum.

Our universities have an obligation to the social good as cultural and economic anchors in society. Purposeful curriculum expansion and innovative instructional delivery may target the development of empathy in social workers themselves, along with the skill set to identify and promote empathy in clients, thus contributing to building social good. Social work education includes cognitive exercises to expand knowledge, activities to put oneself in someone else's shoes to develop understanding, and self-reflection to create greater awareness of bias, mindfulness, and boundaries. Combined, these educational experiences may influence maturation in affective mentalizing, emotion regulation, perspective-taking, and self-other awareness. By teaching about historical discrimination, oppression, and inequality, students may increase their understanding and insight into the real-life experiences of diverse populations.

Program evaluations may be designed strategically to assess empathy outcomes important in social work practice. Important considerations include understanding how cognitive presence, teaching presence, and social presence are woven into each course. It may be necessary to rethink the course design, objectives, instructional delivery, tools, assignments, activities, intentional interactions, and assessments to ensure that students are being engaged in ways that promote empathy development. In addition, it is essential to ensure that students are exposed to the explicit and implicit social work curriculum.

It is imperative to examine the social work curriculum and map out how each empathy component is introduced, taught, cultivated, and assessed in courses. Further investigation is warranted to ensure that the empathy components are being integrated into the students' existing knowledge. For this to be achieved, it is imperative to integrate

course discussions, role plays, journaling, self-reflection, simulations, and additional innovative activities.

The potential impact of social work education on students' empathy levels has far-reaching social justice implications for the social work profession. With the goal to promote and cultivate empathy in assessments and interventions, empathy should be encouraged through continued professional development. Empathy is a means of connecting with client populations and understanding the experiences of populations that have been historically oppressed and marginalized. Social work students and professionals should be invested in critically analyzing power dynamics, cultivating social responsibility, and advocating for change; and all of these are rooted in empathy.

Online Mode of Instructional Delivery in Social Work

The lack of statistically significant differences in empathy levels, with the exception of the social empathy component of contextual understanding, between the in-person and online student participants indicates that there is consistency across modes of instructional delivery of the social work curriculum. The slight differences in contextual understanding mean scores for online and in-person students might be the result of visibly apparent diversity in the physical classroom versus the masked and invisible diversity online with students remaining more anonymous behind their computer screens. Perhaps the informal and essential connections that are cultivated in the physical classroom environment are not easily replicated in the virtual environment. While it is possible to create and maintain interpersonal relationships with instructors and classmates through virtual means, the relationships fostered online may be different from the relationships cultivated through in-person experiences.

Combined with the finding that all levels of empathy increase from pre-test survey to post-survey, this set of results is powerful in the interpretation that there is limited difference in the mode of delivery by online versus in-person and that online education may be comparable to in-person instruction specifically in the MSW program at ASU. With the research findings woven together, there are indications that the social work education community may have reason to embrace online education and virtual means of instructional delivery while removing personal and professional bias against online learning. As we continue to evolve, we can make better use of technology and tools and rely on our creativity to cultivate empathic understanding and connections.

Additional important considerations include how to best prepare faculty to adopt best pedagogical practices, develop and deliver courses more effectively, create and sustain meaningful asynchronous communication and feedback patterns, and best engage diverse student groups in the learning process. Meaningful activities, assignments, and assessments should promote learning and acquisition of skills, knowledge, and values, regardless of whether the content dissemination and learning take place in the virtual or physical environment. All of these considerations center on the needs of the student population, as opposed to the needs of the educational institution, which is reflective of positive change in higher education.

These study findings indicate that online education is a viable option for social work education with implications for the long-standing debate regarding whether the social work curriculum may be taught effectively using online instruction in the virtual environment. Moving forward, however, the dichotomy of online instruction versus in-person instruction may be irrelevant due to the COVID-19 pandemic. It is time to elevate

the conversation beyond whether or not courses and programs are delivered online to focus instead on how social work values, ethics, knowledge, and skills are being taught and learned with critical thinking and transformative learning in online modes of teaching.

The evolution of online education has been incremental until the year 2020, with pedagogical and technological innovations incorporated gradually amid national dialogue. In 2020, there was a paradigm shift away from debating whether classes should be taught in person or in the virtual environment to the discussion of how to rapidly convert in-person courses to emergency remote instruction in response to the COVID-19 pandemic. This transition resulted in the creation of new delivery methods designed to meet students' needs. This paradigm shift focuses on the quality of the curriculum and the complexities of the instructional process, with critical considerations of how certain student populations respond to education systems, programs, and modes of delivery.

The COVID-19 pandemic impacted and nearly eliminated students' ability to self-select into online course options at many higher education institutions. Without the option of attending courses in person, students and instructors have had to adapt quickly to virtual modes of instruction, at times without any warning, choice, support, and/or familiarity with technology. This rapid transition may have an impact on whether students are able to adapt to and thrive with different modes of instructional delivery. The loss of choice to attend courses in person may set students up to struggle in the online environment, especially if students feel in-person learning is a better fit for their learning style. However, forcing a student more inclined to learning in-person into the online educational environment might have different results.

There are implications for student choice in how to complete a graduate degree. The removal of options due to circumstances such as the COVID-19 pandemic and the resulting systemic changes challenge the self-determination and empowered decision-making honored in the field of social work. It remains to be seen how higher education institutions will move forward from the COVID-19 pandemic now that radical rapid changes have been implemented in how courses and entire programs are delivered. As the results from online instructional delivery are examined in a neoliberal style, there may be conclusions drawn that virtual immersion is more cost effective. This may lead to the continuation of online and hybrid modes of delivery for all students for economic reasons, regardless of student preference, learning style, and resources. This is a pivotal time to examine power balances in decision making to ensure that all voices are heard and included in important discussions and deliberations.

Research Study Limitations

The limitations of this research study design included the reliance on a convenience sample, the use of a self-administered survey, variability in course instructors, testing, confirmation bias, attrition, and history. This discussion will address each limitation and how this research study provided possible controls for limitations.

Convenience Sample

This study involved a longitudinal convenience sample of graduate students who self-selected into the MSW online program, the in-person standard MSW program, or the in-person MSW advanced standing program at ASU. This self-selection may have constituted a threat to internal validity in this study and selection bias may have been present because participation was limited to those who chose to enroll in one of the three

MSW program options and decided to complete the study survey (Larzelere & Kuhn, 2004).

The students who chose to complete the pre-test and/or post-test surveys may have differed from those who did not. Students enter the higher education space with a variety of different experiences, backgrounds, and identity intersectionalities, some of which may have impacted the initial empathy scores and receptivity to developing deeper levels of empathy. The difficulty in interpreting group comparison results created by selection bias may have been mitigated by examining pre-existing differences among the groups (Larzelere & Kuhn, 2004). This examination of the sample included analyses to identify differences among those in the matched group who choose to participate in both data collection points and those in the not matched group who do not.

The self-selection aspect challenged the possibility of establishing a causal relationship in this study. It is recognized that this study is exploratory, without the goal of generalizing the findings. Random assignment is difficult to achieve in studies focused on college impact; therefore, the longitudinal design with pretest-posttest, along with the potential for replicating findings, provided an element of a statistical control (Pascarella, 2006). Due to nonprobability sampling, it is not known if all students had an equal chance of participating in the study, and, therefore, the claim cannot be made that the sample is representative with generalizable results (Krysiak, 2018). Results of this research study may be limited to students enrolled in the MSW program at Arizona State University, a large university in the Southwestern United States, thereby exposing a threat to external validity involving the research sample and the setting.

Self-administered Survey

Limitations of a self-administered online survey typically include low response rates, the necessity of designing the survey carefully with primarily closed-ended questions, recall bias, skewed self-observation, and a trend toward social desirability (Fowler, 2014; Shadish et al., 2002).

This study was conducted outside of a course environment, so respondents had to take steps to participate during their own free time. There were multiple attempts to recruit participants through recruitment course announcements, PowerPoint presentations, and follow-up emails. However, the respondents had to make an effort to read the announcement and emails, watch the recruitment presentation, click on the survey link, and complete the survey. The desired participation rate for the study was 35%, based on the response rates of prior similar studies. For the combined two rounds of the pre-test survey, there was a response rate of 36.2%, reflecting 185 student participants. The response rate for the post-test fell to 21.6% (86 participants). Therefore, the pre-test survey response rate exceeded the desired participation rate, but the post-test survey response rate was lowered than desired. This is potentially due to the survey being self-administered.

Surveys capture attitudes and cognitions about constructs presented in a particular way through the designed wording of the statements in the survey (Royse, 2008; Williams et al., 1995). This survey was designed carefully with primarily closed-ended questions to reduce instrument error and to support ease of navigation and comprehension in a reasonable amount of time. However, the survey design may have been limited in eliciting attitudes that extend beyond the scope of the survey and thereby lose the

contextual richness and deeper insight into the respondents' lived experiences (Williams et al., 1995).

Because the study participants were self-reporting their demographic characteristics, experiences, empathy levels, and attitudes towards policies, there was opportunity for recall bias and skewed self-observation. It is possible that respondents did not select survey answer options that accurately reflected their attributes, attitudes, thoughts, and beliefs. This study may have been strengthened by including third-party objective observation, which was not possible given the anonymity and self-report aspects of this research design.

In addition, social desirability may have been a factor in the study findings if the survey respondents recognized that the study focus was on empathy. Due to the intellectual level of the students, their understanding of and interest in the social work profession and their potential pressure to respond to questions in a socially desirable way may have influenced survey responses. To reduce the possibility of bias and lessen the impact of social desirability skewing results, the survey was titled "Social Policy and Human Relations Survey" without the word "empathy" being included in the survey title. In addition, awareness of this potential limitation was key when finalizing the survey instructions and preparing the recruitment materials. There was no mention of the construct of empathy in the survey instructions, course announcements, recruitment presentations, and recruitment emails. In addition, the time gap of 10 to 20 months between the pre-test and post-test may have alleviated the possibility of having potential social desirability.

Variability in Course Instructors

Another research design limitation was the variation in course instructors, given that this research study involved a large number of students enrolled in multiple social work program options delivered in two different instructional modes (online versus in-person). It is assumed that there was variation in the course instructors' level of experience in social work practice, number of years teaching social work courses, familiarity with the curriculum, adherence to the approved curriculum, and emphasis on skill and knowledge development in the areas related to empathy and the individual empathy components. The levels of instructor presence, social presence, and cognitive presence may have been different for two modes of instructional delivery, potentially impacting empathy scores. It was beyond the scope of this particular study to examine instructor variability, so it is important to recognize this potential limitation.

Testing

Testing was another potential threat to internal validity and limitation because the same measurement instrument was utilized as the pre and post-test, with slight modifications. However, at least 10 months and as many as 20 months passed between the data collection points for the pre-test survey and the post-test survey. This time lapse may have mitigated the use of similar surveys for the pre-test and post-test data collection, as participants may not have remembered their pre-test survey responses when they completed their post-test survey. In addition, only 20 participants were in the matched set group that completed both the pre-test survey and the post-test survey, so testing may not have been highly influential.

Confirmation Bias

Confirmation bias may have been present if there was an influence of a favored explanation on behalf of the research team (Larzelere & Kuhn, 2004). For this reason, this researcher carefully analyzed personal experience, bias, and expectations regarding empathy development over the course of graduate social work studies for in-person and online modes of delivery. There was a careful approach to interpreting research findings in order to ensure that reasonable conclusions were drawn.

Attrition

Attrition may have been an additional study limitation, given that at least 10 months, and potentially as long as a year and eight months, may have passed between the pre-test and post-test. There has historically been an average annual attrition rate of 23% in the MSW online program at ASU (Trang Tran & Tyler, 2019). While the researchers attempted to lower the effect of attrition by encouraging participants to complete the post-test survey, attrition was unavoidable if study participants withdrew from the MSW program, with the result of the missing data constituting another threat. Because the surveys were collected anonymously, it is uncertain how many students completed the pre-test survey and then discontinued their graduate studies.

Empathy levels were examined for the matched group of participants who completed both the pre-test and post-test surveys in comparison to the unmatched group that only completed one survey to understand if there was a difference in levels of empathy between the groups. The matched group of participants had higher levels of empathy, on average, than those who were not part of a matched set, with the exception of self-other awareness in the post-test survey. However, these differences in empathy

levels were not statistically significant. Further examination of the matched sets of participants who completed both the pre-test survey and the post-survey revealed no statistically significant differences from pre-test survey to post-survey in race/ethnicity, gender, sexuality, family or original socio-economic background, party affiliation, or empathy levels.

In the examination of the two participant groups that completed the pre-test survey and the post-test survey to understand the impact of attrition on the study findings, the only statistically significant difference was employment. There was a significant drop in employment status, with those who completed the pre-test survey being two times more likely to be employed (73.2%) than those who completed the post-test survey (26.8%), with a low effect size. It is possible that students may leave the MSW program due to work demands that conflict with their educational journey. Alternatively, students may leave employment over the course of their studies, perhaps because they realize that they cannot sustain work and school due to the demands of their coursework and/or internship placements. It is also possible that the students who were employed at the beginning of the program were more likely to drop out of the graduate program or they were less likely to complete the post-test survey.

Because there were no statistically significant differences in demographics and levels of empathy apart from employment for the two pre-test and post-test groups, the assumption was made that the groups were similar and had similar levels of empathy. Therefore, there may be more confidence that the study findings reflect the experience of the MSW students at ASU, even though the survey response rate and attrition were concerns.

History

In addition to attrition, history was a concerning threat to this study, due to the time lapse for the data gathering process from time of the pre-test to the time the post-test survey was administered. Between the times when the pre and post-test surveys were administered, there may have been multiple local, regional, or global events, trends, political changes, and other historical impacts that influenced the development of empathy. Maturation threats were mitigated by examining demographic characteristics of the sample; however, the online students were geographically dispersed, so secular trends may influence maturation.

The global spread of COVID-19 may have significantly influenced this research project due to the timing of the post-survey data collection after the start of the pandemic. The original planned period for the post-test data collection was to coincide with the time of the anticipated graduation of many of the students in May 2020. However, as the pandemic progressed in the Spring 2020 semester, it became apparent that the rapid transition of all coursework to the online mode of instructional delivery would impact the study results. Therefore, the time frame for the post-test data collection was changed to be one month earlier. It is recognized that the COVID-19 pandemic may have affected the response rate for the post-survey because the overall student population was highly stressed and in transition in that time frame.

Future Research

This study is limited to informing future research directions and to strengthening the rationale for further exploration of the impact of the mode of instructional delivery on social work outcomes, particularly with regard to empathy. It is anticipated that online

education will continue to expand, given the persistence of the COVID-19 pandemic and the aftermath of the initial transition of courses to the virtual environment. As students and faculty experience continued social distancing and the digital navigation of services and communications, the need to understand diverse modes of online delivery will become exceedingly important. Research on the impact of online education will contribute to the high quality of social work education in this new societal context. In addition, future research may examine the cost effectiveness of online education delivery, with a close look at the resources required for online delivery as compared to in-person instructional delivery.

A potential area of future research involves exploring how social work educators approach social work education in the modern 21st Century. During this time of COVID-19 pandemic, it is assumed that faculty have the skill and knowledge to teach in the virtual environment; however, additional research would identify gaps and opportunities for structural changes and professional development. The emergency transition of courses from in person to online delivery necessitates a deeper look at how to integrate the wealth of knowledge and experience from pedagogical models for teaching online and the vast array of technology and tools available (Kandri, 2020). It is essential to understand best practices associated with incorporating new technology trends. In addition, strategic research could integrate approaches in empathy development in social work education amidst technological changes. Ultimately, more sophisticated research is needed to understand if empathy differs by programs that are only asynchronous versus programs that include synchronous elements.

Future research may also delve into comparing various delivery modes by student engagement, instructor presence, and opportunities for critical thinking. Research on student access to higher education, technology, tools, advising, resources, and cultural communities would elevate the discussion of social justice for diverse student populations. It is essential to explore how social work education affects different subsets of the social work student population, particularly based on age, gender, and political identity. It may be worthwhile to explore the experience of male students in the MSW program to understand how their levels of empathy are impacted by the curriculum, as compared to females. There could be potential opportunity to examine further the connection between political ideology and empathy by the type of MSW program, based on the statistically significant differences by mode of instructional delivery. Exploring levels of contextual understanding by geographic location may provide administrators and faculty with useful insight for how to design programs and develop instructional methodologies that support empathy development.

As neuroscientific and social science empathy research progresses, there will be greater understanding of empathy development in the brain, as well as of how empathy manifests in interpersonal and societal relationships. By learning more about empathy and levels of empathy, social work professionals can apply research findings to real-life situations and develop evidence-based practice interventions for the field of social work.

Due to the influence social workers have in the lives of vulnerable populations, it is essential that there be an examination of the impact of the mode of delivery of social work education. The continued exploration of best practices for online social work education will ensure that graduate-educated social workers possess the knowledge, skill,

integrity and competency necessary to serve those in need in our local, national, and global communities. An additional area of future research is to examine how the mode of delivery affects social work program graduates in their professional careers. As the social work profession moves toward more telehealth and remote social work practices using technology, students who are comfortable and adapt at navigating online learning may translate their skill and knowledge to social work practice.

Conclusion

This study has explored the relationship between levels of empathy and modes of instructional delivery for graduate social work students. This point in time is significant, given the intersection of research on empathy, the importance of empathy in the profession of social work, and online education delivery in the context of the COVID-19 pandemic. The higher education response to the pandemic has raised awareness of the importance of having diverse modes of instructional delivery to not only meet the needs of diverse student populations, but also to meet the demands of the global community with the complexities of interactions and rapid transmission of information, technology, and knowledge.

These research findings indicate that levels of social empathy, interpersonal empathy, and the individual empathy components increase, on average, during graduate social work studies. The study results also showed that there were no statistically significant differences in empathy levels by mode of instructional delivery, with the exception of contextual understanding. These findings suggest that because empathy is core to the human experience and the profession of social work, it is essential to promote empathy in social work education in all instructional modes of course delivery.

Administrators and faculty would be wise to consider how empathy is integrated throughout the curriculum and in specific courses. In addition, faculty are encouraged to integrate knowledge of brain research and empathy development from other disciplines to enrich this construct in the field of social work.

Above all, administrators, faculty, staff, and students are called to engage in critical thinking about sources of power and social justice implications. It is essential to honor the faculty and student voice with opportunities to engage in course content, modes of delivery, and community engagement in order to structure the learning environment. This will lead to maximizing praxis and critical thinking through innovative approaches.

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APPENDIX A
PARTICIPANT DEMOGRAPHICS

Table A1*Participant Demographics by Time*

Variables	Pre-test survey		Post-test survey	
	<i>n</i>	%	<i>n</i>	%
Sample				
Sample size	511		399	
Number of participants	185		86	
Response rate		36.2%		21.6%
Demographics				
Age				
Age range	21 – 57		22 - 55	
Age mean	32.29		33.01	
Age median	29.50		31.00	
Race/ethnicity				
African American, Black	11	5.9%	4	4.7%
American Indian, Indigenous, Native American	6	3.2%	2	2.3%
Asian	5	2.7%	1	1.2%
Latino/a, Hispanic, Chicano/a	33	17.8%	17	19.8%
White, Caucasian	121	65.4%	59	68.6%
Multiracial	7	3.8%	3	3.5%
Other	1	0.5%	0	0.0%
Gender				
Male	27	14.6%	9	10.5%
Female	154	83.2%	76	88.4%
Transgender	3	1.6%	0	0.0%
Other	0	0.0%	1	1.2%
Sexuality				
Lesbian	8	4.3%	2	2.3%
Gay	1	0.5%	0	0.0%
Heterosexual, straight	150	81.1%	70	81.4%
Bisexual	17	9.2%	7	8.1%

Queer	5	2.7%	3	3.5%
Other	4	2.2%	3	3.5%
Class				
Poor	20	10.8%	13	15.1%
Working class	68	36.8%	28	32.6%
Middle class	65	35.1%	29	33.7%
Upper middle class	31	16.8%	14	16.3%
Wealthy	1	0.5%	2	2.3%
Employed				
Yes	142	76.8%	52	60.6%
No	40	21.6%	34	39.5%
Major				
Social work	61	33.0%	24	27.9%
Psychology	52	28.1%	30	34.9%
Criminal justice	9	4.9%	2	2.3%
Nursing	1	0.5%	1	1.2%
Education	5	2.7%	2	2.3%
Business	2	1.1%	1	1.2%
Communication	3	1.6%	2	2.3%
Other	51	27.6%	24	27.9%
MSW program (all)				
In-person standard Phoenix	32	17.3%	25	29.1%
In-person standard Tucson	10	5.4%	3	3.5%
In-person advanced standing				
Phoenix	14	7.6%	9	10.5%
In-person advanced standing				
Tucson	4	2.2%	0	0.0%
Online	120	64.9%	49	57.0%
Other	2	1.1%	0	0.0%
MSW program (campus)				
In-person Phoenix (all)	46	24.9%	34	39.6%
In-person Tucson (all)	14	7.6%	3	3.5%
Online	120	64.9%	49	57.0%

Other	2	1.1%	0	0.0%
MSW program (in-person vs online)				
In-person (all)	60	32.5%	37	43.0%
Online	120	64.9%	49	57.0%
Other	2	1.1%	0	0.0%
MSW program concentration				
Advanced Direct Practice			20	23.3%
Policy, Administration, & Community Practice			18	20.9%
Advanced Generalist			48	55.8%
Geographic area				
North	1	0.5%	3	3.5%
Northeast	14	7.6%	7	8.1%
Northwest	19	10.3%	8	9.3%
South	10	5.4%	3	3.5%
Southeast	13	7.0%	4	4.7%
Southwest	112	60.5%	53	61.6%
Midwest	7	3.8%	5	5.8%
Other	7	3.8%	1	1.2%
Lived in other country				
Yes	43	23.2%	19	22.1%
No	142	76.8%	67	77.9%
Studied abroad				
Yes	21	11.4%	11	12.8%
No	164	88.6%	75	87.2%
Traveled to developing/impooverished Country				
Yes	94	50.8%	47	54.7%
No	91	49.2%	39	45.3%
Party affiliation				
Strong Democrat	23	12.4%	18	20.9%
Democrat	42	22.7%	21	24.4%
Lean towards Democrat	26	14.1%	12	14.0%

Independent	37	20.0%	13	15.1%
Lean towards Republican	12	6.5%	5	5.8%
Republican	10	5.4%	4	4.7%
Strong Republican	4	2.2%	2	2.3%
No political party identification	28	15.1%	9	10.5%
Other	3	1.6%	2	2.3%
Political ideology				
Consistently liberal	33	17.8%	18	20.9%
Mostly liberal	62	33.5%	28	32.6%
Mixed	70	37.8%	25	29.1%
Mostly conservative	12	6.5%	5	5.8%
Consistently conservative	5	2.7%	1	1.2%
Plan to graduate				
May 2020	92	49.7%	26	30.2%
August 2020	50	27.0%	19	22.1%
Other	39	21.1%	29	33.7%
Original graduation date				
Yes			64	74.4%
No			10	11.6%

Table A2*Participant Demographics by Mode of Delivery*

Variables	Online		In-person	
	<i>n</i>	%	<i>n</i>	%
Number of participants	169		97	
Demographics				
Age				
Age range	22 – 57		21 – 54	
Age mean	33.13		31.46	
Age median	30.00		28.00	
Race/ethnicity				
African American, Black	10	5.9%	5	5.2%
American Indian, Indigenous, Native American	5	3.0%	2	2.1%
Asian	4	2.4%	1	1.0%
Latino/a, Hispanic, Chicano/a	28	16.6%	21	21.6%
White, Caucasian	115	68.0%	63	64.9%
Multiracial	7	4.1%	3	3.1%
Other	0	0%	1	1.0%
Gender				
Male	21	12.4%	14	14.4%
Female	144	85.2%	82	84.5%
Transgender	2	1.2%	1	1.0%
Other	1	0.6%	0	0.0%
Sexuality				
Lesbian	8	4.7%	2	2.1%
Gay	1	0.6%	0	0.0%
Heterosexual, straight	140	82.8%	75	77.3%
Bisexual	12	7.1%	12	12.4%
Queer	4	2.4%	4	4.1%
Other	4	2.4%	3	3.1%
Class				

Poor	25	14.8%	8	8.2%
Working class	63	37.3%	30	30.9%
Middle class	55	32.5%	38	39.2%
Upper middle class	25	14.8%	19	19.6%
Wealthy	1	0.6%	2	2.1%
Employed				
Yes	136	80.5%	56	57.7%
No	30	17.8%	41	42.3%
Major				
Social work	41	24.3%	42	43.3%
Psychology	63	37.3%	17	17.5%
Criminal justice	9	5.3%	2	2.1%
Nursing	2	1.2%	0	0.0%
Education	4	2.4%	2	2.1%
Business	2	1.2%	1	1.0%
Communication	3	1.8%	2	2.1%
Other	45	26.6%	30	30.9%
MSW program (all)				
In-person standard Phoenix			57	58.8%
In-person standard Tucson			13	13.4%
In-person advanced standing Phoenix			23	23.7%
In-person advanced standing Tucson			4	4.1%
Online	169	100%		
MSW program (campus)				
In-person Phoenix (all)			80	82.5%
In-person Tucson (all)			17	17.5%
Online	169	100%		
Other				
Geographic area				
North	1	0.6%	3	3.1%
Northeast	20	11.8%	1	1.0%

Northwest	24	14.2%	3	3.1%
South	13	7.7%		
Southeast	12	7.1%	4	4.1%
Southwest	76	45.0%	85	87.6%
Midwest	11	6.5%	1	1.0%
Other	8	4.7%		
Lived in other country				
Yes	30	17.8%	31	32.0%
No	139	82.2%	66	68.0%
Studied abroad				
Yes	12	7.1%	19	19.6%
No	157	92.9%	78	80.4%
Traveled to developing/impooverished				
Country				
Yes	89	52.7%	50	51.5%
No	80	47.3%	47	48.5%
Party affiliation				
Strong Democrat	14	8.3%	26	26.8%
Democrat	38	22.5%	24	24.7%
Lean towards Democrat	28	16.6%	10	10.3%
Independent	32	18.9%	16	16.5%
Lean towards Republican	9	5.3%	8	8.2%
Republican	13	7.7%	1	1.0%
Strong Republican	5	3.0%	1	1.0%
No political party identification	27	16.0%	9	9.3%
Other	3	1.8%	2	2.1%
Political ideology				
Consistently liberal	23	13.6%	25	25.8%
Mostly liberal	58	34.3%	32	33.0%
Mixed	63	37.3%	30	30.9%
Mostly conservative	11	6.5%	6	6.2%
Consistently conservative	6	3.6%	0	0.0%
Plan to graduate				

May 2020	46	27.2%	70	72.2%
August 2020	64	37.9%	4	4.1%
Other	49	29.0%	17	17.5%

APPENDIX B

ASU IRB APPROVAL LETTERS

APPROVAL: MODIFICATION

Elizabeth Segal
 Social Work, School of
 602/496-0053
 esegal@asu.edu

Dear Elizabeth Segal:

On 7/30/2018 the ASU IRB reviewed the following protocol:

Type of Review:	Modification
Title:	Social Empathy in Online and Campus-Based Social Work Education
Investigator:	Elizabeth Segal
IRB ID:	STUDY00007409
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Social Empathy Online Education Recruitment, Category: Consent Form; • Social Empathy Online Education Recruitment PowerPoint, Category: Recruitment Materials; • Social Empathy Online Education Post First Screen Consent, Category: Consent Form; • Social Empathy Online Education Recruitment, Category: Recruitment Materials; • Social Empathy Online Education First Screen Consent, Category: Consent Form; • Social Empathy Online Education IRB, Category: IRB Protocol; • Social Empathy Online Education Post Recruitment PowerPoint, Category: Recruitment Materials; • Social Empathy Online Education Post Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Social Empathy Online Education Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Social Empathy Online Education Instructor Recruitment, Category: Recruitment Materials;

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Melanie Reyes
Melanie Reyes
Chandra Crudup



EXEMPTION GRANTED

Elizabeth Segal
 Social Work, School of
 602/496-0053
 esegal@asu.edu

Dear Elizabeth Segal:

On 4/9/2019 the ASU IRB reviewed the following protocol:

Type of Review:	Modification
Title:	Social Empathy in Online and Campus-Based Social Work Education
Investigator:	Elizabeth Segal
IRB ID:	STUDY00007409
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Social Empathy Online Education Recruitment, Category: Consent Form; • Social Empathy Online Education Recruitment PowerPoint, Category: Recruitment Materials; • Social Empathy Online Education Post First Screen Consent, Category: Consent Form; • Social Empathy Online Education Recruitment, Category: Recruitment Materials; • Social Empathy Online Education First Screen Consent, Category: Consent Form; • Social Empathy Online Education IRB, Category: IRB Protocol; • Social Empathy Online Education Post Recruitment PowerPoint, Category: Recruitment Materials; • Social Empathy Online Education Post Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Social Empathy Online Education Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Social Empathy Online Education Instructor Recruitment, Category: Recruitment Materials;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 4/9/2019.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Melanie Reyes
Melanie Reyes
Chandra Crudup

APPROVAL: MODIFICATION

Elizabeth Segal
 WATTS: Social Work,
 School of 602/496-0053
 esegal@asu.edu

Dear Elizabeth Segal:

On 3/19/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Modification / Update
Title:	Social Empathy in Online and Campus-Based Social Work Education
Investigator:	Elizabeth Segal
IRB ID:	STUDY00007409
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Social Empathy Online Education IRB, Category: IRB Protocol; • Social Empathy Online Education Post First Screen Consent, Category: Consent Form; • Social Empathy Online Education Post Recruitment PowerPoint, Category: Recruitment Materials; • Social Empathy Online Education Post Survey, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Social Empathy Online Education Recruitment, Category: Recruitment Materials; • Social Empathy Online Education Recruitment, Category: Consent Form; • Virtual Focus Group Consent Form, Category: Consent Form; • Virtual Focus Group Demographic Form, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Virtual Focus Group Script and Questions, Category: Recruitment materials/advertisements /verbal scripts/phone scripts;

The IRB approved the modification.

When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Melanie
Reyes
Melanie
Reyes
Chandra
Crudup

APPENDIX C

PRE-TEST SURVEY FALL 2018 RECRUITMENT RESOURCES

RECRUITMENT EMAIL TO COURSE INSTRUCTORS FALL 2018

Dear Colleagues,

I am writing to ask your help in furthering a research project that will give us insight into the students in our online and ground classes. The students enrolled in your course are invited to participate in a research project about social policy and human relations this Fall semester. We hope to reach all incoming MSW students. We are requesting that you post the announcement in your course shell as soon as possible, and send us a roster list from your class. We will follow-up with a recruitment email to students in the first week of the semester. The details are below.

As you know, part of our mission here at ASU and in the School of Social Work is to conduct use-inspired research, that is, research that informs us about people's beliefs and actions so that we can better understand how to respond to social welfare needs. Sometimes those research efforts include gathering informational data. The study is designed to look at how students' political perspectives are related to their impressions of human relations. It involves taking a survey online that will be completely anonymous. This study has been approved by the ASU IRB, and participation is completely voluntary.

Your support is greatly appreciated. Here is what we need you to do (please note dates that are important):

1. The first thing needed is an email list from your roster of students. You can gather and send this to Melanie Reyes at Melanie.Reyes@asu.edu. The easiest way to get this is to go into your course roster in MyASU, select all, and scroll to the bottom and begin as if you are going to email your whole class. When the email window opens, copy and paste the email addresses that appear in the "To" line. If you paste them into a Word document, and send that list to Melanie, that will be perfect! If you have any difficulty with this, please feel free to contact Melanie via email for assistance. Please try to send her your student email addresses by 8/17/2018.
2. Secondly, please paste the below announcement in your course shell by Monday (8/20/2018) of next week. After posting the below announcement, please send Melanie an email to let her know you have posted it.

Please contact Melanie or me if you have any questions.

Thank you!

Liz Segal & Melanie Reyes

Course Announcement:

Subject: Participate in Research Project

Students in this course have the opportunity to participate in the following research study. Please consider participating. Here is a video about the study: <https://youtu.be/-6B1iLsW6e8>

This class section is invited to participate in a research study on social policy and human relations. You may decide whether or not you want to participate in the survey. Participants must be 18 years of age or older. Your participation will assist researchers at Arizona State University to learn more about people's attitudes about policy, and how people make decisions about social policy and programs.

You are asked to complete an online survey. The survey will take approximately 15 minutes to complete. Your participation will be anonymous. Your name will NOT be linked in any way to your survey responses. Instead, you will be asked to create a unique participant ID that will connect this survey with a second survey you will be asked to take closer to the time of graduation.

If you decide to participate in the study, click on the following link:

https://asupublicprograms.co1.qualtrics.com/jfe/form/SV_2s2uQ0XxoGXVXaR

If you have questions about this study or the survey, please contact Dr. Elizabeth Segal directly at esegal@asu.edu or 602-496-0053.

Elizabeth A. Segal, Ph.D.
Professor
School of Social Work
Arizona State University
Phoenix, Arizona

COURSE ANNOUNCEMENT VIDEO SCRIPT FALL 2018

Please refer to the PowerPoint presentation titled "SurveyAnnouncement_Fall2018". The video will be a screen-capture narration of the PowerPoint presentation.

Slide #1: My name is XXXX and I am with the School of Social Work.

Slide #2: It is my pleasure to explain an opportunity to participate in a research study that is looking at social policy and human relations. We need your help to better understand people's attitudes and beliefs about social policy and programs.

Slide #3: This study will take about 15 minutes of your time to complete the online survey. Your participation will be anonymous. Your name will NOT be linked in any way to your survey responses. Instead, you will be asked to create a unique participant ID that will connect this survey with a second survey you will be asked to take closer to the time of graduation.

Slide #4: Next, I will discuss how to take the survey.

Slide #5: You will receive an email from sswsurvey@asu.edu with the link to the survey. To participate in the study, click on the link, which will take you to the survey. On the first screen, there will be some important information to read. You will need to click on a link to give your consent to participate in the survey and to begin the survey. The survey will be available for approximately one week. Please note that participants must be 18 years of age or older.

Slide #6: There are no risks to being a part of this study. We hope you will consider participating in this survey, which is completely voluntary. You do not have to participate in this survey. If you start taking the survey, you can choose to stop at any time. You can skip any questions that you do not want to answer. This study will help us better inform social welfare policy making. Your participation is valuable to the study. By participating, you are contributing to building stronger social welfare policy making.

Slide #7: Reminder: make sure to complete the survey this week.

Slide #8: If you think of any questions at any time, please contact Dr. Elizabeth Segal directly. Her contact information is located in the email and on the first screen of the survey. Thank you for your time today.

PRE-TEST SURVEY RECRUITMENT STUDENT EMAIL FALL 2018

This class section is invited to participate in a research study on social policy and human relations. You may decide whether or not you want to participate in the survey. Participants must be 18 years of age or older. Your participation will assist researchers at Arizona State University to learn more about people's attitudes about policy, and how people make decisions about social policy and programs.

You are asked to complete an online survey. The survey will take approximately 15 minutes to complete. Your participation will be anonymous. Your name will NOT be linked in any way to your survey responses. Instead, you will be asked to create a unique participant ID that will connect this survey with a second survey you will be asked to take closer to the time of graduation.

If you decide to participate in the study, click on the following link:

https://asupublicprograms.co1.qualtrics.com/jfe/form/SV_2s2uQ0XxoGXVXaR

If you have questions about this study or the survey, please contact Dr. Elizabeth Segal directly at esegal@asu.edu or 602-496-0053.

Note: This recruitment email will be followed by a reminder email from Dr. Segal.

APPENDIX D

INFORMED CONSENT FALL 2018

INFORMED CONSENT FALL 2018

2018 Fall Social Empathy - MSW Classes

Dear ASU Student:

We are researchers and instructors in the School of Social Work in the College of Public Service and Community Solutions at Arizona State University.

We are conducting a research study of social policy and human relations. We are inviting your participation, which will involve you filling out an online survey. The survey takes about 15 minutes to complete online.

Your participation in this study is voluntary, and you may choose not to answer any of the questions. You must be age 18 or over to participate.

This survey will be offered two times; at the beginning of your MSW program and again closer to the time of graduation. You will be asked in the survey to create a unique participant ID that will connect the two surveys. The formula for creating the unique identifying code will include the first two letters of your mother's first name, followed by the day of the month of your birthday, and conclude with the first two numbers of your street address. Only you will know this number is yours.

There are no known risks to you for taking the survey. Your responses will be anonymous and your name will not be attached to the survey. There are also no known benefits. However, we believe the survey you are taking will help us to improve our understanding of people's attitudes and beliefs about social policy and human relations. This knowledge will help us better inform social welfare policy-making.

The results of this study may be used in reports, presentations, or publications but your name will not be used. Results will only be shared and reported in the aggregate form.

If you have any questions concerning the research study, please contact Dr. Elizabeth Segal (esegal@asu.edu; 602-496-0053).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you choose to participate, please click on the >> button below. Return of the questionnaire will be considered your consent to participate. Thank you for considering participation in this research!

Sincerely,

Elizabeth Segal, Ph.D.

APPENDIX E

PRE-TEST SURVEY SUMMER 2019 RECRUITMENT RESOURCES

Recruitment Email to Bridge Seminar Instructors – Summer 2019

Dear Colleagues,

I am writing to ask your help in furthering a research project that will give us insight into the students in our online and ground classes. The students enrolled in your course are invited to participate in a research project about social policy and human relations this Summer semester. We hope to reach all incoming MSW Advanced Standing students. We are requesting that you post the announcement in your course shell as soon as possible, and send us a roster list from your class. We will follow-up with a recruitment email to students in the first week of the semester. The details are below.

As you know, part of our mission here at ASU and in the School of Social Work is to conduct use-inspired research, that is, research that informs us about people's beliefs and actions so that we can better understand how to respond to social welfare needs. Sometimes those research efforts include gathering informational data. The study is designed to look at how students' political perspectives are related to their impressions of human relations. It involves taking a survey online that will be completely anonymous. This study has been approved by the ASU IRB, and participation is completely voluntary.

Your support is greatly appreciated. Here is what we need you to do (please note dates that are important):

1. The first thing needed is an email list from your roster of students. You can gather and send this to Melanie Reyes at Melanie.Reyes@asu.edu. The easiest way to get this is to go into your course roster in MyASU, select all, and scroll to the bottom and begin as if you are going to email your whole class. When the email window opens, copy and paste the email addresses that appear in the "To" line. If you paste them into a Word document, and send that list to Melanie, that will be perfect! If you have any difficulty with this, please feel free to contact Melanie via email for assistance. Please try to send her your student email addresses by 5/20/2019.
2. Secondly, please paste the below announcement in your course shell by Monday, 5/20/2019. After posting the below announcement, please send Melanie an email to let her know you have posted it.

Please contact Melanie or me if you have any questions.

Thank you!

Liz Segal & Melanie Reyes

Course Announcement:

Subject: Participate in Research Project

Students in this course have the opportunity to participate in the following research study. Please consider participating. Here is a video about the study:

https://player.mediaamp.io/p/U8-EDC/qQivF4esrENw/embed/select/media/qHWNTSS4HEo_?form=html

This class section is invited to participate in a research study on social policy and human relations. You may decide whether or not you want to participate in the survey. Participants must be 18 years of age or older. Your participation will assist researchers at Arizona State University to learn more about people's attitudes about policy, and how people make decisions about social policy and programs.

You are asked to complete an online survey. The survey will take approximately 15 minutes to complete. Your participation will be anonymous. Your name will NOT be linked in any way to your survey responses. Instead, you will be asked to create a unique participant ID that will connect this survey with a second survey you will be asked to take closer to the time of graduation.

If you decide to participate in the study, click on the following link:

https://asupublicprograms.co1.qualtrics.com/jfe/form/SV_249KRQAuby8VYeV

If you have questions about this study or the survey, please contact Dr. Elizabeth Segal directly at esegal@asu.edu or 602-496-0053.

Elizabeth A. Segal, Ph.D.
Professor
School of Social Work
Arizona State University
Phoenix, Arizona

**PRE-TEST SURVEY COURSE ANNOUNCEMENT VIDEO POWERPOINT
SUMMER 2019**



Survey Participation

- Survey will take 15 minutes to complete
- Participation will be anonymous
- Your name will NOT be linked in any way to your survey responses
- You will be asked to create a unique participant ID known only to you
- You will be invited to complete a second survey closer to the time of graduation

How do I take the survey?

ASU

Survey

You will receive an email from sswsurvey@asu.edu with the survey link.

To participate in the study, click on the link, which will take you to the survey.

On the first screen, there will be some important information to read.

You will need to click on a link to give your consent and to begin the survey.

The survey will be available for approximately one week.

Participants must be 18 years of age or older.

There are no risks to being a part of this study

This survey is completely voluntary and you can choose to stop at any time

This study will help inform social welfare policy making

Your participation is valuable to the study



Complete the survey
this week!

ASU

Thank you!

*If you have questions about this
study or the survey, please contact:*

Dr. Elizabeth Segal
esegal@asu.edu
602-496-0053

ASU

Summer 2019 Social Empathy – MSW Advanced Standing Bridge Seminar

Recruitment Pre-survey Email

This class section is invited to participate in a research study on social policy and human relations. You may decide whether or not you want to participate in the survey. Participants must be 18 years of age or older. Your participation will assist researchers at Arizona State University to learn more about people's attitudes about policy, and how people make decisions about social policy and programs.

You are asked to complete an online survey. The survey will take approximately 15 minutes to complete. Your participation will be anonymous. Your name will NOT be linked in any way to your survey responses. Instead, you will be asked to create a unique participant ID that will connect this survey with a second survey you will be asked to take closer to the time of graduation.

If you decide to participate in the study, click on the following link:

https://asupublicprograms.co1.qualtrics.com/jfe/form/SV_249KRQAuby8VYeV

If you have questions about this study or the survey, please contact Dr. Elizabeth Segal directly at esegal@asu.edu or 602-496-0053.

Note: This recruitment email will be followed by a reminder email from Dr. Segal.

APPENDIX F
INFORMED CONSENT SUMMER 2019

2019 Summer Social Empathy - MSW Advanced Standing Summer Bridge Classes

Dear ASU Student:

We are researchers and instructors in the School of Social Work in the Watts College of Public Service and Community Solutions at Arizona State University.

We are conducting a research study of social policy and human relations. We are inviting your participation, which will involve you filling out an online survey. The survey takes about 15 minutes to complete online.

Your participation in this study is voluntary, and you may choose not to answer any of the questions. You must be age 18 or over to participate.

This survey will be offered two times; at the beginning of your MSW program and again closer to the time of graduation. You will be asked in the survey to create a unique participant ID that will connect the two surveys. The formula for creating the unique identifying code will include the first two letters of your mother's first name, followed by the day of the month of your birthday, and conclude with the first two numbers of your street address. Only you will know this number is yours.

There are no known risks to you for taking the survey. Your responses will be anonymous and your name will not be attached to the survey. There are also no known benefits. However, we believe the survey you are taking will help us to improve our understanding of people's attitudes and beliefs about social policy and human relations. This knowledge will help us better inform social welfare policy-making.

The results of this study may be used in reports, presentations, or publications but your name will not be used. Results will only be shared and reported in the aggregate form.

If you have any questions concerning the research study, please contact Dr. Elizabeth Segal (esegal@asu.edu; 602-496-0053).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you choose to participate, please click on the >> button below. Return of the

questionnaire will be considered your consent to participate. Thank you for considering participation in this research!

Sincerely,

Elizabeth Segal, Ph.D.

APPENDIX G

POST-TEST SURVEY SPRING 2020 RECRUITMENT RESOURCES

Spring 2020 Social Empathy – MSW Program

Recruitment Post-Survey Email

When you started the MSW program, you were invited to participate in a research study on social policy and human relations. We are asking you to participate again as you near the completion of your degree. You may decide whether or not you want to participate in the survey and virtual focus group. Participants must be 18 years of age or older. Your participation will assist researchers at Arizona State University to learn more about people's attitudes about policy, and how people make decisions about social policy and programs.

Online Survey

This is an invitation to complete an online survey. The survey will take approximately 15 minutes to complete. Your participation will be anonymous. Your name will NOT be linked in any way to your survey responses. Instead, you will be asked to create a unique participant ID that will connect this survey with an initial survey you may have completed at the beginning of your MSW program. You may complete this survey regardless of if you completed the initial survey.

If you decide to participate in the study, click on the following link:

https://asupublicprograms.col.qualtrics.com/jfe/form/SV_cVlICAzGHkIRZXv

Virtual Focus Group

You are also invited to participate in a one-hour virtual focus group to discuss your perspective. Participation will be via Zoom video conferencing. Your responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used. Results will only be shared in the aggregate form. Due to the nature of focus groups, complete confidentiality cannot be guaranteed. Should you choose to participate, you will be asked to respect the privacy of other group members by not disclosing any content discussed during the virtual focus group.

If you decide to participate in the virtual focus group, please email

Melanie.Reyes@asu.edu

Questions

If you have questions about this study, the online survey, or the virtual focus group, please contact Dr. Elizabeth Segal directly at esegal@asu.edu or 602-496-0053.

Spring 2020 Social Empathy – MSW Classes Study
Post-Survey Course Announcement Video Script

Please refer to the PowerPoint presentation titled “Post_SurveyAnnouncement_2020”.

The video will be a screen-capture narration of the PowerPoint presentation.

Slide #1: My name is Melanie Reyes, and I am a doctoral student with the School of Social Work.

Slide #2: It is my pleasure to explain an opportunity to participate in a research study that is looking at social policy and human relations. We need your help to better understand people’s attitudes and beliefs about social policy and programs.

Slide #3: This research study includes the opportunity to complete an online survey and an invitation to participate in a virtual focus group via Zoom conferencing.

Slide #4: There are no risks to being a part of this study. We hope you will consider participating in this survey, which is completely voluntary. You do not have to participate in this survey or the virtual focus group. You can decide to participate in one or the other. If you start taking the survey, you can choose to stop at any time. You can skip any questions that you do not want to answer. This study will help us better inform social welfare policy making. Your participation is valuable to the study. By participating, you are contributing to building stronger social welfare policy making.

Slide #5: First, I will discuss the survey.

Slide #6: This study will take about 15 minutes of your time to complete the online survey. Your participation will be anonymous. Your name will NOT be linked in any way to your survey responses. Instead, you will be asked to create a unique participant ID that will connect this survey with an initial survey you may have completed at the beginning of your MSW program. You may complete this survey regardless of if you completed the initial survey.

Slide #7: Here is the link to the survey. The link to the survey is also included in the email. If you decide to participate in the study, click on the link, which will take you to

the survey. On the first screen, there will be some important information to read. You will need to click on a link to give your consent to participate in the survey and to begin the survey. The survey will be available for approximately two weeks. Please note that participants must be 18 years of age or older.

Slide #8: Next, I will discuss the virtual focus group.

Slide #9: You are also invited to participate in a one-hour virtual focus group to discuss your perspective. Participation will be via Zoom video conferencing. Your responses will be confidential; however, complete confidentiality cannot be guaranteed. The results of this study may be used in reports, presentations, or publications but your name will not be used and results will only be shared in the aggregate form. You may participate in the virtual focus group regardless of if you complete the survey, and you may choose to complete the survey and not participate in the virtual focus group. If you decide to participate in the virtual focus group, please email Melanie.Reyes@asu.edu

Slide #10: Reminder: make sure to complete the survey this week.

Slide #11: If you think of any questions at any time, please contact Dr. Elizabeth Segal directly. Her contact information is located in the email and on the first screen of the survey. Thank you for your time today.



**Survey and Virtual Focus Group
Participation Invitation**

April 2020

ASU Arizona State
University

This slide features a white background with a thin red border. The main title is centered in bold black text. The date 'April 2020' is highlighted in a yellow box on the right side. The ASU logo is in the bottom left corner.



**Social Policy and Human
Relations Research Study**

ASU

This slide features a white background with a thin grey border. A dark red horizontal bar contains the title in white bold text. The ASU logo is in the bottom left corner.

**The Research
Study Includes:**

- Online survey
- Virtual focus group via Zoom

There are no risks to being a part of this study

The survey and virtual focus group are completely voluntary and you can choose to stop at any time

This study will help inform social welfare policy making

Your participation is valuable to the study

Survey

*Thank you to those of you who have
already completed the survey!*



Survey Participation

- Survey will take 15 minutes to complete
- Participation will be anonymous
- Your name will NOT be linked in any way to your survey responses
- You will be asked to create a unique participant ID known only to you
- You may complete this survey regardless of if you completed the initial survey

Survey

To participate in the study, click on this link:
https://asupublicprograms.co1.qualtrics.com/jfe/form/SV_cVl1CAzGHkIRZXv

On the first screen, there will be some important information to read.

You will need to click on another link to give your consent and to begin the survey.

The survey will be available for approximately two more weeks.

Participants must be 18 years of age or older.

Virtual Focus Group

ASU

Virtual Focus Group Participation

- Virtual focus groups will be one hour
- Participation will be via Zoom video conferencing
- Responses will be confidential; however, complete confidentiality cannot be guaranteed
- Your name will NOT used in the results
- You may participate in the virtual focus group regardless of if you complete the survey
- Email Melanie.Reyes@asu.edu to participate



Complete the survey
this week!

ASU

Thank you!

If you have questions about this study, please contact:

Dr. Elizabeth Segal
esegal@asu.edu
602-496-0053



APPENDIX H
INFORMED CONSENT SPRING 2020

2020 Social Empathy Post - MSW Classes

Dear ASU Student:

We are researchers and instructors in the School of Social Work in the Watts College of Public Service and Community Solutions at Arizona State University.

We are conducting a research study of social policy and human relations. We are inviting your participation, which will involve you filling out an online survey. The survey takes about 15 minutes to complete online.

Your participation in this study is voluntary, and you may choose not to answer any of the questions. You must be age 18 or over to participate.

You will be asked in the survey to create a unique participant ID that will connect this survey with a survey you may have completed at the beginning of your MSW program. The formula for creating the unique identifying code will include the first two letters of your mother's first name, followed by the day of the month of your birthday, and conclude with the first two numbers of your street address where you lived at the beginning of your MSW program. Only you will know this number is yours.

There are no known risks to you for taking the survey. Your responses will be anonymous and your name will not be attached to the survey. There are also no known benefits. However, we believe the survey you are taking will help us to improve our understanding of people's attitudes and beliefs about social policy and human relations. This knowledge will help us better inform social welfare policy-making. At the end of the survey, you will be asked if you would like to participate in an optional virtual focus group that will be scheduled in several weeks.

The results of this study may be used in reports, presentations, or publications but your name will not be used. Results will only be shared and reported in the aggregate form.

If you have any questions concerning the research study, please contact Dr. Elizabeth Segal (esegal@asu.edu; 602.496.0053).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you choose to participate, please click on the >> button below. Completion of the questionnaire will be considered your consent to participate. Thank you for considering participation in this research!

Sincerely,
Elizabeth Segal, Ph.D.

APPENDIX I

SPHRS PRE-TEST SURVEY FALL 2018

2018 Fall Social Empathy - MSW Classes

Dear ASU Student:

We are researchers and instructors in the School of Social Work in the College of Public Service and Community Solutions at Arizona State University.

We are conducting a research study of social policy and human relations. We are inviting your participation, which will involve you filling out an online survey. The survey takes about 15 minutes to complete online.

Your participation in this study is voluntary, and you may choose not to answer any of the questions. You must be age 18 or over to participate.

This survey will be offered two times; at the beginning of your MSW program and again closer to the time of graduation. You will be asked in the survey to create a unique participant ID that will connect the two surveys. The formula for creating the unique identifying code will include the first two letters of your mother's first name, followed by the day of the month of your birthday, and conclude with the first two numbers of your street address. Only you will know this number is yours.

There are no known risks to you for taking the survey. Your responses will be anonymous and your name will not be attached to the survey. There are also no known benefits. However, we believe the survey you are taking will help us to improve our understanding of people's attitudes and beliefs about social policy and human relations. This knowledge will help us better inform social welfare policy-making.

The results of this study may be used in reports, presentations, or publications but your name will not be used. Results will only be shared and reported in the aggregate form.

If you have any questions concerning the research study, please contact Dr. Elizabeth Segal (esegal@asu.edu; 602-496-0053).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you choose to participate, please click on the >> button below. Return of the questionnaire will be considered your consent to participate. Thank you for considering

participation in this research!

Sincerely,
Elizabeth Segal, Ph.D.

Let's get started!

The first thing we need you to do is enter a unique code that we can use to connect your surveys from the beginning of the MSW program to later in the MSW program. It should be a code that is special to you and wouldn't be used by someone else, which will keep your responses anonymous. Please create your code by entering the following information:

- First two letters of your mother's first name.
- The day of the month of your birthday, recorded with two digits (for example, "04" for the fourth day of the month).
- The first two numbers of your street address.

For example, if my mother's first name is Kathy (ka), I was born on the 14th of May (14), and the first two numbers of my street address is 33. So, my code would be: ka1433

Please create your code by entering the following information:

First two letters of your mother's first name:

The day of the month of your birthday, recorded with two digits: (if your birthday is a single digit, such as 5, enter 05)

The first two numbers of your street address:

Tell us a bit about you.

What is your age in years?

How do you identify your race/ethnicity? (Please choose one.)

- African American, Black
 - American Indian, Indigenous, Native American
 - Asian
 - Latino/a, Hispanic, Chicano/a
 - White, Caucasian
 - Multiracial
 - Other (please specify)
-

What is your gender? (Please choose one.)

- Male
 - Female
 - Transgender
 - Other (please specify)
-

Do you identify as: (Please choose one.)

- Lesbian
 - Gay
 - Heterosexual, Straight
 - Bisexual
 - Queer
 - Other (please specify)
-

When I was growing up, I would describe my family as... (Choose one.)

- Poor
 - Working class
 - Middle class
 - Upper middle class
 - Wealthy
 - Other (please specify)
-

Are you currently employed?

Yes

No

Display This Question:

If Are you currently employed? = Yes

What is your job?

What was your undergraduate major area of study?

- Social work
 - Psychology
 - Criminal justice
 - Nursing
 - Education
 - Business
 - Communication
 - Other (please specify)
-

In which MSW program are you currently enrolled?

- Face to face on the Phoenix Downtown campus
- Face to face on the Tucson campus
- Online in the ASU Online MSW Program
- Other: _____

In which geographic region of the United States do you currently reside? (Please choose one.)

- North
- Northeast
- Northwest
- South
- Southeast
- Southwest
- Midwest
- Other (please specify)

What is your country of origin? (The country where you first had citizenship.)

Have you ever lived in another country (more than 3 months)?

Yes

No

Have you ever studied abroad (more than 3 months)?

Yes

No

Have you ever traveled to a developing or impoverished country?

Yes

No

Do you consider yourself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Lean towards Republican
- Republican
- Strong Republican
- No political party identification
- Other (please specify)

Does your mother or parent #1 consider herself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Lean towards Republican
- Republican
- Strong Republican
- Don't know
- N/A

Does your father or parent #2 consider himself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Leans towards Republican
- Republican
- Strong Republican
- Don't know
- N/A

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I see someone receive a gift that makes them happy, I feel happy myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emotional stability describes me well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at understanding other people's emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can consider my point of view and another person's point of view at the same time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get angry, I need a lot of time to get over it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I can imagine what the character is feeling in a good movie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see someone being publicly embarrassed I cringe a little.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tell the difference between someone else's feelings and my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see a person experiencing a strong emotion I can accurately assess what that person is feeling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends view me as a moody person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I see someone accidentally hit his or her thumb with a hammer, I feel a flash of pain myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see a person experiencing a strong emotion, I can describe what the person is feeling to someone else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can imagine what it's like to be in someone else's shoes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tell the difference between my friend's feelings and my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider other people's points of view in discussions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I am with someone who gets sad news, I feel sad for a moment too.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am upset or unhappy, I get over it quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can explain to others how I am feeling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can agree to disagree with other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of what other people think of me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
Hearing laughter makes me smile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of other people's emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe adults who are in poverty deserve social assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I confront discrimination when I see it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the government needs to be a part of leveling the playing field for people from different racial groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe it is necessary to participate in community service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that people who face discrimination have added stress that negatively impacts their lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable helping a person of a different race or ethnicity than my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take action to help others even if it does not personally benefit me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can best understand people who are different from me by learning from them directly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe government should protect the rights of minorities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that each of us should participate in political activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe people born into poverty have more barriers to achieving economic well-being than people who were not born into poverty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel it is important to understand the political perspectives of people I don't agree with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think it is the right of all citizens to have their basic needs met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe the role of government is to act as a referee, making decisions that promote the quality of life and well-being of the people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an interest in understanding why people cannot meet their basic needs financially.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that by working together, people can change society to be more just and fair for everyone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe my actions will affect future generations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe there are barriers in the United States' educational system that prevent some groups of people from having economic success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about each of the following?

	Completely agree	Mostly agree	Mostly disagree	Completely disagree
There need to be stricter laws and regulations to protect the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government should help more needy people even if it means going deeper in debt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The growing number of newcomers from other countries threatens traditional American customs and values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More gay and lesbian couples raising children is good for our society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government needs to do more to make health care affordable and accessible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing racial and ethnic diversity in our country has been a change for the better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about each of the following?

	Completely agree	Mostly agree	Mostly disagree	Completely disagree
Abortion should be illegal in all or most cases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor people have become too dependent on government assistance programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More people who are religious is good for our society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of marijuana should be legal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is more important to protect the rights of Americans to own guns than to control gun ownership.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The U.S has a responsibility to accept refugees fleeing violence into the country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When you consider your political thinking, which of the following best describes you:

- Consistently liberal
- Mostly liberal
- Mixed
- Mostly conservative
- Consistently conservative

What do you hope to learn and understand better upon completion of your MSW degree?

When do you plan to graduate from the MSW program?

- May 2020
- August 2020
- Other

Display This Question:

If When do you plan to graduate from the MSW program? = Other

When do you anticipate graduating? (Please indicate month/year)

In the past year, to what extent have you been involved in political or social activities or efforts?

- Never
- Rarely
- Sometimes
- Frequently
- Almost always
- Always

Display This Question:

If In the past year, to what extent have you been involved in political or social activities or efforts... != Never

Please describe these political or social change activities or efforts.

THANK YOU for participating in our study!

You will receive a request to complete a follow-up survey as you near the end of your MSW studies. We wish you well on your academic journey.

APPENDIX J

SPHRS PRE-TEST SURVEY SUMMER 2019

2019 Spring Social Empathy - MSW Advanced Standing Summer Bridge Classes

Dear ASU Student:

We are researchers and instructors in the School of Social Work in the Watts College of Public Service and Community Solutions at Arizona State University.

We are conducting a research study of social policy and human relations. We are inviting your participation, which will involve you filling out an online survey. The survey takes about 15 minutes to complete online.

Your participation in this study is voluntary, and you may choose not to answer any of the questions. You must be age 18 or over to participate.

This survey will be offered two times; at the beginning of your MSW program and again closer to the time of graduation. You will be asked in the survey to create a unique participant ID that will connect the two surveys. The formula for creating the unique identifying code will include the first two letters of your mother's first name, followed by the day of the month of your birthday, and conclude with the first two numbers of your street address. Only you will know this number is yours.

There are no known risks to you for taking the survey. Your responses will be anonymous and your name will not be attached to the survey. There are also no known benefits. However, we believe the survey you are taking will help us to improve our understanding of people's attitudes and beliefs about social policy and human relations. This knowledge will help us better inform social welfare policy-making.

The results of this study may be used in reports, presentations, or publications but your name will not be used. Results will only be shared and reported in the aggregate form.

If you have any questions concerning the research study, please contact Dr. Elizabeth Segal (esegal@asu.edu; 602-496-0053).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you choose to participate, please click on the >> button below. Return of the questionnaire will be considered your consent to participate. Thank you for considering

participation in this research!

Sincerely,
Elizabeth Segal, Ph.D.

Let's get started!

The first thing we need you to do is enter a unique code that we can use to connect your surveys from the beginning of the MSW program to later in the MSW program. It should be a code that is special to you and wouldn't be used by someone else, which will keep your responses anonymous. Please create your code by entering the following information:

- First two letters of your mother's first name.
- The day of the month of your birthday, recorded with two digits (for example, "04" for the fourth day of the month).
- The first two numbers of your street address.

For example, if my mother's first name is Kathy (ka), I was born on the 14th of May (14), and the first two numbers of my street address is 33. So, my code would be: ka1433

Please create your code by entering the following information:

First two letters of your mother's first name:

The day of the month of your birthday, recorded with two digits: (if your birthday is a single digit, such as 5, enter 05)

The first two numbers of your street address:

Tell us a bit about you.

What is your age in years?

How do you identify your race/ethnicity? (Please choose one.)

- African American, Black
 - American Indian, Indigenous, Native American
 - Asian
 - Latino/a, Hispanic, Chicano/a
 - White, Caucasian
 - Multiracial
 - Other (please specify)
-

What is your gender? (Please choose one.)

- Male
 - Female
 - Transgender
 - Other (please specify)
-

Do you identify as: (Please choose one.)

- Lesbian
 - Gay
 - Heterosexual, Straight
 - Bisexual
 - Queer
 - Other (please specify)
-

When I was growing up, I would describe my family as... (Choose one.)

- Poor
 - Working class
 - Middle class
 - Upper middle class
 - Wealthy
 - Other (please specify)
-

Are you currently employed?

Yes

No

Display This Question:

If Are you currently employed? = Yes

What is your job?

What was your undergraduate major area of study?

- Social work
 - Psychology
 - Criminal justice
 - Nursing
 - Education
 - Business
 - Communication
 - Other (please specify)
-

In which MSW program are you currently enrolled?

- Advanced Standing Program on the Phoenix Downtown campus
- Advanced Standing Program on the Tucson campus
- Other: _____

In which geographic region of the United States do you currently reside? (Please choose one.)

- North
- Northeast
- Northwest
- South
- Southeast
- Southwest
- Midwest
- Other (please specify)

What is your country of origin? (The country where you first had citizenship.)

Have you ever lived in another country (more than 3 months)?

Yes

No

Have you ever studied abroad (more than 3 months)?

Yes

No

Have you ever traveled to a developing or impoverished country?

Yes

No

Do you consider yourself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Lean towards Republican
- Republican
- Strong Republican
- No political party identification
- Other (please specify)

Does your mother or parent #1 consider herself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Lean towards Republican
- Republican
- Strong Republican
- Don't know
- N/A

Does your father or parent #2 consider himself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Leans towards Republican
- Republican
- Strong Republican
- Don't know
- N/A

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I see someone receive a gift that makes them happy, I feel happy myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emotional stability describes me well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at understanding other people's emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can consider my point of view and another person's point of view at the same time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get angry, I need a lot of time to get over it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I can imagine what the character is feeling in a good movie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see someone being publicly embarrassed I cringe a little.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tell the difference between someone else's feelings and my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see a person experiencing a strong emotion I can accurately assess what that person is feeling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends view me as a moody person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I see someone accidentally hit his or her thumb with a hammer, I feel a flash of pain myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see a person experiencing a strong emotion, I can describe what the person is feeling to someone else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can imagine what it's like to be in someone else's shoes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tell the difference between my friend's feelings and my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider other people's points of view in discussions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I am with someone who gets sad news, I feel sad for a moment too.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am upset or unhappy, I get over it quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can explain to others how I am feeling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can agree to disagree with other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of what other people think of me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
Hearing laughter makes me smile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of other people's emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe adults who are in poverty deserve social assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I confront discrimination when I see it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the government needs to be a part of leveling the playing field for people from different racial groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe it is necessary to participate in community service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that people who face discrimination have added stress that negatively impacts their lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable helping a person of a different race or ethnicity than my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take action to help others even if it does not personally benefit me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can best understand people who are different from me by learning from them directly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe government should protect the rights of minorities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that each of us should participate in political activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe people born into poverty have more barriers to achieving economic well-being than people who were not born into poverty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel it is important to understand the political perspectives of people I don't agree with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think it is the right of all citizens to have their basic needs met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe the role of government is to act as a referee, making decisions that promote the quality of life and well-being of the people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an interest in understanding why people cannot meet their basic needs financially.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that by working together, people can change society to be more just and fair for everyone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe my actions will affect future generations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe there are barriers in the United States' educational system that prevent some groups of people from having economic success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about each of the following?

	Completely agree	Mostly agree	Mostly disagree	Completely disagree
There need to be stricter laws and regulations to protect the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government should help more needy people even if it means going deeper in debt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The growing number of newcomers from other countries threatens traditional American customs and values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More gay and lesbian couples raising children is good for our society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government needs to do more to make health care affordable and accessible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing racial and ethnic diversity in our country has been a change for the better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about each of the following?

	Completely agree	Mostly agree	Mostly disagree	Completely disagree
Abortion should be illegal in all or most cases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor people have become too dependent on government assistance programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More people who are religious is good for our society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of marijuana should be legal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is more important to protect the rights of Americans to own guns than to control gun ownership.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The U.S has a responsibility to accept refugees fleeing violence into the country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When you consider your political thinking, which of the following best describes you:

- Consistently liberal
- Mostly liberal
- Mixed
- Mostly conservative
- Consistently conservative

What do you hope to learn and understand better upon completion of your MSW degree?

When do you plan to graduate from the MSW program?

- May 2020
- August 2020
- Other

Display This Question:

If When do you plan to graduate from the MSW program? = Other

When do you anticipate graduating? (Please indicate month/year)

In the past year, to what extent have you been involved in political or social activities or efforts?

- Never
- Rarely
- Sometimes
- Frequently
- Almost always
- Always

Display This Question:

If In the past year, to what extent have you been involved in political or social activities or efforts... != Never

Please describe these political or social change activities or efforts.

THANK YOU for participating in our study!

You will receive a request to complete a follow-up survey as you near the end of your MSW studies. We wish you well on your academic journey.

APPENDIX K

SPHRS POST-SURVEY SPRING 2020

2020 Social Empathy Post - MSW Classes

Dear ASU Student:

We are researchers and instructors in the School of Social Work in the Watts College of Public Service and Community Solutions at Arizona State University.

We are conducting a research study of social policy and human relations. We are inviting your participation, which will involve you filling out an online survey. The survey takes about 15 minutes to complete online.

Your participation in this study is voluntary, and you may choose not to answer any of the questions. You must be age 18 or over to participate.

You will be asked in the survey to create a unique participant ID that will connect this survey with a survey you may have completed at the beginning of your MSW program. The formula for creating the unique identifying code will include the first two letters of your mother's first name, followed by the day of the month of your birthday, and conclude with the first two numbers of your street address where you lived at the beginning of your MSW program. Only you will know this number is yours.

There are no known risks to you for taking the survey. Your responses will be anonymous and your name will not be attached to the survey. There are also no known benefits. However, we believe the survey you are taking will help us to improve our understanding of people's attitudes and beliefs about social policy and human relations. This knowledge will help us better inform social welfare policy-making. At the end of the survey, you will be asked if you would like to participate in an optional virtual focus group that will be scheduled in several weeks.

The results of this study may be used in reports, presentations, or publications but your name will not be used. Results will only be shared and reported in the aggregate form.

If you have any questions concerning the research study, please contact Dr. Elizabeth Segal (esegal@asu.edu; 602.496.0053).

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

If you choose to participate, please click on the >> button below. Completion of the questionnaire will be considered your consent to participate. Thank you for considering participation in this research!

Sincerely,
Elizabeth Segal, Ph.D.

Let's get started!

The first thing we need you to do is enter a unique code that we can use to connect your surveys from the beginning of the MSW program to later in the MSW program. It should be a code that is special to you and wouldn't be used by someone else, which will keep your responses anonymous. Please create your code by entering the following information.

- First two letters of your mother's first name.
- The day of the month of your birthday, recorded with two digits (for example, "04" for the fourth day of the month).
- The first two numbers of your street address at the beginning of your MSW program.

For example, if my mother's first name is Kathy (ka), I was born on the 14th of May (14), and the first two numbers of my street address is 33. So, my code would be: ka1433

Please create your code by entering the following information:

First two letters of your mother's first name:

The day of the month of your birthday, recorded with two digits: (if your birthday is a single digit, such as 5, enter 05)

The first two numbers of your street address at the beginning of your MSW program:

Tell us a bit about you.

What is your age in years?

How do you identify your race/ethnicity? (Please choose one.)

- African American, Black
 - American Indian, Indigenous, Native American
 - Asian
 - White, Caucasian
 - Latino/a, Hispanic, Chicano/a
 - Multiracial
 - Other (please specify)
-

What is your gender? (Please choose one.)

- Male
 - Female
 - Transgender
 - Other (please specify)
-

Do you identify as: (Please choose one.)

- Lesbian
 - Gay
 - Heterosexual, Straight
 - Bisexual
 - Queer
 - Other (please specify)
-

When I was growing up, I would describe my family as... (Choose one.)

- Poor
 - Working class
 - Middle class
 - Upper middle class
 - Wealthy
 - Other (please specify)
-

Are you currently employed?

Yes

No

Display This Question:

If Are you currently employed? = Yes

What is your job?

What was your undergraduate major area of study?

- Social work
 - Psychology
 - Criminal justice
 - Nursing
 - Education
 - Business
 - Communication
 - Other (please specify)
-

In which MSW program are you currently enrolled?

- Face to face on the Phoenix Downtown campus
- Face to face on the Tucson campus
- Online in the ASU Online MSW Program
- Advanced Standing Program on the Phoenix Downtown campus
- Advanced Standing Program on the Tucson campus
- Other: _____

What is your MSW program concentration?

- Advanced Direct Practice
- Policy, Administration and Community Practice
- Advanced Generalist (ASU Online MSW Program)
- Other: _____

In which geographic region do you currently reside? (Please choose one.)

- North
- Northeast
- Northwest
- South
- Southeast
- Southwest
- Midwest
- Other (please specify)

What is your country of origin? (The country where you first had citizenship.)

Have you ever lived in another country (more than 3 months)?

Yes

No

Have you ever studied abroad (more than 3 months)?

Yes

No

Have you ever traveled to a developing or impoverished country?

Yes

No

Do you consider yourself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Lean towards Republican
- Republican
- Strong Republican
- No political party identification
- Other (please specify)

Does your mother or parent #1 consider herself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Lean towards Republican
- Republican
- Strong Republican
- Don't know
- N/A

Does your father or parent #2 consider himself... (Please select one.)

- Strong Democrat
- Democrat
- Lean towards Democrat
- Independent
- Leans towards Republican
- Republican
- Strong Republican
- Don't know
- N/A

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I see someone receive a gift that makes them happy, I feel happy myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emotional stability describes me well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am good at understanding other people's emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can consider my point of view and another person's point of view at the same time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get angry, I need a lot of time to get over it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I can imagine what the character is feeling in a good movie.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see someone being publicly embarrassed I cringe a little.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tell the difference between someone else's feelings and my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see a person experiencing a strong emotion I can accurately assess what that person is feeling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends view me as a moody person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I see someone accidentally hit his or her thumb with a hammer, I feel a flash of pain myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I see a person experiencing a strong emotion, I can describe what the person is feeling to someone else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can imagine what it's like to be in someone else's shoes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tell the difference between my friend's feelings and my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider other people's points of view in discussions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
When I am with someone who gets sad news, I feel sad for a moment too.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am upset or unhappy, I get over it quickly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can explain to others how I am feeling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can agree to disagree with other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of what other people think of me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
Hearing laughter makes me smile.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am aware of other people's emotions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe adults who are in poverty deserve social assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I confront discrimination when I see it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the government needs to be a part of leveling the playing field for people from different racial groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe it is necessary to participate in community service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that people who face discrimination have added stress that negatively impacts their lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am comfortable helping a person of a different race or ethnicity than my own.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I take action to help others even if it does not personally benefit me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can best understand people who are different from me by learning from them directly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe government should protect the rights of minorities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that each of us should participate in political activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe people born into poverty have more barriers to achieving economic well-being than people who were not born into poverty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel it is important to understand the political perspectives of people I don't agree with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think it is the right of all citizens to have their basic needs met.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following questions by selecting the choice that most closely reflects your feelings or beliefs. There are NO right or wrong answers.

	Never	Rarely	Sometimes	Frequently	Almost always	Always
I believe the role of government is to act as a referee, making decisions that promote the quality of life and well-being of the people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an interest in understanding why people cannot meet their basic needs financially.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that by working together, people can change society to be more just and fair for everyone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe my actions will affect future generations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe there are barriers in the United States' educational system that prevent some groups of people from having economic success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about each of the following?

	Completely agree	Mostly agree	Mostly disagree	Completely disagree
There need to be stricter laws and regulations to protect the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government should help more needy people even if it means going deeper in debt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The growing number of newcomers from other countries threatens traditional American customs and values.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More gay and lesbian couples raising children is good for our society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government needs to do more to make health care affordable and accessible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing racial and ethnic diversity in our country has been a change for the better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How do you feel about each of the following?

	Completely agree	Mostly agree	Mostly disagree	Completely disagree
Abortion should be illegal in all or most cases.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor people have become too dependent on government assistance programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More people who are religious is good for our society.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The use of marijuana should be legal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is more important to protect the rights of Americans to own guns than to control gun ownership.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The U.S has a responsibility to accept refugees fleeing violence into the country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When you consider your political thinking, which of the following best describes you:

- Consistently liberal
- Mostly liberal
- Mixed
- Mostly conservative
- Consistently conservative

Now that you are completing your MSW program, to what extent do you feel you:

	To a very great extent	To a great extent	To a moderate extent	To some extent	To a small extent	Not at all
Learned about historical events that shaped people's life circumstances?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were able to "walk in the shoes" of your clients?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were trained to separate your personal feelings from those of your clients?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were trained to separate your personal feelings from those of groups?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were trained to separate your personal feelings from those of communities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are now able to recognize injustice in our social welfare systems?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are now able to recognize barriers to opportunity for clients?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can accept individual clients' life decisions?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What do you feel you understand better now than you did upon entering the MSW program?

What do you wish you would have learned more about in your MSW program?

When do you anticipate graduating from the MSW program?

May 2020

August 2020

Other _____

Display This Question:

If When do you anticipate graduating from the MSW program? = Other

When do you anticipate graduating? (Please indicate month/year)

Is this the original date you planned to graduate upon entering the MSW program?

Yes

No

Display This Question:

If Is this the original date you planned to graduate upon entering the MSW program? = No

If this is not the original date you planned to graduate, why did it change?

In the past year, to what extent have you been involved in political or social activities or efforts?

- Never
- Rarely
- Sometimes
- Frequently
- Almost always
- Always

Display This Question:

If In the past year, to what extent have you been involved in political or social activities or efforts... != Never

Please describe these political or social change activities or efforts.

THANK YOU for participating in our study!

You will now exit this survey and be directed to an invitation to participate in a virtual focus group held to better understand the many varying viewpoints on social policy and human relations. Everything you have done up until this point has been anonymous, and the virtual focus group will not be connected to your survey responses. Participation in the virtual focus group is completely voluntary.

2020 Spring Virtual Focus Group Invitation

Thank you for participating in the survey on social policy and human relations.

You have now exited the survey. Everything you have done up until this point has been anonymous.

You are invited to participate in a virtual focus group held to better understand the many varying viewpoints on social policy and human relations.

If you would like to be part of a virtual focus group, please enter your name and email contact information. You will be contacted by Melanie Reyes to schedule your participation in one of the virtual focus groups.

If you DO NOT want to participate in a virtual focus group, you can close out the survey now.

What is your full name?

What is your ASU email address or the email address that you prefer to use?

THANK YOU!!

APPENDIX L
ADDITIONAL FINDINGS

Relationship between Empathy, Policy Attitudes, and Political Ideology

Several additional statistical analyses were conducted to examine the relationship between key variables in this research study. While the findings were not directly relevant to the study hypotheses, the results may be of interest to the reader. These analyses explored the relationships between empathy, attitudes toward policies, and political ideology.

Relationship between Empathy and Policy Attitudes

Interpersonal Empathy and Policy Attitudes. Correlation analyses revealed several statistically significant relationships between interpersonal empathy and attitudes towards policy in the pre-test and post-test surveys (see Table L1). As interpersonal empathy scores increased in the pre-test survey, favorable attitudes increased toward policies related to assistance for the needy, gay and lesbian parenting, and government assistance for the poor. For the post-test survey, there was only one statistically significant positive correlation between interpersonal empathy and attitudes towards environmental regulation policy. As interpersonal empathy scores increased on the post-test survey, attitudes became more favorable in support of environmental regulation.

Table L1*Correlation between Interpersonal Empathy and Policy Attitudes*

Interpersonal empathy	Pre-test survey	Post-test survey
Policy attitudes		
Environment	.090	.223*
Assistance for needy	.257**	.075
Immigration	.142	.017
Gay and lesbian parenting	.178*	.052
Health care	.108	-.017
Diversity	.115	.143
Abortion	.016	.066
Government assistance	.175*	.007
Religion	-.084	.013
Marijuana	.129	-.080
Gun control	.030	-.040
Refugees	.040	.056

* $p < .05$, ** $p = .001$

Social Empathy and Policy Attitudes. Additional correlation analyses indicated that social empathy composite scores had a statistically significant relationship with certain attitudes towards policy (see Table L2). As social empathy composite scores increased, attitudes toward policies became more favorable toward environment regulation, assistance for the needy, immigration, gay and lesbian parenting, affordable and accessible health care, racial and ethnic diversity, legalized abortion, government assistance for the poor, legalized marijuana, gun control, and refugee resettlement. The only correlation that was not statistically significant in the pre-test survey data was with policy attitudes related to people who are religious.

Table L2*Correlation between Social Empathy and Policy Attitudes*

Social empathy	Pre-test survey	Post-test survey
Policy attitudes		
Environment	.342***	.396***
Assistance for needy	.403***	.372***
Immigration	.178*	.352***
Gay and lesbian parenting	.375***	.283*
Health care	.304***	.224*
Diversity	.230**	.517***
Abortion	.207**	.250*
Government assistance	.475***	.337**
Religion	.138	.081
Marijuana	.188*	.072
Gun control	.325***	.325**
Refugees	.444***	.394***

* $p < .05$, ** $p < .01$, *** $p = .001$

The post-test survey correlation analysis indicated that social empathy composite scores had statistically significant relationships with most policy attitudes (see Table L2). As social empathy composite scores increased, favorable attitudes toward policies increased regarding the environment regulation, assistance for the needy, immigration, gay and lesbian parenting, affordable and accessible health care, racial and ethnic diversity, legalized abortion, government assistance for the poor, gun control, and refugee resettlement. There was not a statistically significant correlation between social empathy and attitudes towards policies that relate to people who are religious or regarding the use of marijuana.

Discussion. There were multiple small to medium relationships between social empathy and various attitudes toward policy, indicating that the social empathy composite scores had a relationship with how participants felt about various macro-level policies affecting our nation and our global environment. The correlation analysis of the interpersonal empathy relationship with policy attitudes did not reveal as many statistically significant relationships as did social empathy. However, there was still a small relationship between interpersonal empathy scores and attitudes toward policies related to government assistance to those in need even if the nation goes deeper into debt, the positive impact on society of gay and lesbian couples parenting, and poor people not becoming too dependent on government assistance. These three policy areas had a focus on providing families for children and government support for those in need, which reflects an interpersonal empathic connection to others.

There were similar findings in the post-test survey. The differences were the lack of relationship between social empathy and policy attitudes about marijuana legalization, as well as between interpersonal empathy and policy attitudes regarding gay and lesbian parenting and government support for those in need. In addition, there was a relationship between interpersonal empathy and environmental regulation in the post-test survey that was not evident in the pre-test survey.

Policy Attitudes by Time

Independent means *t*-test analyses were utilized to examine differences in means for groups within the sample. Differences were examined for empathy and attitudes towards policy means by time (pre-test survey versus post-test survey), mode of delivery

(in-person versus online), gender (male versus female), political ideology (liberal versus conservative), and party affiliation (Democrat versus Republican).

The study participants, on average, demonstrated a change toward supporting policies that are associated with diversity and poverty amelioration from the time of the pre-test survey to the post-test survey (See Table L3.) Analysis results were statistically significant for assistance for the needy $t(260) = 2.613, p = .010, 95\% \text{ CI } [0.065, 0.462]$, immigration $t(188.709) = 2.559, p = .016, 95\% \text{ CI } [0.068, 0.522]$, gay and lesbian parenting $t(188.931) = 2.332, p = .016, 95\% \text{ CI } [0.034, 0.413]$, racial and ethnic diversity $t(231.435) = 3.346, p < .001, 95\% \text{ CI } [0.111, 0.428]$, and government assistance for the poor $t(258) = 2.483, p = .014, 95\% \text{ CI } [0.055, 0.476]$.

Table L3*Attitudes toward Policies by Time*

Policy attitudes	Time						<i>t</i>	<i>df</i>
	Pre-test survey			Post-test survey				
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Environment	1.600	0.712	182	1.500	0.656	80	1.060	260
Assistance for needy	2.180	0.767	182	1.910	0.715	80	2.613**	260
Immigration	1.850	1.005	182	1.560	0.780	79	2.559*	188.709
Gay and lesbian Parenting	1.710	0.829	180	1.490	0.656	80	2.332*	188.931
Health care	1.350	0.671	181	1.210	0.520	80	1.769	192.269
Diversity	1.520	0.793	181	1.250	0.490	80	3.346***	231.435
Abortion	1.750	1.038	181	1.610	0.893	80	1.039	259
Government assistance	2.080	0.815	180	1.810	0.748	80	2.483*	258
Religion	2.290	0.822	180	2.390	0.849	80	-0.884	258
Marijuana	1.890	0.977	181	1.900	0.936	80	-0.081	259
Gun control	2.130	1.03	182	2.090	1.070	80	0.278	260
Refugees	1.770	0.768	181	1.630	0.718	80	1.413	259

* $p < .05$; ** $p < .01$; *** $p < .001$

Close examination of differences in the pre-test to post-test attitudes toward policies uncovered a consistency in the statistically significant differences in policies all being primarily macro-level social policies associated with diversity and poverty. The more micro-level policies associated with legalized abortion, legalized marijuana, gun control, and refugee resettlement, did not exhibit a statistically significant change from pre-test survey to post-test survey. These results seem to point toward the graduate social

work curriculum potentially impacting attitudes toward macro social policies, more so than attitudes toward micro policies.

Policy Attitudes by Mode of Delivery

When examining the differences in attitudes toward policy by mode of delivery, independent means *t*-tests indicated that the means were not statistically significant, with the exception of attitudes toward policies related to government assistance for the poor and gun control (see Table L4). On average, study participants who attended the MSW program in-person had a lower score on attitudes toward government assistance for the poor ($M = 1.810$, $SD = 0.807$), representing a more supportive attitude toward poor people who participate with government assistance programs than the study participants in the MSW online program ($M = 2.120$, $SD = 0.781$). Cohen's $d = 0.390$, indicating a small to medium effect size. An independent means *t*-test indicated that the results were statistically significant, $t(253) = -3.077$, $p = .002$, 95% CI [-0.518, -0.114].

Table L4*Attitudes toward Policies by Mode of Instructional Delivery - Overall*

Policy attitudes	Mode of delivery						<i>t</i>	<i>df</i>
	In-person			online				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Environment	1.570	0.709	95	1.570	0.694	162	-0.063	255
Assistance for needy	2.020	0.772	95	2.140	0.752	162	-1.170	255
Immigration	1.910	1.123	94	1.690	0.838	162	1.724	153.470
Gay and lesbian parenting	1.640	0.784	95	1.660	0.793	160	-0.138	253
Health care	1.290	0.633	94	1.320	0.637	162	-0.410	254
Diversity	1.370	0.685	95	1.470	0.725	161	-1.127	254
Abortion	1.650	0.998	95	1.750	1.006	161	-0.762	254
Government assistance	1.810	0.807	94	2.120	0.781	161	-3.077**	253
Religion	2.440	0.859	95	2.280	0.794	160	1.516	253
Marijuana	1.830	0.969	94	1.940	0.967	162	-0.914	254
Gun control	1.870	0.959	95	2.260	1.066	162	-2.902**	255
Refugees	1.600	0.645	94	1.810	0.800	162	-2.198*	254

* $p < .05$; ** $p < .01$

In addition, study participants who attended the MSW program in-person, on average, had a lower score on attitudes toward gun control ($M = 1.870$, $SD = 0.959$), representing a stronger attitude toward gun control than the study participants in the MSW online program ($M = 2.260$, $SD = 1.066$) (see Table L4). An independent means t -test indicated that the results were statistically significant, $t(255) = -2.902$, $p = .004$, 95% CI [-0.647, -0.124]. Cohen's $d = 0.376$, indicating a small to medium effect.

This analysis of policy attitudes by mode of delivery was broken down for the pre-test and post-test surveys. For the pre-test survey (see Table L5), on average, in-person MSW students had a higher score on attitudes toward immigration ($M = 2.18$, $SD = 1.214$), indicating a less supportive attitude toward immigration policy than the online MSW student respondents ($M = 1.70$, $SD = 0.854$). An independent means t -test indicated that the results were statistically significant, $t(89.767) = 2.749$, $p = .007$, 95% CI [0.134, 0.831]. Cohen's $d = 0.457$, indicating a medium effect.

Table L5

Attitudes toward Policies by Mode of Instructional Delivery – Pre-test Survey

Policy attitudes	Instructional Delivery						t	df
	In-Person			Online				
	M	SD	n	M	SD	n		
Environment	1.62	0.715	60	1.60	0.720	117	0.161	175
Assistance for needy	2.20	0.777	60	2.16	0.765	117	0.308	175
Immigration	2.18	1.214	60	1.70	0.854	117	2.749**	89.767
Gay and lesbian parenting	1.82	0.873	60	1.68	0.812	115	1.043	173
Health care	1.34	0.659	59	1.36	0.686	117	-0.184	174
Diversity	1.50	0.792	60	1.53	0.774	116	-0.208	174
Abortion	1.77	1.110	60	1.76	1.018	116	0.048	174
Government assistance	1.92	0.836	59	2.19	0.790	116	-2.129*	173
Religion	2.42	0.869	60	2.27	0.776	115	1.142	173
Marijuana	1.92	1.071	59	1.90	0.941	117	0.113	174
Gun control	1.88	0.958	60	2.26	1.052	117	-2.301*	175
Refugees	1.64	0.663	59	1.85	0.805	117	-1.663	174

* $p < .05$; ** $p < .01$

Study participants who attended the MSW program in-person had a lower score on attitudes toward government assistance for the poor ($M = 1.92$, $SD = 0.836$), representing a more supportive attitude toward poor people who participate with government assistance programs than the attitude expressed by the study participants in the MSW online program ($M = 2.19$, $SD = 0.790$) (see Table L5). An independent means t -test indicated that the results were statistically significant, $t(173) = -2.129$, $p = .035$, 95% CI [-0.529, -0.020]. Cohen's $d = 0.332$, indicating a small to medium effect.

In addition, study participants who attended the MSW program in-person, on average, had a lower score on attitudes toward gun control ($M = 1.88$, $SD = 0.958$), representing a stronger positive attitude toward gun control than the study participants in the MSW online program ($M = 2.260$, $SD = 1.052$) (see Table L5). An independent means t -test indicated that the results were statistically significant, $t(175) = -2.301$, $p = .023$, 95% CI [-0.693, -0.053]. Cohen's $d = 0.378$, indicating a small to medium effect.

The results of an independent means t -test analysis of the post-test survey (see Table L6) indicate that the only statistically significant difference in means was in the attitudes toward assistance for the needy $t(78) = -2.242$, $p = .028$, 95% CI [-0.665, -0.039]. Cohen's $d = 0.519$, indicating a medium effect. On average, in-person MSW program respondents had a lower score on attitudes toward assistance for the needy ($M = 1.71$, $SD = 0.667$), indicating a more supportive attitude toward government assistance for those in need than the online MSW program respondents ($M = 2.07$, $SD = 0.720$).

Table L6*Attitudes toward Policies by Instructional Delivery – Post-test Survey*

Policy attitudes	Instructional delivery						<i>t</i>	<i>df</i>
	In-person			Online				
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>		
Environment	1.49	0.702	35	1.51	0.626	45	-0.171	78
Assistance for needy	1.71	0.667	35	2.07	0.72	45	-2.242*	78
Immigration	1.44	0.746	34	1.64	0.802	45	-1.149	77
Gay and lesbian parenting	1.34	0.482	35	1.6	0.751	45	-1.858	75.518
Health care	1.2	0.584	35	1.22	0.471	45	-0.188	78
Diversity	1.14	0.355	35	1.33	0.564	45	-1.844	75.043
Abortion	1.46	0.741	35	1.73	0.986	45	-1.380	78
Government assistance	1.63	0.731	35	1.96	0.737	45	-1.975	78
Religion	2.49	0.853	35	2.31	0.848	45	0.911	78
Marijuana	1.69	0.758	35	2.07	1.031	45	-1.833	78
Gun control	1.86	0.974	35	2.27	1.116	45	-1.720	78
Refugees	1.51	0.612	35	1.71	0.787	45	-1.220	78

**p* < .05

The findings for the analyses of policy attitudes by mode of instructional delivery were not consistent, given that there were statistically significant difference in the pre-test survey for three attitudes toward policy (immigration, government assistance for the poor, and gun control); however, on the post-test survey, there was only one statistically significant difference in attitudes toward assistance for the needy.

Empathy Levels by Race/Ethnicity, Gender, Sexuality, Class, and Employment

One-way ANOVA analyses were conducted to determine if there were significant differences in empathy scores based on race/ethnicity, gender, sexuality, class, and employment. To prepare for the ANOVA analyses, it was necessary to collapse variable attributes due to low numbers of cases in some attribute categories. For the variable race/ethnicity in the post-test survey, the categories of Asian and Multiethnic were collapsed because there was only one case for Asian, and the category of Other was removed. There were no statistically significant findings in differences in empathy scores based on gender, sexuality, class, and employment. There were statistically significant findings based on race/ethnicity for the pre-test survey and post-test survey.

Empathy by Race/Ethnicity

For the pre-test survey, one-way ANOVA analyses were completed to determine if there were significant differences between empathy composite and component scores based on race/ethnicity. Results indicated that there were no statistically significant differences in interpersonal empathy, social empathy, affective response, emotion regulation, perspective-taking, self-other awareness, contextual understanding, and macro perspective-taking by race/ethnicity. Only affective mentalizing was statistically significantly different between the groups ($F(5, 177) = 4.862, p < .001$), with a medium-to-large effect size ($\eta^2 = .121$) (see Table L7). The predictor variable of race/ethnicity had six levels, African American, Black ($n = 11, M = 4.0682, SD = 0.462$); American Indian, Indigenous, Native American ($n = 6, M = 4.750, SD = 0.500$); Asian ($n = 5, M = 4.650, SD = 0.379$); Latino/a, Hispanic, Chicano/a ($n = 33, M = 4.371, SD = 0.485$); White, Caucasian ($n = 121, M = 4.762, SD = 0.604$); and Multiracial ($n = 7, M = 4.393, SD =$

0.923). A higher score on empathy composite and component scales was associated with higher levels of empathy.

Table L7

Gabriel Post Hoc Analysis for Affective Mentalizing by Race/Ethnicity – Pre-test Survey

Race/ethnicity	N	Affective mentalizing
		M (SD)
African American, Black	11	4.068 (.462) ^a
Latino/a, Hispanic, Chicano/a	33	4.371 (.485) ^b
White, Caucasian	121	4.762 (.604) ^c

Note: statistically significant differences, $c > a$ and b

A Gabriel post hoc test was conducted to determine where the differences lie for the pre-test survey (see Table L7). The Gabriel test was selected because the groups had unequal sample sizes. The Gabriel post hoc test revealed the following statistically significant differences: participants who identified as White, Caucasian, on average, scored higher on affective mentalizing than those who identified as African American, Black ($p < .001$) and Latino/a, Hispanic, Chicano/a ($p = .007$). There were no statistically significant differences among the other racial/ethnic groups.

For the post-test survey, one-way ANOVA analyses was completed to determine if there were significant differences between empathy composite and component scores based on race/ethnicity. The findings showed that the groups were statistically significantly different for interpersonal empathy, affective response, and perspective-taking.

For interpersonal empathy, the predictor variable of race/ethnicity had five levels, African American, Black ($n = 4, M = 4.592, SD = 0.489$); American Indian, Indigenous, Native American ($n = 2, M = 4.495, SD = 0.233$); Latino/a, Hispanic, Chicano/a ($n = 17, M = 4.907, SD = 0.538$); White, Caucasian ($n = 59, M = 4.816, SD = 0.431$); and Multiracial or Asian ($n = 4, M = 4.062, SD = 0.103$) (see Table L8). Interpersonal empathy was statistically significantly different between the groups ($F(4, 81) = 3.391, p = .013$), with a large effect size ($\eta^2 = .143$).

Table L8

Gabriel Post Hoc Analysis for Interpersonal Empathy by Race/Ethnicity – Post-test Survey

Race/ethnicity	N	Interpersonal empathy
		M (SD)
Latino/a, Hispanic, Chicano/a	17	4.907 (.538) ^a
White, Caucasian	59	4.816 (.430) ^b
Multiracial or Asian	4	4.062 (.103) ^c

Note: statistically significant differences, $c < a$ and b

A Gabriel post hoc test was conducted to determine where the differences lie for the post-test survey, given that the groups had unequal sample sizes (see Table L8). The Gabriel post hoc test revealed the following statistically significant differences: participants who identified as Asian or Multiracial, on average, scored lower on interpersonal empathy than those who identified as Latino/a, Hispanic, Chicano/a ($p =$

.005) and White, Caucasian ($p = .003$). There were no statistically significant differences among the other racial/ethnic groups.

For affective response in the post-test survey, the predictor variable of race/ethnicity had five levels, African American, Black ($n = 4$; $M = 4.350$; $SD = 0.100$); American Indian, Indigenous, Native American ($n = 2$; $M = 5.000$; $SD = 0.000$); Latino/a, Hispanic, Chicano/a ($n = 17$; $M = 5.141$; $SD = 0.790$); White, Caucasian ($n = 59$; $M = 5.203$; $SD = 0.568$); and Multiracial or Asian ($n = 4$; $M = 4.400$; $SD = 0.400$). See Table L9. Affective response was statistically significantly different between the groups ($F(4, 81) = 3.389$, $p = .013$), with a large effect size ($\eta^2 = .143$).

Table L9

Gabriel Post Hoc Analysis for Affective Response by Race/Ethnicity – Post-test Survey

Race/ethnicity	N	Affective response
		M (SD)
African American, Black	4	4.350 (.100) ^a
White, Caucasian	59	5.203 (.568) ^b
Multiracial or Asian	4	4.400 (.400) ^c

Note: statistically significant differences, $b > a$ and c

A Gabriel post hoc test was conducted to determine where the differences lie for the post-test survey (see Table L9). The Gabriel test was selected given that the groups had unequal sample sizes. The Gabriel post hoc test revealed the following statistically significant differences: participants who identified as White, Caucasian, on average, scored higher on affective response than those who identified as African American, Black

($p = .020$) and Multiracial and Asian ($p = .035$). There were no statistically significant differences among the other racial/ethnic groups.

For perspective-taking in the post-test survey, the predictor variable of race/ethnicity had five levels: African American, Black ($n = 4$; $M = 4.550$; $SD = 0.719$); American Indian, Indigenous, Native American ($n = 2$; $M = 4.600$; $SD = 0.283$); Latino/a, Hispanic, Chicano/a ($n = 17$; $M = 4.953$; $SD = 0.642$); White, Caucasian ($n = 59$; $M = 4.953$; $SD = 0.559$); and Multiracial or Asian ($n = 4$; $M = 4.100$; $SD = 0.622$). See Table L10. Perspective-taking was statistically significantly different between the groups ($F(4, 81) = 2.521$, $p = .047$), with a medium-to-large effect size ($\eta^2 = .111$).

Table L10

Gabriel Post Hoc Analysis for Perspective-taking by Race/Ethnicity – Post-test Survey

Race/ethnicity	<i>N</i>	Perspective-taking <i>M (SD)</i>
White, Caucasian	59	4.953 (.559) ^a
Multiracial and Asian	4	4.100 (.622) ^b

Note: statistically significant differences, $a > b$

A Gabriel post hoc test was conducted to determine where the differences lie for the post-test survey (see Table L10). The Gabriel test was selected given that the groups had unequal sample sizes. The Gabriel post hoc test revealed a statistically significant difference that participants who identified as White, Caucasian, on average, scored higher on perspective-taking than those who identified as Asian or Multiracial ($p = .015$). There were no statistically significant differences among the other racial/ethnic groups.

Discussion

In summary, there were several statistically significant findings from the ANOVA analyses for race/ethnicity and empathy levels; however, these results were not consistent from pre to post-test. For the pre-test, those who identified as White, Caucasian on average scored higher on affective mentalizing than African American, Black, and Latino/a, Hispanic, Chicano/a. In the post-test survey, there were several statistically significant differences for interpersonal empathy, affective response, and perspective-taking. Those who identified as Asian or Multiracial (the categories had to be collapsed together to have enough values) scored lower, on average, on interpersonal empathy than Latino/a, Hispanic, Chicano/a and White, Caucasian participants. In addition, on average for affective response, White, Caucasian participants scored higher than those who reported as African American, Black and Multiracial, Asian. Participants who identified as White, Caucasian, on average, scored higher on perspective-taking than those who identified as Asian or Multiracial. These findings may merit additional research to explore the relationship between race/ethnicity and levels of empathy, given that empathy is culturally bound construct. These results are not meaningful for the hypotheses posed in this research study.