Epistemic trust in online higher education: a mixed method phenomenological research study

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EPISTEMIC TRUST IN ONLINE HIGHER EDUCATION: A MIXED METHOD
PHENOMENOLOGICAL RESEARCH STUDY

by

Lisa Rapple

A Dissertation
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ABSTRACT

The purpose of this study was to explore the online instructor’s role in building epistemic trusting relationships with adult learners in their online classrooms. A mixed-method phenomenology research (MMPR) approach was used to discover if certain instructor actions influenced an epistemic trust relationship to develop between the instructor and the adult learner. This study examined the instructor’s classroom management actions, communication immediacy actions, and regulatory actions, as well as the level of epistemic trust in 48 fully online courses, focusing on 4 exemplar cases for cross-case analysis. It was determined that the instructor’s classroom management actions and communication immediacy actions explained 52% of the variation in epistemic trust. The instructor’s regularity actions played a lesser role by initializing early trust (a shallower trust than epistemic trust), a necessary foundation on which to build epistemic trust relationships. The regulatory actions also provided support for the other two types of instructor actions by creating a sense of the instructor’s fairness and availability. The study advanced a causation network that made visible a path from early trust of the instructor to an epistemic trust relationship with the instructor. These results suggest that instructors that practice these three types of actions in the online classroom have the potential to influence epistemic trust relationships with the adult learners, thereby improving learner motivation, cooperation, critical thinking, satisfaction, and academic performance. The findings presented in this study provide a possible epistemic trust model that may contribute to future research for developing a theory of epistemic trust.
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Chapter 1: Introduction

Sometimes a simple, almost insignificant gesture on the part of a teacher can have a profound formative effect on the life of a student. – Paulo Freire

Paulo Freire’s assertion about subtle gestures denotes what I intend to explore in this study within the trusting relationship of the instructor and adult learner in the online classroom. With seemingly insignificant gestures the instructor is introducing or withholding a key ingredient to the online learning environment: trust. The measure of trust introduced may in fact influence the sense of security and inclusion in the online classroom for adult learners who sit at a distance. In the online classroom, adult learners are challenged by limited and unfamiliar social cues. Their epistemic beliefs have mixed feelings and emotions are aroused. The instructor holds an empowered position as authority, expert, and confidant whom adult learners look to for guidance and support in their online learning process. Through subtle ‘gestures’ that span the digital divide and potentiate a trusting environment the instructor can assist the adult learners to reconcile trust issues, embrace growing epistemic beliefs, and engage with the other adult learners and themselves at a distance.

Online instructors are aware of the need for trust in the online classroom. They perceive their role to be “building community, relationships, and trust,” (Coppola, Hiltz, & Rotter, 2004, p. 97) and report they have adapted how they enact their role in the online classroom particularly around communication, engagement, and management (Coppola et al., 2004). In this chapter I will explain why an adult learner’s sense of trust is integral to online higher education. More specifically I will introduce the adult learner as ‘student’ in online education and explain why the adult learner’s trust in the instructor is essential in online education settings. I include current understandings of how the facilitation methods of faculty promote trust within the online
classrooms where they teach. Lastly, I explain how this study will contribute to a larger body of research by illuminating the adult learner’s experience of trust in online courses and the instructor’s role in that experience.

**Adult Learners in Online Higher Education**

‘Students’ attending fully online higher education classes are predominantly adult learners, and thus are the focus of this study. According to the International Online Learning Consortium’s 2016 summary report 75% of undergraduate students in online courses are 25 or older (*Today’s Students Are Driving the Online Learning Imperative*, 2016). These adult learners once referred to as ‘non-traditional’ learners share several characteristics. Typically, adult learners are 25 years old or older, have been out of high school or college for more than 10 years, and are either returning to college or entering college for the first time to improve employability or retrain for a career change. They attend college part-time while supporting at least one other family member and working full-time (Allen, Seaman, Poulin, & Straut, 2016).

In the past, extension programs at colleges and universities served the adult learner’s unique needs. These programs, referred to as non-traditional programs, evolved to correspondence or distance education programs, and now in present-day times to online higher education programs (Larreamendy-Joerns & Leinhardt, 2006). While evolving over time non-traditional programs have consistently assisted adult learners to overcome barriers of time, place, and tradition, fostering lifelong access to educational opportunities. Adult learners believe that online courses are “convenient and impactful” (Stevens, 2014, p. 72). By offering scheduling that best fits their busy lifestyle adult learners gravitate to current day online course work making up 75% of the national student body in online programs (Allen et al., 2016).
The online instructor approaches their teaching role in a manner unlike traditional teaching applying an alternate manner to fit with the changed environment. This is apparent when viewing the instructor fulfilling the affective role and the managerial role. In the affective role, the instructor develops alternative ways to express emotion and build relationships with adult learners. Instructors describe these relationships as more intimate than in traditional settings. In the managerial role faculty find that more structure and detail and additional monitoring of students is necessary. The instructors express a need for precise and formal outlining of expectations, necessary to avoid misunderstanding and disorganization. At the same time, less formality is necessary when engaging in academic dialog (Coppola, Hiltz, & Rotter, 2002).

**Adult Learners and Social-constructivist Teaching: A Perfect Match**

Malcolm Knowles (1990), who taught adult vocational education programs in the 1990s, was the first to recognize the unique assets that adult learners bring to the learning experience, as well as the unique approach to learning that best serves this group. Adult learners are highly motivated and relatively independent. Knowles, who developed the Theory of Andragogy, found that instructional methods for adult learners require an approach that taps into the life experiences of the adult (Knowles, 1990). The adult learners themselves understand the potency of combining their life experiences with the academic learning process. They feel that their life and work experiences serve as a learning tool to be shared with fellow adult learners. They also recognize their ability to be self-directed in their learning environment and embrace the opportunity if proffered (Stevens, 2014).
Considering Knowles’ theory, the Council for Adult and Experiential Learning (CAEL) established “best practice” principles for effectively serving the unique learning needs of adult learners in higher education. Specific to the teaching-learning process CAEL recommends the use of “multiple methods of instruction, including experiential and problem-based methods, for adult learners in order to connect curricular concepts to useful knowledge and skills” (Stevens, 2014, p. 66). Guided by the tenets of the social constructivist-learning model, online discussion forums and other interactive learning activities are core design practices for online courses (Bruffee, 1999; Scardamalia & Bereiter, 2006a). These are the spaces where adult learners work together to address ill-defined issues around a topic of study. The social constructivist-learning model fits the wants and desires of the online adult learners who express a strong interest in engaging with fellow adult learners in online classes. Adult learners find the interactive learning experience more satisfying (Wade, Cameron, Morgan, & Williams, 2011).

**The Challenges of Collaborative Learning**

Collaborative spaces create interdependence among the learners, a necessary condition to achieve collective learning goals. When working interdependently, each individual must embrace the concept of being part of a collective forming a social identity with the group. John Dewey called this social identity the ‘associated life’ (Bruffee, 1999, p. 2). Though interdependence is necessary for collaboration, it also causes a challenge for adult learners in several ways. First, trust issues become more salient. Online spaces make it difficult to ascertain the true motives of others during interactions, so there is a genuine risk of inaccurately assuming other’s intentions and actions (Sheppard & Sherman, 1998). The ambiguity of computer-mediated communication (CMC) propagates misunderstandings and missteps. CMC permits true feelings to be easily
hidden, contributing further to the saliency of trust. In this dependent state overly trusting members are sometimes taken advantage of by opportunistic behaviors of others (Jarvenpaa, Shaw, & Staples, 2004). For example, during group work an individual can be overly depended on to do a disproportionate share of the work unfairly benefiting others. Another example might be a poorly delivered or mean-spirited criticism or other netiquette violation. In response to this learners tend to ruminate more about trust-relevant transactions (Kramer, 1999).

Secondly, in the online environment there is more uncertainty and ambiguity, which can lessen the structure of the online classroom as compared to traditional classrooms. In a social context the amount of structure is referred to as “situational strength” (Dirks & Ferrin, 2001, p. 461). The less the situational strength, the more need for trust. In other words, the role of trust in cultivating positive interactions becomes more important as situational strength diminishes, as is the case in a highly discursive online classroom.

Lastly, adult learners that are in the early stages of epistemic development are particularly susceptible to the uncertainty of online collaboration. They struggle to accept the idea that collaborative learning is effective, preferring to believe that the instructor is the primary source of knowledge (King & Kitchener, 2004). Trust can assuage the struggle and thus encourage epistemic development.

**Insert Trust to Meet the Challenges**

The instructor has the potential to enact their role as facilitator and guide in a way that builds trust among the adult learning community and allows them to effectively assist the adult learners to meet these challenges. When trusted the instructor can:
• Guide the adult learner to gain competence in the ‘associated life’ as they attempt to learn in an interdependent state so that they can “cope interdependently with the intellectual challenges generated by and within this encompassing community of uncertainty, ambiguity, and doubt” (Bruffee, 1995, p. 6).

• Create a balance of structure and freedom within the collaborative space thus balancing the need for trust. Too much structure and collaborative learning becomes ineffective. Too little and it strains the need for trust (Palloff & Pratt, 2013).

• Assist adult learners to develop their epistemic beliefs by giving attention to the emotional process of epistemic development and helping adult learners resolve trust issues (R.O. Smith, 2011).

**Trust as Foundational to Building an Online Learning Community**

Interpersonal, trusting relationships are vital for building online learning communities. A high functioning learning community is characterized by trust, laying a “foundation for an effective pedagogy of constructivism” (Shea, Sau Li, & Pickett, 2006, p. 176). When adult learners trust the instructor, they are more inclined to trust one another. With trust important behaviors that enhance collaborative learning emerge including cooperation, motivation, helping one another, enthusiasm, effective feedback for learning, and a perceived sense of satisfaction with the learning experience (Bulu & Yildirim, 2008; Jones & George, 1998; McAllister, 1995; Peñarroja, Orengo, Zornoza, Sánchez, & Ripoll, 2015). These are all necessary ingredients for a healthy learning community.

Through dialog the instructor has the opportunity to gain adult learner’s trust, develop a trusting instructor-adult learner relationship, and establish a trusting learning environment, thus
potentiating effective knowledge sharing and knowledge construction (Abrams, Cross, Lesser, & Levin, 2003; Scardamalia & Bereiter, 2006b; Spencer, 2001). Trust allows adult learners to contribute and interact in a confident fashion despite their feelings of vulnerability to the critique of others (Curzon-Hobson, 2002).

In an online classroom where the instructor encourages adult learners to re-imagine their current thinking and question absolutes in the world, the adult learner must trust that the instructor will welcome and reward freely expressed questioning of preconceptions and re-imaginations they explore. This questioning is “foundational” to the pedagogy of higher learning (Curzon-Hobson, 2002, p. 267). For adult learners to propose and defend their ideas in a dialogical forum they must overcome feelings of anxiety and self-doubt (Curzon-Hobson, 2002). This sense of risk and uncertainty creates a need for trust to counter these feelings allowing the dialogue to have rigor.

The instructor’s actions and reactions are vital to building a sense of trust from adult learners. When adult learners trust the instructor as knowledge-expert, they believe that what the instructor says is meaningful and provides the critical foundations for guiding their learning. The sense of trust between instructor and adult learner is a unique form of trust that opens the opportunity for the adult learner to question their current understandings.

A Special Kind of Trust of the Instructor as Knowledge Expert

When learning in a classroom and gathering knowledge, adult learners depend on the input of peers, but also need to defer to an expert because of their collective lack of knowledge in the subject area. The instructor is perceived as the expert who has deeper knowledge about the subject and can serve as a guide to “the validity and veracity of information” (Hendriks,
Kienhues, & Bromme, 2016, p. 1). Trust of the instructor, as knowledge expert, is a form of trust that is distinctively intellectual. It is referred to as epistemic trust. For trust to be epistemic it must be focused on an expert (the instructor), in a specific situation (the online classroom), where the trustor has a high stake in the outcome (a passing grade, meeting learning outcomes, financial investment) (Curzon-Hobson, 2002).

An epistemic trust relationship between instructor and adult learner is a “necessary foundation” for establishing a critical, dialogical learning environment in higher education (Curzon-Hobson, 2002, p. 265). Adult learners must trust that the instructor will reward and encourage their willingness to share their unique perspective through stories that reflect their values and perceptions without risk of reprisal (Curzon-Hobson, 2002). This affords the instructor an opportunity to play a key role in gaining trust from adult learners (Abrams et al., 2003), establishing a trusting learning environment (Spencer, 2001), and thus potentiating effective knowledge sharing and knowledge construction (Scardamalia & Bereiter, 2006b).

**Statement of the Problem**

Researchers describe trust as the “glue” that makes successful online collaboration possible (Jarvenpaa & Leidner, 1999; Jarvenpaa et al., 2004). This term suggests that trust is a necessary social construct for online learning. Building and maintaining trust is acknowledged in research as a necessary condition for cooperation and as a key factor for effective functioning of computer-mediated collaboration (Lewicki, McAllister, & Bies, 1998). The presence of trust in online classrooms is linked to a multitude of benefits such as increasing adult learner motivation, cooperation, and adult learner satisfaction (Dakhli, 2009; Jones & George, 1998; Lewicki, R.J., Bunker, 1996; McAllister, 1995; J Riegelsberger & Vasalou, 2007; Wilson, Straus, & McEvily,
2006). However, little is known about the importance of the specific form of trust known as epistemic trust, the trust relationship between the instructor and adult-learner in the online classroom.

In the online classroom the level of trust, the way trust is initiated, and the way trust is maintained is poorly understood. What educational researchers know is reviewed in Chapter 2. Disciplines of study, such as sociology, psychology, business, and organizational behavior have researched the impact of trust in online workgroups and online business. For this study, the body of research from these disciplines will contribute foundational evidence of the role of trust in the context of socially constructed relationships such as the instructor-adult learner relationship in online environments.

Research indicates that the way the instructor facilitates the online classroom will promote or impede epistemic trust in the instructor-adult learner relationship. The facilitation strategies of interest for this study are communication immediacy, frequency of presence in the classroom, and norming of a student group. More research is needed specific to the fully online classroom and, as will be discussed in Chapter 2, specific to the trust relationship between instructor-adult learner. This study will explore the development of epistemic trust and the role of the instructor’s actions within the online classroom in developing epistemic trust with the adult learner. The study will explore the adult learner’s firsthand experience of epistemic trust within the online classroom.

**Why this Research Study**

This research study will explore the instructor-adult learner epistemic trust relationship that develops when faculty interact with adult learners in online higher education classrooms.
Specifically, the study will explore how the instructor’s facilitation of the course bears on the giving and retracting of epistemic trust by adult learners. It has been established through prior research that trust is essential to online collaborations (Jarvenpaa et al., 2004). Research has demonstrated that trust improves cooperation, motivation, and performance (for example: Dakhli, 2009; Jones & George, 1998; Lewicki, R.J., Bunker, 1996; McAllister, 1995; J Riegelsberger & Vasalou, 2007; Wilson et al., 2006). Understanding the role of the instructor in promoting a trusting relationship with the adult learner that is epistemic will add to the body of current research concerning trust in online collaborative classrooms.

Studying epistemic trust and discovering ways an instructor can promote trusting interactions in online courses is an imperative area of research that requires more investigation. Other disciplines, such as business, sociology, and psychology, recognize trust as important for the potential it provides in the online environment. This should encourage academic researchers to build a body of research and acquire a greater understanding of what role epistemic trust plays in effective teaching practices. The assets that trust brings to the online classroom have been a focus of researchers, yet less direct research on trust itself has been pursued. By examining trust theories, current research, and historical research a general description of the adult learner’s experience of trust building is deduced. Despite its valuable insights, this literature has some important limitations. While many scholars have stressed the social dimension of interaction, there has been little effort to extend the understanding of interactions in online learning along emotional and social dimensions (Han & Johnson, 2012). Trust is a necessary construct in both dimensions.
There are conflicting results in the level of trust that is needed for effective online collaboration. Some studies find that surface-level trust is sufficient (Coppola et al., 2004; Tseng & Yeh, 2013), whereas other studies report a deeper level of trust is needed to successfully achieve learning outcomes (Bulu & Yildirim, 2008). Building trust in the online classroom is complex and emotional, fraught with social as well as individual barriers. It is a social process that also involves a cognitive process; both the cognitive and social processes can be better understood through the first-hand experiences of the adult learners themselves. A better understanding of how the adult learner experiences epistemic trust (trust in a knowledge expert) can inform pedagogical strategies for removing or minimizing the barriers to epistemic trust, and perhaps level the playing field for adult learners of varying epistemic beliefs. Revealing the lived experiences of adult learners in online courses as this study will attempt to do, will give direction as to what is most important to pursue in future research. And will bring the voice of adult learners into clearer perspective when juxtaposed with theoretical assumptions of trust building in online courses.

Lastly, this study can contribute to a clearer definition of epistemic trust; how it is experienced as a unique form of trust; how a knowledge expert tempers the risk and uncertainty for the adult learner; and how risk and uncertainty can be managed to optimum benefit. The online classroom provides ideal conditions for exploring epistemic trust.

The Research Questions

The present study will be guided by the following research questions:

1. How and to what extent, do certain actions by the online classroom instructor influence an epistemic trust relationship with the adult learner?
2. How do normative actions of the instructor (actions that control and direct the activities and interactions of the class) influence the epistemic trust relationship with the adult learner?

3. How do communication immediacy actions of the instructor (use of language that is engaging and personable) influence the adult learner to epistemically trust that instructor?

4. How does the instructor’s frequent and consistent presence in the online classroom influence the epistemic trust relationship with the adult learner?
Chapter 2: Literature Review

Introduction

A review of educational research of trust in online classrooms suggests that the online instructor through course facilitation and interactions with adult learners builds trusting relationships with adult learners. This study seeks to discover if the instructor-adult learner trust relationship is epistemic in nature. And, if so, what influence the instructor’s actions have in creating a potential path to epistemic trusting relationships with adult learners.

Very little empirical research has been done to explore the concept of epistemic trust and how it develops in the online higher education classroom between the online instructor and adult learner. There is a large body of research addressing learner-to-learner trust relationships in online classrooms that focuses on swift trust and interpersonal trust (for example; Conaway, Easton, & Schmidt, 2005; Regina O. Smith, 2008; Tseng & Yeh, 2013; Wang, 2014). The empirical research that specifically addresses epistemic trust is in the context of open online environments (business networks, Internet chats, and discussion boards) or professional relationships (trust between managers and staff interacting virtually). Empirical studies that directly examine the nature of epistemic trust within educational environments are few yet add foundational understandings of the process and priorities in the development of epistemic trust relationships. These studies are within the discipline of child development and focus on grade school children and their teachers (Landrum, Eaves, & Shafto, 2015; Shafto, Eaves, Navarro, & Perfors, 2012). In terms of research on the trust relationship between online higher education learners and their instructors, the nature of this trust relationship has typically been studied as only one aspect of a larger research project (for example; Crisp & Jarvenpaa, 2013; Spencer,
These studies use the descriptor of “interpersonal trust” to describe the trust relationship between instructor and adult learner, despite the epistemic nature of the trust relationship. I intend to use existing research to describe the key elements of epistemic trust, explain what current research reveals about the trust relationship between the online instructor and the adult learner, and conclude by explaining research that describes the actions of the instructor that influence the adult learner’s trust of the instructor.

**Research Questions**

From researching this topic and developing a firm understanding of the concept of epistemic trust I find that the instructor-adult learner relationship certainly has potential to be epistemic in nature and therefore be considered an epistemic trust relationship. Instructors, as well as online adult learners, describe their academic relationship as more “intimate” in nature in the online environment, hinting that there is need, as well as opportunity for a deeper rather than superficial academic trusting relationship to develop (Coppola et al., 2002). If an epistemic trusting relationship exists between instructor and adult learner it positively influences the adult learner’s academic experience by reducing barriers to learning, enhancing connections with and among the adult learners, and promoting collaborative learning. To this end, I pose the following research questions:

1. To what extent, do certain actions by the online classroom instructor influence an epistemic trust relationship with the adult learner?

2. How do normative actions of the instructor (actions that control and direct the activities and interactions of the class) influence the epistemic trust relationship with the adult learner?
3. How do communication immediacy actions of the instructor (use of language that is engaging and personable) influence the adult learner to epistemically trust that instructor?

4. How does the instructor’s frequent and consistent presence in the online classroom influence the epistemic trust relationship with the adult learner?

The literature related to these questions is reviewed next. The literature review is organized into two main sections. Part one of the literature review explains the concept of epistemic trust, its origins, why it is important, and how it develops. Part two examines certain actions the instructor uses as he enacts his role in the online classroom regarding the influence of these actions in promoting a trusting relationship. Lastly, at the end of this chapter I provide a terminology guide selected from the research studies that are discussed in this literature review.

**The Concept of Epistemic Trust and its Origins**

In this section of the literature review I will explain the concept of epistemic trust by describing its theoretical underpinnings and identifying its principle components. By grounding this study in theories of trust I provide a foundation for studying the epistemic trust relationship of the online instructor and adult learner. By using the well-established definitions of the principle components of interpersonal trust and their antecedents and then applying these to the concept of epistemic trust I extend the understanding of the concept of epistemic trust that shares these same principle components and antecedents. Laying the theoretical foundation for epistemic trust will enable readers to better appreciate how the concept of epistemic trust has guided the formulation of my study design including the research questions, method selection, data collection and analysis strategy.
Currently epistemic trust is a concept; a theory of epistemic trust is yet to be developed. Epistemic trust is a unique form of trust because of its *epistemic* nature. This means it is an *intellectual* form of trust in an expert. In a trust relationship that is epistemic the trustor gives over epistemic authority to a knowledge expert under specific circumstances. A good example would be the trust one puts in a physician who is making recommendations for important personal healthcare decisions. In the situation of the online classroom the instructor serves as knowledge expert and guides the learning process. For the adult learner to epistemically trust the instructor there must be a sense of *reliance* on the instructor for truth/knowledge combined with a *confidence* with respect to that truth/knowledge. When reliance and confidence combine it creates a ‘thicker’ trust of the instructor that is epistemic in nature (McCraw & Mollwo, 2015).

Lieberman (1981) stated that trust in fiduciary relationships\(^1\) is based on a belief in a professional's competence and integrity (as cited in Mayer, Davis, & Schoorman, 1995). Epistemologists, including McCraw and Mollwo (2015), have expanded on Lieberman’s statement by identifying the unique features of epistemic trust. In a trust relationship that is epistemic in nature, initially there will be a cognitive state of “belief” by the trustor about certain characteristics (antecedents) of the trustee such as competence and integrity. As interactions continue an affective “feeling” of trust develops. This building of trust is much the same as interpersonal trust. However, in interpersonal trust relationships the cognition-based trust lingers and then fades so the trust relationship becomes purely affective-based. In an epistemic trust relationship the decisive doxastic component remains, even as the affective trust builds to a more resilient level (McCraw & Mollwo, 2015).

\(^{1}\) Fiduciary applies to any situation in which one person justifiably places confidence and trust in someone else and seeks that person's help or advice in some matter.
Epistemic trust has garnered increasing philosophical attention from social epistemologists. In a seminal article McCraw and Mallwo (2015) draw on the philosophical assumptions of other social epistemologists to propose a concept of epistemic trust. Parallels can be drawn from the concept of epistemic trust (McCraw & Mollwo, 2015) to the theory of interpersonal trust (McAllister, 1995) thus creating a theoretical underpinning for epistemic trust.

Because the principal components of interpersonal trust and epistemic trust are the same, McAllister’s Interpersonal Trust Model serves as a theoretical lens to situate the components of interpersonal trust within the epistemic trust concept described by McCraw and Mallwo (2015). The two principle components of epistemic trust and interpersonal trust are cognition-based trust and affective-based trust (McAllister, 1995; McCraw & Mollwo, 2015). Cognition-based trust is based on a decision to trust. It is a shallow form of trust, founded on a cognitive judgment of another. In other words it is a ‘decision to trust’ (Jarvenpaa & Leidner, 1999). Affective-based trust is based on emotional ties or connections. It is a deeper form of trust than the early cognitive forms. Affective-based trust builds over a greater number of interactions, is more resilient to violations of trust, and is based on emotional ties to others (McAllister, 1995).

**Trust Development in Online Classroom**

As the instructor facilitates the learning and interacts with the adult learners she/he opens the opportunity to build a trusting relationship with the adult learners through actions that are perceived as trustworthy (McCraw & Mollwo, 2015). Once a trusting relationship is developed the trusted instructor influences the adult learners to behave in trusting ways with one another further perpetuating trust within the online classroom interactions. This guides my inquiry toward seeking a deeper understanding of how the instructor might earn the epistemic trust of
adult learners through certain actions, thereby creating a trusting classroom environment, and in this way realizing the benefits of a trusting learning environment for adult learners. In this section I will describe what is known about how trust develops and the principle components of epistemic trust and the characteristics (referred to as antecedents) that promote higher levels of trust such as epistemic trust.

When the instructor and adult learner first meet as strangers in an online classroom they need to have a form of trust to begin overcoming risk and uncertainty and begin interacting. Swift trust serves this purpose as the initial form of trust in the instructor-adult learner relationship. It is a purely cognitive form of trust that develops based on the specific condition of interdependence that exists in an online classroom (Meyerson, Weick, & Kramer, 1996). This form of trust was identified first by Meyerson (1996) when studying diverse professionals working on a common goal. Educational research of swift trust predominantly examines adult learners in collaborative small group activities (for example: Crisp & Jarvenpaa, 2013; Mcknight, Cummings, & Chervany, 1998; Priest Walker, 2009) With the presence of swift trust consistent interactions can begin giving the instructor the opportunity to develop an interpersonal trust relationship.

McAllister (1995) uses empirical research to define the principle components of epistemic trust. Her research also reveals the progressive relationship of the two required components of epistemic trust and how trust builds to a more resilient level trust such as epistemic trust. McAllister (1995) conceptualizes the relationship of cognition-based and affective-based trust; the two principle components of epistemic trust. The relationship between these two components illustrates the scaffolding levels of trust, with affective-based trust
dependent on cognition-based trust for development. Trust that builds over time from shallow to deeper levels reveals to this writer a continuum of trust with discrete levels that increase in rigor and complexity, optimally becoming epistemic in nature. McAllister’s research reflects the most current, comprehensive, and stable understanding of interpersonal trust. It is well suited to inform the concept of epistemic trust as it is built on the theoretical foundations of socio-psychological literature, and McAllister’s work is frequently referenced in academic studies of education. Therefore, her research provides a better understanding of the role and interaction of these two components in an epistemic trust relationship. McAllister’s research examines the trust between professional managers and peers. The subjects were university students enrolled in an MBA program with an average age of 38 years, well educated, with substantial organizational experience, working in various industries. Participants selected two peers with whom they had a relationship of lateral interdependence to participate with them in the study. McAllister (1995) constructed 175 manager-peer dyad records from which to collect and analyze the data. McAllister (1995) developed and validated a measure to test her proposed theoretical framework based on socio-psychological empirical research of the time. McAllister (1995) found that affective-based trust only develops once there is cognition-based trust in the relationship. And affective-based trust is more likely when there is frequent interaction, and displays of camaraderie (McAllister, 1995). Most importantly, McAllister’s research shows that affective-based trust is a “distinct” form of trust, and not just another progressive level of cognition-based trust (McAllister, 1995). The model situates cognition-based trust as a prerequisite to affective-based trust. “Although cognition-based and affective-based trust may be causally connected, each form of trust functions in a unique manner and has a distinct pattern of association to
These antecedents” (McAllister, 1995, p. 51). This illustrates that levels of trust are distinct and progressive.

The progressive nature of trust is significant to this study because part of the intent is to explore the level of trust to which the adult learner-instructor relationship develops: to discover whether the relationship is one that ‘spirals up’ from swift trust to become epistemic. McAllister (1995) encourages this approach to researching trust, suggesting that researchers “consider not only the level but also the form of trust” (p. 52). Figure 2.1 illustrates the continuum of trust levels, the level of trust that is epistemic, and the relationship of epistemic trust to the other forms of trust on the continuum.

![Image: The levels and forms of trust.](image)

**Figure 2.1.** The levels and forms of trust.

The development of epistemic trust is underpinned by several theories of trust. While a theory of epistemic trust is yet to be developed, these long-standing theories provide a roadmap for trust development. To achieve epistemic trust in the online classroom Meyerson’s Swift Trust Theory lays the foundation to begin building trust. McAllister’s Interpersonal Trust Model identifies two distinct levels of trust, cognitive-based and affective-based trust. Finally
McCraw’s Concept of Epistemic Trust identifies the unique characteristics of an epistemic trust relationship.

**Antecedents of Trust**

A trusting relationship builds over time from shallow to deeper levels of trust only if the proper antecedents are extant. Antecedents are characteristics demonstrated through word and deed by the trustee (instructor) and assessed by the trustor (adult learner). As the adult learner interacts with the instructor they evaluate the instructor for indications that they are trustworthy assessing three types of characteristics to make the determination. These three characteristics are *expertise, integrity, and benevolence* (Mayer et al., 1995). Cognition-based trust is a shallow form of trust that develops based on the instructor’s ‘*expertise*’ and ‘*integrity*’ (Mayer et al., 1995). It develops in a short time span and exists in a surface-level relationship. In a cognition-based trust relationship the adult learner makes a **decision** to trust the instructor (Jarvenpaa & Leidner, 1999). Affective-based trust is based on the instructor’s ‘*benevolence*’ and is a deeper form of trust (Mayer et al., 1995). Affective-based trust only develops after surface-level trust (cognition-based trust) has been established and it requires interactions in which the instructor demonstrates concern and benevolent behavior toward the adult learner (McAllister, 1995). This deeper trusting relationship is based on the adult learner’s **feelings** of trust in the instructor (Mayer et al., 1995). The definition of each antecedent and its relationship to type and depth of trust is shown in Table 2.1.
Table 2.1. Three antecedents of trust with definitions and alignment to each principle component of epistemic trust (Mayer et al., 1995, pp. 717–719).

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Definition</th>
<th>Principle Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>“Group of skills, competencies, (ability), and characteristics that enable a party to have influence within some specific domain (i.e., professional credentials)” (Mayer et al., 1995, p. 717).</td>
<td>Cognition-based trust</td>
</tr>
<tr>
<td>Integrity</td>
<td>“Adherence to a set of principles (study/work habits) thought to make the trustee dependable and reliable, according to the trustor” (Mayer et al., 1995, p. 719).</td>
<td></td>
</tr>
<tr>
<td>Benevolence</td>
<td>“The extent to which a trustee is believed to feel interpersonal care and concern, and the willingness to do good to the trustor beyond an egocentric profit motive” (Mayer et al., 1995, p. 718).</td>
<td>Affective-based trust</td>
</tr>
</tbody>
</table>

To identify and define antecedents of trust Mayer et al. (1995) conducted a meta-analysis to examine understandings of trust from across multiple disciplines including socio-psychological, organizational, and management literature. He identified and defined three primary antecedents of trust and developed a definition for trust as well. Interestingly, the research of Mayer et al. (1995) isolates these three antecedents as individual one from the other. Each antecedent contributes a “unique perceptual perspective from which to consider the trustee” (Mayer et al., 1995, p. 717) making the three antecedents foundational for the empirical study of trust. These three antecedents of trustworthiness have remained the most commonly used antecedents in empirical research of trust across multiple disciplines including education.

More recently Rusman et al. (2010) conducted a meta-analysis of theoretical and empirical literature across multiple domains, disciplines, and contexts including online. The purpose was to better understand difficulties in forming interpersonal trust in online classrooms. The Rusman study extends Mayer’s findings by focusing on knowledge-intensive professional situations and isolating trust in the online classroom environment. The Rusman et al. (2010)
study found the antecedents for building trust in online classrooms to be like traditional classrooms despite the reduction of non-verbal immediacy\(^2\) in online classrooms. Therefore, the Rusman et al. (2010) study suggests that Mayer’s foundational three antecedents are applicable to online classroom relationships. Rusman et al. (2010) identified two additional antecedents to trust in online classrooms: communality and accountability. These will be excluded from this study because they are not linked to fiduciary relationships, but rather peer-to-peer relationships. It will be important in future research to study the influence of these additional antecedents on epistemic trust.

Additional research findings specific to trust relationships within online social learning networks draw into question the inclusion of ‘integrity’ as an antecedent to epistemic trust relationships. Based on this additional research it appears that two, rather than three, antecedent categories are significant: competence (expertise) and benevolence. A study by Abrams et al. (2003) found that when seeking information, solving complex problems, and learning through collaboration, only these two antecedents enable trust relationships that stimulate knowledge sharing and creation (Abrams et al., 2003). On the other hand, during development of the Muenster Epistemic Trust Index (METI) Hendriks et al. (2015) found that all three antecedents are sensitive to variation in source characteristics. Ridings et al. (2002) helps clarify the variation in study findings. The data of Ridings et al. (2002) suggests that in online learning networks “integrity” is subsumed into “benevolence” in trusting relationships (p. 287). The Ridings study found that many items that measure benevolence correlate with socially accepted standards and principles and so Ridings et al. (2002) created a combined dimension for integrity and

\(^2\) Physiognomy, gestures, body movements, posture and para-verbal cues
benevolence. Abrams et al. (2003) argument goes further to say that the third dimension of perceived “integrity” is perhaps not necessary when seeking an individual for knowledge sharing. The Abrams, et al. study chose to focus on competence and benevolence trust only. “It is not clear that seeking a person out for information or advice is contingent on that person following a particular set of principles consistently” (Abrams et al., 2003, p. 75). I propose that the trust relationship between an adult learner and the instructor extends beyond knowledge sharing, so I find it prudent to consider integrity as influencing the trust relationship. However, I will subsume integrity into the dimension of benevolence for studying the actions of the online instructor since this study is focusing on a highly discursive online classroom where knowledge sharing is paramount to the learning.

When studying the empirical research on trust it becomes apparent that there is a lack of consistency when naming the antecedents of trust. To establish a uniform terminology for this study, I have constructed taxonomy of terms displayed in Table 2.2. The terms are from the models or theories of trust in this literature review. I have chosen to use the two antecedent terms of expertise and benevolence/integrity, with integrity being subsumed under benevolence. Explanations are given under each category list in Table 2.2.
Table 2.2. Taxonomy of antecedent terms and selection of terms that will be used for this study.

<table>
<thead>
<tr>
<th>Benevolence/Integrity</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benevolence and goodwill are synonymous terms (&quot;Dictionary.com,&quot; 2016) so I use the more commonly used term of benevolence for this study.</td>
<td>Expertise rather than ability or competence is used for this study because it fits closely with the epistemic nature of the instructor as trustee in this study. I have noted in bold how the sub-categories of expertise align with the primary terms used in each author’s work.</td>
</tr>
</tbody>
</table>
| ♦ Benevolence (Hendriks et al., 2015; Mayer et al., 1995; McAllister, 1995; Rusman et al., 2010)  
  - Willingness to help (Rusman et al., 2010)  
  - Availability (Rusman et al., 2010)  
  - Sharing (Rusman et al., 2010)  
  - Faith in intentions (Rusman et al., 2010)  
  - Receptivity (Rusman et al., 2010)  
  - Friendliness/kindness (Rusman et al., 2010)  
  - Openness (Rusman et al., 2010)  
  - Caring (Rusman et al., 2010)  
  - Commitment (Rusman et al., 2010)  
  - Moral (Hendriks et al., 2015)  
  - Ethical (Hendriks et al., 2015)  
  - Responsible (Hendriks et al., 2015)  
  - Considerate (Hendriks et al., 2015) | ♦ Expertise (Hendriks et al., 2015)  
  - Knowledge (Kharouf & Sekhon, 2014; Rusman et al., 2010)  
  - Intelligent  
  - Well educated  
  - Experienced  
  - Qualified (Hendriks et al., 2015)  
  - Competence (Hendriks et al., 2015; Rusman et al., 2010)  
  - Skill (Kharouf & Sekhon, 2014; Rusman et al., 2010)  
  - Expertise (Kharouf & Sekhon, 2014)  
  - Ability (Kharouf & Sekhon, 2014)  
  - Credential (McAllister, 1995) |
| ♦ Goodwill (James C. McCroskey & Teven, 1999) | ♦ Ability (Mayer et al., 1995; McAllister, 1995; Rusman et al., 2010) |
| ♦ Benevolence/Integrity (Ridings et al., 2002) | ♦ Competence (Sekhon, Ennew, Kharouf, & Devlin, 2014) |
| ♦ Integrity (Hendriks et al., 2015; Kharouf & Sekhon, 2014; Mayer et al., 1995)  
  - Sincere (Hendriks et al., 2015)  
  - Honest (Hendriks et al., 2015)  
  - Just (Hendriks et al., 2015)  
  - Fair (Hendriks et al., 2015) | ♦ Competence (Abrams et al., 2003) |
| ♦ Internalized norms (Rusman et al., 2010)  
  - Integrity  
  - Discretion  
  - Honesty  
  - Fairness  
  - Loyalty | ♦ Ability (Ridings et al., 2002) |
| ♦ Reliable Role Performance (McAllister, 1995)  
  - Reciprocity  
  - Fairness | Excluded Terms | These terms have not been established as antecedents for trust in an expert, but rather for trust in peer equals. So, will not be used in this study. |
| ♦ Communality (group solidarity) (Rusman et al., 2010) | ♦ Competence (Sekhon, Ennew, Kharouf, & Devlin, 2014) |
| ♦ Cultural-Ethnic Similarity (McAllister, 1995) | ♦ Value alignment (Kharouf & Sekhon, 2014) |
| ♦ Accountability (Rusman et al., 2010)  
  - Reliability (Rusman et al., 2010)  
  - Consistency (Rusman et al., 2010; Sekhon et al., 2014)  
  - Self-confidence (Rusman et al., 2010)  
  - Persistence (Rusman et al., 2010)  
  - Responsibility (Rusman et al., 2010) | Excluded Terms | These terms have not been established as antecedents for trust in an expert, but rather for trust in peer equals. So, will not be used in this study. |

Excluded Terms
These terms have not been established as antecedents for trust in an expert, but rather for trust in peer equals. So, will not be used in this study.

♦ Communality (group solidarity) (Rusman et al., 2010)
♦ Cultural-Ethnic Similarity (McAllister, 1995)
♦ Value alignment (Kharouf & Sekhon, 2014)
♦ Accountability (Rusman et al., 2010)  
  - Reliability (Rusman et al., 2010)  
  - Consistency (Rusman et al., 2010; Sekhon et al., 2014)  
  - Self-confidence (Rusman et al., 2010)  
  - Persistence (Rusman et al., 2010)  
  - Responsibility (Rusman et al., 2010)
Classifying Instructor Actions that Promote Trust

Abrams et al. (2003) found that specific behaviors on the part of a knowledge expert promote trusting relationships and identified categories of these behaviors. These categories can be used as a guide for examining actions of the online instructor as he/she serves as knowledge expert in the online classroom. Abrams et al. (2003) studied the behaviors of managers who were leading online networks of employees in knowledge creation and sharing. In Abrams et al. search for trust building behaviors the focus was specifically on behaviors that promote two antecedents of trust: competence and benevolence. The researchers conducted 40 interviews across 20 organizations using a sampling technique that would give a broad perspective of how managers develop a trusting relationship with employees. In this way, the researchers sought to achieve a breadth of understanding. From continual iterations between the interview data and emerging themes the authors generated a set of ten consistent categories of actions that promote trusting relationships. In the Abrams et al. study the online managers and employees interact in a relationship that is epistemic in nature much like the online instructor and adult learner (the manager serving as expert as employees find information, solve complex problems, and learn how to do their work). The research of Abrams et al. (2003) advances the concept that trust in an expert can be elicited by certain behaviors exhibited through CMC by said expert. Abrams et al. identified specific trustworthy behaviors that were shown to elicit a perception of the knowledge expert as either competent, benevolent, or both. Abrams et al. coined these behaviors “Trust Builders” (Abrams et al., 2003, p. 67). Table 2.3 explains each “trust builder” and how each relates to competence and benevolence.
Table 2.3. Abram’s list of 10 Trust Builders (TB), definitions, and elicited antecedents. Definitions adapted from Abrams, et al., 2003, p. 67.

<table>
<thead>
<tr>
<th>Abrams Trust Builders</th>
<th>Definitions</th>
<th>Elicits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB 1: Act with discretion</td>
<td>Is clear about what is confidential, keeps those confidences. Holds others to the same.</td>
<td>Benevolence</td>
</tr>
<tr>
<td>TB 2: Be consistent between word and deed</td>
<td>Is clear about commitments, sets realistic commitments and delivers.</td>
<td>Both</td>
</tr>
<tr>
<td>TB 3: Ensure frequent and rich communication</td>
<td>Interactions are meaningful. Develops close relationships.</td>
<td>Both</td>
</tr>
<tr>
<td>TB 4: Engage in collaborative communication</td>
<td>Avoids being overly critical of ideas, doesn’t demand solutions, works with people to improve on their partially formed ideas.</td>
<td>Both</td>
</tr>
<tr>
<td>TB 5: Ensure that decisions are fair and transparent</td>
<td>Makes sure people know rules, the reason for the rules, and applies rules fairly. Trust of expert leads to trust of one another.</td>
<td>Benevolence</td>
</tr>
<tr>
<td>TB 6: Establish and ensure shared vision and language</td>
<td>Sets common goals, creates common language and ways of thinking. Looks out for misunderstandings, differences in jargon or thought process.</td>
<td>Both</td>
</tr>
<tr>
<td>TB 7: Hold people accountable for trust</td>
<td>Does not reward untrustworthy behavior, publicizes key values such as trust</td>
<td>Both</td>
</tr>
<tr>
<td>TB 8: Create personal connections</td>
<td>Create human connections based on non-work commonalities. Maintain quality connection occasionally discussing non-work topics.</td>
<td>Benevolence</td>
</tr>
<tr>
<td>TB 9: Give away something of value</td>
<td>Take risks sharing expertise, contacts, and resources.</td>
<td>Benevolence</td>
</tr>
<tr>
<td>TB 10: Disclose your expertise and limitations</td>
<td>Makes clear knowledge and limitations. Admits when doesn’t know something and defers to others who know more on certain topics.</td>
<td>Competence</td>
</tr>
</tbody>
</table>

When the knowledge expert, based on trustworthy behaviors, is deemed competent it builds a cognition-based trust relationship (Abrams et al., 2003); the first of two requisite components of epistemic trust. In same fashion, when the knowledge expert is perceived as benevolent the trust relationship advances to include affective-based trust (Abrams et al., 2003) the second requisite component of epistemic trust. In this way “Trust Builders” connect the behaviors of a knowledge expert with the two principle components of epistemic trust: cognition-based trust and affective-based trust. Together cognition-based trust and affective-based trust are the requisite principle components of epistemic trust (McCraw & Mollwo, 2015). Because the trust exists in a fiduciary relationship the trust relationship is epistemic.
The findings of Abrams et al. (2003) provide the opportunity to extend this concept of trust building behaviors of a knowledge expert to the trust building actions of the online instructor. Abrams’ Trust Builders serve as a guide to explore the trust building actions of the online instructor that might elicit an epistemic trust relationship with the adult learner. This in turn will improve the understanding of how the online instructor might influence their trust relationship with the adult learner. Lastly, Abrams et al. (2003) used the term competence-based trust in lieu of cognition-based trust and benevolence-based trust in lieu of affective-based trust. I find these terms for the principle components of epistemic trust to improve transparency of the terms. For this reason, I will use these two terms for my study to name the two principle components of epistemic trust: competence-based trust and benevolence-based trust.

To sum up, in this section I clarified how trust develops and the relationship of epistemic trust with other forms of trust, framing the types of trust into a developmental continuum of levels. In this section I also isolated the two key characteristics known as antecedents that influence the adult learner’s perception of the instructor as trustworthy. I included a synthesis of antecedent terms used by key researchers to guide the choice of terms for this study. Finally, I explained how the Trust Builders of Abrams et al. (2003) could serve as a lens for examining the trust-building actions of online instructors and introduced the more contemporary terms of competence-based trust and benevolence-based trust.

In the next section I will introduce trust-promoting actions of the online instructor that I have identified through my research. I will use the instructor’s role in the online classroom to explain in detail how the three types of instructor actions influence the epistemic trust.
relationship of the adult learners with the instructor, presenting literature related to the stated research questions.

**Trust Promoting Actions of the Instructor**

I present in this section a review of scholarly research on trust relationships between the online instructor and adult learner. This research informs how the instructor’s facilitation of online higher-education classrooms builds what I believe to be epistemic trust, a unique form of trust with adult learners. I include research that explicates the three types of instructor actions that impact the trusting relationship with the adult learner. Using the four primary functions of the online instructor (Pratt & Palloff, 2007) I will explain why the instructor might use these actions. This will provide a foundation for the reader to better understand the empirical research that describes what is known to date regarding these three instructor actions that have been shown to build trust in online classrooms. The trust promoting actions have potential to influence an epistemic trust relationship between the instructor and adult learner. When the instructor presents to the adult learner as competent and benevolent, it promotes both components of epistemic trust. Actions of the online instructor that have been shown to maintain and build trust include: using *normative actions* to set and maintain a sense of control in the online classroom (Crisp & Jarvenpaa, 2013), interacting with adult learners *frequently* (McAllister, 1995) and *consistently* (Spencer, 2001), and using *immediacy actions* to communicate in an engaging and personable way that enhances social connections and communality \(^3\) (Arbaugh, 2001; Kharouf & Sekhon, 2014; Rusman et al., 2010). These trust-building actions are reflected in the categories of trustworthy behaviors identified by Abrams et al. (2003) and are outlined in Table 2.4.

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\(^3\) A feeling or spirit of cooperation and belonging arising from common interests and goals (“Dictionary.com,” 2016).
Table 2.4. The three categories of online instructor actions, their definitions, and the related trust builders.

<table>
<thead>
<tr>
<th>Instructor Actions:</th>
<th>Definitions:</th>
<th>Related Trust Builders:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normative actions</td>
<td>Sets and maintains a sense of control in the online classroom</td>
<td>TB5: Ensure that decisions are fair &amp; transparent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TB6: Establish and ensure shared vision and language</td>
</tr>
<tr>
<td>Frequent and consistent actions</td>
<td>Interacts frequently and consistently with adult learner.</td>
<td>TB3: Ensure frequent and rich communication</td>
</tr>
<tr>
<td>Immediacy actions</td>
<td>Communication behaviors that enhance closeness to and interaction with another</td>
<td>TB8: Create personal connections</td>
</tr>
</tbody>
</table>

Role of the Instructor in the Online Classroom

The instructor’s role in the online classroom can be generalized into four areas of function: pedagogical, managerial, social, and technical (Pratt & Palloff, 2007). In the pedagogical role, the instructor serves as subject matter expert and guide within the topic of study. The managerial function involves setting and monitoring norms in the classroom. The social function aims to develop a social learning community essential to online discourse and learning. The technical role necessitates the instructor be comfortable and proficient with educational technology and then transfer that level of comfort to the adult learners. These roles will be discussed within the context of instructor actions that build an instructor-adult learner trusting relationship.

The instructor’s pedagogical role in a highly discursive online classroom is to serve as facilitator and knowledge guide. However, it is not to serve as the sole or primary source of information. When an expert, such as an online instructor, is willing to share in a guided inquiry, the adult learner is more likely to trust the knowledge and information they share (Abrams et al., 2003).
The instructor, as manager of the online classroom, may earn epistemic trust from the adult learners by: respecting the contributions of every member, providing guidance for the collaborative interactivities, and giving the sense that they are all working together on something good and worthwhile, not ‘busy work’ (Meyerson et al., 1996). If adult learners have an epistemic trust relationship with the instructor, they will be receptive to the instructor’s guidance away from errors and wrong-thinking and will rely on the instructor’s expertise on the topic of study when needed (McCraw & Mollwo, 2015).

In the social role, the instructor’s continued encouragement and engagement with adult learners builds a relationship of epistemic trust with the class members. While early trust de-emphasizes interpersonal dimensions and is initiated based on broad categories of social structure, epistemic trust is determined through interactions and communication between the instructor and adult learner. The sooner the class is submerged into social and consequently cooperative interaction, the more activity is generated, and the more trust is sustained and augmented (Meyerson et al., 1996). At the early stage of the trust relationship with the instructor, communication is the important conduit by which enthusiasm and excitement are generated and socialization is enhanced. To build and maintain trust requires “proactive, enthusiastic, and generative styles of action” on the part of the instructor (Spencer, 2001, p. 157). Without continued facilitation and collaboration by the instructor higher levels of trust such as epistemic trust will not be attainable (Spencer, 2001). The online classroom interactivity is most often highly text-based and computer-mediated. So to overcome the sense of distance created by computer-mediated communication (CMC) the instructor and adult learner adapt their linguistic and textual behaviors to enable social relationships to develop (Walther & Burgoon, 1992).
The *technical* role of the instructor requires knowledge and skill in making the communication as seamless as possible in whatever form the medium takes (i.e., Learning Management System). A technically skilled instructor can bolster the adult learner’s confidence and transmit technical skills to the adult learner. As the instructor presents herself in the classroom in these various roles, her actions influence the adult learner’s perception of trustworthiness when *deciding* whether to epistemically trust the instructor and when ‘*feelings*’ of trust toward the instructor might be generated.

**Instructor Action #1: Setting and Monitoring Classroom Expectations**

Two ‘Trust Builders’ identified by Abrams, et al. (2003) can be achieved using normative actions. The first trust builder action is to ensure that decisions are fair and transparent, which will promote benevolence. The second trust builder action is to establish and ensure shared vision and language, which will promote both competence and benevolence.

In the role of classroom manager, the online instructor provides structure and order to the online classroom. To do this, the instructor uses norming strategies that are activated as normative actions. These actions include agenda setting, pacing, objective setting, rulemaking, setting and monitoring classroom behaviors, and decision-making. Through these actions the instructor also intends to establish a shared language and vision among learners and provide transparency to decision-making, thereby creating a trusting relationship with the adult learner. Online instructors who have transitioned from traditional to online classrooms have found they need to change the way they manage the classroom. In a three-year longitudinal qualitative study using semi-structured interviews Coppola, Hiltz, and Rotter (2004) asked instructors to describe how they manage the online classroom. Instructors explain it requires greater attention to detail,
more structure, and additional student monitoring. Overall, faculty reported a change in their teaching persona towards more precision in their presentation of materials and instructions, combined with a shift to a more Socratic pedagogy, emphasizing group dialog with multiple learners (Coppola et al., 2004). This highly interactive learning environment creates a sense of risk and uncertainty for the adult learner as they step into the spotlight of collaborative dialog. The adult learner trusts the instructor to balance classroom expectations and structure while at the same time allowing enough autonomy to stimulate learning. Abrams et al. (2003) study of trust building behaviors found that individuals need to know how and why rules are applied and that they are applied equally to all members. Managing with “fair and transparent decisions” invokes a perception of benevolence by those being managed (Abrams et al., 2003, p. 67).

There are several unique features in an online classroom that challenge the instructor’s ability to balance risk with security. The first unique feature is that online classrooms tend to be composed of highly diverse learners with varying social and cultural backgrounds. This is a result of co-location no longer being a prerequisite for enrollment. Diversity among learners is an asset for collaborative learning. But it also poses a management challenge for the online instructor. Establishing common goals early, looking for opportunities to create common terminology and ways of thinking is particularly important for a diverse group of online learners to minimize misunderstandings, and clarify differences in jargon and thought processes (Abrams et al., 2003). In Abrams, et al. study one manager described a scenario where a team decided to forgo the initial process of establishing a shared vision and language for the sake of ‘efficiency’. The group’s mandate was interpreted differently and as a result a lack of trust immerged. Similarly, the lack of a common language resulted in misinterpretation of others and suspicions
that others had a counterproductive ‘agenda’, caused trust to deteriorate. Researchers find that online learning communities are more effective, when they develop “shared goals, trust, and mutual support” (Shea et al., 2006, p. 176).

Another consideration in the online environment is the lack of face-to-face interactions. This reduces social cuing leading individuals to feel less socially constrained when conflicts arise (R.O. Smith, 2011). For this reason, explicit normative actions by the instructor are crucial to temper the risks for the adult learner when interacting in the asynchronous online classroom settings. In a longitudinal study of trust building and normative actions it was shown that normative actions play a critical role for maintaining trust and improving performance of diverse groups of online learners. Crisp and Jarvenpaa (2013) measured early (swift) trust, normative actions, and late trust within online learning groups whose members were intentionally made culturally diverse across three characteristics; temporal (varying time zones), cultural, and geographical. The subjects of the study were 280 undergraduate and graduate students enrolled in 12 universities across four continents. They found that the normative actions of peers sustained early trust beliefs throughout the 8-week assignment and improved the subsequent academic performance of the students (Crisp & Jarvenpaa, 2013). This suggests that the instructor’s normative actions may have a similar effect on trust development with adult learners and contribute to improved performance in the classroom. “The overall results are consistent with a causal chain from early trusting beliefs to normative actions to late trusting beliefs to team performance” (Crisp & Jarvenpaa, 2013, p. 53). This study also showed that normative influences emerged from normative actions, bolstering my confidence that collecting data about
normative actions for this study will accurately reflect normative influences of the instructor on the adult learner.

Using normative actions to manage an online classroom of adult learners must be carefully balanced so as not to unduly constrain the adult learners and impede the learner’s epistemic agency. Too much control, in other words strict direction and parameters of expectations for learning activities, inhibits the learning process by reducing adult learner’s need to collaborate and formulate new ways of thinking about the topic. If this constraint occurs the adult learner’s critical thinking and capacity for reasoned thinking fades (Crisp & Jarvenpaa, 2013; Williams & Lahman, 2011). Trust in the instructor can be impaired when the adult learners are constantly disrupted by “the teacher’s manner, discipline, language, assessment methodology, time restraints and the over-arching structure of the learning process” (Curzon-Hobson, 2002, p. 273). Jarvenpaa et al. (2004) queried how trust affects the attitudes and performance of learners engaged in instructional-technology relationships by conducting a two-part quantitative study. They found that too frequent and unnecessary communication was perceived as “nuisance” and suspicious lowering trust (Jarvenpaa et al., 2004, p. 263). If the instructor imposes too much control becoming perceived as authoritarian, then creativity and expression are suppressed by an overbearing relationship that reflects a lack of trust on the part of the instructor (Curzon-Hobson, 2002). Trust becomes unnecessary because the constraints of the instructor reduce risk and uncertainty. Williams and Lahman (2011) conducted content analysis of online discussions in upper and lower level undergraduate courses and found when learners are encouraged to engage with one another in a focused way their quality of reasoned
discourse and critical thinking improved with little moderation from the instructor. It is important the instructor be aware of balancing control as he/she sets and monitors norms in the classroom.

Ideally the instructor’s normative actions maintain a *moderate* interdependence among the adult learners. This allows the adult learners sufficient control over their contributions so that they are only moderately vulnerable to others who might take advantage of those vulnerabilities. The skilled instructor keeps his/her authority in balance, giving the adult learners the opportunity to exercise epistemic agency within a safe setting. If the adult learner epistemically trusts the instructor the learner will rely on the instructor to maintain a balanced level of authority and will take the risk of collaborative participation (McCraw & Mollwo, 2015). “The student’s willing recognition of this authority and the teacher’s ability not to abuse or relinquish it, is once again an essential aspect for the student’s trust of the teacher as a transforming educator” (Curzon-Hobson, 2002, p. 271). Positive learning outcomes are likely if the instructor is able to balance the tensions of interdependence by creating moderate structure in the learning environment and thus earning the epistemic trust of the adult learner (Jarvenpaa et al., 2004). Jarvenpaa et al. (2004) studied diverse online global teams of students given a common task. Quantitative analysis found trust had the greatest effect in weak structure, with moderate structure being the ideal balance.

In summary, the epistemic trust relationship of the instructor with the adult learner fills the gap in a classroom where the instructor uses normative actions to effectively balance freedom with moderate control so the adult learner can face the uncertainty and risk of participating in collaborative learning activities. How to use normative actions when facilitating a diverse group of online adult learners is a delicate balance of behavior control and group self-direction that
merits further inquiry. The managerial role enacted here through normative actions potentially creates the perception of the instructor as competent and benevolent, invoking the two necessary components of epistemic trust.

**Instructor Action #2: Frequent and Consistent Communication**

Abrams, et al. (2003) identified frequent and rich communication as a trust builder that elicits a perception of the knowledge-expert as competent and benevolent. The frequency needs to be perceived throughout the course but is particularly important early in the relationship. Communication is a key factor for creating epistemic trust. Epistemic trust is built on the adult learner’s positive perception (through communication) of the instructor’s good intent along with a positive perception of the instructor’s expertise (Landrum et al., 2015; McCraw & Mollwo, 2015). There are two instructor actions conveyed through communication that I believe influence the instructor-adult learner trust relationship. I will discuss these two types of instructor action in the next two sections. They are:

- Frequent and consistent communication actions, and
- Communication immediacy actions

Abrams et al. (2003) found that “frequent and rich communication” provides an avenue for trustors to assess the expert’s intentions, abilities, and actions (p. 65). Frequent interactions allow individuals to test their assumptions about others and determine their trustworthiness (Wade et al., 2011). Wade et al. (2011) surveyed 137 online college students about social tasks and their perceptions of a sense of community during online group work. The students reported a need to get to know the other group members on a personal level and develop supportive relationships in order to develop a sense of trust. However, the study found that while caring and
connectedness (surface-level trust) predicted the student’s level of trust, benevolence (deeper-level trust) did not. The authors suggest that while students may desire deeper relationships, surface-level trust is sufficient in online learning relationships. In contrast, Abrams et al. (2003) study found that benevolence was perceived through frequent communication and promoted a deeper-level of trust with a knowledge expert. Perhaps these results are in contrast because one is trust within a peer relationship, student-to-student, and one is an epistemic relationship, student-to-instructor, and the epistemic relationship compels a greater need for a deeper trust relationship.

While frequent and continuous instructor interactions with adult learners increase the opportunity for building a trusting interpersonal relationship, the quality of the interactions must be meaningful and connect on both a personal and professional level. Lewicki et al. (19,) stated the following as a result of their study:

> Relationships mature with interaction frequency, duration, and the diversity of challenges that relationship partners encounter and face together. Each of these components is essential. If the parties interact frequently and over a long period of time but only superficially, or if they have an issue-rich and frequent exchange but do so only around a limited and bounded problem, or if they interact around many issues but do so infrequently, these conditions limit the potential for the relationship to mature (p. 443).

When instructors invest in frequent communication early in the course, it deepens the trust relationship with the adult learners and maintains the trust throughout the rest of the course. The study by Coppola et al. (2004) showed that the instructor’s early communication built trust with the learners that augmented trust through to the end of the course. Early communication
includes task-related communication such as giving technical guidance and logistical or procedural help to learners. The Jarvenpaa et al. (2004) study also found that high trust early in the course buffers the disconnect that occurs with IT-enabled relationships. In their study a socialization exercise was introduced in the first half of some online courses and compared to other courses that had no such exercise. The study participants were globally diverse university students. In the socialization exercise bios were shared, differences were discussed, and common goals were identified. The researchers concluded that the early frequent communication that occurred because of the socialization exercise was critical to developing trusting relationships.

The asynchronous nature of online classrooms gives the instructor more opportunity for reinforcing trust compared to a face-to-face classroom. And as previously stated, online adult learners are more motivated to build trusting relationships in the online classroom (Wade et al., 2011). However, at the same time the temporal shift of time and space that impact online interaction makes communication less immediate and primarily text-based. This creates a challenge for the online educator who is attempting to connect with adult learners in a timely and predictable fashion within an asynchronous setting. The instructional tools, instructional methods, and applications used in the online course create a social and psychological distance between the instructor and learners. By being active and consistent in the online classroom the instructor can overcome these barriers to foster a trusting relationship and leverage the advantages of the asynchronous setting.

Demonstrating a consistent pattern of communication rather than a large quantity of communication deepens trust and promotes knowledge sharing (Bulu & Yildirim, 2008). In this regard, the learner’s perception of the interactions with the faculty may be more important than
actual measurements. Swan (2002) surveyed students enrolled in 264 higher education online courses and showed a significant relationship between the interactions students believed they had with their instructors and their satisfaction with their courses and their perceived learning from them. The study also showed that the relationship between students’ perceived interaction with their instructor and the actual frequency of instructor feedback was weakly significant. From this Swan (2002) suggested that the quality of interaction with instructors is more important than the quantity of interactions. Swan (2002) concluded that the instructor’s interactivity with adult learners is “an important factor in the success of online learning” (Swan, 2002, p. 32).

Hsu, Chang, and Yen (2011) surveyed 324 members of an open virtual community and found perceived responsiveness had a significant positive effect on trust. When members were perceived as responsive and thus trustworthy it increased other members’ knowledge-sharing intentions, an asset to discursive, knowledge-building online classrooms. Bulu and Yildirim (2008) conducted a mixed method study of higher education learners and found a consistent regular pattern of communication yielded the highest level of trust relationship. In this study, the group of learners that was the most immediate to respond to one another had the least number of discussion posts. Because of responsiveness they had built a trust of one another so they were not compelled to monitor or try to manage each other’s contributions to the group project. Initial enthusiasm and social interaction seemed to help build trust in the early period, along with helpful behaviors displayed when members expressed task and technical uncertainties early in the course. Ridings, Gefen, and Arinze (2002) collected 663 survey responses from multiple active virtual communities finding that perceived responsiveness promotes trust in others expertise (cognition-based trust) and trust in others benevolence/integrity (affective-based trust):
the two requisite dimensions for epistemic trust. This is not to say that responsiveness in an online community will elicit epistemic trust, but it does suggest that perceived responsiveness could elicit the same dimensions of trust necessary in an epistemic trust relationship between adult learner and instructor.

In summary, when building trust relationships online the perception of the instructor’s frequency and consistency of interactions is key. Online environments have distinct advantages and disadvantages over traditional classrooms in this regard. The advantage of ‘always available’ gives the instructor the opportunity to build more trusting relationships with adult learners using frequent and consistent presence in the classroom, particularly in the early weeks of a course. The disadvantage is the distance created by computer-mediated communication and technology tools of the online classroom. These can be overcome by the instructor’s adeptness at traversing the technology and having quality interactions with the adult learners, while supporting their technological needs.

**Instructor Action #3: Personable and Engaging Communication Using Immediacy Actions**

Immediacy actions are a set of communication behaviors that instructors can use to enhance closeness to and interaction with adult learners. The immediacy actions help create personal connections. Creating personal connections is a trust builder of Abrams, et al. (2003) that promotes benevolence.

For the instructor to develop an interpersonal trusting relationship with adult learners their communication in the online classroom should convey immediacy that is engaging and personable (Abrams et al., 2003). Using personable and engaging communication is important for the social and technical roles of the instructor in the online classroom. The technical role
requires an instructor that is technically savvy and comfortable in connecting across a computer-mediated relationship to ‘meet the adult learners where they are’⁴. The instructor imparts this comfort, as well as supportive guidance to the adult learner who may have trepidations in using education technology tools (Crisp & Jarvenpaa, 2013). In this way, they are perceived as helpful and competent (trustworthy). The instructor fulfills the social role using communication immediacy to help adult learners feel connected with them and one another in a safe environment of mutual trust (Shea et al., 2006).

Rusman et al. (2010) compared the adult learner’s perception of the instructor’s verbal immediacy in traditional and online classrooms and found little difference despite very different mediums for communication. Because the term verbal is a misnomer for online communication the common practice for research of online immediacy behaviors is to use the term “communication immediacy” rather than “verbal immediacy”. In an online classroom communication immediacy is conveyed primarily through text-based communication that includes some unconventional social cues.

Gorham (1988) identified immediacy behaviors (or actions) and developed a measure of verbal and non-verbal behaviors known as immediacy behaviors. When these behaviors are exhibited by instructors in interactions with learners, it creates a more engaging atmosphere in which the teacher-student relationship can build (McCroskey & Richmond, 1992). Immediacy behaviors are defined as “communication behaviors that reduce social and psychological distance between people” (Arbaugh, 2001, p. 43). Immediacy behaviors are expressed through verbal communication, non-verbal communication or, in the case of online classrooms,

⁴ This is a commonly used phrase in the literature of online adult higher education so no reference is required.
computer-mediated communication. Arbaugh (2001) studied MBA students and determined through a survey of 390 graduate students that verbal immediacy behaviors are a significant predictor of student learning.

In traditional classrooms, non-verbal immediacy serves to enhance communication with physical proximity, touch, eye contact, facial expressions, and gestures. In the online classroom however, non-verbal immediacy is near absent unless the instructor uses audiovisual enhancements. Not surprisingly the online adult learners have little-to-no expectation of nonverbal immediacy in online classes (Arbaugh, 2001). A study by Schutt, Allen, and Laumakis (2009) demonstrated that when instructors use audiovisual enhancements, the non-verbal immediacy is effectively conveyed. Schutt et al. (2009) compared the effects of immediacy behaviors through video or audio presentations in online course work. Higher education learners were randomly assigned to one of four groups. Each group watched an audiovisual presentation or listened to an audio-only presentation by the same instructor. The instructor altered the immediacy behaviors between each presentation to be high for one group and low for the second group. This was done in both media formats: audiovisual and audio-only. The learners in the high immediacy group in the audio-only presentations perceived the instructor to be caring, empathetic, emotionally expressive, and disclosing of personality. In comparison to the learners that viewed the audiovisual presentation with high immediacy there was a nominal difference in the learner’s perception of the instructor. These results suggest that while audio-only lacks any non-verbal cues, caring and empathy can be conveyed through verbal immediacy only. It is important to study whether these instructor characteristics can be conveyed through text-based
communication in the online classroom where non-verbal immediacy behaviors are also hindered.

In an exploratory survey study of 93 adult learners thematic analysis revealed that when the online instructor’s communication is enhanced with videos it is effective in reducing perceived physical and psychological distance (Walkem, 2014). Though media tools may mitigate the psychological distance they are not yet commonly used in online courses (Palloff & Pratt, 2013). According to social information processing theory, when communicating through computer-mediated communication users present socially revealing behavior by adapting their linguistic and textual behaviors (Griffin, 2014). This behavior results in reducing uncertainty for others, a barrier that needs to be overcome when developing trust. By reducing uncertainty, the opportunity to build trusting relationships is increased. Examples of this might be sharing personal stories, using humor, and connecting through similar circumstances or backgrounds (pets, living locations, schools attended). When online instructors, in their social role, attempt to make a social connection with adult learners, they adapt their way of communicating (Coppola et al., 2004) to attempt to penetrate the psychological distance created by computer-mediated communication. Instructors use language and textual gestures to engage in a personable way with learners and build interpersonal relationships. Online instructors attempt to bridge the interactive divide that exists when using CMC by creating “a unique social climate that impacts interactions and group dynamics online” (Gunawardena, 1995, p. 148). Instructors who display high communication immediacy rate higher with online adult learners for competence, trustworthiness, and caring (Teven & Hanson, 2004). Swan (2002) collected data from 73 online graduate courses in education. Using content analyses of the asynchronous discussions she
determined that immediacy behaviors lessen the psychological distance between instructors and adult learners, leading to greater learning.

Landrum, Eaves, and Shafto (2015) propose a theoretical framework for explaining how learning in a social situation necessitates the learner’s trust in the instructor’s expertise. They suggest that “automatic psychological reasoning involved in trust and learning creates a dynamic process of social learning that evolves over time” (p. 111). When an instructor is perceived as helpful and “nice” as well as knowledgeable the learner’s beliefs about the instructor evoke epistemic trust; a belief in the instructor’s expertise in the subject matter and the instructor’s ability to guide the instruction. Computational modeling of epistemic trust by Shafto, Eaves, Navarro, and Perfors (2012) suggested that the instructor’s knowledgeable alone did not account for the learner’s epistemic trust in the instructor. Instead it was best explained by their beliefs about the instructor’s intent, judged by both helpfulness and knowledgeable of the instructor. Studying how students infer which instructors are trustworthy informed Shafto’s model. The study involved observing students make inferences about the trustworthiness of a teacher when seeking novel information.

According to Teven and Hanson (2004) “While communicating in class, teachers send messages about their level of competence, trustworthiness, and caring for those students. The verbal and nonverbal behavior of teachers provides information to students that generates meaning within the context of an interpersonal relationship” (p. 42). Teven and Hanson (2004) studied 275 undergraduates enrolled in a basic communications course. The participants were randomly assigned to read one of four scenarios; each scenario was manipulated in four different combinations (2 x 2) of high and low verbal caring (immediacy) and high and low non-verbal
immediacy. The experimental study found when verbal immediacy was manipulated there was a significant impact on the participant’s perception of the instructor’s competence and trustworthiness. The credibility instrument was composed of twelve, seven-step semantic differential scales, six scales for competence and six scales for trustworthiness. This study indicates that instructors generate more positive student perceptions of credibility by using more explicit, verbally caring messages directed towards their students. What is noteworthy about this study is that teachers who did not express non-verbal immediacy, yet expressed a high level of verbal caring still generated positive student perceptions of competence and trustworthiness. Conversely, the teacher that does not express verbal caring/immediacy, regardless of their level of non-verbal immediacy was ranked lower in competence and trustworthiness. This suggests that instructors, whose non-verbal immediacy is hindered, as is the case for online instructors, can still generate higher perceptions of trustworthiness by using explicit verbally caring messages through verbal immediacy. This makes it important to learn more about communication immediacy in the online classroom. Based on their findings Teven and Hanson (2004) recommend "college faculty would do well by developing the skills and behaviors that communicate caring and immediacy both verbally and nonverbally to increase their effectiveness in the classroom” (p. 51). For the online instructor, this may indicate using communication immediacy actions (which are highly textual in the online classroom) to boost epistemic trust via credibility as measured by competence and trustworthiness.

Ridings, Gefen, and Arinze (2002) concluded from their study that members of online discussions trust individuals more when they confide something personal about themselves. Ridings et al. (2002) found that these personalized interactions induce trust in one’s ability,
integrity, and benevolence. Abrams et al. (2003) findings support this as well. They found when a knowledge expert shares information about their personal lives, especially about similarities, a stronger benevolence-based trust develops. These connections that are not related to work make the instructor seem more human and thus more trustworthy.

In summary, the instructor’s communication immediacy has a strong positive influence for building a trusting relationship with adult learners. It significantly shapes adult learners’ perception of the instructor’s ability, expertise, and trustworthiness. This immediacy comes through alternating linguistics and using textual-cues within communication immediacy actions.

**Conclusion**

In this last section I outlined the literature that supports each of three instructor actions that potentially encourage the adult learner’s perception of the online instructor’s trustworthiness. It is important to further study whether these actions improve the trust relationship of the adult learner and online instructor. This research may possibly support further research on epistemic trust in the online classroom, and give practical ways that instructor actions in the online classroom can be leveraged to reap the academic and learning benefits of epistemic trust in the online classroom.

One perplexing conflict I have found while researching trust in the online classroom is the inconsistency in identifying the benefits of trust and the level of trust needed for effective online work. For example, in the studies I discussed in this chapter Tseng and Yeh (2013) found that level of trust did not improve performance; Coppola et al. (2004) concluded that swift trust was enough for learners to be successful, while Bulu and Yildirim (2008) found that swift trust was not enough and a deeper benevolence-based trust is needed for success in online
collaboration. Whether swift trust is enough for adult learners to be effective or if deeper trust is needed all agreed that trust improved the performance of the adult learner as far as motivation, productivity, and perceived positive outcomes. Since epistemic trust involves achieving a deeper level of trust, meaning the instructor is perceived as benevolent, this study will Unfortunately, these studies were not specific to the adult learner-to-instructor trust relationship, but rather focused on trust among student peers. The studies did corroborate the importance of positive leadership that an instructor provides, which potentiates heightened trust and cohesion among the adult learners (Bulu & Yildirim, 2008; Grinnel, Sauers, Appunn, & Mack, 2012). Additionally, all these studies conclude that even though computer-mediated communication changes the dynamic for trust building interactions, high levels of trust are attainable in online learning environments.

Few researchers have examined in depth the trust relationship between adult learners and their instructors, or whether this trusting relationship is epistemic in nature. For the few empirical studies that explore trust in the instructor-learner relationship almost none refer to the trust relationship as epistemic, but rather simply label the trust relationship as interpersonal. This suggests there is a need for research to explore the role and significance of epistemic trust relationships in the online classroom. And how it impacts the learning experience and learning outcomes of adult learners.

**Terminology Guide**

Trust is a term that is often used loosely in scholarly writing. Frequently studies interchange the concept of trust with the concept of cooperation. Scholarly literature ambiguously relates trust to confidence and predictability. Many times, trust is transposed with
terms such as motivation and communication. Research relates trust to risk, yet there is a lack of clarity in what the relationship is between trust and risk (Mayer et al., 1995). Although scholars frequently use the two terms ‘trust’ and ‘trustworthiness’ interchangeably (Greenwood & van Buren, 2010), there is a useful distinction to be made between the two terms. Trustworthiness is a characteristic of the trustee, upon which the trustor forms a judgment. Trust is the resultant willingness of the trustor to adopt trusting behaviors towards the trustee (Mcknight et al., 1998).

**Definitions**

To add clarity to this study, the following definitions are provided.

- **Accountability** - The degree to which a person is liable and accountable for his/her act and meets expectations of another person.

- **Affective-based trust (ABT)** – a form of trust that is based on emotion. It is a relational trust formed from repeated interactions with others. Closely related terms; knowledge-based trust, benevolence-based trust.

- **Benevolence** – The individual has pure motives of altruism and is propelled to tell the truth. They display behaviors relevant to the needs and desires of the trustor.

- **Cognitive-based trust (CBT)** – a form of trust that is based on a cognitive decision to trust. A judgment is made of competence and reliability of the trustee during initial interactions. Closely related terms; calculative-based trust, competence-based trust.

- **Communality** - Personal characteristics that the trustor has in common with the trustee such as a similar goal they want to achieve, shared language use, common identity characteristics or shared values. Even trivial ones, like a shared hobby or the same type of pet they have, can contribute to this category. Individuals with social, cultural, or ethnical similarity.
- **Communication immediacy** - communication behaviors that "enhance closeness to and interaction with another" (Mehrabian, 1969, p. 203).

- **Epistemic trust (ET)** – a form of trust with cognitive and affective components placed in someone for an intellectual reason (McCraw & Mollwo, 2015).

- **Expertise**– This is “a group of skills, competencies and characteristics that enable a party to have influence within some specific domain” (Mayer et al., 1995, p. 717).

- **Integrity** – An individual’s actions are congruent with their words. They exhibit a strong sense of justice. Display character that is open and fair. Their behavior is consistent with norms of reciprocity and fairness. They follow through on commitments.

- **Interpersonal trust (IT)** – “a positive psychological state (cognitive and emotional) of a trustor (person who can trust) towards a trustee (person who can be trusted) comprising of trustor’s positive expectations of the intentions and future behavior of the trustee, leading to a willingness to display trusting behavior in a specific context” (Rusman et al., 2010, p. 836).

- **Perceived risk** - The trustor's belief about the likelihood of gains or losses outside of considerations that involve the relationship with the particular trustee (Mayer et al., 1995, p. 726).

- **Swift trust** - A baseline level of trust that is present when a group of individuals who are strangers are placed in a cohort with a common goal. Several closely related terms include; early trust and initial trust.

- **Trust** - an attitude of positive expectation and willingness to depend on another (Mayer et al., 1995; McAllister, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998). A generalized expectancy of good will (Hendriks et al., 2015; Mcknight et al., 1998).
• **Trusting actions** - behaviors that increase the liability of the trustor (Jens Riegelsberger, Sasse, & McCarthy, 2005). This includes but is not limited to: helping behaviors, leadership, openness, and challenging or building on the ideas of others in dialog.

• **Uncertainty** - situations in which adverse events are possible, but for which no probabilities are known (Luhman, 1979; Jens Riegelsberger et al., 2005).
Chapter 3: Research Method

Introduction

In the previous chapters I presented an argument for why further research is needed in understanding the role of trust in online higher education classrooms. Educators need to better understand the instructor’s role in influencing the building of trust in online courses. Extant educational research on trust in online classrooms is limited in scope in that most studies focus on small group collaboration, with little research attending to what role trust in the instructor as knowledge expert plays in class-wide interactive activities.

In this chapter I describe the rationale for choosing a mixed method phenomenological research (MMPR) approach, how the qualitative and quantitative approaches were combined, and the assets of choosing this design. I also explain the theoretical underpinnings that guided the study for exploring trust in distance learning and why it is important to continue to learn about trust and the benefits it brings to adult learning. As these points are clarified it illuminates the importance for conducting this exploratory study.

The foundation of this study relies not just on the work of educational researchers, but also research from other disciplines including psychology, sociology, economics, and organizational behavior where the role of trust in online environments and online work groups is extensively studied. This additional research provides knowledge of trust in online professional groups that I used to inform a study of trust in online classrooms. The design of this study is grounded in these cross-discipline sources.

This study focuses on identifying a relationship between the learner’s perception of certain instructor actions during their interactions with the instructor and their resulting
perception of trustworthiness of the instructor. To discover the influence of the instructor’s actions in maintaining and building a trust relationship with adult learners in online classrooms, the study was guided by these research questions:

1. How and to what extent do certain actions by the online classroom instructor influence an epistemic trust relationship with the adult learner?

2. How do normative actions of the instructor (actions that control and direct the activities and interactions of the class) influence the epistemic trust relationship with the adult learner?

3. How do communication immediacy actions of the instructor (use of language that is engaging and personable) influence the adult learner to epistemically trust that instructor?

4. How does the instructor’s frequent and consistent presence in the online classroom influence the epistemic trust relationship with the adult learner?

Research indicates that the way the instructor manages the online classroom and interacts with learners impacts the epistemic trust the adult learner has in the instructor. Little has been researched concerning the learner’s perception of the interactions with the faculty regarding trusting actions and how their sense of trust in the instructor might change the learner’s experience of collaboration in the online classroom. This dissertation study contributes to the understanding of how the instructor’s actions while managing the online classroom and interacting with adult learners influences the level of trust realized by the learners. More importantly, I tell the story of the adult learner in regards to his or her “trust-in” (McCraw & Mollwo, 2015, p. 420) the instructor and how that impacts the online learner’s learning experience. The findings of this study add enlightenment to the instructor’s role and the importance of trusting relationships in the online classroom by contributing to the current body
of research on the trusting relationship between instructors and adult learners in online classrooms. The results of the study show how, through certain actions by the instructor, trust can be leveraged to improve learner experience and learning outcomes. Table 3.1 shows a timeline of research milestones, including preparation, data collection and analysis, and writing.

<table>
<thead>
<tr>
<th>Date</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed</td>
<td>Prepare consent documents and epistemic trust instrument.</td>
</tr>
<tr>
<td>Spring, 2018</td>
<td>Defend research proposal</td>
</tr>
<tr>
<td>Summer, 2018</td>
<td>Epistemic trust data collection and preliminary analysis</td>
</tr>
<tr>
<td>Summer, 2018</td>
<td>Conduct and transcribe interviews</td>
</tr>
<tr>
<td>Fall, 2018</td>
<td>Data analysis with NVivo software and SSPS. Write-up results.</td>
</tr>
<tr>
<td>Spring, 2019</td>
<td>Write-up (discussions, conclusions, and implications) and dissertation defense</td>
</tr>
</tbody>
</table>

**Research Approach**

Mixed methodology was a particularly good choice because of the exploratory nature of this study, (Creswell, 2007a; Judith L Green, Camilli, & Elmore, 2006). I used a single crossover mixed-method approach. In this type of mixed-method the qualitative and quantitative data are collected concurrently, with the quantitative method embedded (nested) within the predominantly qualitative method (Johnson & Onwuegbuzie, 2004). This approach of embedding the quantitative method within the qualitative method is illustrated in Figure 3.1 (Creswell, 2007a). With this design, there was one data collection phase, during which I collected quantitative measures and qualitative data together. The nested quantitative method addressed the first research question and served a supportive role for the qualitative data, which addressed the second, third, and fourth questions. By combining designs the quantitative method informed the qualitative and together the “full story” (Vogt, Gardner, & Haeffele, 2012, p. 37) of
the phenomenon of epistemic trust by online adult learners was told. By mixing methods, it
broadened the resulting understanding of trust in collaborative online courses by adding clarity to
the voice of participants, and suggested practical understandings of how the role of the instructor
benefits the online learner’s experience.

The research questions for this study were “hybrid mixed issue research questions”
(Plano, Clark & Badice, 2010 as cited in Frels & Onwuegbuzie, 2013, p. 185). To best address
my research questions a mix of quantitative and qualitative measures was indicated. Morgan
(1997) explains that quantitative and qualitative approaches are combined based on two factors,
which approach is primary and which approach is used first. In this study, the qualitative
component was primary, and the quantitative component was analyzed first. In this way the
preliminary quantitative data was used as a basis for analyzing and interpreting the qualitative
data (Glatthorn & Joyner, 2005). By establishing whether there is a correlation between trust
level and any of the three types of instructor actions it guided the focus of the thematic analysis
of the participant’s responses to the open-ended questions and strengthened the findings. The
process used to collect the quantitative and qualitative data is illustrated in Figure 3.2.
Figure 3.2. Visual representation of the order and logic of collecting the quantitative and qualitative data.

Mixed methods research allows for the use of multiple worldviews or paradigms (Creswell, 2007a). The method I chose aligns with a postpositive worldview that sees inquiry as a series of logical steps, supports the belief that participants bring multiple perspectives, and promotes rigorous methods of data collection and analysis. A postpositive worldview aligns with the philosophical assumptions and stances associated with MMPR inquiry. This approach fit the health sciences reflecting this researcher’s background and the educational setting of the participants in the study. As this was a qualitative dominant mixed method study that included descriptive statistics, a postpositive paradigm was appropriate to use because the complexity of the quantitative analysis techniques was limited (Frels & Onwuegbuzie, 2013). Ross and Onwuegbuzie (2014) developed an array of quantitative analysis techniques by level of
complexity. The levels range from one (1) to seven (7), with one being the least complex. This study used a complexity level of one (1) that involved measuring the mean and calculating the correlation coefficients.

For each of three instructor actions (independent variable) I calculated an average score and then correlated each of those with the epistemic trust score (dependent variable) using Pearson’s $r$. Even though correlation is weak by experimental standards and does not demonstrate causation, it does provide an indication of a statistical relationship and describes the degree to which differences in epistemic trust are accompanied by corresponding differences in each instructor action type (normative actions, communication immediacy, and regularity actions) (Vogt, 2005).

The quantitative findings serve two roles for validation of the study. Validity depends in the integration of both forms of data. With a concurrent design the quantitative findings were used for confirmation as well as complementarity, and presented with the qualitative findings. It yielded “partial understanding” of the epistemic trust phenomenon and suggested approaches and insight for the coding of the qualitative data. I took an exploratory approach with the qualitative data and constructed inferences by mining the data. Exploratory data analysis “fits fairly comfortably with qualitative kinds of analysis” (Behrens & Smith, 1996 in M. L. Smith, 2006, p. 459).

In a review of research on interpersonal trust development, Lewicki, Tomlinson, and Gillespie (2006) suggest that future researchers conceptualize trust as it develops “over time within interpersonal relationships” rather than using a “snapshot” approach where trust is studied as a static measurement in a controlled environment (p. 995). This study respected these
recommendations by examining the instructor-learner trust relationship after a span of interactions within an online course. Lewicki et al. (2006) also recommend the use of complementary methods for researchers of trust. In accordance, this study was mixed method phenomenological research (MMPR). The crossover mixed research approach provided the opportunity to display the qualitative and quantitative results together, and examined both data types side-by-side (Frels & Onwuegbuzie, 2013). The study presents collective descriptions using worldview rhetoric of social constructivism.

**Research Setting: Online College Classrooms**

Health sciences and nursing courses at the undergraduate upper level were selected for participant sampling and classroom observation. These courses contain weekly class wide discussions that are designed to promote critical thinking concerning the topic of study and are high-stakes (graded). The courses use problem-based learning strategies to stimulate discussions. The learning outcome assessment methods emphasized critical thinking, academic research, and writing. The courses are all offered in an 8-week term, meaning they are concentrated into a length less than a full semester. A knowledge expert prepares the content. The courses are designed using standards of the Quality Matters© rubric and comply with the Americans with Disability Act (ADA). Using concentrated online courses increases the challenge of developing trusting relationships among the learners for collaborative learning. Developing trust of any type or level is dependent on time and trust relationships are strengthened over longer periods of interactions.

The Middle States Commission on Higher Education accredits the college. It is a fully online college that serves adult learners with an average age of thirty-eight (38). The gender mix
is 46% men and 54% women. These figures are similar to the national statistics and circumstances for adult learners in higher education discussed in Chapter 1. The courses were chosen because of the multi-disciplinary aspect of the enrollees, the variations in instructor characteristics, the somewhat predictable enrollment numbers, and the similarity of course content being around the discipline of health sciences. Also, conducting the study in the context of the Health Sciences discipline better enabled me as the researcher to bracket out my past knowledge of the research content as is desired in a mixed method phenomenological study. As the researcher, I distanced my experiences from those of the participants. Appendix A lists information about the courses: title, course number, and enrollment.

**Research Participants: Adult Learners**

Upper level undergraduate adult learners and their instructors at a non-profit fully online higher education institution were recruited to participate in this study. Upper-level undergraduate students represent “adult learners” as described in Chapter 1. They are age 25 or older, have prior academic and personal experiences, and bring a maturity that reflects a self-concept, readiness, motivation, and orientation to learning of an adult learner (Knowles, 1990). Upper level undergraduate students present several assets to the goals of this study. They have prior higher education experiences that serve as a reference to their current lived experience of trusting the instructor in a course. The level of expression and articulation and broader vocabulary of the upper level student give their stories richer descriptions of nuanced characteristics in their experiences. The study instrument uses a semantic differential scale to measure epistemic trust. The semantic differential scale requires participants that are intelligent and cooperative and have a good knowledge of language and are able to make fine distinctions (Heise, 1970). The
language skills of the upper level student allowed a more accurate measure on the semantic
differential scale.

I used purposive sampling to select the adult learners and faculty in forty-eight upper
level undergraduate courses in the School of Health Sciences and the School of Nursing being
offered in the same 8-week term. Seven hundred and ninety-one adult learners were enrolled in
these courses with the average class size being 16.5. Students age less than 25 were not included
in the sample leaving 785 enrolled adult learners. Students surveyed within the last 90 days were
removed from the sample according to college policy (N=234). Students who cancelled their
registration were removed (N=36). The final number of study subjects was 515 adult learners
and 44 instructors.

The adult learners were predominantly nursing and health science majors, but also
included multi-disciplinary majors including liberal studies, business, technology, nursing, and
health sciences. To encourage participation, the importance of the study was clearly
communicated along with a commitment to share results with the participants.

A subset of the adult learner participants in Part 1 of the survey was selected to
participate in Part 2 of the Epistemic Trust Survey Tool (n=48). These participants were enrolled
in the classrooms of the four interviewed instructors. The survey was incentivized with a $10 gift
card and reminders were sent out weekly for four weeks. Due to a low response rate in week one
participants enrolled in the two alternate instructor classrooms were added to the participant
group (n=34) in an attempt to increase the responses.
Research Participants: Online Instructors

A purposive sampling of 4 online faculty instructors was recruited to participate in the interview portion of the study. The Muenster Epistemic Trust Index (METI) was used to guide selection of instructor participants. Instructors who scored the highest and lowest on the METI were selected for interview participation. The mean epistemic trust score overall was 37.99 with scores ranging from -1 to +42 on a scale of -42 to +42. The epistemic score of each instructor was calculated by averaging the METI scores submitted in the Epistemic Trust Part 1 Survey Tool. Of the consenting faculty two with high epistemic trust scores and two with low epistemic trust scores were chosen for interview. An alternate instructor participant for both high and low score was also selected.

A variation in instructor ability to build trusting relationships is desirable to achieve rich qualitative stories for analysis and strengthen quantitative correlations. The instructors represent different backgrounds of: years of teaching, experience teaching either online only or face-to-face and online, subject matter taught, level of education, and gender. These variations were classified using NVivo software. No coaching or training was provided to the instructors as an organic evaluation of their innate ability to earn the adult learner’s trust is desired. A gift card was given to instructor participants that were interviewed as a thank you for their participation.

Research Tool: Epistemic Trust Instrument (ETI)

I developed the epistemic trust instrument to use specifically for this study to collect both quantitative data and qualitative data from adult learner participants. The epistemic trust instrument is a combination of three Likert scales modified for online environments, a semantic differential scale, and a visual differential scale. The visual differential scaling with open
comments was included to further stimulate respondent’s cognitive and emotional associations with trust in the instructor. Adding other forms of data such as the visual differential is acceptable for a phenomenological approach (Creswell, 2007b). Appendix B contains a copy of the study instrument. The study instrument collects the data directly from respondents.

**Epistemic Trust Instrument (ETI) Part 1**

To answer the first research question, “How and to what extent do certain actions by the online classroom instructor influence an epistemic trust relationship with the adult learner?” the quantitative data measurements are collected using Part 1 of the Epistemic Trust Instrument. Likert scaling measures the learner’s perception of the instructor’s actions to include normative actions, regularity actions, and communication immediacy actions. Semantic differential scaling measures the learner’s level of epistemic trust for the instructor. The scales and how they were modified is below:

- **Normative Action Survey** that measures **normative actions** (Crisp & Jarvenpaa, 2013). The normative action survey is adapted from a study used for online student groups. The wording was adapted to refer to the instructor in a class, rather than peers in a small group. There are two sub-scales for “setting” performance norms and “monitoring” performance norms.

- **McAllister’s Interaction Frequency Scale** measures **regularity** of classroom-related interaction with the instructor (McAllister, 1995). *McAllister’s Frequency of Interaction Scale*. To measure frequency of interaction McAllister uses four items adapted from an instrument developed by Wilson (1988). Respondents describe the frequency of various forms of their classroom-related interaction with the instructor on a five-point scale ranging from daily to never. The scale was adapted to time measures that match an online classroom.
• Gorham’s Verbal Immediacy Scale adapted for online use that measures \textit{communication immediacy actions} (Velez & Cano, 2008). \textit{Gorham’s verbal immediacy behavior scale (VIBS)}. Other researchers using the VIBS in online environments have adapted the wording to fit the context. For this study wording was adapted to align with the online classroom environment. The descriptive words used for communication method is the only change from traditional language to online language, for example “\textit{post and reply in discussions}” replaces “\textit{talk}”. In this way, the integrity of the scale is not affected.

• Muenster Epistemic Trust Index (METI) is a semantic differential scale that measures \textit{epistemic trust} (Hendriks et al., 2015). \textit{Epistemic Trust and the METI}. The METI is a semantic differential. The index measures epistemic trust. The three pure scales measure the three antecedents of interpersonal trust. A semantic differential is commonly used in attitude research and has been used prolifically in social research to measure affective attitude changes. It measures individual’s reactions to stimulus words on bipolar scales. The scales are defined with contrasting adjectives at each end, and the scales range from either -3 to +3 or 0 to 7. For this study, I used -3 to +3. Semantic differential scales can be used with adults from all walks of life and cultures (Heise, 1970).

The first three scales measure the students’ direct and indirect observation of the instructor’s normative actions, regularity, and communication immediacy (Lewicki et al., 2006). The scales are adapted from similar studies of online teaching. When designing survey instruments it is acceptable and appropriate to draw on the research of others. In this case I am using the same scales as similar studies of trust and online learning and adapting them with modifications or item deletions (Berends, 2006). The adaptations fit the online setting and
directed the adult learner to respond specifically about their instructor. Likert-type scales are widely used in psychology research. In this study, the scales were used to establish a numeric indication of the learner’s valuation of instructor actions.

The fourth scale is a semantic differential that measures the respondent’s level of trust of an expert. For this study, it measured the learner’s levels of trust of the instructor. Semantic differential indices are very accurate for assessing attitudinal measures such as trust. It is an excellent way to investigate quantitatively how respondents evaluate a phenomena such as trust (Vogt et al., 2012). The first author of the Muenster Epistemic Trust Index was consulted for permission to use the index and commented that the tool is well-suited for this study (correspondence: Hendriks, Kienhues, & Bromme, 2016).

Typically, a semantic differential measures a concept rated on several pure scales. In the case of the METI there are three (3) pure scales that measure the concept of epistemic trust. A distinguishing feature of the semantic differential is its reduction of ratings to three basic dimensions of variation. These dimensions form a three-dimensional space called the semantic differential space. The three dimensions of epistemic trust are expertise, integrity, and benevolence. These three dimensions are the three antecedents of interpersonal trust (Mayer et al., 1995; McCraw & Mollwo, 2015). Hendriks, et al. (2015) developed the METI for the purpose of measuring “epistemic trustworthiness, that is, all judgments laypeople make when deciding whether to place epistemic trust in–and defer to–an expert” (Hendriks et al., 2015).

**Epistemic Trust Instrument (ETI) Part 2**

While Part 1 of the ETI is designed to collect the quantitative data to address the first research question, Part 2 is designed to collect qualitative data to address the three remaining
research questions. Part 2 explores descriptive data collected through open-ended research methods that include ten (10) open-ended questions and a visual semantic differential scale that lends richness and additional insight into the participant’s thinking process and expression of their experience. Phenomenological studies sometimes use images or drawing to explore participant’s emotional response to a phenomenon (Creswell, 2007b). Because the conceptual framework of epistemic trust contains cognitive and emotionally tied constructs, I intended that these cognitive representations might elicit a cognitive and/or emotional response allowing respondents greater insight into their experiences. The images are neutral in regard to suggesting any demographic features. An example of one visual differential that can represent several constructs such as (but not limited to) honesty/dishonesty, integrity/lack of integrity, fair/unfair, or honor/dishonor is given in Figure 3.3. The respondent is asked to choose one image and comment on how it might represent their experience with the instructor.

![Image of a visual differential scale](image)

*Figure 3.3. An example of a visual differential scale used in the epistemic trust that might represent integrity/dishonesty. Complete set of visual differential scales is in Appendix B.*

Using open-ended questions and a visual differential scale opens the opportunity to collect ‘rich text data’. Elicited text can also be collected through interactive means such as interviews with the researcher. By collecting the text data through an open-ended questionnaire instead of interviews there are advantages and disadvantages. Using online open-ended
questioning carries advantages. One advantage is that more candid and confidential responses may be given – a distinct advantage in this case because the phenomenon of trust is dominated with emotions. Secondly, elicited text generates data very similar to interview data (Bryant & Charmaz, 2010). Another advantage I would see is in reducing transcription error. Some disadvantages might include the inability to follow up and redirect questions, inability to check the validity of a story, to raise additional questions, or to encourage a response. The disadvantages for not using interview are nominal because my focus is on identifying themes. Using the self-administered epistemic trust instrument does leave this study vulnerable to the writing skills and practices of the respondents. Hence the selection of upper-level undergraduate students as previously described.

**Pilot of the Epistemic Trust Instrument**

To check for clarity of the instrument eight (8) volunteers with online learning experience tested the questions. Berends (2006) suggests piloting the open-ended questions with a group of respondents who are similar to those who will participate in the study. The pilot group gave feedback on whether the questions were difficult to answer, whether there was clarity or confusion on what was being asked, and if the participant would recommend the question for use in the study. From this feedback, the best 10 open-ended questions were selected for the instrument. The pilot participants also gave example responses to the questions. This gave further insight into what direction the actual respondent’s answers might take. For this reason, one of the questions was selected despite the lower recommendation of the respondents. This particular question elicited the pilot participants to answer with insight on the trust relationship with their instructors. The participants may have not recommended the question because it was
poorly phrased. So, the phrasing was repaired for clarity and the question was retained. The length of time for addressing the interview questions was also assessed in the pilot. Participants noted fatigue at question #13. This indicates 10 questions are a valid target for assuring full participation and attention by participants. The set of open-ended questions is in Appendix B. The visual semantic differential using non-descript figures as images was also tested during the pilot and was very popular with the respondents. They felt very strongly that it should be included in the instrument, that it elicited additional emotions and thoughts about their experience.

**Other Instruments for the Study**

I wrote the prompts for the instructor interviews and wrote an analytical protocol to be used for the classroom observations. When writing the interview prompts I was cognizant to make the open-ended questions clear and not leading, and allow for additional probing if necessary. The questions were intended to stimulate responses that consider the constructs of instructor actions, antecedents that stimulate epistemic trusting relationships, and constructs of epistemic trust. The analytical protocol was developed similarly to the interview questions, using the same constructs. The list of interview questions and the analytical protocol are in Appendix C.

**Recruitment, Informed Consent, Demographics and Redacting**

The Analytics and Decision Support Department at the college where the study took place distributed Part 1 of the Epistemic Trust Instrument to adult learner participants via email with a link to the instrument. The email was sent to the college official email on file for each participant, excluding any in which the student indicated “Do Not Contact”. A reminder was sent
to any participants that did not respond within one week. Faculty communicated with students within the courses to encourage participation in the study. Administering the instrument using Qualtrics software offered the opportunity to survey a large number of research participants.

To encourage participation, the importance of the study was clearly communicated along with a commitment to share results with the participants. Participation was incentivized to maximize response rate by offering entry in a gift card drawing for the participants that completed Part One of the Epistemic Trust Instrument displayed in Appendix B. An adequate response rate was expected because participation was voluntary. When individuals willingly participate in research they tend to give honest answers and a greater effort to remember events clearly (Vogt et al., 2012).

The epistemic trust instrument begins with a consent form. Only if the consent form is electronically signed can the respondent move on to the rest of the epistemic trust instrument. The consent form is in Appendix D. The Qualtrics instrument was programmed to redact respondent’s personal information and input the demographics of age and gender from the college student information system. The software also embedded the name of the instructor specific to each respondent within the items. The epistemic trust instrument requested additional general demographic information from the respondents: previous online learning experience, and employment status. Statistical analysis later in this chapter provides a profile of the participants.

For Part 2 of the Epistemic Trust Survey Tool a select subset of adult learner participants received an email invitation to participate in (n=48). These were adult learners enrolled in the classrooms of the four interviewed instructors. The survey was incentivized with a $10 gift card and reminders were sent out weekly for four weeks. Due to a low response rate in week one
participants enrolled in the two alternate instructor classrooms were added to the participant group (n=34) in an attempt to increase the responses.

Instructors in the purposive sample (n=44) were sent an email invitation asking if they would participate in the research study in the form of an interview. The email contained a link to the electronic consent form. A list of instructors who completed the consent form (n=15) was provided to the PI. Appendix D contains all invitations and consent forms.

**Data Collection**

This section explains the data collection process. The research questions guided the choice of design and method of collection. Table 3.2 gives an overview of the methods data collection that was utilized for each research question.
Table 3.2. Overview of the Research Questions, Participants, Methods of Data Collection, and Data Analysis

<table>
<thead>
<tr>
<th>Research Question:</th>
<th>1. How and to what extent do certain actions by the online classroom instructor influence an epistemic trust relationship with the adult learner?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants:</strong></td>
<td>Adult learners</td>
</tr>
<tr>
<td><strong>Data Collection Method:</strong></td>
<td>Epistemic Trust Instrument Part I (scales)</td>
</tr>
<tr>
<td><strong>Data Analysis Method:</strong></td>
<td>Compress semantic differential data for averages of the three sub scales and the overall scale average. Using NVivo software, calculate average scores of the three survey/scales. Using SPSS software to calculate correlation of instructor action types with METI scores. Represent with scatterplots and correlation matrices. These represent weak or strong relations of the instructor actions with the learner’s measured levels of trust. Employ linear regression to further investigate strength of each instructor action type in influencing the epistemic trust score.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Questions:</th>
<th>2. How do normative actions of the instructor (actions that control and direct the activities and interactions of the class) influence the epistemic trust relationship with the adult learner?</th>
</tr>
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<tbody>
<tr>
<td>3. How do communication immediacy actions of the instructor (use of language that is engaging and personable) influence the adult learner to epistemically trust that instructor?</td>
<td></td>
</tr>
<tr>
<td>4. How does the instructor’s frequent and consistent presence in the online classroom influence the epistemic trust relationship with the adult learner?</td>
<td></td>
</tr>
<tr>
<td><strong>Participants:</strong></td>
<td>Adult learners, who responded to the Epistemic Trust Instrument Part I, indicated they are willing to participate in Part II, and enrolled in a course section with an online instructor participant selected for interview and observation.</td>
</tr>
<tr>
<td><strong>Data Collection Method:</strong></td>
<td>Epistemic Trust Instrument Part II (open-ended questions)</td>
</tr>
<tr>
<td><strong>Data Analysis Method:</strong></td>
<td>Thematic analysis of responses to open-ended questions to develop categories and themes using NVivo software.</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Participants:</strong></th>
<th>Online Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Collection Method:</strong></td>
<td>Classroom Observation</td>
</tr>
<tr>
<td><strong>Data Analysis Method:</strong></td>
<td>Develop an analytical protocol based on current research described in Chapter 2. Use protocol to find evidence of normative, communication immediacy and consistent presence actions within instructor communication text using NVivo software. Create field notes to inform themes and constructs found in the classroom observations data.</td>
</tr>
</tbody>
</table>
Participants: Online Instructors

Data Collection Method: Semi-structured faculty interviews

Data Analysis Method: Thematic analysis: Develop categories and themes within interview text using NVivo software.

Epistemic Trust Instrument

Data were collected during the Summer 2018 academic term at Excelsior College, a fully online higher education institution. The responses for Part 1 and Part 2 of the Epistemic Trust Survey Tool were extracted from the Qualtrics survey tool by the Analytics and Decision Support Department of the College and sent to the primary researcher in an Excel spreadsheet. All quantitative data was uploaded to SPSS software and all qualitative data was uploaded to NVivo software.

For the quantitative data collection (Part 1 of the survey instrument) I set a target of 100 respondents and received 106 responses of which 102 were usable. For the qualitative data Polkinghorne (1989) recommends a participant number of 5 – 25 individuals who have experienced the phenomenon. The qualitative portion (Part 2 of the survey instrument) was sent to 48 respondents to insure a usable number of submissions within Polkinghorne’s recommendation. Due to a low response rate in week one adult learners enrolled in the two alternate instructor classrooms were added to the participant group (n=34) in an attempt to increase the responses. The six participant instructors messaged the adult learners in their sections to encourage them to participate in Part 2. Seventeen adult learner responses were received for Part 2. This falls within the recommendation of Polkinghorne (1989). The epistemic trust instrument was self-administered and web-based. Though the online medium might be a
limitation for some studies (Berends, 2006), the target participants in this study were assumed to have access to computers, the Internet, and the capacity to handle web-based questionnaires as they use the same resources and skills to attend the online course.

**Interviews**

The interviews for this study were conducted and recorded over the telephone. An advantage of telephone interviewing is the extended access to participants who are at a geographical distance, as is the case with the online instructor participants of this study. Because the telephone interview is synchronous it has advantages similar to a face-to-face interview in that it allows spontaneous responses from the interviewee, redirection and deeper questioning by the interviewer, and can be digitally recorded for transcription. The logistics of a telephone interview give the interviewer less control over the physical comfort of the interviewee. I minimized this concern through pre-interview conversations where I encouraged the interviewee to be cognizant of the importance of their physical comfort and privacy during the scheduled interview time. While the interviewer cannot see body language or other social cues of the interviewee voice and intonation are still available. Opdenakker (2016) explains, “Although social cues are reduced, enough social cues remain for [conducting] a telephone interview without a problem” (para. 13). Notations of these social cues were made during the transcription process. As interviewer I used a private interview room at the study sight for telephoning and recording the interviews. This ensured no interruptions or loss of privacy to occur during the recorded interview process.
Classroom observations

The data from the classroom observation of instructor communication added richness and assisted in triangulating the findings. Basic analytics were extracted from the learning management system (Canvas©) to document the instructor’s presence across the length of the course. Only the four selected instructor participants were observed. All visible instructor interactions were observed in the archived classroom sections in the Learning Management System (LMS). These observations were transferred manually to a spreadsheet and categorized as announcements or discussions. This became the “data accounting log” (Miles, Huberman, & Saldana, 2014, p. 124).

ClikView© software was used to extract additional information concerning the frequency and type of interaction between the instructor and adult learners that occurred across the length of the course. The software calculates the daily frequency for each type of contact between the instructor and adult learner. These interactions were categorized as discussion posts, announcement posts, and internal course messages called ‘conversations’ by the LMS. This additional data was helpful because the conversations between instructor and adult learner is not visible for observation, however this data gives a quantitative indication of the frequency of instructor-adult learner private interactions and prompted some follow up questions with the instructor interviewees on these private interactions with adult learners.

Data Analysis

This section explains the process used for data analysis in this study. A mixed method nested study begins with the quantitative analysis, which then leads to the analysis of the qualitative data being informed by the former. Of the three major types of mixed methods
This study is qualitative dominant mixed research, wherein priority is given to the qualitative element, in this case phenomenology (Johnson & Onwuegbuzie, 2004). In fact, ‘quan-PHEN’ (the symbol of phenomenology dominant mixed method) is the more favored approach of researchers using qualitatively driven MMPR (Mayoh & Onwuegbuzie, 2015). NVivo software was used for all data analysis, as it is capable of the quantitative and qualitative data analysis of this study. The level one statistical analysis and demographic data were analyzed using SPSS software. The descriptive data systematically collected through open-ended questions and the visual differential were analyzed using NVivo software, as well as the follow up interviews. Because this study began with a theoretical underpinning, identified themes are potentially a priori.

**Epistemic Trust Instrument: Part 1**

As illustrated in Figure 3.2 the first data collected was the Epistemic Trust Instrument Part 1. The Epistemic Trust Instrument: Part One was sent to the 515 adult learner participants. Of the 106 responses to the Part One questionnaire 102 were usable responses. Two responses were false starts with no data entered beyond demographics, two were completed but the respondents missed items. There are three analysis procedures that result from this first step: conduct demographic analysis, conduct quantitative analysis of the results, and calculate the instructor METI scores for selection of instructor participants. The quantitative data analysis was completed using SPSS software. Before uploading the redacted spreadsheet results received from the Analytics and Decision Support Department of the College, I looked for missing data, which eliminated four (4) responses (as noted above). I converted the Likert responses to numeric responses. I also manually tabulated the demographic data as a crosscheck to SPSS output.
Lastly, I conducted the randomized drawing for the Amazon card using the Excel random function. The winner was notified and sent the $50 gift card.

**Demographics**

The mean age of respondents was 43.3 with a median age of 43, and the age range was a minimum of 25 to maximum of 66. Table 3.3 presents the distribution of respondents’ ages by range:

<table>
<thead>
<tr>
<th>Age Range</th>
<th>n</th>
<th>%</th>
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<tbody>
<tr>
<td>25 – 29</td>
<td>12</td>
<td>11.8</td>
</tr>
<tr>
<td>30 – 39</td>
<td>35</td>
<td>34.3</td>
</tr>
<tr>
<td>40 – 49</td>
<td>24</td>
<td>23.5</td>
</tr>
<tr>
<td>50 – 59</td>
<td>27</td>
<td>26.5</td>
</tr>
<tr>
<td>60+</td>
<td>4</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>102</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Females represented 79.4% (N=81) of the sample with the remaining 20.6% (N=21) being male. This sample is slightly higher in female representation than is typical for adult learners most likely because of the nursing discipline participants in the study, a career that is predominantly female. Table 3.4 presents gender distribution of the sample respondents.

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>81</td>
<td>79.4</td>
</tr>
<tr>
<td>Male</td>
<td>21</td>
<td>20.6</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>102</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Adult learners are typically working to support at least one other household member.

Table 3.5 represents the employment status of the sample respondents that reflects a 93% rate of employment for the adult learner sample respondents.

<table>
<thead>
<tr>
<th>Employment</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>85</td>
<td>83.3</td>
</tr>
<tr>
<td>Part time</td>
<td>11</td>
<td>10.8</td>
</tr>
<tr>
<td>Unemployed</td>
<td>6</td>
<td>5.9</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Research Question #1

*How and to what extent do certain actions by the online classroom instructor influence an epistemic trust relationship with the adult learner?*

To address research question #1 descriptive analysis was conducted to examine the relationship between the instructor actions measured by the Likert scales, and level of epistemic trust of the learners measured by the METI. In this way, the learner’s perception of the instructor’s actions serves as the independent variable. These were compared with the dependent variable of epistemic trust. The METI measures not only epistemic trust but also includes three pure sub-scales that measure the constructs of trust: expertise, integrity, and benevolence.

The level of complexity of the quantitative analysis technique is the lowest at level one on an array of quantitative analysis techniques developed by Ross (2014) for use “with mixed method studies such as MMPR” (p. 67). The information collected from quantitative result lends clarity to the voice of the participants and richer interpretations may be attained. The quantitative
component of the study increases the legitimation of the study when both data sets are compared and contrasted. Adding quantitative methods “increases the understanding” (Frels & Onwuegbuzie, 2013, p. 189) of the results. Scatterplots and correlation matrices were constructed to accompany the analysis results. Correlations of each independent variable with the scores in sub-categories of epistemic trust (expertise, integrity, benevolence) were also calculated, but with little variation from the correlation of the overall epistemic trust score. Demographics (age, gender, number of online courses taken) were correlated with the epistemic trust scores with no significant result. After reviewing the results of my analysis, I decided to additionally conduct a multiple regression to determine the individual strength of each independent variable on the dependent variable. This required that I also test assumptions for normality, homoscedasticity, and multicollinearity using P-P plot, plot of residuals against fitted values, and VIF values respectively.

Analysis of Instructor METI Scores

Part 1 of the Epistemic Trust Instrument included the METI, which was used to guide selection of instructor participants. Based on the instructor scores of this index the instructor participants were chosen. Of the forty-four instructors, fifteen consented to be interviewed. One of the consenting instructors declined to be recorded, however this did not preclude the instructor from consideration as an interviewee. Due to missing data on the METI scores two of the consenting faculty were removed from selection. One consenting faculty was omitted because only one score was received. The average scores for the remaining twelve consenting faculty are listed in Table 3.6. Instructors who scored the highest and lowest on the METI were selected for interview participation. The mean epistemic trust score overall was 37.99 (n=102) with scores
ranging from -1 to +42 on a scale of -42 to +42. The epistemic score of each instructor was calculated by averaging the scores given by the adult learners in their course section. The intent was to select two faculty members with high epistemic trust scores and two faculty members with low epistemic trust scores.

<table>
<thead>
<tr>
<th>Instructor Random ID</th>
<th>Instructor Pseudonym</th>
<th>Epistemic Trust Score (average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2  (April)</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>31 (Oliver)</td>
<td></td>
<td>34.5</td>
</tr>
<tr>
<td>38 (Sam) – alternate</td>
<td></td>
<td>35.6</td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>37.33</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>38.25</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>39.75</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>6 (Beth) - alternate</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>18 (Jill)</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>29 (Mary)</td>
<td></td>
<td>42</td>
</tr>
</tbody>
</table>

The two highest scoring instructors and two lowest scoring instructors were chosen from this list. ID #2 and ID #31 were chosen for low scoring, and ID #18 and ID #29 were chosen
randomly from the highest score. ID #38 and ID#6 were chosen as alternates for low scoring and high scoring respectively if needed.

**Epistemic Trust Instrument: Part 2**

The philosophy of phenomenology is to ask, “What is the meaning, structure, and essence of the lived experience of this phenomenon for this person or group of people?” (Patton, 2014, p. 104). The phenomenological approach to analysis for open-ended question data is very similar if not the same as analyzing interview data. Thematic analysis as described by Creswell (2007a) and based primarily on the work of Moustakas (1994) was used to analyze the text collected through the open-ended questions in part 2 of the epistemic trust instrument. As a first step, I used phenomenological reduction to bracket out my past knowledge and set aside my own experiences with trust, so as to focus on the experiences of the participants in the study. Reducing the aspects that are intentionally related to consciousness for myself and for the individuals in the study will permit the common features of the experience of trust to be identified.

**Demographics**

Demographically the 17 respondents were; predominantly female (14 of 17), primarily employed (16 of 17), with average age of 45 spanning all age ranges, and two were first-time course takers. Eleven were in a nursing course and six in a health science course. Table 3.7 displays the demographic data for each respondent.
Part 2 of the Epistemic Trust Instrument collected qualitative data for the phenomenological portion of the study. The adult learner respondents answered ten (10) open-ended questions and commented on a series of visual differential scales. The open-ended questions captured first-hand thick descriptions of the learner’s individual experiences. The intention of the open-ended questions is to provide insight into the way that trust is socially and subjectively constructed (Lewicki et al., 2006). This set of open-ended questions was carefully constructed for clarity and aligned with constructs of the study. The two initial questions were general and broad as recommended by Moustakas (1994). In constructing the rest of the questions memoing the process assisted in aligning the questions with the constructs of epistemic trust, the antecedents of epistemic trust, and the instructor actions. Respondents were asked to
volunteer for possible interview follow up. This allowed the option for collecting additional qualitative data if needed.

The data were examined for “significant statements” (Creswell, 2007b, p. 61) that indicate the participants experience of trust. This is what Moustakas (1994) calls “horizontalization” (Creswell, 2007a, p. 159). The resulting list of statements was further developed to eliminate any overlap. These significant statements were then grouped into larger units of meaning or themes. An inductive approach was taken so that the themes identified were linked to the data themselves, rather than using any pre-existing coding frame. “The strategy of inductive design is to allow important analysis dimensions to emerge from patterns found in the cases under study without presupposing in advance what the dimensions were” (Patton, 2001, p. 56). The universal themes within the lived experiences of the participants were emphasized. The intent of this process was to get to the essence of what makes up the phenomena and articulate the structure of the phenomenon as well as the textural description. These are the “what” and the “how” of the shared experiences of the participants. The textural descriptions in Chapter 4 include verbatim examples of what happened. The structural descriptions reflect the setting and context where the phenomenon was experienced. Lastly, a composite description that includes both the structural and textural descriptions were written as the “essence” or the participants experience and the culmination of the study. All respondent data and classroom observation data were made anonymous with a participant number and were used to create an audit trail.

Instructor Interviews

The next set of qualitative data comes from interviews with instructors, half of whom have scored low in developing an epistemic trust relationship with adult learners and half of
whom have scored high in developing an epistemic trust relationship with adult learners. The advantage to conducting interviews with the instructors is the ability to follow up and redirect the questions, ability to check the validity of a story, to raise additional questions, and to encourage a response. The interviews were audio recorded with consent of the faculty interviewees and transcribed to Microsoft Word documents. The transcriptions were then redacted and uploaded to NVivo for thematic analysis.

Interviews were successfully conducted for the four instructor participants lasting between 40 – 70 minutes. The teaching faculty interviews were audio recorded using GoToMeeting© with additional verbal consent given at the time of the interviews. The interview recordings were transcribed to Microsoft Word documents. The transcriptions were redacted and each interviewee was given a pseudonym (noted in Table 3.6) before uploading to NVivo for analysis. As was done for the student textual data, thematic analysis as described by Creswell (2007a) and based primarily on the work of Moustakas (1994) was used to analyze the text collected through the semi-structured interviews of the faculty. Through coding, re-coding and re-reading the instructor responses a coding scheme was established. From this coding process and further refinement of these codes themes emerged from the rich interview narratives.

After constructing substantial categories from the coded data, it became apparent that there was little difference between interview cases. Even though the highest scoring and lowest scoring instructors on the epistemic trust scale were chosen, the data were similar across all cases. The difference in METI scores was a small margin (a spread of 11 points on a scale of 84 points), so I concluded the best fit for a cross-case analysis would be to consider all four cases as exemplars. Denzin (2001) recommends this approach for this type of cross-case analysis (as cited
in Miles et al., 2014). The instructor actions in all cases were similar denoting generalizability of the themes and constructs in the cross-case network.

**Classroom Observations**

I developed an analytical protocol, seen in Appendix C, based on current research of interpersonal trust and theories of epistemic trust to classify the instructor actions in the classroom. The protocol contained the descriptive codes and descriptions related to each type of instructor action described in Chapter 2. The protocol was intended to serve as an analytical and interpretive framework for identifying patterns of instructor actions emerging from the classroom observation data (Anfara & Mertz, 2006). However, when I attempted to apply the protocol directly to the extracted classroom discourse, I found the data voluminous and disjointed when doing a close read. Rather, I needed heuristics to analyze the data. So I decided to use a ‘Contact Summary Form’ which enabled me to explore the data as a field observation, reflecting on the main concepts, themes, issues, and further questions I had following the observation (Miles et al., 2014). According to Miles, et al., by capturing thoughtful impressions and reflections “the contact summary form is a rapid, practical way to do first-run data condensation without loosing any of the basic information to which it refers (2014).” The contact summary forms for all classroom observations were then uploaded to NVivo to identify common concepts, themes, and descriptive codes as was done with the interviews and adult learner textual responses.

**Question #2**

*How do normative actions of the instructor (actions that control and direct the activities and interactions of the class) influence the epistemic trust relationship with the adult learner?*
To further refine the data analysis and address question #2, a simple causal chain, shown in Figure 3.4, was created to illustrate the trajectory of the adult learner story line in the data. The causal chain was created after a first read of the coded data categories that related to normative actions. Miles, et al (2014) suggest beginning with a causal chain as a first step for explaining causation. This provided a rudimentary ‘map’ for my next step, conducting a cross-case analysis of the four online classrooms.

| Learner enters online classroom as stranger | Instructor controls and directs classroom activities | Learner feels safe to participate and share | Further interactions, build a trusting relationship with instructor | Epistemic trust relationship emerges |

*Figure 3.4. Simple Causal Chain*

To deepen the understanding and explanation of the phenomenon, I further refined the NVivo coding of all qualitative data sources to uncover the common themes for normative actions performed by the instructor in the online classroom cases. From this I developed a clear causal network for normative actions of the instructor and the epistemic trust relationship. The network is illustrated in Figure 3.5.

*Figure 3.5. Causal Network for Normative Actions and Epistemic Trust*
Question #3

How do communication immediacy actions of the instructor (use of language that is engaging and personable) influence the epistemic trust relationship with the adult learner?

To again refine the data analysis and address question #3, I repeated the process used to address question #2 suggested by Miles, et al (2014). A simple causal chain, shown in Figure 3.6, was created to illustrate the trajectory of the adult learner story line in the data. The causal chain was created after a first read of the coded data categories that related to immediacy actions of communication. Continuing to apply a simple causal chain as recommended by Miles, et al (2014) to begin explaining causation seemed appropriate after using it for question #2. This again provided a rudimentary ‘map’ for my next step, conducting a cross-case analysis of the four online classrooms.

<table>
<thead>
<tr>
<th>Learner feels instructor’s excitement &amp; enthusiasm</th>
<th>Personal &amp; professional connections are made</th>
<th>Instructor creates a sense of community for collaborative interactions</th>
<th>Meaningful interactions extend and intensify</th>
<th>Epistemic trust relationship emerges</th>
</tr>
</thead>
</table>

*Figure 3.6. Causal Chain for Immediacy Actions and Epistemic Trust*

Using the causal chain as a guide I revisited the coded themes and constructs that relate to the instructor’s immediacy actions of communication. I was then able to construct a causal network as illustrated in Figure 3.7.
Figure 3.7. Causal Network for Immediacy Actions and Epistemic Trust Relationship

**Question #4**

*How does the instructor’s frequent and consistent presence in the online classroom influence the epistemic trust relationship with the adult learner?*

During analysis of the data for questions 2 and 3, I identified themes and constructs of regulatory actions that impacted those actions. Regulatory actions did not follow a trajectory through the adult learner’s story line, but rather emerged at different points to support the causal chain for normative actions and communication immediacy. This gives further credence to the weak correlation found in the quantitative analysis between regulatory actions and epistemic trust.

**Mixing the Results**

The quantitative information extracted with the descriptive analysis of central tendency and correlation alongside the qualitative information enhances both representation and
legitimation of the phenomenon of epistemic trust (Frels & Onwuegbuzie, 2013). By adding the quantitative data and analysis to the phenomenological component of the study, it addresses in more detail the research questions.

MMPR can be defined as research that combines phenomenological methods with methods grounded in an alternative paradigm within a single study. The findings from the quantitative and qualitative data analysis were examined side-by-side and compared. An attempt to integrate the findings were made and assessed for the most coherent presentation, either as a whole or as a set of two (Frels & Onwuegbuzie, 2013). The quantitative analysis findings augment the natural inquiry of the participant voice adding clarity, complementarity, and expansion. The embedded quantitative dataset served in a supporting role for the phenomenological dataset when the results were combined as modeled in Figure 3.1. This allowed for a more comprehensive discussion of the results in Chapter 5. By using the results of the quantitative method to inform the phenomenology findings it increased “the validity of constructs and inquiry results by capitalizing on inherent method strengths” (Greene, Caracelli, & Graham, 1989, p. 259). In other words, the strength of the quantitative research results assisted in identifying common aspects of trust within the phenomenological findings.

Because the subject sampling is non-random the results cannot be generalized per se, however using a mixed method research strategy increased the generalizability of the results. I used a single crossover mixed-method approach to represent experience-oriented analysis. The crossover analysis was an integrated form of analysis that integrated the analysis types from quantitative data to qualitative data. I analyzed data in a way that yielded a naturalistic generalization (Ross & Onwuegbuzie, 2014). For the results that are reported in Chapter 4 and
discussed in Chapter 5 the numerical data adds “precision” to the words and narratives (Johnson & Onwuegbuzie, 2004). Generalization can be applied to the larger population targeted by the dataset: adult learners in 8-week term, fully online, upper level college courses.
Chapter 4: Results

Introduction

In this chapter, I first present the findings of the quantitative data analysis to address research question #1. This establishes to what extent epistemic trust of an online instructor by adult learners correlates with each type of instructor action being studied. Next, I present, one-by-one, the findings in each of the four online classroom cases. For each case, I begin by presenting the demographics of the study participants (adult learners and instructor) and general information about the online class. I then analyze each source of data for each online classroom: instructor interview, classroom observation, and adult learner experience. This lays the groundwork for the next chapter, in which I will present the results of the cross-case analysis. This final analysis will determine any causal relationship between the instructor actions and the instructor-adult learner epistemic trust relationship, answering research questions #2, 3, and 4.

Quantitative Analysis

Question #1: How and to what extent, do certain actions by the online classroom instructor influence an epistemic trust relationship with the adult learner?

A positive correlation was found between all three types of instructor actions and the level of epistemic trust relationship with the adult learners. There was a strong correlation between the instructor’s normative actions and epistemic trust of the adult learner. There was also a strong correlation between the instructor’s immediacy actions and the trust relationship with the adult learner. There was a weak positive correlation between the instructor’s regularity in the course (frequency and consistency) and the epistemic trust relationship with the adult learner.
Reliability analysis was applied to examine the internal consistency of the epistemic trust subscales. Results indicated the epistemic trust score and its subscales—integrity, expertise, and benevolence—were satisfactory. Measures for Cronbach's Alpha were .954, .947, and .954 respectively. The epistemic trust score and the instructor action measures were obtained by summing up all items. The central tendency, dispersion statistics and range of epistemic trust and instructor actions are listed in Table 4.1.

<table>
<thead>
<tr>
<th>Table 4.1. Mean, standard deviation, maximum, minimum, and valid number of respondents.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Epistemic Trust</td>
</tr>
<tr>
<td>Normative Actions</td>
</tr>
<tr>
<td>Immediacy Actions</td>
</tr>
<tr>
<td>Regularity Actions</td>
</tr>
</tbody>
</table>

I analyzed the Pearson’s $r$ for the dependent variable of epistemic trust and the three independent variables of normative, immediacy, and regularity actions. The correlation coefficient displayed in Table 4.2 reflects the level of correlation for epistemic trust and the three types of instructor actions.

<table>
<thead>
<tr>
<th>Table 4.2. Pearson correlation of independent variables and dependent variable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epistemic Trust</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
</tbody>
</table>

| Normative Actions | Pearson Correlation | 1 | .728** | .363** |
| Sig. (2-tailed) | .000 | .000 | .000 |
Pearson’s correlation shows a strong positive correlation ($r = 0.698$), significant at the 0.001 level ($p = 0.000$), between epistemic trust and the normative actions of the instructor.

Pearson’s correlation also shows a strong positive correlation ($r = 0.638$), significant at the 0.001 level ($p = 0.000$) between epistemic trust and the communication immediacy actions of the instructor. Lastly, Pearson’s correlation shows a weak positive correlation ($r = 0.215$), significant at the 0.05 level ($p = 0.030$), between epistemic trust and the regularity actions of the instructor.

Figure 4.1 displays scatterplots with a regression line, to best illustrate the three correlations.

<table>
<thead>
<tr>
<th></th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>102</th>
<th>102</th>
<th>102</th>
<th>102</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Immediacy</strong></td>
<td></td>
<td></td>
<td>N</td>
<td>102</td>
<td>102</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>Actions</td>
<td>.638**</td>
<td>.728**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.453**</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Regularity</strong></td>
<td></td>
<td></td>
<td>N</td>
<td>102</td>
<td>102</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>Actions</td>
<td>.215*</td>
<td>.363**</td>
<td>.453**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.030</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.001 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Figure 4.1. Simple scatter with fit line of epistemic trust and instructor actions.

Multiple regression analysis was conducted to investigate the relationship between epistemic trust and instructor actions as predictors. Using the coefficient P-values it was
determined that there was a significant relationship between normative actions and epistemic trust \((p < 0.001)\), immediacy actions and epistemic trust \((p < 0.005)\). There was no significant relationship between regularity actions and epistemic trust \((p = .142)\). Therefore, regularity actions were removed from the regression model. The linear regression model with the two remaining predictors produced \(R^2 = .523\), \(F (2, 99) = 54.329\), \(p < 0.001\). As can be seen in Figure 4.2, the normative actions and immediacy actions scales had significant positive regression weights, indicating adult learners with higher scores on these scales were expected to have higher epistemic trust, after controlling for the other variables in the model. For each 1-point increase in normative actions score, the trust score increased by 0.529, for each 1-point increase in immediacy actions score there was a 0.267 increase in epistemic trust score. The \(R^2\) value of the model containing normative actions and immediacy actions can explain 0.523 indicating 52% of the variation in epistemic trust. Assumptions for normality, homoscedasticity, and absence of multicollinearity in the sample were verified using P-P plot, plot of residuals against fitted values, and VIF values respectively.
Figure 4.2. Linear regression model generated by SPSS software.

**Qualitative Analysis**

To understand in more depth the instructor-adult learner epistemic trust relationship in online classrooms I turn to the qualitative data collected for this study. This includes three sources of data: the interviews with four instructors, the observations of the four online classrooms, and the adult learner’s description of their experience within those four classrooms. First, I give a brief explanation of the online classroom environment, particularly focusing on where and how the instructor and adult learners interact and communicate. Then, I introduce
each of the four online classrooms that were a part of this study. I report the results of each
source of data as it pertains to each of the four online classrooms.

Online Classroom Setting

The four online classrooms are courses 8-weeks in length and fully online. A content
expert and instructional designer under the supervision of a program director predesign all the
courses offered at the college in a master copy in the learning management system (LMS). The
master is replicated into an active section for the term it is being offered. One instructor serves as
knowledge expert to lead the class section for the full 8 weeks. Typically, and is the case in all
these classrooms being studied, there are eight one-week modules of study. The structure is the
same for all the classrooms observed, but the content, activities and assessments vary by subject
matter. The instructors communicate with the adult learners primarily within the LMS. At this
college Canvas© is the LMS.

Methods of communication between the instructor and adult learner include; instructor
welcome page, introduction discussion board at the beginning of the course, periodic
announcements at the instructor’s discretion, weekly discussions, assignment grading, and an
internal email system. Instructors may contact learners individually outside of the LMS via
telephone or videoconference methods as needed. For this study, the classroom observations
included all the interactions between the instructor and adult learners that took place within the
public areas of the classroom. This includes the previous list with the exception of private
messages and interactions outside of the LMS. From the home page the instructor and adult
learner click on a menu list to navigate to interaction areas of the online classroom:
• Home page - This is the standard structure for all courses at the college. There is a left column navigation bar. Instructor and adult learner navigate to areas of instructor-adult learner interaction.

• Discussion Board – The content is predesigned. The instructor and adult learners interact on the board in threaded discussions.

• Assignment feedback – The instructor provides feedback using in-text markup, a rubric with specific comments, and a general comments area on which the learner can respond.

• Announcements – the instructor creates one-way interaction with adult learners.

• Introductions Area– the instructor and adult learners interact on a threaded discussion board at the opening of the course.

I have explained the online classroom setting, specifically identifying where instructor-adult learner interactions occur. The rest of this chapter focuses on the four online classrooms. For each classroom I provide a brief description of the study participants in the classroom followed by the instructor’s interview results that reflects their intentions in using normative actions, immediacy actions, and regularity actions. The classroom observations describe the instructor’s observable use of these actions, and finally the adult learner’s experience of these actions is reported. By specifically focusing on the three types of instructor actions these data sources address the three remaining research questions:

2. How do normative actions of the instructor (actions that control and direct the activities and interactions of the class) influence the epistemic trust relationship with the adult learner?
3. How do communication immediacy actions of the instructor (use of language that is engaging and personable) influence the adult learner to epistemically trust that instructor?

4. How does the instructor’s frequent and consistent presence in the online classroom influence the epistemic trust relationship with the adult learner?

Mary’s Online Classroom: HSC402 Managing Stress

Twenty-three adult learners attended this online class. The female instructor was Professor Mary who has a master’s degree in social work and library science. She has taught online for three years at the undergraduate level. Three adult learners from this classroom participated in the study: 25-year-old unemployed female (adult learner 2), 56-year-old employed full-time female (adult learner 10), and 50-year-old employed full-time male (adult learner 14). None are first-time online course takers.

Professor Mary’s interview. During the interview warm up, I asked Professor Mary what she enjoys most about teaching online. She said, most of all, she enjoys interacting with students, and she appreciates the ability to hear every student’s voice in the class discussions. She said online discussions feel “more balanced and fair in terms of communication and input from the students”.

Professor Mary discussed using the following Normative Actions (NA):

- NA1: Guide conduct of members
- NA2: Manage quality of work and deadlines
- NA3: Prompt individuals who struggle with deadlines/quality of work
- NA4: Guide analytical thinking to truth/knowledge
- NA5: Lead away from wrong information/thinking

(NA1) In her interview Professor Mary described the importance of getting into the online classroom at the very beginning of the course to explain to the class her expectations for
acceptable conduct. She explained that she uses class-wide announcements and individual messages to accomplish this. She also encourages the adult learners to read supporting documents for guidance in behavior expectations including the syllabus and discussion rubric. She uses private messaging to talk with any adult learners who do not follow the guidelines of proper posting and interacting in the class.

Mary: One of the first announcements I put out there is actually a list of expectations for the course. And one of them is when you message me, when you post in discussions; this is another opportunity for you to practice writing. So I ask them to write in correct grammar. You're not texting. You're sending me a message that I have to understand.

(NA2) Professor Mary said she assists the adult learners to meet deadlines and achieve a higher quality of written work by giving periodic reminders of upcoming assignments and by reviewing with the class the assignment requirements.

Mary: If an assignment is due, I give them an overview of the assignment, even though they have the instructions, but I take the important pieces of that, and I put that out there for them to make sure they understand what is required of them. And also as a reminder, hey, this is due. I often post two weeks ahead, and then again the week later, just to again kind of say hey, I know the assignment's not due for two weeks, but it's involved, so I encourage you to begin thinking about it now, et cetera, et cetera, kind of thing.

In her role as facilitator Professor Mary said she assists the adult learners to have quality discussions. She said if the class discussion is progressing constructively and participants are building a shared understanding, she allows it to continue in a knowledge building way with minimal interjections. She will interject to guide and advise as needed.
(NA3) When learners appear to be lagging behind in their performance, Professor Mary said she gives a gentle reminder and offers assistance in a private message.

Mary: If they have to do a paper and they're searching the topic that they're interested in, and they're not having any luck, or they don't know really how to search-- they don't understand which search terms might be helpful-- then I'll send them a [private] message saying, maybe try these terms and see if this is helpful. If they're still having trouble, then I refer them to the library to get some help.

(NA4) Professor Mary said she oversees learner discussions looking for opportunities to contribute additional knowledge to the discussion and to encourage learners to elaborate.

Mary: So my role, I feel, is to just make sure the discussion doesn't lag or fall flat, and also stays on topic. -- Making sure it's flowing. In other words, if people are really quiet I jump in there, and I post some questions to try to get things going again. And then if someone makes a comment that I just feel strongly I need to address, then I will post something a little more elaborate about [his or her] post.

(NA5) Professor Mary gave an example of how she guides adult learners away from misinformation. She described a discussion where the adult learners typically make assumptions about a given scenario. She asks several ‘what if’ questions to prompt the learners to question their initial assumptions and to further challenge their own thinking. She then asks them to apply it within their area of study, which opens additional opportunities to grow ideas. “So it leads to a pretty interesting discussion”.
Professor Mary discussed using the following Immediacy Actions (IA):
IA1: Connects with personal experiences
IA2: Invites private messaging
IA3: Uses textual gestures
IA4: Fosters professional relationship/mentors.
IA5: Encourages and praises to promote participation
IA6: Uses inclusive pronouns (first names, and ‘we statements’)
IA7: Shows care and concern for individuals (verbally caring messages)
IA8: Shares responsibility for individual student success (helpful)

(IA1) Professor Mary said she feels being open about her personal life humanizes her and reassures the adult learners. She stated it this way, “Well, in terms of me as an instructor, it makes me be, in my opinion, more human. And makes me, again, a real person.” She described her reasons for sharing her own experiences in discussions, and said they respond to her personal stories positively.

Mary: I really want [the adult learners] to share life experiences related to the topic, because that helps me to get to know them a little better. And then often, they might post something, and I can relate to it. And when I reply back to their post, I talk about my own experiences. And that helps them get to know me a little better.

(IA2) Professor Mary said she regularly invites the adult learners to message her with questions. She finds the adult learners respond to this. “Students seem very comfortable contacting me if they’re having any issues with the course, in their life, with [the LMS], anything. So that’s helpful.” She stated she thinks private messaging is a very important communication tool.

Mary: I think [private messaging] offers the opportunity to connect with that student on a one-on-one level that you don't even have in discussion. If it's in the discussion post, it's
still communal. But this is a one-on-one chance to interact and to get to know each other in a way a little bit. I think it's pretty important.

(IA3) When asked if she uses humor, emojis, or other textual gestures Professor Mary said she does use humor. “I think humor helps you bond with others. So I feel like it connects me with the students more when I'm humorous.”

(IA4) Professor Mary expressed the importance of modeling academic writing for her adult learners, “I try to make sure that I’m responding in an educated, professional way, very careful about punctuation and making sure everything is written properly and there are no errors.”

(IA5) Professor Mary described her efforts to increase engagement of the adult learners in the discussions using questioning and offering praise to encourage them. Professor Mary described it this way,

Mary: I might ask them a question to encourage them to elaborate a little more… if a week goes by and I notice that they were kind of quiet, that they responded but not that much, I might send them a [private] message just saying, hey, you know, you’re doing really great in the discussion, but I’d love to hear more from you. I really liked what you said about x, y, z, and it would be really nice to hear your voice. You have a lot to contribute.

Professor Mary explained how she encourages individual adult learners who may be hesitant to participate, “I like being able to hear from everybody. And if I don't hear from someone in a substantial way, I kind of encourage him or her in some way. And they often have wonderful things to contribute.”
(IA6) Professor Mary said she encourages adult learners to address her by her first name or in whatever manner they felt most comfortable. She addresses the adult learners by their first names and signs her communications with her own first name.

Professor Mary reported that the adult learners still address her formally as “Professor” or “Mrs.” despite her efforts to the contrary. “I ask the students to call me by my first name. They don’t. Most people call me Ms. or Professor ‘last name’. They insist on that, … that’s just what they do.” Still Professor Mary keeps it informal, “I always sign any messages with my first name.”

(IA7) Professor Mary expressed sensitivity to the circumstances of adult learner; that of being working adults with complex life situations.

Mary: So if they're writing to me about a concern, something that's a crisis occurring in their life that is causing them to have to ask for (extra time), that kind of thing, I always address that crisis and encourage them and say I hope things get better for you, and don't hesitate to reach out to me, that kind of thing.

(IA8) Professor Mary described providing two kinds of help to adult learners: technical help and course-related help.

(Technical help) Mary: So if it's an IT issue, I refer them to the Help Desk. If it's, gee, I uploaded this paper, but it's the wrong paper, or I forgot to upload my document, anything like that I can clear things out. So it just depends on the technical issue. I tend to not take on huge ones because I don't have the ability-- I mean, I just can't-- certain things I can't fix.

(Course-related help) Mary: If they have to do a paper and they're searching the topic that they're interested in, and they're not having any luck, or they don't know really how to
search-- they don't understand which search terms might be helpful-- then I'll send them a message saying, maybe try these terms and see if this is helpful. If they're still having trouble, then I refer them to the library to get some help with the librarian on what walls are we running into.

When asked how many adult learners in a class she might have ongoing private conversations with Professor Mary said, “about half”. She stated she is “going the extra mile” for all the learners, but particularly for the struggling individual. Professor Mary reported engaging in lengthy interactions in the private messaging area with this smaller number of adult learners who require extra guidance. She described several examples. Here are two:

(Example 1) I did have one student, for example -- who had been doing great through the whole class, and then turned in the next to last assignment, which was a longer requirement, like eight pages, I think it was. And it was just really poorly written. And so he didn't do very well. And I gave him feedback saying, you know; if you want to discuss this, please let me know. And he did. And I have access to Go To Meeting (remote conferencing tool). So we did a face-to-face [remote] conversation about his paper. So I was able to pull the paper up and talk about it with him. And it was really lovely to be able to connect with him. Now, you can't do that all the time. But I will do that if it's possible, if someone needs a little more attention in that way. I think the reason it was so meaningful is because I never see my students face to face. I mean I see pictures of them. But I never see them face-to-face. And you could just tell from his face how excited he was to be interacting with his teacher. He was like kind of gleeful, if you will.

5 ‘Going the extra mile’ is a common phrase that suggests goodwill, goodwill being a necessary component of epistemic trust. It was used in the study as a relatable phrase for the study participants. This phrase is commonly used with participants in other studies of goodwill trust.
(Example 2) I had one young man whose father was dying from esophageal cancer. And he had moved back home to be near his dad. And when he started the course, his father was still home. But then shortly after was in hospice, and then died. And so he wrote—and he was a great student. I mean, really an amazing student, just really good at writing and very prompt in—everything. He was just one of those students who clearly liked learning and also just was very interested in doing a good job. So he emailed me. He said, my father passed away. And the funeral's on such-and-such a date. And I know the paper's due, but—and I'm like, please. I wrote back and I gave him, I think, over a week [INAUDIBLE] because he had to go to the funeral, and then just recovering a little bit from the loss of this person. So that was a lot of time required on my part for back and forth and then reconnecting with him and how are things going and that kind of thing.

But it was a good experience. And I've had quite a few of those.

Professor Mary discussed using the following Regulatory Actions (RA):

RA1: Highly interactive early in course
RA2: Enthusiastic early on
RA3: Consistent in word and deed
RA4: Transparent regularity
RA5: Responsive to messages

(RA1 & RA2) Professor Mary explained she is very interactive with the adult learners at the very beginning of the course, posting welcoming announcements and greeting adult learners in the introductions area. She said this high level of activity is intended to make her presence felt by the adult learners, “Just being present a lot”. That way “if someone is having difficulty they feel comfortable contacting me if they’re having any issues with the course, in their life, with [the LMS], anything.”
Mary: In the very beginning, I post several announcements. Not just welcomes, but kind of giving them some guidance on how to maneuver around the class, encourage them to contact me, just a lot of “hi”, “how are you doing, this is me,” to make my presence known. And then every week, pretty much every week, I post an announcement or send a message or both.

Professor Mary said she is definitely more interactive at the very beginning of the course in the introduction area, sharing her enthusiasm about meeting the adult learners.

Mary: I think the introduction and the little bios are helpful. I post in the introduction myself, even though I have the bio there—and [students] will post back and say, oh, you know, you live in such and such a place. I lived there for a while. We'll chat back and forth about similar interests or similar life experiences, if you will.

(RA4) Professor Mary expressed the importance of making her presence known to the adult learners so they can depend on her being there for them:

Mary: I don’t want students to rest on their laurels and think that suddenly the [professor] is not out there. So I post announcements, one or two every week, just to kind of, let them know I’m here. Because [the student] can easily be in their own world doing the work and forget that there’s somebody out there who’s holding them accountable for that work.

(RA5) Professor Mary stressed the importance of quickly responding to learner needs. She states it this way,

Mary: My feeling is, they don’t see you face to face, and they don’t hear your voice. So you just have to be as strong of a presence as possible in the classroom. That really helps
them connect to you and perhaps be invested more. They know someone’s out there paying attention to what they’re doing.

Professor Mary explained her response time to private messages, “I always contact within 24 hours. Usually it's faster than that, if it's a [private] message from somebody. I just write right back.

**Observation of Mary’s classroom**

Professor Mary was observed using the following Normative Actions (NA):

- NA1: Guide conduct of members
- NA2: Manage quality of work and deadlines
- NA4: Guide analytical thinking to truth/knowledge

Mary provided clear guidance on her expectations for classroom conduct, compliance with college policies, late submission of work, and discussion participation. She outlined this information very clearly in an opening announcement and reiterated same information when discussions began in week 1 (NA1). Mary also used announcements in week one to advise the class on her expectations for quality discussion posts (NA2). “When you post in the discussions, proofread what you write – please be sure your post is grammatically correct and makes sense.”

In the discussion week one she reinforced timely posting and quality of posts (NA2). Here are examples of Mary using normative actions in week 1:

(NA1- Week 1 announcement) Mary: I want to go over a few things before we dive into the course, to be clear about my expectations and to help begin the class well…. I've posted the Late Policy for your review. I want to stress that if you know you are going to be late turning in an assignment, you need to tell me before the assignment is due - at least 24 hours before the due date. I will offer extensions under certain circumstances. If
you do not tell me you will be late submitting an assignment, I will automatically deduct five points….

(NA1 – Week 1 announcement) Mary: I want to be clear on the process for posting in the discussion forums in this class… Rather than everyone posting a mini-paper and then responding to other posts, we’ll be going through the questions together as a group. I will assist you in moving through the questions.

(NA2-Week 1 discussion) Mary: Remember to post early - the earlier you post the more opportunity for lively discussions and part of your discussion grade is based on how early and often you post. I will be looking for shorter more frequent interaction and evidence that you are reading and adding to what others have already posted. I would rather see more frequent shorter posts than fewer long posts.

In the first two weeks of discussions the instructor guided adult learners toward building new knowledge using questioning and explanations. She engaged with adult learners individually and in small group threads. In these initial weeks she used questioning to prompt thinking and added her expertise knowledge to the student ideas and questions. She repeated this guidance in Week 5 when summarizing an assignment the learners had completed about “Sam” guiding them to a deeper level of analytical thinking (NA4).

(NA4 – Week 1 discussion) Mary: Did you know a major function of sleep was to assist the brain in its mental custodian role ridding the day’s garbage from daily thinking? Adults have been labeled sleep-deprived due to a variety of causes e.g., additional stress, working longer hours, shift work, going to college, family and/or childcare issues, and poor sleep habits. According to research, this resulted in neurodegenerative diseases and
age-related cognitive decline. With this in mind: If drug companies could develop a pharmaceutical agent for improving sleep would you take a pill in lieu of sleeping to do the brain’s cleanup actions?

(NA4 – Week 1 discussion response) Mary: Stephanie, I had the same thoughts regarding Alzheimer's and other dementias. My question would be - when would an individual start taking these medications? The build up *[sic]* of the plaques and tangles that cause Alzheimer's, for example, can begin very early. I work with caregivers of individuals that had signs of cognitive impairment (not a formal diagnosis, just symptoms of 'something is not right') as early as 40. So, who would be the right person to take such a medication? Those individuals with a history of dementia in their family? Anyone who wants it? It's a curious idea.

(NA4 – Week 5, Mary reviewed the results of an assignment) Several of you commented on perhaps a hobby to distract Sam a bit and lighten his mood. I agree, but do think something like golf or fishing might be cost prohibitive in his situation. Perhaps some cost-free options, such as going on hikes with his children or hitting up the public library for free programs they might be offering. Any other possibilities?

- Is Sam depressed? Many of you ask this question and from the scenario description, we can't tell for sure. However, his mood and negative thinking may indicate he's in a situational depression. I am not a proponent of medications, but sometimes an anti-depressant, taken short term, can clear a person's mind enough to climb out of a hole they're in and move forward. This could be a non-pharmaceutical, such as St. John's Wort.
Many of you talk about seeking a counselor and I highly agree. Someone who offers services on a sliding fee and can help Sam make a list of task-oriented activities. For example, is his wife eligible for disability? Could she get health insurance based on her chronic condition? This might help the financial situation they're in.

Since Sam's car broke down, what other options does he have to get to the interview on Friday? He feels there are no other options - what do you think?

Several of you mentioned a support group for Sam - I agree! A support group can help Sam see beyond his challenges and can help him more forward while also commiserating with him.

Mary posted announcements to remind adult learners of deadlines and milestones on a weekly basis from week 2 through 7. Prior to when assignments were due she explained what the goals were for each assignment and how to best complete the assignment. In this way guiding the quality of their work (NA2). Here is an example of a weekly announcement and one of the assignment guides.

(NA2) Your last Skill Development Exercise self-reflection journal entry is due Sunday, 6/17. This week, you will complete exercise 14.3 My Creativity Project and reflect on your experience. This is your opportunity to let your creative juices flow. Have fun with this activity!

(NA2) In addition to following the routine in the video and completing the Subtle Energy System Vitamins exercises in your workbook (which are one and the same), you will also complete a short self-reflection paper. Please answer the questions posed in your
assignment description, in your paper; be sure to proofread your paper carefully before submitting it.

Professor Mary was observed using the following Immediacy Actions (IA):
IA1: Connects with personal experiences
IA2: Invites private messaging
IA5: Encourages and praises to promote participation
IA6: Uses inclusive pronouns (first names, and ‘we statements’)
IA7: Shows care and concern for individuals (verbally caring messages)

When the course opened Mary was active in the introductions area greeting the adult learners. She encouraged the learners to address her by her first name, but gave options (IA6).
She gave positive affirmations to adult learners who shared their accomplishments (IA5) and expressed concern for life challenges they shared (IA7). She shared her own personal experiences and expertise to connect with each adult learner (IA1). Here are examples of Mary using these immediacy actions:

(IA6) Mary: I'd like to mention that there are many options for how to address me. Professor, Ma'am, Ms. ‘last name’ have all been used by students in the courses I teach, but my preference is to just call me Mary. That being said, please use whatever you're most comfortable using.

(IA5) Mary: Bravo for serving your community the way you do - it's so needed! …. I look forward to interacting with you in class

(IA7 & IA1) Mary: That is a long commute - how do you do it? Car? Train? And is that one way? Whichever way you do it, I have a simple breathing technique that you can do any time called Soft Belly Breathing (Link). I have a much shorter commute by car than you do, but it's on a very busy highway and I find myself tensing and holding my breath a
lot. This simple breathing meditation (with eyes open, of course) really helps me manage
the stress of my commute.

(IA1) Mary: I can relate to your feelings of returning to school after a long hiatus. I returned to graduate school when I was 46 and two masters programs later, graduated at 51. Once you get into coursework that intrigues you, age becomes a number and nothing more. Bravo for you returning to school!

(IA1) Mary: What kind of yoga do you teach? I took Jon Kabat-Zinn's Mindfulness Based Stress Reduction course many years ago and one thing I learned was a very gentle form of Hatha yoga. When I do it - which like you is not nearly often enough - I feel more balanced, limber and relaxed.

In week one and two Mary continued in the same fashion in the discussions. She used praise to encourage participation (IA5), showed care and concern for individuals (IA7), and shared personal/professional stories related to the topic of discussion (IA1). When she expressed concern for an individual she many times recommended helpful tools/resources. When offering praise and encouragement Mary addressed both the class and individuals. For example, “That’s a good point, Stephanie, and I’m sure it’s true”, and “You are all doing very well in the discussions! I'm enjoying your posts and was very impressed with how you related your fight or flight situations to the theorists from our readings.” Below are examples of Mary’s caring messages and connecting with professional experience during week 1 and 2.

(IA7) Mary: Cheryl, I'm so sorry to hear of your loss - I can only imagine the sadness you feel at this time. While I completely understand why you'd like a sleep aid right now, would you also consider grief counseling or a bereavement support group? It may be too
soon, and I would completely understand that, but I hope you'll give them some thought.
I will keep you in healing intentions.

(IA1) Mary: Shawn, Marie & Brittany, Fear of public speaking is very common. I can also confidently say that it's possible to overcome this fear. I have trained in hypnosis and also in EFT or tapping. Both modalities are very effective with helping individuals who have a fear of public speaking. Just wanted to put that out there, in case you wanted to give either a try.

In every week of the course Mary used announcements to encourage personal contact (IA2). For example, in week 2, “Please don't hesitate to ask me questions about this if you need clarification.” Another example from week 4, “Please let me know if you have any questions about the assignment.” Throughout the course Mary addressed the adult learners by their first names as seen in examples provided above and signed with her first name (IA6). While Mary posted announcements in weeks 3 – 7 to encourage personal contact and praise the class’s progress she infrequently participated in the discussions. Mary was moving into a new home during this period of the course. She connected her ‘new home’ experience with the class discussion topics (stress management), which made a personal connection with the adult learners (IA1).

(IA1) Mary: A big thank you to those of you who reached out to congratulate me on my new home. We're far from being settled, but we can sleep in our beds and the bathroom is functional, so we are doing ok.

Professor Mary was observed using the following Regularity Actions (RA):
RA2: Engages with enthusiasm
RA4: Keeps learner appraised of own regularity
Mary was very active in weeks one and two of the course welcoming students, actively facilitating the discussion, and posting multiple announcements. Her frequency of public communication in the remaining weeks was minimal (week 3 -8). For example in week 3, her lowest level of frequency, she posted one initial thread for the discussion and one announcement summarizing the week’s activities. Otherwise she did not engage with the learners. During this time Mary is engaging with learners in private messaging.

(RA2) During week one I observed two examples of interactions that showed enthusiasm. One was her statement to the class of excitement about teaching the course and working with the adult learners, and one was a response to a learner with enthusiasm for interacting with the student.

Mary was transparent about her own regularity in the course, communicating when grades would be posted and when she would be unavailable or minimally available. During the course Mary was moving into a new home and openly shared this information with the class while being transparent about her regularity.

- (RA4) Mary: This week I will be providing you with individual feedback on your discussion posts. I will have that feedback completed by the end of the week. Please let me know if you have questions about this.

- (RA4) Mary: we finished moving completely on Thursday and consequently I'm still a bit behind in grading. I will next work on your discussion feedback.

Professor Mary initiated 54 private messages with the adult learners, posted a total of 11 announcements, and posted 57 times in the class discussions. This can be noted in Figure 4.8.
Experience of the adult learners in Mary’s classroom. The adult learners were asked some general questions about trust relationships with the instructor in online classrooms. The adult learners in Professor Mary’s online classroom agreed that it is important to trust your instructor in the online classroom and that a trusting relationship with the instructor improves the learning experience. Adult learner 10 felt it is the instructor’s responsibility to earn student’s trust, because the online environment is so “impersonal”. Adult learner 14 felt because the instructor is the authority he or she is automatically afforded a certain amount of trust.

The adult learners discussed Professor Mary’s use of normative actions:
- NA1: Guide conduct of members
- NA2: Manage quality of work and deadlines
- NA3: Prompt individuals who struggle with deadlines/quality of work
- NA4: Guide analytical thinking to truth/knowledge
- NA5: Guides away from misinformation
When asked about Professor Mary’s management of the online classroom they agreed that she was present in the discussions and exerted a balanced amount of control. She set expectations but was understanding with them and their classmates. The adult learners said they felt comfortable participating because Professor Mary provided suggestions, asked pertinent questions, and added extra materials to the discussions. None of the adult learners in Mary’s class felt discouraged from participating fully. Here are additional comments related to Professor Mary’s normative actions in the online classroom:

- Adult learner 14: [Professor Mary provided] just the right amount of control. (NA1)
- Adult learner 10: I think it was the perfect control of the class and classmates. (NA1)
- Adult learner 2: She set guidelines for when she wanted things to get done. (NA2)
- Adult learner 10: Professor Mary sent me personal messages of encouragement when I seemed to be struggling. (NA3)
- Adult learner 14: [Professor Mary] asked real world questions to answer. (NA4 & NA5)

The adult learners discussed Professor Mary’s use of immediacy actions:
IA1: Connects with personal experiences
IA2: Invites private messaging
IA4: Fosters professional relationship/mentors.
IA5: Encourages and praises to promote participation
IA7: Shows care and concern for individuals (verbally caring messages)
IA8: Shares responsibility for individual student success (helpful)

When asked about whether they thought Professor Mary cared about their learning they all agreed that she did care. They each gave a different example of why they felt she cared including; consistently being in the discussions, sending personal messages of encouragement, helping with technical and study difficulties, and encouraging them to take time for themselves. I then asked them if they thought Professor Mary would ‘go the extra mile’ for them. Again, they
all agreed she would. Adult learner 14 believed she would because of her “demeanor in class”. They gave similar examples including, helping with technical and personal struggles. Here are comments related to Professor Mary’s immediacy actions in the online classroom:

- Adult learner 14: Honest feedback without arrogance. (IA4)
- Adult learner 2: she was very understanding with everybody. (IA5)
- Adult Learner 2: Professor encouraged that we meditate and take breaks from our busy lives. (IA7)
- Adult learner 10: You just knew the caring and commitment that she felt for the class. (IA7)
- Adult Learner10: Professor absolutely went the extra mile to help me… This was my first college course after over 20 years and she truly helped me (IA8).
- Adult learner 2: She uploaded many useful links for the class to view. (IA8)

The adult learners discussed Professor Mary’s use of regulatory actions:

- RA1: Highly interactive early in course
- RA2: Engages with enthusiasm
- RA3: Consistent in word and deed
- RA5: Responsive to messages

When asked about Professor Mary’s frequency in the classroom, they agreed she was there frequently enough that they could rely on her. The adult learners’ statements suggested the importance of the instructor’s early activity. Here are comments related to Professor Mary’s regulatory actions in the online classroom:

- Adult learner 14: The instructor’s initial communications to the class affects my level of trust (RA1)
- Adult learner10: very welcoming from the first day (RA2).
• Adult learner 2: She was always available when you needed to speak with her. (RA3)
• Adult learner 14: Consistent involvement in discussions. (RA3)
• Adult learner 2: She also responded quickly. (RA5)
• Adult learner 14: Timely responses. (RA5)

When asked to add additional comments about what encouraged them to trust Professor Mary, adult learner 2 said, “She was a very friendly teacher, and she communicated with the students.”

Summary. Overall, Mary’s case suggests her used five normative actions, eight immediacy actions, and five regulatory actions in the online classroom, and these actions influenced a trust relationship to develop with the adult learners. The analysis of Mary’s classroom indicated she used all five types of normative actions while enacting her role as instructor. As a result, she influenced the adult learners to feel comfortable to participate, to believe she set reasonable expectations, and to believe she expertly guided their learning. The adult learners described interactions with Mary involving all five normative actions. In Mary’s interview she described her teaching practices that illustrated her use of all five types of normative actions. Mary was observed using three of the normative actions: guiding the conduct of learners, assisting learners to meet deadlines and improve their work quality, and guide their thinking towards new knowledge. Mary was not directly observed prompting struggling learners or guiding them away from wrong information. Mary reported these types of interactions occurred in private conversations within and outside of the online classroom.

The analysis also indicated that Mary used eight types of immediacy actions while interacting with the adult learners in her online classroom. Mary’s interview and the adult
learners descriptions both gave evidence that she used eight immediacy actions when interacting with adult learners. Mary’s immediacy actions influenced the adult learners to believe she cared about their success within and beyond the classroom, and that her efforts to help them succeed in the class were benevolent.

With regard to regulatory actions, analysis indicated that Mary used four of the five regulatory actions in the online classroom: frequent and enthusiastic interactions early in the course, responsiveness to messages, and transparent regularity. Both Mary and the adult learners described these four actions. Mary was observed exhibiting early enthusiasm and being transparent with her regularity. The adult learners described Mary as a highly interactive, friendly, welcoming instructor who was always available when needed. Her use of regulatory actions influenced them to believe they could rely on her because of her frequent communication and quick response to their needs. There was no evidence that Mary was consistent in word and deed.

April’s Online Classroom: HSC312 - Ethics in Health Care

Seventeen adult learners attended this online class. The instructor was Professor April who has a Juris Doctor degree. She has taught online for ten years at the graduate and undergraduate level. For this study April was teaching Health Care Ethics in an upper level undergraduate online classroom. Three adult learners from this classroom participated in the study: 49-year-old full-time employed female (adult learner 12), 60-year-old full-time employed female (adult learner 7), and 58-year-old full-time employed female (adult learner 13). None were first-time online course takers.
Professor April’s interview. To begin the interview, I asked Professor April what she most enjoys about teaching online. She said, “the depth of the discussions is greater than in a traditional course.” She thinks the adult learners have “the opportunity to really reflect on what they want to say and make sure that their written word is consistent with what they are feeling and what they intended to communicate.” She also said she likes that you hear from everyone in the online classroom, including the introspective students, and that makes the discussions “far richer and more personal”. She also feels like she gets to know the students a lot better in the online environment.

Professor April discussed the following normative actions (NA):

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<th>NA1: Guide conduct of members</th>
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<td>NA2: Manage quality of work and deadlines</td>
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<td>NA3: Prompt individuals who struggle with deadlines/ quality of work.</td>
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<td>NA4: Guide analytical thinking to truth/knowledge</td>
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<td>NA5: Guides away from misinformation</td>
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(NA1) Professor April said when she starts an online course she encourages the adult learners to focus on making the discussions conversational. Professor April explained, “I tend to lay out what I expect as far as classroom roles, etiquette, how to speak to other people, and how and when to communicate with me.” She points out to the adult learners that the discussions bring up differences of opinion, which are expected, and that the adult learners should approach these differences with respect, active listening, and being open to differing points of view. “That's one thing that I really try to stress early on is, this is a safe environment. Everybody is going to have different thoughts, feelings, life experiences. We're going to be respectful.” She expects them to read the rubric for expectations related to grading of their work. She encourages them to read the syllabus and college policies for guidance in those areas, while she focuses on expectations for classroom interactions.
April: So at the very beginning of the class, I tell people, because they're really concerned with how many posts do I have to make a week. And well, there's a rubric for stuff like that. But my hope for you is that you feel like this is a really interesting discussion that you want to participate in throughout the week, so it's less like work and more like you're having a really cool coffee talk with your peers.

(NA2) Professor April said she gives periodic reminders in announcements of upcoming assignments. She also monitors their participation in the discussions and prompts adult learners to participate as needed.

April: I think that you can see it by when people are posting, they can't hide when they're interacting. And they also can't hide if they're turning something in late. And those, I think, are the two places where then I can intervene sort of after the fact if they're not doing what I hope that they're doing.

(NA3) April said she takes note of any adult learners that appear to be lagging behind in their performance. If a learner seems to be behind or struggling, she gives the learner a gentle reminder and offers assistance in a private message. In these private messages she discusses with the adult learner how to get back on track; prompting how to make up missed deadlines and giving guidance to improve work quality.

April: I'll often try to reach out to them through a one-on-one email, if there is something that seems to be going on. So, if an assignment wasn't handed in, then I grade it. And generally, you'll get a failing grade because you didn't hand anything in. And I'll put a note, reach out to me. You can definitely hand your work in late. I'll look at it. And then I'll take another step of just reaching out to the person if I don't hear anything in a week
or so to say, ‘is everything OK? What's going on? Are you having technical problems? Is there something?’

April: I like to give people the benefit of the doubt and think that they’re not just blowing off the course. Maybe there's something going on in their life that they either didn't think I needed to know about or felt like they were making excuses. And maybe they could just get back on track themselves, and then time got away from them. So normally if there's something personal going on or something like that, a student is more likely, I've found, to respond to that email sent through the course.

(NA4) Professor April described her role as ‘facilitator’ in the class discussions. She told me she guides the adult learners to think more deeply about complex topics. She explained that once they have the fundamentals [of the course concepts] she will play devil’s advocate with her class members to motivate them to consider theory, thereby getting the learners to justify how they make a decision or draw a conclusion. She also stressed moving the class-wide discussions to a more sophisticated and knowledgeable level once the class is comfortable framing their responses in an informed manner.

April: I feel like, at the beginning, I'm trying to help them transform their posts -- to really use those analytical skills. And then as things move along people get more comfortable with framing their responses as an informed response as opposed to just shooting off your opinion, then I feel like I turn a little bit more into the devil's advocate of not trying to get you to say it the way I want you to say, but to think about other angles. So as they get better at the analytical part, then I want them to step back and have a wider lens. So then it just feels like I'm more just facilitating conversation and helping
you think about things that you didn't think about before, as opposed to before, I was really helping you learn how to think. Does that make sense? So it's more those kind of things of like, ‘I think I get what you're saying, but I don't understand how you're getting from point A to point B. Or even if I do, you haven't communicated that well to other people who are reading this, so let's teach you how to lay that stuff out.’

April: sometimes I'll ask a question for people who feel really hard-lined one way or the other about like, ‘well, I would never do this.’ And I'm like, OK, cool. Sounds like you really like autonomy. You really like being able to make your own decisions. So does that mean no one should ever be able to do it? If it doesn't work for you, does that mean it doesn't work for everybody? Or if it doesn't work for you, does that mean other people should be able to make that decision too, if it works for them? And then that's when people are like, ‘oh, well.’ So that's kind of cool.

(NA5) Professor April spoke about guiding learners away from wrong information. For class-level guidance she asks lots of questions to “steer” the course of the discussion if the learners are going “off track”.

April: I also ask a lot of questions during each module to try to steer the course of the discussion if people are getting a little off track. And so some people get it and jump back on board, and some people don't. You just keep trying, I guess.
Professor April discussed the following immediacy actions (IA):

IA1: Connects with personal experiences
IA2: Invites private messaging
IA3: Uses textual gestures
IA4: Fosters professional relationship/mentors.
IA5: Encourages and praises to promote participation
IA6: Uses inclusive pronouns.
IA7: Shows care and concern for individuals.
IA8: Shares responsibility for individual student success (helpful)

 IA1) Professor April described sharing personal stories and experiences with adult learners early in the class. “People with kids or fur babies, I feel like we always trade at least one or two stories there, so that’s how I try to make myself a real person straight out of the gate.” Throughout the course discussions she said she shares her experiences:

April: I feel like I am very open. I feel like I share a lot in the certain modules are really relevant to the experiences that I've had. So, I hope they feel like they know me fairly well. That I'm not some weird entity that just hands out grades every once in a while.

IA2) Professor April stressed the importance of private messages for adult learners that need additional support.

April: I think that for those students who do need more, whatever that more is; those [private] conversations are pretty essential. I mean, for me, I feel like my obligation is to help you do the best that you can do. So, I take them really, really seriously to try to get people where they want to be and provide whatever help I can.

IA3) When asked if she uses humor, emojis, or other textual gestures April described humor as a way of connecting with the adult learners and keeping the more difficult discussions balanced:
April: (regarding humor) I guess I'm not sure why I use it. I think it fosters more of a connection between myself and the students and the students amongst themselves. Because if you kind of poke fun at yourself, then other people start doing it too. Some of our conversations are heavy, too. I think that's the other reason why I feel like I need to use it. Because where it's appropriate, and you can have a little levity, you have to.

(IA4) Professor April said the adult learners comment about her casual classroom style, and that it makes them more comfortable to participate. She said this reflects her laid back personality. At the same time she modeled professionalism with her adult learners (see section: “Experience of the adult learners in classroom 2”).

April: that was one thing that people commented on, was like, you have kind of a casual style about you. And it just makes me feel more comfortable to talk about ABC, XYZ. So I think I've always had that. That's more my personality. I'm kind of laid back and it quickly translates into-- like most of my announcements start with, "hey, guys" as opposed to like students or whatever.

(IA5) Professor April said she encourages the adult learners to participate in the learning activities by using lots of challenging questions. If some learners prefer not to participate, she said she can only encourage participation to a certain point, and it’s up to the individuals.

(IA6) Professor April encouraged adult learners to address her by her first name or in whatever manner they felt most comfortable. She addressed them by their first names and signed her communication with her first name. Professor April said it is important that they feel comfortable to participate.
April: students ask at the beginning; how would you like to be addressed? And I'm like, just April. April’s fine. I don't need a ‘professor’. I don't need a ‘Mrs.’ unless it makes you uncomfortable, so that's sort of how we start. Because I want people to feel like they can just open up and talk.

(IA7) Professor April expressed a strong sense of care for the adult learners who are struggling with life circumstances faced by working adult learners. Professors April explained how she approaches these adult learners who are dealing with complex life issues:

April: as you start talking to them, it's like there's just a whole lot of life going on. And they're not sure. ‘Do I stick with this course? I don't know if I can finish it. Do I drop it?’ Sometimes I'm talking people through that.

(IA8) I asked Professor April about the type of help she provides to her adult learners. She described two different kinds of help: technical help and course-related help. She described helping adult learners as much as is within her ability, but is careful to express her limitations for lending technical assistance. She said a quick response is important when help is needed. Here are examples of lending technical assistance:

April: I totally put it at the very beginning that I might have gotten through law school, but anything with a computer is above my pay grade. So, from the outset, I'm like, our IT department is fantastic. Please get in touch with them if anything is happening, but also let me know. So sometimes they can’t upload something to [the LMS] or whatever, well, we can do a workaround, just email it to me.
When asked how many adult learners in a class she typically has ongoing private conversations with April said, “maybe a quarter of the class”. In private messages, she said she gives additional guidance and offers her expertise to adult learners that need extra help. The extra help is limited to her role as instructor, and she said she is clear she will not give legal advice. In these private conversations she said she supports, guides, and inspires individuals who need extra assistance beyond the regular classroom experience. April said she identifies with these adult learners based on her own experiences as an adult learner. And she is willing to ‘go the extra mile’\(^6\) for all the learners, but particularly for the struggling adult learner.

April gave several examples of adult learners who had an extreme challenge understanding an assignment or the content. She described working one-on-one with them in private messaging or outside of the online classroom, usually in extended private conversations. Here is an example April gave:

April: I had one student who-- English was not her primary language. And she really wanted to do well. And she had a lot of really great things to say, but it was really difficult for her to communicate when it's all written. And she, I mean, to her credit, she kind of sought me out. And I think she used the Online Writing Lab, too, pretty extensively. But we ended up having a lot of conversations about how she wanted to say things -- basically helping her figure out how to translate what she really meant into a way that would be meaningful to her peers and to me, because her first paper, I was like, I have no idea what's happening here. So that was a lot of time that I spent with her. And she ended up doing fantastic in the course, because she really, I mean, she really dug in.

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\(^6\) ‘Going the extra mile’ is a common phrase that suggests goodwill, goodwill being a necessary component of epistemic trust. It was used in the study as a relatable phrase for the study participants. This phrase is commonly used with participants in other studies of goodwill trust.
and put a lot, a lot of work into it. All through email, which is interesting, too, since writing was kind of an issue to begin with.

April also gave an example of working with a student struggling with life complexities.

April: And I think that for those students who do need more, whatever that more is, those conversations are pretty essential. I feel like my obligation is to help you do the best that you can do. So, I take them really, really seriously to try to get people where they want to be and provide whatever help I can… god-love this one woman, who was having some pretty significant custody battles. I mean she really just needed life support at that point in time. And she seemed very appreciative of the fact that somebody just kind of cared. So, I think that, especially when it can feel so isolating [for the adult learner] because you're just on your computer or in the corner of your house doing this all seemingly solo, that if you don't have some of those connections, people are going to bail.

Professor April discussed the following regulatory actions (RA):
RA1: Highly interactive early in course
RA2: Engages with enthusiasm
RA5: Responsive to messages

(RA1 & RA2) Professor April said she is definitely more interactive at the very beginning of the course. She gave several reasons why she is active early in the course. First, she is attempting to make the adult learners comfortable with her in her role as the instructor and assist the learners in acclimating to the online learning environment. Second, she wants to assist with any technical issues the adult learners have.

April said she posts welcome messages and greets the learners individually either in the introductions area or with private messages. She makes an effort to connect with the adult learners by finding personal commonalities.
April: I tend to be really, really active, talking to students at the very beginning, so that some of those technical questions about where to find things or who to call if you're experiencing problems with things get answered upfront. And so they don't fester and people get frustrated and stop engaging. I definitely think that I am more interactive at the very beginning because I know that it's a hard transition for a lot of students to go either from the professional world back into the student world or just transitioning from traditional classroom to online classroom.

(RA5) Professor April stressed the importance of quickly responding to learner needs. April said she is responsive in introductions, “I always respond to everybody's personal introduction.”

**Observation of April’s classroom**

Professor April was observed using the following Normative Actions (NA):

- NA1: Guide conduct of members
- NA2: Manage quality of work and deadlines
- NA4: Guide analytical thinking to truth/knowledge
- NA5: Guides away from misinformation

Professor April’s classroom opens with April actively interacting with adult learners predominantly in the weekly discussion boards. April provided explanations of how to successfully complete assignments and participate in discussions. April guided the adult learners through the discussions to think more critically and more deeply about complex topics. She guided the learners away from bias and stigma thinking, away from assumptions and accepting obvious answers. There were multiple instances of clarifying what was discussed. April engaged with learner’s ideas to guide them away from misunderstandings. Announcements were used to prompt the adult learners to a higher level of performance.
In week one of class April begins by setting behavior expectations in the introductions area (NA1). “Please remember that this is a safe area, and discussions should never be argumentative or personal. We will be discussing tough topics, but we will do so in an informed and respectful manner.” She immediately begins to guide the learning in the week 1 discussion area by guiding the class away from wrong information (NA5) and towards new knowledge (NA4) using questioning and clarifying statements.

(NA4) April: What are the defining factors of each of the decision-making models that you discussed? Said another way, what things do you want to consider/establish before you can say that a decision would be supported by the consequences or virtue perspective?

(NA5) April: They have entire communities around their culture whereby, if you're hearing and do not speak sign language; you are the "disabled" one when you venture into that community (much like your Frenchman who can't speak French in a French community). Is it accurate to say that deaf people are disabled? Why or why not? How does that decision impact how you evaluate this hypothetical?

In Week 3 Professor April posted an announcement to manage the quality of the adult learner’s work (NA2). She explained what they were doing well as a class and gave specifics on where they could improve. In Week 5 discussion she continued to manage the quality of work (NA2) by clarifying the expectations of a writing assignment.

(NA2) April: As far as the substance of your postings, generally, they're pretty good and have been steadily improving… Each week you guys get better at this sort of analytical
thinking. Challenge yourself to use not only the reading material assigned, but to find other relevant sources that support or further the weekly discussion.

(NA2) April: just be mindful of your tone when you write up your analysis. You are definitely being asked to come to conclusions, but it may not be helpful for your conclusion to center around an action that could have, but was not, taken.

As the discussions progressed through the rest of the weeks, week 3 through 7, April continued to guide the learners toward new knowledge by playing “devil’s advocate” as she says, and questioning to promote deeper understanding. By week 7 her statements to guide away from misinformation became more declarative (NA5).

(NA4- Week 5) April: You say, "while others feel they are abandoning their medical and ethical duties by assisting in patients’ deaths." How specifically are physicians abandoning these duties? Do the arguments hold up when you're talking about patients who are terminal and can't be cured?

(NA4-Week 6) April: So, could you clarify what your duty is, as a medical professional, in this circumstance? I ask because usually deontology and utilitarianism are at odds with one another because a focus on duty cares primarily about intention and not at all about results while a focus on the risk/benefit cares not at all about intention and focuses solely on results (aiming for the greatest good). Do you think you've found the exception where both of these theories support the same action? Why?

(NA5- Week 7) April: You state: If they were not able to make the sacrifice to take care of her then, they should have given her to someone who could. I'm not sure that this is a fair characterization. I think that BECAUSE they were planning to continue to take care of her
for their entire lives, and because they were the ones who they felt would take the best care of her, they wanted to ensure they could do so physically for as long as possible.

When the course opened April was very actively engaged with the adult learners in the introduction area. April encouraged learners to feel comfortable interacting and supporting one another. And she reassured them she would be right there for guidance. She shared her personal life experiences that connected with the adult learner’s own life experiences (IA1). She encouraged adult learners that their experiences would contribute to the class learning experience (IA5). For adult learners that expressed hesitation about their abilities or qualifications to participate in the class, April encouraged them to contact her personally if needed (IA2). “You definitely need not be intimidating by an online learning platform :-) Seriously, you've got this! If you ever have questions, please feel free to reach out.” April used a textual smiley face here and there, as she did in this post, to convey encouragement and positivity to the adult learners (IA3). In week 1 April posted an announcement to help adult learners who were using the e-textbook. During subsequent weeks April helped with additional technical issues (IA8).

In week 2 – 7 discussions April continued to share personal experiences and encourage participation with praise within the context of the topic of discussion. In week 3 she posted an announcement to reinforce their good performance (IA5). “Overall, you guys are doing GREAT!
Seriously, great! Keep doing what you're doing and, if you need to, make some really minor adjustments to further improve!”

Here are some examples of April connecting personal experiences (IA1) and praising to encourage participation (IA5):

(IA1-Introductions) April: I think that it's absolutely awesome that you're here. I remember when I was presented with the option of getting my bioethics degree, people were like "But you're already IN school, why would you want to sign on for ANOTHER degree . . . one that you don't even know what you're going to do with it?" I often asked myself if I was crazy. I have to tell you, that decision to further my education was one of the best I've ever made. No one can take the knowledge away from you and becoming more informed and marketable is never a bad thing!

(IA1-Week 2) April: Working as a hospice volunteer, I was placed in a very low-income nursing home where many of the residents had no family or friends that would come. I sat vigil with them (a practice whereby a schedule is made so volunteers stay with a patient (and family too if available) while they are actively dying). Some patients were peaceful, many were not, often they were alone but for myself and the nurse or caretaker. Do you think that having these experiences is important for healthcare professionals? Does it give you a different perspective on how to make end of life decisions? Or is it irrelevant because its such a personal journey for the patient?

IA1-Week 5) April: Last week I was facilitating end of life/surrogate decision-making conversations between people I love dearly. Please believe me when I say that whether you go into the medical profession or not, this course will provide you with an awesome
tool kit to help you think through and facilitate conversations about dilemmas in your personal and professional life. So, I promise, it's all relevant!

(IA5-Introductions) It sounds like you've got so many different experiences to draw from, I really look forward to hearing about things that you've experienced and how they've shaped your ethical decision making approach.

(IA5-Week 2) Awesome job walking your way through the issues, stakeholders, and ethical theories at play. Truly, nice work! That's what an actual consultation would look like. Oftentimes you ARE asked to come to a recommendation.

Professor April was observed using the following Regularity Actions (RA):
  RA2: Engages with enthusiasm
  RA4: Keeps learner apprised of own regularity

In the introductions area April engaged with great enthusiasm about the course and about welcoming the adult learners (RA2). Throughout the course April kept her adult learners informed when she was grading assignments or would be absent from the course (RA4). For example, in week 8 she attended a family gathering. She reassured the adult learners that she may be unavailable for a few days but would be in contact. Here are examples of April’s regulatory actions:

  (RA2) April: Clearly I'm a bit biased, but I think that this course is absolutely amazing. It helps you improve upon your communication skills and provides you with an awesome toolkit by forcing you to really listen and acknowledge others while also articulating your own informed opinion (complete with reasons as to why you feel the way you do and how you got there). You'll have to let me know if it was truly three credits well-spent when we're all done!
April: And holy smokes, it sure does sound like you've got a super full plate. But, I'm sure that you've discovered that seems to be the MO for those in the online learning environment. It's a nice sense of community and support. Everyone has their own special sort of crazy going on, but it's still all pretty jam packed. It gives everyone a sense of camaraderie right off the bat, which is always nice when you don't have the luxury of seeing people face-to-face.

April: I am going to try and have your grades in by the end of this weekend. Unfortunately, my brother in law was just diagnosed with Stage IV cancer and is having a very risky and radical surgery on Friday. I'll be travelling to be with my sister and nieces tomorrow and at the hospital all day Friday. If things go according to plan, I'll be back at it Saturday night.

April: Hey guys! I will be headed out of town to celebrate my niece's graduation this weekend (I don't know how she's old enough to go to college, but they tell me it's happening!). I just wanted to let you know that I'll be checking in, but won't really be back on line until Monday night. Please don't think I'm ignoring you if you reach out, it's just a jam-packed weekend with a lot of travel. If you have any issues with your submissions for the last written assignment, you can always feel free to email!

Professor April initiated 22 private messages with the adult learners, posted a total of 10 announcements, and posted 130 times in the class discussions. This is displayed in Figure 4.9.
Experience of the adult learners in April’s classroom. The adult learners in Professor April’s class were asked if they thought a trusting relationship with the online instructor is important, and if it makes a better learning experience. All agreed it is very important. Adult learner 7 said it ensures the adult learner’s success. When asked if the instructor is responsible to build the trusting relationship most felt that was true, Adult learner 12 explained, “I expect them to establish a foundation for building trust.” however Adult learner 7 felt the responsibility is shared, “it is the student's responsibility to reach out and then the instructor should be prompt in assisting the student with their questions or concerns. This begins to build trust.” I asked the adult learners what Professor April did to make them feel she could be trusted, to which adult learner 13 said, “She is personable and kind and searches for ways to connect with the adult learners.”
(NA1) The adult learners were asked to discuss Professor April’s management of the online classroom. All the adult learners agreed that Professor April provided the right level of control of the classroom. Adult learner 12 said it was “perfect” because she was “present, but did not micromanage the class.” Here are additional comments in regard to April’s control of the classroom and setting of expectations:

- Adult learner 7: Yes, she set expectations for the class to be professional and courteous … and to be mindful of … sensitive topics.
- Adult learner 12: She exercised the right amount of control in my opinion.
- Adult learner 13: It was perfect [control of classroom].

(NA2) Adult learner 7 commented several times on how Professor April guided the quality of work in the discussions and gave regular feedback on assignments. “The professor gave honest feedback and instructions on where there was room for improvement.” Adult learner 7 continued, “Professor [last name] was frequently online with the class module discussions and promoted active discussion with the students… she gave reading material pertinent to the module we were studying and she frequently posed questions to make us think further and respond to [more] than just the posted response.”

(NA4) The adult learners said they trusted the online instructor to be the knowledge expert. As stated by adult learner 7, “It is extremely important to have trust in your online
instructor to ensure you are getting the tools and information needed to pass the course.” Adult learner 13 said, “We trust that [the professor] is there to help us learn and succeed.”

Adult learner 12 was receptive to Professor April’s guidance in the learning process; “Professor [last name] was good at getting me to stretch my mind and bring everything valuable into the equation. It helps me to create a process of thinking that I still used today.”

(NA5) Professor April guided the adult learners away from misinformation, which is reflected in these adult learner observations:

- Adult learner 12: I trusted her to steer me in the right direction.
- Adult learner 13: when we didn’t understand something. She kept us informed.

The adult learners discussed Professor April’s use of immediacy actions:

| IA1: Connects with personal experiences |
| IA2: Invites private messaging         |
| IA4: Fosters professional relationship/mentors |
| IA5: Encourages and praises to promote participation |
| IA8: Shares responsibility for individual student success (helpful) |

(IA1) The adult learners wrote about Professor April’s use of personal experiences. They said they found the stories of the instructor to be valuable to their learning as described by adult learner 12, “I love her personal learning stories. She always gives background to her information and makes it easily relatable.” Adult learner 12 continued, “She always was able to relate her experience to my observations. I enjoyed her stories and learned a lot from it.”

(IA2) Adult learner 7 illustrated how Professor April used feedback on course work to invite private contact, “[Professor] has reached out to me several times when reviewing assignments and encouraged me to reach out to her when I had questions about an assignment.”
Adult learner 7 described Professor April’s modeling of professionalism for the class, “[The instructor] set expectations for the class to be professional and courteous. She was always professional when interacting with students.” Adult learner 12 described Professor April’s demeanor as “I appreciate your input and see you as a professional.”

Adult learner 12 felt encouraged by Professor April to contribute her ideas. She stated, “I certainly always wanted to participate because I felt my opinion was valued.”

Adult learner 12 pointed out, “Professor [April would] go the extra mile for me, I truly believe that if I had asked she would have.”

The adult learners discussed Professor April’s use of regulatory actions:
- RA2: Engages with enthusiasm
- RA5: Responsive to messages

Adult learner 13 made a comment pertaining to Professor April’s enthusiasm for teaching the course saying, “She seemed excited to teach the class.”

Adult learner 7 commented about Professor April’s responsiveness and availability, “Professor was frequently online with the class module discussions and promoted active discussion with the students.” Adult learner 7 explained the importance of the instructor’s availability this way, “When the instructor is prompt in assisting the students with their questions or concerns, this begins to build trust”. Adult learner 13 found Professor April to be quick to respond. She said, “I asked for help and she helped me immediately.” Adult learner 7 reported the same experience, “She was prompt to address the student’s questions and concerns.”
Summary. Overall, April’s case suggests she used four normative actions, eight immediacy actions, and three regulatory actions in the online classroom, which influenced a trusting relationship to develop with the adult learners in the class. April used all five types of normative actions to manage the online class. As a result, it influenced the adult learners to believe they could rely on her as the knowledge expert in the classroom, and they believed April expanded their thinking and guided them to new knowledge and away from incorrect thinking. In April’s interview she discussed using the five types of normative actions. The adult learners described their interactions with April, which involved four normative actions. The adult learner data did not include assisting learners to meet deadlines and improve the quality of their work. Classroom observation found April enacting four normative actions: guiding the conduct of learners, assisting learners to meet deadlines and improve the quality of their work, guide their thinking towards new knowledge, and guide the away from misinformation. April was not directly observed prompting struggling learners, nor did the adult learners discuss this action. In April’s interview, she described using this normative action in the context of private emails.

The analysis showed April used six types of immediacy actions to interact with the adult learners in her online classroom. Classroom observation documented April using five types of immediacy actions: connecting with personal experiences, inviting private messages, using textual gestures, encouraging participation, and helping adult learners to be successful. Similarly, April’s adult learners discussed their experience in the class that revealed the same five observed, but lacked any mention of textual gestures. The adult learners felt April was always professional and served as a role model of professionalism for class members. April’s immediacy actions influenced the adult learners to perceive her as a professional role model and mentor,
they valued her personal stories as important to their learning, and felt she really cared about them individually and shared their efforts to be successful.

April described herself using three regulatory actions that included being highly interactive early in the course, engaging with enthusiasm, and being responsive to adult learners’ needs. Though she did not mention being transparent in her regularity, this was observed in the classroom. There was no evidence in the data for being consistent in word and deed. The adult learners described April as enthusiastic and responsive to their needs. April’s use of regulatory actions influenced them to believe they could rely on her to be available because of her frequent communication and quick responsiveness.

Jill’s Online Classroom: NUR430 - Research in Nursing

Eighteen adult learners attended this online class. The instructor was Professor Jill who has a doctorate degree in nursing. She has taught online for ten years. Six adult learners from this classroom participated in the study: 35-year-old full-time employed female (adult learner 3), 37-year-old full-time employed female (adult learner 5), 46-year-old full-time employed male (adult learner 6), 47-year-old full-time employed female (adult learner 9), 35-year-old part-time employed female (adult learner 17), and 27-year-old part-time employed male who is taking an online course for the first time (adult learner 16).

Professor Jill’s interview. I asked Professor Jill a warm up question; what does she enjoy most about teaching online. She said that, compared to traditional classrooms where the same few students are always responding, in the online classroom all the students are responding so “you get to hear from all of them, their thoughts, and their insight on the topic.”
Professor Jill discussed the following normative actions (NA):
NA1: Guide conduct of members
NA2: Manage quality of work and deadlines
NA3: Prompt individuals who struggle with deadlines/quality of work.
NA4: Guide analytical thinking to truth/knowledge
NA5: Guides away from misinformation

(NA1) Professor Jill said she posts announcements at the beginning of class directing the adult learners to read supporting documents for guidance in behavior expectations including the syllabus, college policies, and grading rubrics. She described using class-wide announcements and individual messages to manage classroom behaviors. She expects them to be “respectful to each other and listen to each other’s point of view.” To ensure that learners follow her expectations she reads and responds to discussion posts daily to “head that off at the pass before it becomes an issue.” If a learner is not meeting the expectations she messages them to reiterate the expectations.

Jill: I always post at the beginning of class, reminding them how many times they are to post, per the grading rubric. Where they can find the grading rubric. So I post that from the get go. I'll also post and here are the resources that are listed within your course for writing, for plagiarism, video, et cetera. So they have that well in advance.

Professor Jill had a recent incident of managing a behavior issue in one of her online classrooms. She shared it as an example of the importance of her role as the instructor to mediate:

Jill: teaching online I haven't had too many issues up until last spring or so. We did have a student, or I did, that was upset with the group process. So that took a lot of energy on my part, which is why I'm there, talking back and forth to group members, trying to get
some insight as to what the issue was with this individual. It did clear up. It did take a few-- gosh, I would say a couple of weeks to go through that process. But, again, reaching out, asking what were the issues, what could we resolve?

(NA2) Professor Jill said she gives the adult learners periodic reminders of upcoming assignments and prompts them as needed to participate in the class discussion. Professor Jill said she makes sure to give graded feedback on discussion participation quickly so they have a week to improve their participation and contributions.

Jill: (regarding assignments) I'll announce when the posts are due -- just kind of reiterating-- I probably do that several times, especially in the beginning. Also before any major assignment is due, I always post it two weeks out at least. And remind them, gee, this paper is coming up. You can find the details in your syllabus. Here's the link for it, et cetera. So again, I just try to head off some of those problems.

Jill: (regarding discussions) In a discussion I’m tracking who’s responding. And if I notice someone isn't responding, then I try to engage them with a question or here's a little article I found on the topic. Let me know what you think. So I try to get them in that way.

(NA3) Professor Jill said she takes note of any adult learners that appear to be lagging behind in their performance; she “keeps an eye on them”. If a learner does seem to be behind or struggling, she uses private messaging to give them a gentle reminder and offer assistance.

Jill: If I find that individuals are falling off and they haven't posted the required number of times by a certain time within the week, I'll email them in the middle, and say, you know, gee, you haven't posted your initial response. Please realize that this is due. Or you
have three responses due by Sunday evening by midnight I haven't seen. So I send an individual email prompting them.

Professors Jill stressed the importance of discretion when addressing individual performance challenges or individual learner’s personal struggles.

Jill: (Private messaging) it's very important. Because, again, there's issues that I don't want to throw out there for the whole class to be aware of. Because there are certainly subjects that do not need to be shared with the entire class.

(NA4) When asked how she interacts with adult learners in discussions Professor Jill said she serves as the facilitator. She interacts with learners individually in the discussion by responding with questions and adding resources to prompt the learner’s thinking. She also said while she might ask a question of an individual, she occasionally invites class members to respond as well.

Jill: So in reading the discussions, I'll say, gee, that's a great point. And a lot of times, I'll say, this is also interesting. And I'll pull in another research piece with the point that was made. I'll ask them, what are your opinions? I'll try to throw out a question. And I'll preface the question, or I'll put it in bold, for anyone [to answer]. And so I try to engage that way. Or here's another piece on what you're saying. What you're interested in. Let me know what you think. Or I might put a video clip in. Let me know what you think of the video or your impressions.

(NA5) I asked Professor Jill how she guides the learners away from wrong thinking. She said she first validates their thinking so as not to make them ‘feel belittled’ or think that their
idea is not important. She then tries to correct their misunderstanding of the content by connecting it to something they have experience with, to lead them toward truth/knowledge.

Jill: I'm very conscientious about bringing them back to that point of where we're discussing, without, for lack of a better word, of putting them down, so to speak, where they went off track. So trying to bring them back on without them feeling belittled or that their thought process is not important. So validating that and then bringing them back to topic. (If they are misunderstanding) I'll write an explanation. And try to base it on what they might be interested in. And then I'll put, “I hope this makes sense and I'm not rambling. If you need to talk to me, here's my phone number. Please call.”

Professor Jill discussed the following immediacy actions (IA):

IA1: Connects with personal experiences
IA2: Invites private messaging
IA3: Uses textual gestures
IA4: Fosters professional relationship/mentors.
IA6: Uses inclusive pronouns.
IA7: Shows care and concern for individuals.
IA8: Shares responsibility for individual student success (helpful)

(IA1) Professor Jill said she connects with the adult learners on a professional level. She shares professional stories, but limits sharing personal information.

Jill: In the introductions, I'll share a little bit. I might put that I love to hike or whatever. But that's about as personal as I get. Otherwise, I keep it formal. I try to keep the boundaries and the professionalism. So, I think [they know me] professionally. But personally, no, because I don't share that.

(IA2) Professor Jill said she introduces herself to each adult learner when the course begins by sending a private message and invites personal contact. Jill said, “first and foremost,
it's so important to introduce myself, making sure that they know how to reach me if they have questions.”

(IA3) When asked if she uses humor, emojis, or other textual gestures Jill said, “I haven’t”. However, when she described how she conducts discussions she said, “I'll preface the question, or I'll put it in bold, for anyone (to answer).” Bold-type is a textual gesture so there may be other forms of textual gesture that Professor Jill is unaware she is using and so did not mention. She went on to explain why she is careful about using humor or other intonations in her textual communication:

Jill: (when asked if she uses humor or emojis) I haven't. I mean, I try to be so conscious because when you're in the (face to face) classroom you can interpret nonverbal behaviors, the intonation of your voice et cetera. But when you're online when you're typing something I probably read it several times to make sure this doesn't come off mistrusted because of different cultural backgrounds, because I'm not in front of the class. They can't see me. I can't see them.

(IA4) Professor Jill expressed a sense of responsibility to be a mentor and role model for the adult learners in her classes. Primarily the adult learners in her classes are nurses seeking a higher credential in the field. Professor Jill said, “I do keep it formal. I’ve been in education long enough [to know], when boundaries get crossed then there become issues with learning professionalism.”

(IA6) Professor Jill signed her communications formally and asked adult learners to address her formally as Dr. [last name]. She did not use inclusive pronouns, but rather “you” and
“I”. Professor Jill inferred she is modeling professional expectations typical in the field of nursing.

    Jill: My philosophy, I keep it formal because I’m a true believer in boundaries between students and faculty, whether it be online or in person. … [This conveys to the student] “Here are the boundaries. I’m more than happy to give you my professional opinion.” But I do keep it formal.

    (IA7) Jill said that she is sensitive to life circumstances of the adult learner. She takes extra time to offer help, and let them know she is available to them. She said, “It always amazes me, the students in their evaluation, they're very grateful for that. I think they just need a little extra mentoring, obviously. A little extra help, which I feel like, that's why I'm there.”

    (IA8) When asked how many adult learners in a class she provides extra help to in private conversations Jill said, “it might be half the class, or it might be a fourth of the class.” Professor Jill was asked about two different types of help adult learners need: technical help and course-related help. She described giving technical help when it is something she knows, and otherwise referring the learners to the college’s technical support. “If it's something I know I try to problem solve with them, like have you tried a different browser, et cetera, if not then I'll provide the phone number for IT support.”

    For course-related help, Professor Jill described assisting adult learners who struggle with articulating course concepts. She worked one-on-one with learners in private messaging and by telephone.

    Jill: there always seems to be a couple of students and I can almost tell that they understand the concepts and they're in the discussion. But you can tell there's probably an
issue with ESL. And so it's been rewarding for me to take the extra effort to email them, to call them, because when you've done it enough, you know there's probably going to be issues with the written paper. So taking that extra time to say, “Here are the resources. Let me know what I can do. We have someone that can read it before you turn it in. Let me know how I can help.” And I think the simplistic of that, how can I help? How can I be available? And it always amazes me, the students, they're very grateful for that. I think they just need a little extra mentoring, obviously. A little extra help, which I feel like, that's why I'm there.

Professor Jill discussed the following regulatory actions (RA):
RA1: Highly interactive early in course
RA2: Engages with enthusiasm
RA3: Consistent in word and deed
RA5: Responsive to messages

(RA1 & RA2) Professor Jill gave several reasons why she is active early in the course. She believes she is only slightly more active initially. She posts a welcome announcement and greets the learners individually with private messages.

Jill: When the class opens, I send the same message to all of them individually. Welcome to the class. If you have any questions, please email me, et cetera. So, I'll send that to all of them in their email. I'll post a welcome. I'll post “go introduce yourself. Find the site.”

So maybe (active) a little bit more initially, the first week or two.

(RA3) Professor Jill explained the importance to regularly and immediately provide feedback for discussion participation each week.
Jill: So I always do the discussion rubric every Monday, so they know when it closes at Sunday at midnight, then Monday they're getting feedback from me. This is what you got. These are various issues you need to work on.

(RA5) Professor Jill said she makes sure to participate in the discussions regularly and quickly respond so the learners can improve their performance.

Jill: Well, every day I read the posts. I respond so many times, depending on the class size, et cetera, per day. So my personal practice is I try to stay on top of it. So I don't wait two days out to read post from three days. You know what I'm saying? So I make the effort every day to go on in and read what everybody is responding.

Observation of Jill’s classroom

Professor Jill was observed using the following Normative Actions (NA):
- NA1: Guide conduct of members
- NA2: Manage quality of work and deadlines
- NA4: Guide analytical thinking to truth/knowledge

When the class opened Jill invited the adult learners into the introductions area, “Please go to the module link where you will find a place for introductions. In this section, introduce yourself to others within the course.” She herself did not participate in the introductions area, but rather contacted them individually in a personal message (as reported in Jill’s interview). I did not observe any additional guidance for conduct expectations (NA1). Jill was very active in the discussions beginning in week one guiding the students to deeper and more accurate information. In response to each learner’s initial post she introduced additional information, resources, and insight to what the learner had posted. In some cases she used questioning to promote analytical thinking (NA4). She focused on each learner individually, and occasionally addressed a question
to the entire class based on the individual learner’s post. She continued in this fashion through week 7. Here are examples of both; interacting with an individual and calling out a query to the class:

(NA4) Jill: Hello Kathy, I like that you pointed out how the general themes identified can be applied to nurses in community settings as well as in clinics or hospital-based organizations. One question I had in reading this study was if the researchers engaged in “bracketing”. Bracketing ideally prevents the researchers from approaching the study with any preconceived notions about the concepts or data being collected in the study. This is where the researcher engages in a conscious effort to “bracket-off” any preconceived ideas that they may have on the subject. The theory behind this approach is, by becoming aware of personal biases, the researcher will be able to report the true experiences of the subjects, not their spin on the concept. One question I have is, can a researcher engage in this process fully to discover what their biases are, or are some biases perhaps at an unconscious level? Great post and interesting points made.

(NA4) Jill: Hello Linda, Your points are well taken how nosocomial infections negatively impact facilitates, staff, and patients. This indicator, and the others, is one way that the profession of nursing, at a national level, evaluates the structure, process, and outcomes of nursing care (NDNQI). The NDNQI is an effective way to document what we as nurses do, and is also a way to document what effect changes in nurse staffing ratios have on patient care. This will allow the profession and other healthcare providers the ability to understand the impact nursing has on the market forces of care. A question for anyone
is: Do you think nursing education provides students and future nurses the skills and abilities to understand the economics of healthcare and the impact on nursing?

In week 3, Jill responded to inquiries about an upcoming written assignment. She detailed for the class the expectations for the assignment, guiding them to the rubric and explaining how to apply APA writing style and find additional resources (NA2).

(NA2) I have received questions about the upcoming papers and wanted to share this information. In the grading rubrics for these assignments there are specific areas under each of the required components that need to be addressed. Please use headers per APA guidelines to indicate the required components of the paper being addressed. This will also facilitate the flow and organization of your paper. For example, the first paper is a review of a qualitative article. You would want to create headers that corresponding to the required areas on the rubric (i.e. purpose of the study, study design, participants, ethical considerations, researcher role, data collection and analysis, etc.) The correct way to create headers is found in the APA book (6th edition) starting on page 62. APA also provides a sample paper starting on page 41 you may find helpful. There is an interactive APA link provided within the instructions for these papers that is very helpful. There are also tabs within the course for help with writing and anti-plagiarism resources. Remember that the problem you identify as we go forward in the course, and in completing these papers, should be a nursing focused problem. Please refer to the instructions and grading rubrics for these papers.

Jill regularly posted reminder announcements in week 2, 3, 4, 6, and 7 for upcoming deadlines (NA2). For example, in week 2 she posted a reminder about discussions, “I wanted to
remind everyone that the first post should be placed by 11:59PM EST on Thursdays and that the
discussion board for each week ends at 11:59PM EST on Sundays.” And in week 6 she posted a
reminder about the assignments, “The assignments are coming rather rapidly during the last few
weeks of the course. The next paper that is due is the “Critical Analysis of a Quantitative study,
this is due Sunday, June 17, 2018 by 11:59pm EST. Thank you!”

Professor Jill was observed using the following Immediacy Actions (IA):
IA1: Connects with personal experiences
IA2: Invites private messaging
IA5: Encourages and praises to promote participation
IA6: Uses inclusive pronouns (first names, ‘we statements’)
IA8: Shares responsibility for individual student success (helpful)

When the course opened Jill welcomed the adult learners by encouraging them to contact
her (IA2) and describing where weekly learning materials could be found in the course (IA8).
She also posted information about a library webinar she felt would be helpful (IA8). The
instructor addressed the adult learners informally with first names, but used a formal signature
“Dr. last name”. She did not use inclusive pronouns, rather ‘you’ and ‘I’ (IA6).

In week one discussion posts she encouraged participation using praise and affirming
phrases (IA5). For example:

(IA5) Hello Vicky, I really like the definition you provided related to research and the
steps to be taken during this process. You are so right, research has the power to change
our knowledge base, practices, and stimulate additional research on topics.

(IA5) Mark– well stated and I agree that understanding clients perceptions are key to
assessing health-promoting behaviors. Thank you for the response, Professor (last name).
(IA5) Hello Janice, Your approach to use quantitative analysis to examine the factors that influence the adequate pain management of sickle cell patients is right on target. Jill also wove encouraging phrases into most of her responses to learners such as “Great topic and question to class members”, “great post”, “I really like” and “well done”. She continued this practice throughout the rest of the course discussions (IA5).

She was encouraging to the class as a whole in announcements. For example:

(IA5) Good Morning Everyone, I wanted to let everyone know that your posts for the first week’s discussion were informative and stimulated further discussion on the role of the baccalaureate nurse in the translation and generation of nursing knowledge. Looking forward to week two’s discussion board and keep up the great work.

(IA5) Good Evening, I enjoyed reading everyone’s responses to ethical considerations in nursing research during week two’s discussion. This topic was an excellent reminder for all of us to remain vigilant to ensure that patients’ rights are upheld during research. I also appreciated the additional references you all supplied in the posts and these were sources of enlightening information. Keep up the good work.

(IA8) Jill was very helpful with technical issues particularly around software use for completing assignments (PowerPoint©) and submitting assignments (TurnItIn©), accessing broken links, and misleading or malfunctioning external links. She also informed the adult learners of grading errors by the LMS and made corrections.

(IA1) She occasionally shared personal experiences related to the topic of study. Here are examples of shared experiences:
Jill: Thank you for sharing the informed consent process at the organization where you work. I also like your statement that, “Informed consent is also used for a participant’s participation in research where they fully understand the study before it is initiated.” I currently sit on an IRB panel at a University, and one area we always consider is how clear is the informed consent and does the target sample of people for the study have the background/abilities to understand what they are signing up for.

Jill: Hello Kathy, Reading your post reminded me of a research violation of ethic that I experienced. Living and working in a rural area in New Mexico for several years, there seem to always be a “group” wanting to come in and study the Hispanic, Native American, and rural populations that lived there. One case that stands out in my mind was a research group from a major University that came to town and rented a building for their use. These individuals then went into the community recruiting vulnerable individuals to study “diabetes”. People that signed up were promised follow-up and treatment for their diabetes. After a few months this group literal closed shop overnight leaving the people they had recruited without care and follow-up. We all assumed this was due to the fact that they got their needed information for the study. The people in our community did rally together and brought attention to this situation. However, this certainly left all of us who lived in this town with a feeling of being used and betrayed.

IA1) Sally, Your point is well taken about the size of a facility and the resources available to carry out research initiatives. I think back to rural hospitals I have worked in, and as you pointed out, we were lucky to enough staff to cover the units.
(IA5) Jeff, Your point is well taken that trust is key between leaders and staff on several levels including client safety. I have been at organizations where the staff had no faith or trust in its leaders and as a result, there was high turnover and low morale.

Professor Jill was observed using the following Regularity Actions (RA):
- RA2: Engages with enthusiasm
- RA4: Keeps learner appraised of own regularity

I observed one statement of enthusiasm in the opening announcements of the course (RA2), “Hello and welcome to the course. I am looking forward to this class and the resulting stimulating discussions surrounding nursing research. I believe you will find the research course very interesting and applicable to the nursing profession overall.” And one statement of the instructor’s regularity in the course (RA4), “I want to assure everyone that I read all posts and that I may not respond each week to each individual, especially if the posts are right on target. Additionally, note that office hours will be scheduled by individual appointments.”

Figure 4.10 is a frequency chart that shows Professor Jill was very active in private conversations, particularly in the second half of the course. She initiated 70 private messages with the adult learners, posted a total of 16 announcements, and posted 74 times in the class discussions.
Experience of the adult learners in Jill’s classroom. The adult learners in Professor Jill’s class were asked if they think a trusting relationship with the online instructor is important, and if it makes a better learning experience. They all agreed trusting the instructor is important. Adult learner 3 pointed out that the instructor’s qualifications are important to begin trusting them, but interactions with the instructor early in the course “lay the groundwork for a working relationship.” Adult learner 3 said that the instructor’s feedback “helps to determine my confidence in their abilities.” Adult learner 6 added that when a trusting relationship exists it is easier to accept the instructor’s feedback. Adult learner 5 and adult learner 17 said trusting the instructor “makes the experience better” and “forms a good learning atmosphere”, respectively. Whereas adult learner 16 points out that “some [instructors] don't participate and you still have to trust them.”
When asked if they hold the instructor responsible to build a trusting relationship with them they all said it is a joint effort between the student and instructor. Adult learner 9 explained that both are responsible “to develop a working relationship that is respectful. This is a part of developing trust.” Adult learner 3 and 5 said the instructor is granted a degree of trust initially based on their trust of the institution. Adult learner 3, “if they are hired by a credible school, they have the skills and credentials to do the job well.” Adult learner 5 went on to say, “I have to trust that the institution hired a trustworthy instructor and trust that they will lead the class effectively.” Initially, according to adult learner 5 the trust is “based on the instructor’s bio and their initial communications”. Beyond that, as adult learner 3 said, “the proof is in the pudding… how they interact with students”. Adult learner 5 added, “Their initial communications to the class affects my level of trust.” Although adult learner 6 agreed that both the instructor and student build the trust relationship, he points out “Because the instructor is in a position of power I believe that it is the instructors responsibility to ensure the environment is set to foster such a relationship.”

The adult learners discussed Professor Jill’s use of normative actions:

- NA1: Guide conduct of members
- NA2: Manage quality of work and deadlines
- NA3: Prompt individuals who struggle with deadlines/quality of work.
- NA4: Guide analytical thinking to truth/knowledge
- NA5: Guide away from misinformation

(NA1) According to the adult learners in Professor Jill’s classroom she created a safe online environment for collaboration, and “set realistic goals”. According to adult learner 5 “She promoted an environment of collegiality among the classmates.” And adult learner 17 said, “She set realistic goals and did not feel overwhelming.”
According to adult learner 5, the adult learners in Professor Jill’s class were kept on track with quality of work and deadlines by the instructor’s presence in the discussions, reminders of deadlines, and regular feedback on writing assignments. Adult learner 5 said, “She frequently had feedback on discussion posts and provided weekly class updates on upcoming deadlines.” Adult learner 5 also said, “constructive feedback on my papers enhance my knowledge.” Adult learner 9 concurred, “She provided feedback on my progress weekly.” Adult learner 6 talked about how Professor Jill focused on helping them improve their work, “Professor [last name] would critique your assignment but suggest ways to improve on current and future assignments.”

Though none of the adult learners spoke about struggling with deadlines, adult learner 9 expressed a belief that Professor Jill would help in such a situation. “I didn’t have any issues in this class, but in another I needed extra time on a project. That professor [didn’t help]. I felt very under the gun. I think I would have been granted the extra time in her class.”

The adult learners in Professor Jill’s classroom felt that she created a learning environment where they felt motivated, collaborative, and it expanded their thinking. According to adult learner 6 Professor Jill “created an environment that promoted open dialogue [and] motivated students to stretch their learning limits.” Adult learner 9 said, “She would ask questions and make us think further.” And adult learner 16 said, “The instructor added to what I learned.”

Adult learner 9 described the balance Professor Jill used to guide them away from misinformation, yet preserve the free flow of thought, “She would redirect if we started to get too off tract (sic), but allowed us freedom to expand and further explore the discussions.”
The adult learners discussed Professor Jill’s use of immediacy actions:
IA1: Connects with personal experiences
IA2: Invites private messaging
IA4: Fosters professional relationship/mentors
IA5: Encourages and praises to promote participation
IA7: Shows care and concern for individuals
IA8: Shares responsibility for individual student success (helpful)

(IA1) Adult learner 6 observed that by sharing her experiences, Professor Jill enhanced class participation, “The professor would start the discussions and share personal and professional experiences, which motivated the class to be open and participate.”

(IA2) Though none of the adult learners spoke about Professor Jill inviting them to contact her, several felt comfortable to reach out to her. Adult learner 5 said she felt comfortable contacting her instructor because of the instructor’s “bio, frequent communications, openness and accessibility”.

(IA4) Adult learner 9 felt that Professor Jill “was there to mentor us.” Adult learner 5 said she always “kept conversations academic.”

(IA5) Professor Jill promoted participation in discussions by encouraging open dialog and collegial interactions among the adult learners, which encouraged them to collaborate with peers. Adult learner 5 said Professor Jill “promoted… collegiality among the classmates”. Adult learner 6 said she “created an environment that promoted open dialogue.” Adult learner 5 said the professor “Engaged students in conversation, offered advice and constructive comments.”

(IA7) The adult learners felt that Professor Jill showed that she cared about their learning by putting their minds at ease, believing in them, and working with them to ensure they learned all the necessary material. The following comments reveal this:
• Adult learner 5: The professor was light, kind, puts my mind at ease when I am worrying, always seems to know the ‘right’ thing to say.

• Adult learner 17: Believed in everyone no matter strengths and weaknesses.

• Adult learner 6: I definitely believe professor cared whether or not the students learned the module material.

(IA8) Professor Jill shared the responsibility of her adult learner’s success by offering help and being available to help with technical and assignment-related questions. Adult learner 5 said she “always offered assistance to students.” Adult learner 3 said that the professor was “knowledgeable and able to share her knowledge to help them.” Adult learner 6 said she helped “each student become better”. Adult learner 6 felt Professor Jill would “go the extra mile” to assist him within or beyond the classroom. He stated, “I know Professor [last name] is willing to go the extra mile” and he gave an example of Professor Jill contacting him on a difficult technical issue and assisting him when he was up against a deadline.

The adult learners discussed Professor Jill’s use of regulatory actions:
- RA2: Engages with enthusiasm
- RA3: Consistent in word and deed
- RA4: Transparent regularity
- RA5: Responsive to messages

(RA1) Adult learner 5 felt that Professor Jill’s early interactions improved her trust of him stating, “The instructor’s initial communications to the class affected my level of trust.”

(RA2) The adult learners repeatedly used the following descriptors for Professor Jill in the visual image responses that included: ‘engaged’, ‘enthusiastic’, ‘excited about the course material’, and ‘excited when the class had a really good discussion’. Adult learner 6 explained, “I
wanted to participate because Professor Jill was excited about teaching the course material.” He also said she was “Excited when the class had a really good discussion.”

(RA3) The adult learners felt that Professor Jill was fair in her treatment of them and grading of their assignments, demonstrating she was consistent in word and deed. Here are some example comments:

- Adult learner 5: Always graded assignments fairly.
- Adult learner 6: Treated and graded each student equally
- Adult learner 9: She was fair

(RA4) Professor Jill was available and checking in regularly with the class. Adult learner 9 said, “she checked in with our discussion every day”. Adult learner 3 said, “Dr. [last name] was available every time there was an issue or concern.”

(RA5) The adult learners in Professor Jill’s class all agreed she was responsive to messages. Here are their comments in that regard:

- Adult learner 15: [The instructor] is quick with responses and pointed out quickly when I made an error.
- Adult learner 17: Responded in a timely fashion. Never negative.
- Adult learner 6: Professor was always available to answer question and clarify material
- Adult learner 17: She was always present and approachable. If you had a question she would answer and respond in a timely fashion.
- Adult learner 9: Messages seemed to be answered the same day or the next.

**Summary.** The above analysis provided evidence of Jill’s five normative actions, six immediacy actions, and four regulatory actions in the online classroom, which influenced a
trusting relationship to develop with the adult learners in the class. The analysis of Jill’s classroom indicated she used all five types of normative actions while enacting her role as instructor. As a result, the adult learners felt she created a safe online environment for collaboration that allowed them enough autonomy to grow their ideas and expand their thinking, while she guided them away from wrong thinking. In her interview Jill described using five types of normative actions. The adult learners reported interactions with Jill involving the five normative actions. Classroom observation confirmed that Jill guided the conduct of learners, assisted learners to meet deadlines and improve the quality of their work, and guided their thinking towards new knowledge. Jill was not directly observed prompting struggling learners or guiding them away from wrong information. Jill was highly interactive in personal messages with adult learners suggesting these two types of interactions occurred where they could not be observed.

The data analysis showed Jill used seven types of immediacy actions while interacting with the adult learners in her online classroom. In Jill’s interview she discussed using five immediacy actions. She said she does not use textual gestures or inclusive pronouns, but rather prefers to keep her communication style formal. She did not describe encouraging and praising learners to promote participation. However classroom observation documented Jill regularly and frequently encouraging participation with praise, as well as one incident of a textual gesture. Classroom observation confirmed Jill used formal pronouns. While discussing their class experience the adult learners described Jill’s use of the six immediacy actions. Jill’s immediacy actions influenced the adult learners to feel a connection to her; that she was a mentor and role
model. They felt comfortable to collaborate in discussions and interact with her. The believed she cared about their success and celebrated when they were successful.

Jill described using four regulatory actions in the online classroom: being highly active and enthusiastic, being consistent in word and deed, and being responsive to messages. She did not mention transparent regularity. However, in the classroom she was observed keeping the adult learners appraised of her regularity in attendance and grading. The classroom observation also confirmed Jill’s show of enthusiasm. The adult learners described Jill as highly engaged and excited about their success. They described her as fair and treating all the adult learners equally. They also said she was quick to respond to their needs and approachable. Her use of regulatory actions influenced them to believe they could rely on her because of her frequent communication and response to their needs, and that they could rely on her to be fair.

**Oliver’s Online Classroom: NUR338 - Introduction to Informatics for Nurses**

Twenty-two adult learners attended this online class. The instructor was Professor Oliver, a master’s prepared male nurse. He teaches in the School of Nursing. He has been teaching online for eleven years. Five adult learners from this classroom participated in the study: 58-year-old part-time employed female (adult learner 1), 58-year-old part-time employed female (adult learner 4), 26-year-old full-time employed female (adult learner 8), 57-year-old full-time employed female (adult learner 11), and 34-year-old full-time employed female (adult learner 15). None were first-time course takers.

**Professor Oliver’s interview.** During the beginning of the interview I asked Professor Oliver what he enjoys most about teaching online. He said what he enjoys most is the flexibility for the adult learners and the ability to interact at any time with the adult learners. He said
technology makes information quickly available to him such as the online library. He said the technology allows him to find quality information for students’ interest and guide them to the information in real time.

**Professor Oliver discussed the following normative actions (NA):**

- NA1: Guide conduct of members
- NA2: Manage quality of work and deadlines
- NA3: Prompt individuals who struggle with deadlines/quality of work
- NA4: Guide analytical thinking to truth/knowledge

(NA1) Professor Oliver said he refers adult learners to the syllabus for expectations in the course and to the rubrics for expectations on assignments or discussions. To monitor for compliance he checks to see that the adult learners are active and meeting deadlines for submissions. If they are not he will message them a reminder, sometimes up to three times, “because I know how busy they are.”

Oliver: Yeah. I make sure that the expectations are in writing. So in my welcome announcement, I will usually have like the expectations, but also the expectations are also laid out in the syllabus. So I do ask-- I remind the students to refer to the syllabus about the expectation in the course.

(NA2) Professor Oliver said he manages the adult learners’ quality of work and keeping with the deadlines through constant activity in the discussions, “during the course basically checking-- answering the discussion questions, contributing to the discussion questions, asking the students, stimulating their critical thinking, or asking them to participate, making sure nobody’s falling behind, checking their participation and attendance in the course.” He said he
gives periodic reminders of upcoming assignments, and guidance on how to successfully complete the assignments.

Oliver: And so, every announcement that I have in the course in regards to the assignments is broken down for them, how to make sure that they successfully complete that assignment by using the rubric criteria headings to make sure that they don't miss anything from the rubric.

(NA3) When Professor Oliver notices an adult learner missing deadlines he sends them a reminder and offers assistance. If someone appears to be struggling with discussion contributions, he will coach them on how to tie in what they are learning with their life experiences. He said he hopes to build up their confidence along with improving their performance. Professor Oliver said he recognizes the challenges of life and school demands that the adult learner is facing and he encourages them to reach out to him, and work with him to get back on track. Professor Oliver went on to explain that he will send the learner one, two, three reminders. “I’m going to try all lines of communication before I… before I put a zero in that box, because I know just how busy they are.” Here are excerpts of what Professor Oliver said that illustrate all these actions he described:

Oliver: (on missed deadlines) And so I reminded them. I said I noticed that you have not submitted your initial post, or participated in any of the discussion this week, so please let me know if I can be of any further assistance. I am willing to grade the discussion for some credit if submitted. So, I try to keep eye on them.

Oliver: (prompt to improve discussion contributions) So sometimes if I see like a really short post. Like from week one to week two, this student only writes like one or two
sentences, or two to four sentences, sometimes-- or is that scenario, I will ask for them to provide an article. And I explain the rationale that the article will make their response more substantiated. In addition to them sharing their clinical experiences, if they find an article that supports whatever they experience clinically then, that will make it a strong, or substantiated post. So I think that will make them feel more confident in writing a more solid post, I think.

Oliver: (get a student back on track) And if the expectations are not met, because I understand that these adult learners have many things going on besides the school, to let me know in advance, if possible, so we can make arrangements to meet. For example, if they did not meet the deadline for an assign-- for a particular assignment, then as long as they let me know in advance what the issue was, why they were not able to meet it, then we can always arrange something.

(NA4) Professor Oliver said he encourages the learners to use research and articles to support their ideas. When asked how he interacts with adult learners in discussions he said:

Oliver: The role is more of a facilitator. I don't want to overwhelm students with content. I believe they do have the content. They just need to ask peer-to-peer questions as well, or respond peer to peer. I think they will get more out of it. But again, I do my part of responding to four or five students a day for the whole. So it will be probably like I've seen 20 students, like almost all of them by the end of the week, well, they will get some kind of response from me.
Professor Oliver said he believes he is being effective in guiding their thinking because of the feedback he receives from his learners, “I received an email from somebody the other day that says, thank you for all the input that you give us, you challenge us with whatever information you provide or questions you ask. So I try to facilitate discussions.”

Professor Oliver discussed the following immediacy actions (IA):
- IA1: Connects with personal experiences
- IA2: Invites private messaging
- IA3: Uses textual gestures
- IA4: Fosters professional relationship/mentors.
- IA6: Uses inclusive pronouns.
- IA7: Shows care and concern for individuals.
- IA8: Shares responsibility for individual student success (helpful)

(IA1) Professor Oliver said he believes he is making personal connections with the adult learners. His example was feedback he received from two different adult learners, “I think they kind of get a sense that they know me. In a comment on the evaluations [one learner] said, ‘I could see myself drinking a cup of coffee with this guy’ or something like that. Another said ‘I feel like I know Professor [last name] for a long time.’”

(IA2) Professor Oliver said he invites the adult learners to contact him for any reason. He said he sends individual email messages, posts announcements, and adds it in assessment feedback. The main reasons Professor Oliver said he might contact an adult learner through private messaging is to improve their work or because they have missed a deadline. Professor Oliver stressed the importance of discretion when addressing individual performance challenges, and what learners confide of a personal nature.

Oliver: It's mostly about missing discussions or assignments, and hopefully coming up with a remediation plan if it continues. But it's strictly related to the course, or obviously,
they share something like I had a death in the family. Then, I will say let me find out if there's any resources that the college will provide.

(IA3) Professor Oliver spoke about the use of emojis in his communication with adult learners, and how he found them effective. But he cautioned that they should be used selectively and appropriately.

Oliver: I don't use humor as much in an online environment, but I have found out, especially in the last two to three years since the emojis came about, that an emoji really makes the difference. And I've gotten really good positive feedback. I use the standard emojis. I'm not going to put like a monkey face, or-- it's the smiley face. It's pretty much the standard for me. I'm not using a heart. I think that may be taken as inappropriate, especially from emailing somebody who's female for example, or even male. So just a smile-- or like a thumbs up, everything is good. But other than that, no other emojis.

(IA4) Professor Oliver expressed a sense of responsibility to be a mentor and role model for the adult learners in his class. He teaches Registered Nurses seeking a baccalaureate degree in the field. According to Professor Oliver, “My intention is to make them successful in the course, and hopefully in their careers. I think I open up myself to them, and they see in me their own model.”

(IA6) In this study both nursing faculty signed their communications formally and asked adult learners to address them with their formal title (i.e., Dr. or Professor) and last name. This includes Professor Oliver. He, as well as the other nursing instructor, did not use inclusive pronouns, but rather “you” and “I”.

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Oliver: I believe it best if we keep the conversations and interactions formal. In terms as simple as the students referring to me as Professor ‘last name’ versus calling me by my first name. Some students where I work here on ground, they use my first name and it just doesn’t sound very professional. And I feel like when they do that, I’ve allowed them to cross the boundary of the student-teacher [relationship].

(IA7) Professor Oliver expressed his sensitivity to the circumstances unique to the adult learner, that of being working adults with complex life situations. To support these busy learners Professor Oliver explained that what he does is midway through the course he asks them to “take a step back for that particular weekend and maybe do something fun. I think it shows them that I care for them and I want them to succeed. I think it reenergizes them to finish the class strong.”

(IA8) Professor Oliver discussed two kinds of help he provides: technical help and course-related help. He said he helps directly if it is within his ability, but otherwise guides them to technical assistance. With course-related help, Professor Oliver described the advantages of an online classroom and access to the online library. He said he is able to retrieve materials very quickly and immediately provide these materials to individual learners who will benefit from them.

Oliver: (technical help) If it's something that I know the answer, then I will help them out very quickly, so they don't have to go through all the trouble of calling IT. But if it's something that I'm not sure, and especially like if it's a [LMS] issue, or that really needs more expertise, than I recommend them to call the IT-- the help desk.

Oliver: (content-related help) I can offer all kinds of information [to the students]. And at any time, I can find whatever they need, I can find it and provide it to them.
When asked how many adult learners in a class he might be providing more intense help Professor Oliver said, “It’s a select few.” He described how he works one-on-one with adult learners in private messaging or outside of the online classroom, either by telephone or videoconference. I asked Professor Oliver to give me an example of an interaction where he needed to “go the extra mile” for an adult learner:

Oliver: the one that I can think of right now is the student was having a hard time demonstrating the landmarks for the heart sounds, like the pulmonic valve, the aortic valve, the apical, all that. So I set up a phone call. And we decided to play the video that the student had submitted. And we went over the video. And then, I would say I'm at three minutes and 50 seconds. And he was at three minutes and 50 seconds, so we would stop the video and say what is it? And I would ask, what is it you did not see correctly? Or that kind of stuff. And we talked about this, and how to demonstrate those landmarks. And the gentleman said that he learned so much and he was very-- he appreciated the phone call. Because at first, he said that he was very anxious, and he was afraid that I was going to fail him. But I made the expectation very clear that the purpose of the phone call was not to scare him or fail him. It was just to go over the demonstration, because I had some concerns that I wanted him to make sure that once we go through clinical, he demonstrates the skills correctly. So he understood that after I explained to him. He demonstrated the skills, and then he re-taped the video with the feedback. So when I watched the video after we went over the stuff, yes, it was a successful demonstration. Absolutely.
(RA1 & RA2) I asked Professor Oliver if his participation level increases or decreases at certain points in the course. He said his participation is consistent throughout the course. He said, “Yeah. It's pretty consistent through the course, because every week is built in with a discussion and assignment. So it's pretty consistent in general.” Professor Oliver also said he posts welcome messages and greets the learners in the introductions area when they first arrive.

(RA4) Professor Oliver described how he is regularly present in the online classroom. He said he models the presence and regularity he expects from the adult learners, “I kind of play a student role. I want them to see that [attendance] expectations are not just for them. It’s also for me to be present and make sure that I am facilitating the experiences for them. “

(RA5) Professor Oliver stressed the importance of quickly responding to learner needs so they can improve their performance. He said, “I do my part of responding to four or five students a day for the whole. So by the end of the week, well, they will get some kind of response from me. The interaction is constant.”

**Observation of Professor Oliver’s online classroom**

Professor Oliver was observed using the following Normative Actions (NA):

| NA1: Guide conduct of members |
| NA4: Guide analytical thinking to truth/knowledge |
| NA5: Guides away from misinformation |

When the course opened Professor Oliver directed the students to participate in the introductions area, post a picture, and read the syllabus, “I ask that you please introduce yourself
in the Introduction ‘thread’ so we can all get to know each other. I strongly recommend you include a picture. Please refer to the syllabus section under course late policy.’’ This was the only observed guidance for conduct of members (NA1). Professor Oliver was very active in the discussions beginning in week one responding to each learner’s initial post with additional information, resources, and insight. He focused on each learner individually, occasionally addressing a group. The majority of Professor Oliver’s discussion posts were informational. Occasionally he would challenge the learner to think more deeply or would add thoughtful questions (NA4). And occasionally he would guide them away from wrong thinking (NA5).

Here are examples:

(NA4) M, Thank you for the insight here...What are your thoughts on this one? “Two roads diverged in a wood, and I— I took the one less traveled by, and that has made all the difference.” Robert Frost. So what are the two roads in terms of EMR integration? One is a proactive approach in mobile applications, using patient-generated data as a core part of population health management and making sure that the sickest patients have the devices to generate objective and self-reported data. The other is perhaps a less aggressive approach, opening the APIs and allowing those with smartphones and connected devices to bring data in.

(NA4) R and S, Another tool for medication adherence can be through mobile apps. One company takes a digital + human approach to help patients manage their medication schedules while providing care teams with the tools and real-time insight they need to target patients at risk of becoming non-adherent. What do you think? Prof.
(NA4) Oliver: P, Lack of interoperability can make EHR very time consuming as well. What do you think? Do you think it is time for EHR to evolve? Should we have or do we already have in place clinician peer networks that share best practices, facilitate learning, and support clinical transformation and EMR evolution?

(NA5) Oliver: T, Interoperability cannot be accomplished without standards. I found out there is a standard health record collaborative website and the standard health record (SHR) is an approach to health data sharing. According to the project website… It might be worth looking into for all of you. Here is the website (link). Do you think it is a good idea? Why or why not? Please share your thoughts everyone...

(NA5) Oliver: M and D, Regardless of the circumstances, it is not excusable to not hold healthcare professionals accountable. Do you think that the electronic prescribing and administration of medications has significantly improved patient safety by reducing these errors? What measures are currently available at your workplace (no need to mention the name of facility)...? More than 440,000 people die needlessly in American hospitals every year, making medical errors the third leading cause of death in the country. The staggering and terrifying reality came to light in 2000 when the Institute of Medicine published the now-famous report “To Err Is Human,” sparking frenzy and outrage.

Professor Oliver was observed using the following Immediacy Actions (IA):
IA1: Connects with personal experiences
IA2: Invites private messaging
IA3: Uses textual gestures (emojis)
IA5: Encourages and praises to promote participation
IA6: Uses inclusive pronouns (first names, ‘we statements’)
IA7: Shows care and concern for individuals (verbally caring messages)
Professor Oliver announced to the class in week one his availability via email, telephone, and messages (IA2). I did not observe additional invitations to contact through private messages. Oliver addressed the adult learners informally with first names, but used a formal signature “Dr. last name”. He did not use inclusive pronouns, rather ‘you’ and ‘I’ (IA6). In week 3 Professor Oliver posted a caring announcement, encouraging learners to take a break from their studies (IA7). He used textual gestures twice in announcements (IA3), as well as in a greeting he repeated to each adult learner in the introductions area, “Welcome (first name), Look forward to your contributions 😊.”

(IA2) I am available via (college) email but I highly recommend and prefer that you message me via the "My messages" first before email. I check course "My messages" link and access the class at least 4 times a week. Saturday and Sunday will be random access. I am also available by phone at… Timeframe for responding to questions: I will respond to any questions within 24 hours, no later than 48 hours. If the latter happens, please feel free to call or email me.

(IA7 & IA3) 😊 Dear Students, We are constantly logging in and out and it seems like every day deals with school, work, family and life in general. It seems like it never stops...I am writing to you today because I want you to find some time to reflect or relax, read something fun or do something cool with your family and friends...Thank you for being in my class and know that I am here to help you succeed. Make some time for yourself. You deserve it. Best Regards, Professor (last name).

(IA9) D, This may be slightly off the topic but I do feel strongly about residency programs in the first place...I believe it is crucial to have a residency program in place…
I observed one instance of Professor Oliver sharing a personal experience (IA1):

(IA1) R, You make a great point about involving healthcare professionals in decision making...I remember when we first started implementing the digital EHR and EMR, we were never asked about the design...it was not until after implementation that nurses were involved in making suggestions.

Professor Oliver used encouragement and praise throughout the eight weeks in the discussions. For example:

L, Thank you for your insights...You have provided some great suggestions about promoting a culture of safety.

M, Thank you for sharing the encrypted message system.

D, You gathered some great information.

M, Great points discussed here...

(RA4) In week one announcement Professor Oliver clearly outlined his availability and grading practice. At the end of the course he announced that final grades were posted.

Oliver: I am available via (college) email but I highly recommend and prefer that you message me via the "My messages" first before email. I check course "My messages" link and access the class at least 4 times a week. Saturday and Sunday will be random access. I am also available by phone at… Timeframe for responding to questions: I will respond to any questions within 24 hours, no later than 48 hours. If the latter happens, please feel
free to call or email me. Assignment/Discussion feedback time frame: I will grade all
discussions and assignments that may be due each week within 72-96 hours.

Professor Oliver initiated 12 private messages with the adult learners, posted a total of 11
announcements, and posted 123 times in the class discussions. This information is displayed in
Figure 4.11.

![Figure 4.11: Chart displaying frequency and type of Professor Oliver’s communication.](image)

**Experience of the adult learners in Oliver’s classroom.** The adult learners in Professor
Oliver’s class were asked if they thought a trusting relationship with the online instructor is
important, and if it makes a better learning experience. They all agreed trusting the instructor is
important because they can rely on the instructor to control the classroom and to grade them
fairly. They also said trusting the instructor enhances their learning, helps them to engage in the
learning, and they can rely on the instructor as knowledge expert. Here are the comments the
adult learners made:
Adult learner 1: Yes, I do think trust is important in online learning- trust is always important in all classrooms, online or traditional. It makes the experience better with trust because there is less worry and stress about things out of my control.

Adult learner 4: Yes I need to trust my instructor & trusting the one involved with determining your grade is important.

Adult learner 8: Yes definitely. The learning experience is better and more enhanced when trust is intact.

Adult learner 11: Yes, I do believe that having confidence in an instructor is helpful toward learning and engaging. I always read an instructor’s CV/Resume and sometimes verify information.

Adult learner 15: Yes I think that it is important to trust the instructor and improves the learning experience because when questions are asked the student feels confident that the answer received from the instructor is reliable.

When asked if they hold the instructor responsible to build a trusting relationship with them there was many different ideas expressed by the adult learners that revealed that the relationship is a complex relationship to build. For example, adult learner 4 identified the need for the instructor to act in ways that would earn trust. Adult learner 11 pointed out that learners are individuals with different criteria for deciding to trust an instructor. Adult learner 11 also pointed out that it is the learner’s responsibility to assess the instructor’s trustworthiness, checking credentials and validity of what they provide in the course. Adult learner 15 said she automatically trusts the instructor (swift trust) unless the instructor’s actions prove otherwise.
Adult learner 1 and adult learner 8 said the instructor-student trust relationship is a shared responsibility. Here are all the responses beginning with adult learners 1 and 8:

Adult learner 1: I think it is a two-way street- we earn to trust each other.

Adult learner 8: I believe it's a mutual responsibility of the instructor and the student to earn trust. The instructor and the student have equal power in the student/instructor relationship and trust is a shared concept

Adult learner 4: No, but it is their job to express themselves in a way that we will feel that we can trust them

Adult learner 11: How will the instructor know what each person needs to trust them? We tend to have our own criteria. I believe the instructors should provide transparency by using the bio to introduce themselves as they are. Beyond that, it's our responsibility to critique his/her validity of trustworthiness; just as we would with any research article presented to us.

Adult learner 15: I feel that the instructor has my trust unless they do something that makes me feel differently. They don’t have to earn it, just keep it.

The adult learners discussed Professor Oliver’s use of normative actions:

NA1: Guide conduct of members
NA2: Manage quality of work and deadlines
NA4: Guide analytical thinking to truth/knowledge

(NA1) According to the adult learners in Professor Oliver’s classroom he maintained the right level of control to create a safe online environment for collaboration. Adult learner 15 said, “There were clear guidelines.” Adult learner 8 said, “Professor Oliver… kept control over how I and my classmates interacted, the amount of control was just right.” Adult learner 4 said, “The
professor controlled [the classroom] with guidance.” Adult learner 11 felt comfortable in the classroom; “Control wasn’t needed as it seemed like good, easy conversing all around.”

(NA2) The adult learners spoke about how the instructor helped them manage deadlines and improve the quality of their work. They reported that each week Professor Oliver communicated with them about deadlines and guided their learning in the discussions and as needed. Adult learner 4 said, “…Guidance was given when needed.” Adult learner 15 reported, “He frequently responded in discussions and posted general messages each week.” Adult learner 8 felt, “Professor was excellent with communication and keeping students up-to-date.” She added, “The class was kept informed via several posted announcements throughout the class.”

(NA4) Adult learner 8 felt Professor Oliver offered ideas that promoted her learning and improved understanding. She explained, “The professor was involved in class discussions almost every day, reviewing posts and giving very detailed responses that were referenced and utilized critical thinking, proposed good questions for us to consider.” Adult learner 4 agreed, “Professor [last name] gave me ideas and other students that [added] further to our knowledge in the subject.” The adult learners in this class felt their instructor possessed the knowledge and had the capability to teach that knowledge to them. According to adult learner 15 when the instructor asked questions she felt “confident that the answer received from the instructor is reliable.” According to adult learner 4 the instructor “turned on the light bulb when I was confused”.

The adult learners discussed Professor Oliver’s use of immediacy actions:
IA2: Invites private messaging
IA4: Fosters professional relationship/mentors.
IA5: Encourages and praises to promote participation
IA8: Shares responsibility for individual student success (helpful)
In the online classroom, where the class is always open, this action would translate to the instructor inviting the learner to contact them through private messaging or other one-on-one communications away from the public areas of the course. Adult learner 5 said she felt comfortable contacting her instructor because of the instructor’s “bio, frequent communications, openness and accessibility”. Adult learner 8 said the class members knew how to contact the instructor because, “The professor listed several methods of contact and answered emails promptly.”

One respondent described Professor Oliver as a leader who addressed them as professionals and modeled professional behavior. Adult learner 1 explained, “[The instructor] leads by example. His posts are always professional.”

The adult learners in Professor Oliver’s class felt his manner and way of interacting encouraged them to participate. And they felt he created a collegial environment, which encouraged them to collaborate with one another. Adult learner 8 explained her perspective, “The professor’s responses made discussions more interesting and encouraged students to engage in future discussion posts and respond to fellow students.” Adult learner 4 said Professor Oliver “promoted… collegiality among the classmates.” This is reflected in a comment from adult learner 1, “Always responds to posts in a way that encourages continued learning through conversation.” Adult learner 1 continued, “Gives supportive feedback with grades and is very encouraging.” The adult learners felt their contributions were valued. Adult learner 8 stated, “Professor seemed pleased with my discussions when I did well and his comments reflected this.” Adult learner 5 described the encouraging approach of Professor Oliver, “The professor
was light, kind, puts my mind at ease when I am worrying, always seems to know the ‘right’ thing to say.”

(IA8) The adult learners were asked if the instructor was helpful and whether they thought the instructor would ‘go the extra mile’ to help them. The adult learners said Professor Oliver responded immediately to requests for technical and assignment-related questions. Adult learner15 gave an example of technical help, “Professor … pointed out quickly when I made an error turning in an assignment to the wrong Drop box… and guided me to correct it.” Adult learner 8 explained how Professor Oliver helped with assignments, “On my papers when he left comments he said he was satisfied and when he wasn't he left thorough reasons why and tips to improve next time or links to review for improvement. I feel if a Professor didn't care things would simply be graded without comments or not any help for the future.” Adult learner 11 found interacting with Professor Oliver helpful, “His reply posts were relevant and highly supported by references. These were helpful when I reviewed them in fuller detail.” There were several comments that Professor Oliver cared about their success. Adult learner 1, “I believe he cares.” Adult learner 8, “He really cared about my learning.”

The adult learners discussed Professor Oliver’s use of regulatory actions:
RA1: Highly interactive early in course
RA2: Engages with enthusiasm
RA3: Consistent in word and deed
RA5: Responsive to messages

(RA2) When the adult learners in this class responded to the visual image scales they repeatedly described Professor Oliver as ‘engaged’, ‘interactive’, ‘energetic, ‘uplifting’, and ‘collaborative and engaging’.
(RA3) Adult learner 8 commented on Professor Oliver’s efforts to be consistent in word and deed. Her perception was, “Professor kept his word and stayed consistent with grading and expectations. This additionally added to the trust.”

(RA5) The adult learners in this class found Professor Oliver to be very responsive and available. Here are their comments. Adult learner 15 said, “[Professor Oliver] is quick with responses and pointed out quickly when I made an error.” Adult learner 1 said, “[Professor Oliver] is present frequently, almost a daily basis.” Adult learner 11 said, “He seemed to be present and easily responded in a timely fashion.” And finally, adult learner 15 said, “He responded to all questions in a timely manner with responses that were honest.”

Summary. The above analysis provided evidence of Oliver’s use of four normative actions, seven immediacy actions, and five regulatory actions in the online classroom, which influenced a trusting relationship to develop with the adult learners in the class. The analysis of Oliver’s classroom indicated he used all five types of normative actions while enacting his role as instructor. As a result, the adult learners felt that they could rely on Oliver to have the knowledge and capability to share new knowledge with them. They also relied on Oliver to guide their conduct and performance. Oliver reported using four types of normative actions: guiding conduct, managing quality of work, prompting struggling learners, and guiding to truth and knowledge. Classroom observation showed he also guided the adult learners away from misinformation. The adult learners experience involved three normative actions: guiding conduct of members, managing quality of work and deadlines, and guiding to truth and knowledge. As was the case in the other classrooms, prompting struggling learners was reported by Oliver to occur in private conversations within and outside of the online classroom.
The data analysis showed Oliver used six types of immediacy actions while interacting with the adult learners in his online classroom. Oliver does not use inclusive pronouns, preferring to keep his communication style formal. Classroom observation confirmed Oliver used formal pronouns. He did not discuss encouraging and praising learners to promote participation. However classroom observation showed Oliver used this immediacy action and five others. While discussing their class experience the adult learners described Oliver’s use of four immediacy actions. Oliver’s immediacy actions influenced the adult learners to perceive him as a leader and a role model of professional behavior. They felt comfortable and encouraged to participate and they felt Oliver valued their contributions. They believed Oliver cared about their success and helped them to be successful.

Oliver described his use of three regulatory actions in the online classroom: being highly active, enthusiastic, and responsive to messages. He did not mention transparent regularity, but he was observed being transparent with the adult learners by keeping them appraised of his regularity in attendance and grading. The adult learners described Oliver as highly engaged, available and uplifting. Oliver’s use of regulatory actions influenced them to believe they could rely on him to be available when needed and help when they needed him.

Conclusion

This chapter presented initial analysis of the quantitative and qualitative data collected for this mixed method nested study. A mixed method nested study begins with the quantitative analysis, which then leads to the analysis of the qualitative data being informed by the former. In the next chapter the results will be mixed using cross-case analysis. The quantitative information extracted with the descriptive analysis of central tendency and correlation alongside the
qualitative information enhances both representation and legitimation of the phenomenon of epistemic trust (Frels & Onwuegbuzie, 2013). By adding the quantitative data and analysis to the phenomenological component of the study, it addresses in more detail the research questions.
Chapter 5: Cross-case Analysis

Introduction

This chapter is a cross-case analysis of data collected in four higher education online classrooms. This analysis integrates findings from all four cases to illustrate the multi-case phenomena and suggest causation. To address research questions 2, 3, and 4 I used an approach recommended by Miles, Huberman, and Saldaña (2014) for conducting a cross-case analysis. The first step was to further analyze the data presented in Chapter 4, looking across the four cases to address each of the qualitative research questions. Each question addresses a different type of instructor action. During the data analysis it was also determined that a synergistic relationship exists among the different types of actions. So to explore/represent this relationship further a final step in the cross-case analyses was taken to merge the final results.

This chapter begins by presenting a cross-case analysis for each of three research questions and culminates with a final representation of all three types of instructor actions and their combined influence on the adult learners in the study. The final result offers generalizable causal explanations, by anthologizing into one thematic display all the stories of the four cases (Miles et al., 2014): the story of how an epistemic trust relationship develops between the adult learner and the online instructor. Most importantly, it illustrates the intertwining of the three different types of instructor actions as together they influence this trusting relationship.

Question #2

*How do normative actions of the instructor (actions that control and direct the activities and interactions of the class) influence the epistemic trust relationship with the adult learner?*
Every instructor used **five** types of normative actions and there were **three** common responses from the adult learners to those actions. These actions and responses are displayed in Table 5.1.

*Table 5.1. Normative actions of the four online instructors and the corresponding response from the adult learners.*

<table>
<thead>
<tr>
<th>Instructor normative action</th>
<th>Adult learner response</th>
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<tbody>
<tr>
<td>NA1: Instructor guided classroom conduct and member interactions</td>
<td>The adult learners were influenced to rely on the instructor for guidance</td>
</tr>
<tr>
<td>NA2: Instructor guided the adult learner’s quality of work and deadlines</td>
<td>The adult learners were influenced to feel the instructor cares about his or her success</td>
</tr>
<tr>
<td>NA3: Instructor prompted individuals who struggled with deadlines/quality of work</td>
<td>The adult learners were influenced to rely on the instructor for truth and knowledge</td>
</tr>
<tr>
<td>NA4: Instructor guided analytic thinking of adult learners toward new knowledge</td>
<td></td>
</tr>
<tr>
<td>NA5: Instructor guided adult learners away from wrong information or wrong thinking</td>
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Normative Action 1: Instructor **guided classroom conduct and member** interactions

The online instructors described the importance of getting into the online classroom at the very beginning of class to explain to the class their expectations for acceptable conduct. They all described using class-wide announcements and individual messages to communicate these expectations. For example, in Mary’s class she posted periodic deadline reminders and reviewed assignment requirements. In April’s class she focused on discussion etiquette and prompting deeper critical discourse. In both Oliver’s class and Jill’s class they directed adult learners to read supporting documents and policies. They all encouraged the adult learners to read supporting documents for guidance in behavior expectations including the syllabus and grading rubrics. For example, Oliver said, “I remind the students to refer to the syllabus about the expectation in the
course.” Some instructors also referred the adult learners to college level policies for plagiarism, netiquette, and electronic use. Professor April explained that she, “encourages them to read the syllabus and college policies for guidance” so she can focus on communicating her expectations for classroom interactions.

The instructors said they talk with their learners early on about the challenges of interacting in classroom discourse. They point out that the discussions bring up differences of opinion, which are expected, and that the adult learners should approach these differences with respect, active listening, and with an open mind to other points of view. Professor April, “I tend to lie out what I expect as far as classroom roles, etiquette, how to speak to other people (Professor April, Interview, 2018)”.

The instructors said they use private messaging to intervene with adult learners who go beyond the guidelines of proper posting or interacting in the class. For example, Jill said she expects them to be “respectful to each other and listen to each other’s point of view.” She reads and responds to discussion posts daily to “head that off at the pass before it becomes an issue.” If a learner is not meeting the expectations she messages them to reiterate the expectations.

Response to Normative Action 1: The adult learners relied on the instructor to guide class conduct

The experience reported by the adult learners reflected that all the instructors managed their classrooms with a balance of control and autonomy. A balance this adult learner recommended, “I like a teacher to be present but I don’t like a teacher to micromanage (April’s class, Part 2 Survey, 2018).” The adult learners said they expect the instructor to establish guidelines for classroom conduct. They said it provides a good learning environment. Most adult
learners felt the instructor is responsible to do this because they are in a position of power. As one learner explained, “I expect them to establish guidelines and a foundation for building trust (April’s class, Part 2 Survey, 2018).” According to the adult learners in these four classrooms, the instructors created a professional environment, making it collegial and reducing their stress:

- Mary’s class: “[The professor provided] just the right amount of control.”
- Jill’s class: “She promoted an environment of collegiality among the classmates.”
- Oliver’s class: “It makes the experience better with trust [of the instructor] because I worry less and don’t stress about things out of my control.”
- April’s class: “Yes, she set expectations for the class to be professional and courteous … and to be mindful of … sensitive topics.”
- Oliver’s class: “The professor controlled [the classroom] with guidance.”
- Oliver’s class: “Professor was excellent with communication and keeping students up-to-date.”

A comment from an adult learner in Oliver’s class conveys that when an instructor is managing a discussion in a balanced way, it creates a feeling of safety for the adult learners, “It seemed like good, easy conversing all around (Part 2 Survey, 2018).”

Normative Action 2: Instructor guided the adult learner’s quality of work and deadlines

The instructors guided the adult learner to achieve a higher quality of work in discussion contributions and submissions of written work. All the instructors described their role to be ‘facilitator’ and stressed that when they observe that the class discussion is constructive and building in the right direction, they only interject to guide and advise as needed. For example, Professor April spoke of teaching adult learners to use analytical skills in discussions, Professor
Oliver said he teaches adult learners to be informed in their contributions by asking them to “substantiate their experiences with research”, and Professor Mary said when she oversees learner discussions she is looking for opportunities to encourage elaboration or contribute her knowledge to the discussion.

Observations in all four classrooms found the instructors giving continuous and regular explanations to the class as a whole of how to successfully complete assignments and participate in discussions, including goals specific for each assignment. The instructors also provided regular reminders for upcoming deadlines. In the discussions three of the four instructors were active almost daily, addressing individuals or drawing in other adult learners to discussion threads posted by their peers.

**Response to Normative Action 2: The adult learners relied on the instructor to set performance goals and remind them of deadlines**

The adult learners were aware of the instructor’s management of the classroom by his or her posts in the discussions, reminders of deadlines, and regular feedback on assignments. The adult learners knew the instructors were keeping them on topic. And they were aware that the instructors were controlling the flow of the discussions. Many of the adult learner’s statements reflected this:

- Jill’s class: “The professor allowed us freedom to expand and further explore the discussions.”
- Oliver’s class: “The professor controlled & guidance was given when needed.”
- Jill’s class: “The professor set realistic goals and it did not feel overwhelming.”
- Mary’s class: “She set guidelines for when she wanted things to get done.”
The adult learners confirmed the instructor feedback on assignments improved their quality of work and hence their understanding of the materials and expectations. Here are examples:

- Jill’s class: “Professor [last name] would critique your assignment but suggest ways to improve on current and future assignments.”
- April’s class: “The professor gave honest feedback and instructions for improvement.”
- Jill’s class: “Constructive feedback on my papers enhanced my knowledge.”

**Normative Action 3: Instructor prompted individuals who struggled with deadlines/quality of work**

The instructors were all observed providing prompts and reminders to the class as a whole. The instructors all said they regularly assist struggling learners. They said after posting reminders of deadlines they take note of any adult learners that appear to be lagging behind in their performance. When needed, the instructors all said they give these individuals gentle reminders and offer assistance. They privately discuss with them how to get back on track. Professor Oliver explained, “I’m going to try all those lines of communication before I… before I put a zero in that box, because I know just how busy they are.” Each instructor gave a detailed description of an extended interaction with a learner struggling with life issues or struggling with understanding the content. For example Oliver met one-on-one with a learner to coach him on identifying heart sounds correctly after he had failed a learning assessment. April assisted a learner who was going through a bitter divorce and was struggling with meeting deadlines.

The instructors reported that they typically converse with anywhere from one-quarter to a majority of the students through private messages. All the instructors reported the main reasons they initiate private conversations with adult learners are threefold; struggling first time students,
remediation for missed work, and reminders for poor performance in discussions. Reasons adult learners initiated private conversations were three-fold; ask for clarification or help understanding an assignment, confess/apologize for missing course responsibilities, or report a technical problem or personal challenge. The instructors stressed the importance of discretion when addressing individual’s challenges, and keeping confidential what learners confide of a personal nature. I observed a small sample of private conversations the instructors had with individual learners.

**Response to Normative Action 3: The adult learners felt the instructor cared about their success.**

In the private conversations, I observed individual learners communicate relief and gratitude for the instructor’s attention. They also demonstrated cooperation and motivation while interacting with each of these instructors. One adult learner in Mary’s class discussed how Mary picked up on her struggles and responded, “Professor Mary sent me personal messages of encouragement when I seemed to be struggling.” It was difficult to determine the adult learner’s response to NA3 due to two factors: the observation of private interactions with struggling adult learners was limited and the adult learners were hesitant to talk about personal struggles.

**Normative Action 4: Instructor guided analytic thinking of adult learners toward new knowledge**

The instructors guided the adult learners to new knowledge in the class discussion areas and with feedback on their work. In the discussions, all the adults described similar approaches. They looked for opportunities to contribute additional resources and contribute their own knowledge. They encouraged the adult learners to elaborate on their ideas and to support their
ideas with resources. They also guided the learners to think more deeply on complex topics, moving them to more sophisticated discussion once they were comfortable framing an informed contribution to the discussion. For example, April said, “I'm trying to help them transform their posts -- to really use those analytical skills.”

The focus of group versus individual instruction in the classroom varied based on the instructor’s facilitation style. Two of the instructors focused on interacting with each adult learner individually in discussions. Professor Jill and Professor Oliver spoke to students individually, introducing additional information to stimulate their individual thinking. They also used questioning to promote additional viewpoints from that individual learner, and then solicited other learners to participate in the discussion thread with that particular learner. Professor April in contrast spoke to a broader audience in discussions, addressing the adult learners as a group (i.e., “hey guys”) even when responding directly to an individual in the discussions. She created a feeling of an open class-wide discussion. Professor Mary engaged with smaller clusters of learners in various threads of the discussion and also addressed learners individually.

Response to Normative Action 4: The adult learners relied on the instructor for truth and knowledge

The adult learners valued the online instructor as the knowledge expert in the classroom. As stated by adult learners in April’s class, “It is extremely important to have trust in your online instructor to ensure you are getting the tools and information needed to pass the course.” Another said, “We trust that they are there to help us learn and succeed.” The adult learners in all four classrooms felt their instructor possessed the knowledge and had the capability to teach that
knowledge to them. They felt the instructor offered ideas that furthered their knowledge and improved their learning experience. In Oliver’s class one learner said, the instructor “turned on the light bulb”. In Oliver’s class another learner said, “Professor was good at stretching my mind.”

Normative Action 5: Instructor guided adult learner away from wrong information or wrong thinking

The instructors spoke about guiding the class discussions and also about guiding individuals away from wrong thinking. For class-level guidance they described asking lots of questions to “steer” the course of the discussion if going “off track” or to “make sure it’s flowing”. They also stressed moving the class-wide discussions to a more sophisticated and knowledgeable level once the class was comfortable framing their responses in an informed manner. The instructors encouraged the adult learners to communicate with more “elaborate” posts to give opportunity to grow ideas. Professor April described it this way, “when people get more comfortable with framing their responses… then I feel like I turn a little bit more into the devil’s advocate… to get them to think about other angles.” Professor Oliver used a strategy of tying the discussion topic to previously expressed interests of certain individuals, to better engage those individuals. Before bringing a learner back on topic Professor Jill first validated their thinking so as not to make them ‘feel belittled’ or that their thinking is ‘not important’. Professor April guided the learners away from bias and stigma thinking, away from assumptions and accepting obvious answers. Professor Mary explained how she guides learners away from misinformation by asking them ‘what if’ questions to prompt them to question their initial
assumptions. In the four classrooms, I observed multiple instances of clarifying what was discussed with the class.

Response to Normative Action 5: The adult learners relied on the instructor to guide away from misinformation

The adult learners followed their instructor’s guidance away from misinformation, and acknowledged the instructor as the knowledge expert. For example in Jill’s classroom learners said that her feedback enhanced their knowledge. They felt she motivated them to “stretch their learning limits”. In April’s classroom the adult learners understood her use of questioning enhanced their learning as explained by one learner, “[the professor] frequently posed questions to make us think further and respond to [more] than just the posted response (Survey Part 2, 2018).” That same feeling is reflected in these additional adult learner statements:

- Jill’s class: “She would redirect if we started to get too off track.”
- April’s class: “I trusted her to steer me in the right direction.”
- Jill’s class: “The instructor added to what I learned.”
- Mary’s class: “Asked real world questions to challenge us.”

Causal Fragment for Normative Actions

To deepen the understanding and explanation of the phenomenon a causal fragment was created based on these findings to address question #2. A causal fragment is intentionally linear to best illustrate the trajectory of the adult learner’s story line in the data and it provides a rudimentary ‘map’ of “cause and effect” (Miles et al., 2014). Normative actions did follow a trajectory through the adult learner’s storyline. This complements the strong correlation found in
the quantitative analysis between normative actions and epistemic trust. The result is illustrated in the normative action causal fragment in Figure 5.1.

![Figure 5.1. Causal fragment for normative actions and epistemic trust](image)

**Summary for Normative Actions**

The instructors were documented controlling and directing classroom behavior and adult learner academic work (NA1 and NA2). When the instructors set performance expectations for the class, the adult learners were influenced to rely on them for guidance. The two specific actions by the instructors were: managing the adult learner’s conduct in the classroom and providing guidance to improve the quality of their work and assist them in meeting deadlines. In response to the instructors’ use of normative actions 1 and 2, the adult learners expressed feelings of willingness to participate under the instructor’s guidance. For example, in Jill’s class the learners felt an “environment of collegiality.” And they welcomed the instructor’s “constructive feedback.”

All the instructors reported assisting struggling adult learners (NA3). These interactions occurred privately. Because of the privacy concern I asked each instructor to share one private conversation thread they had with a struggling learner for observation. They each were able to provide an example. The adult learners in these private areas expressed relief, gratitude, cooperation, and motivation.
The instructors described guiding adult learners to new knowledge and away from misinformation (NA4 and NA5). Professor Mary said she encouraged learners “to elaborate in discussions” while Professor April used questions and clarifying reflections to guide the learning. These types of actions influenced the adult learners to believe they could rely on the instructor to guide them to new knowledge. For example, the adult learners in Jill’s class said she “made us think further” and “redirected if we got off track.”

**Question #3**

*How do communication immediacy actions of the instructor (use of language that is engaging and personable) influence the epistemic trust relationship with the adult learner?*

The four instructors used six types of immediacy actions. There were two common responses from the adult learners to the six types of actions used. There was variation in the way the four instructors used two of the immediacy actions with inconclusive results. These actions and responses are displayed in Table 5.2. Note that one of the responses is the same response for normative action 3 seen in Figure 5.1.

<table>
<thead>
<tr>
<th>Instructor immediacy action</th>
<th>Adult learner response</th>
</tr>
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<tbody>
<tr>
<td>IA1: Instructor shared personal experiences that resonated with the adult learner</td>
<td>The adult learners were influenced to feel a personal connection to instructor</td>
</tr>
<tr>
<td>IA2: Instructor encouraged personal contact with adult learner</td>
<td></td>
</tr>
<tr>
<td>IA4: Instructor fostered a professional relationship with adult learners through mentoring and role modeling</td>
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</tbody>
</table>

*Table 5.2. Immediacy actions of the four online instructors and the corresponding response from the adult learners*
IA5: Instructor used praise and encouragement to promote participation, collaboration, and engagement  
IA7: Instructor sent caring messages to adult learners  
IA8: Instructor helped adult learner with technical and content issues  

The adult learners were influenced to feel the instructor cared about their success*

IA3: Instructor used textual gestures  
IA6: Instructor used inclusive pronouns  

Inconclusive result

* Same response as to Normative Action 3

Immediacy Action 1: Instructor shared personal experiences that resonated with the adult learner

The instructors described sharing personal stories and experiences that connected with adult learners early in the class. “People with kids or fur babies, I feel like we always trade at least one or two stories there, so that’s how I try to make myself a real person straight out of the gate (Professor April, Interview, 2018).” I observed that as the interactions progressed these personal stories became teaching tools to facilitate the learning and made real the concepts or topics of discussion. Professor Mary explained, “As the course progresses, they know me better. Often they might post something, and I can relate to it. When I reply back to their post, I talk about my own experiences. That helps them get to know me a little better (Interview, 2018).” Oliver and Mary both added that being open about their personal lives ‘humanized’ them and reassured the adult learners.

In the classroom, I observed initial non-academic connections being made. During the course of study I observed each instructor use his or her professional expertise and years of experience and knowledge to enrich the learning. The instructors shared their professional knowledge extensively through stories, resources, and experiences that related to the topic of study, and aligned with individual learner’s own life experiences and interests.
Response to Immediacy Action 1: The adult learners felt a personal connection to instructor

The adult learners expressed awareness of the instructor’s efforts to connect personally with them. They also felt the relatable stories of the instructors were valuable to their learning, as voiced by these examples:

- April’s classroom, “I love her personal learning stories. She always gives background to her information and makes it easily relatable.”
- Jill’s classroom, “The professor would start the discussions and share personal and professional experiences, which motivated the class to be open and participate.”

Immediacy Action 2: Instructor encouraged personal contact with adult learner

Throughout the length of the course all of the instructors encouraged the adult learners to contact them privately with concerns or questions. These invitations regularly included contact information (Classroom Observations, 2018). One of Gorham’s immediacy behaviors directs that the instructor invites the learner to contact them outside of class if they have questions or concerns (1988). These private invitations were inserted in the instructors’ communications, not only when addressing the class, but also when addressing individual adult learners (Classroom Observation, 2018). The instructors gave examples of how these invitations were made to include: sending individual email messages, posting announcements, adding it in more complex feedback, and putting it in their instructor biography (Interviews, 2018). The instructors said the adult learners were responsive to these invitations. “Students seem very comfortable contacting me if they’re having any issues with the course, in their life, with [the LMS], anything. So that’s helpful (Professor Mary, Interview, 2018).”
Response to Immediacy Action 2: The adult learners felt a personal connection to instructor

The adult learners in Jill’s class said the instructor’s “bio, frequent communications, openness and accessibility” made them feel comfortable to contact her, and in Oliver’s class the learners felt they were kept informed via “several posted announcements throughout the class.” The adult learners said they knew how to contact Professor Oliver because, “The professor listed several methods of contact and answered emails promptly.” One learner in April’s class reflected on the instructor’s use of feedback to invite private contacts, “[Professor] has reached out to me several times when reviewing assignments and encouraged me to reach out to her when I had questions about an assignment (Survey 2, 2018).”

Immediacy Action 3: Instructor used textual gestures

Professor Oliver was the only instructor to describe using emojis or textual gestures. The other three instructors said they do not use these techniques in their communication. Oliver was explicit in saying that the use of emojis should be limited. He cautioned about using emojis that might be misinterpreted to be too friendly or inappropriate (there is a limited choice of emojis within the LMS). He limits his use to smiley faces or other neutral images. However, he believes it adds a feeling of connection and lightness to his communication with the adult learners. Here is what Oliver said about the use of emojis, “I have found that an emoji really makes the difference. And I've gotten really good positive feedback [from adult learners]. I use the standard emojis. So just a smile-- or like a thumbs up, to say everything is good, but no other emojis.”
Response to Immediacy Action 3: Inconclusive

The adult learners did not speak directly about their instructor’s use of emojis or other textual gestures. So their response is unclear. Professor Oliver did state he has received positive responses from adult learners in reference to his use of emojis in his communications with adult learners.

Immediacy Action 4: Instructor fostered a professional relationship with adult learners through mentoring and role modeling

According to both nursing instructors, formal interactions in the online classroom allowed them to model professional expectations in the field of nursing. As Professor Jill explained, “My philosophy, I keep it formal because I’m a true believer in boundaries between students and faculty, whether it be online or in person. … [This conveys to the student] ‘Here are the boundaries. I’m more than happy to give you my professional opinion.’ But I do keep it formal. I’ve been in education long enough [to know], when boundaries get crossed then there become issues with learning professionalism (Professor Jill, Interview, 2018).” Jill’s statement suggests that she was modeling professional behavior for the adult learners in her class. Professor Oliver echoed this idea; “I believe it best if we keep the conversations and interactions formal. In terms as simple as the students referring to me as Professor ‘last name’ versus calling me by my first name. Some students where I work here on ground, they use my first name and it just doesn’t sound very professional. And I feel like when they do that, I’ve allowed them to cross the boundary of the student-teacher [relationship] (Professor Oliver, Interview, 2018).” I noted during the interviews that the nursing faculty conveyed an awareness of their responsibility to be mentors and role models for the adult learners who were seeking a higher credential in the
field. Professor Oliver explained, “I think I open myself to them, and they see in me their own model (Interview, 2018).”

Similar to the nursing faculty the health sciences faculty also expressed the importance of modeling professional academic performance. For example, Professor Mary said she models academic writing for her adult learners, “I try to make sure that I’m responding in an educated, professional way, very careful about punctuation and making sure everything is written properly and there are no errors (Mary Interview, 2018).” Professor April, despite expressing concern that the adult learners feel relaxed and less strained by formalities, and describing her own style of facilitation as “casual” and “laid back”, April was observed to be a model of professionalism with the adult learners in her class.

Response to Immediacy Action 4: The adult learners felt a professional connection to instructor

The adult learners viewed all the instructors as mentors who modeled professional behavior and addressed them as professionals. Example of learner’s remarks:

- April’s class: [The instructor] set expectations for the class to be professional and was always professional when interacting with students.
- Jill’s class: I did feel [the instructor] was there to mentor us.
- Oliver’s class: [The instructor] leads by example. His posts are always professional.

Immediacy Action 5: Instructor used praise and encouragement to promote participation, collaboration, and engagement

Gorham identified the use of praise and individualized feedback by the instructor as immediacy behavior (1988). I observed the instructors give praise and encouragement directed at
both the individual learner and the class as a whole. The instructors said they believed it would increase the adult learner’s participation in the class activities and discussions.

The instructors described their efforts to increase engagement of the adult learners in the learning activities. They used questioning and sharing additional information that aligns with the adult learner’s interests as ways to engage individuals who were lacking in participation. Professor Mary described it this way, “I might ask them a question to encourage them to elaborate a little more… if a week goes by and I notice that they were kind of quiet, that they responded but not that much, I might send them an email or a message just saying, hey, you know, you’re doing really great in the discussion, but I’d love to hear more from you. I really liked what you said about x, y, z, and it would be really nice to hear your voice. You have a lot to contribute (Interview, 2018).”

I observed all the instructors use praise to boost the confidence of adult learners to share their ideas in the classroom. I observed Professor Mary giving clear guidance to individuals on how to effectively participate. Professor April’s initial communications were welcoming and encouraging, she used language that was conversational and genuine. During classroom observations I saw all the professors regularly praise the class as a whole. Professor Jill, when praising the class, sighted specific accomplishments that the class achieved in the discussions, particularly in the first weeks of the course. One of Jill’s learners explained, “[the professor] was very encouraging to the whole class and spoke to everyone as a team (Survey Part 2, 2018).” Professor Oliver used emojis selectively to bolster certain messages of encouragement to the class.
Within the discussions all the instructors encouraged and affirmed when adult learners made progress in their thinking and assumptions about the topic of study. I observed both Professor Jill and Professor Oliver interacting with individuals to help them improve their partially formed ideas. Both were willing to share resources or ideas and get involved in a collaborative exchange on the learner’s topic of interest.

Professor Mary described how she encourages learners who may be hesitant to participate, “I like being able to hear from everybody. And if I don't hear from someone in a substantial way, I kind of encourage him or her in some way. And they often have wonderful things to contribute (Interview, 2018).”

Response to Immediacy Action 5: Adult learners felt the instructor cared about their success

The adult learners reported that the praise and encouragement of the instructors included personalized feedback on assignments. Adult learners said the instructors showed an interest in the adult learner’s contributions by questioning to elicit critical thinking and by providing resources and deeper knowledge on the topic. One of Oliver’s learners explained how this was received from the learner’s perspective, “The professor’s responses made discussions more interesting and encouraged students to engage in their future discussion posts and responses to fellow students (Survey Part 2, 2018).” Gorham lists questioning as an immediacy behavior (1988).

The adult learners described their instructors as willing to listen in a non-judgmental and kind way, and were open to new ideas and reflections (Survey Part 2, 2018). A descriptor used over and over by the adult learners in the visual portion of the survey was “approachable”. The
encouragement and praise used by the instructors created a classroom environment where the adult learners said they felt comfortable to offer new ideas, collaborate with each other, and work through struggles and self-doubt. The adult learners felt they were “valued.” They said their instructors helped them to overcome any struggles they encountered, and the instructors “promoted… collegiality among the classmates (Jill’s learner)”, “created an environment that promoted open dialogue (Jill’s learner)”, and encouraged them to collaborate with peers (Survey Part 2, 2018). April’s learner stated, “I certainly always wanted to participate because I felt my opinion was valued (Survey Part 2, 2018).” Oliver’s learner stated, “Professor seemed pleased with my discussions when I did well and his comments reflected this (Survey Part 2, 2018).”

**Immediacy Action 6: Instructor used inclusive pronouns**

Gorham’s immediacy behaviors regarding salutations, signatures, and pronouns guided me to observe the instructor’s use of student first names, use of their own first name, and use of inclusive pronouns (i.e. we, our). There was a difference between the nursing faculty and the health sciences faculty in this regard. The nursing faculty signed their communications formally and asked adult learners to address them with their formal title (i.e., Dr. or Professor) and last name. Neither nursing instructor used inclusive pronouns, but rather “you” and “I”. Keeping in mind that the nursing profession has a longstanding history of maintaining decorum and respect for those who lead and instruct others in the profession, helps to frame why those instructors requested to be addressed in a more formal manner.

The health science faculty in contrast, used collective pronouns and encouraged adult learners to address them by their first name or in whatever manner they felt most comfortable. They signed their communications with first name only. Professor April said she feels it is
important that they use her first name to get comfortable, “because I want people to feel like they
can just open up and talk (Professor April, Interview, 2018).” Professor April used inclusive
“we” language that situated her within the group. Interestingly, Mary reported that the adult
learners still address her formally as “Professor” or “Mrs.”, despite her efforts to the contrary.
Professor Mary stated, “I ask the students to call me by my first name. They don’t. Most people
call me Ms. or Professor ‘last name’. They insist on that, … that’s just what they do. (Interview,
2018).” The adult learners, regardless of discipline, used the instructor’s formal title when
talking about the instructor (Survey 2, 2018).
(See also Immediacy Action 4 in regard to fostering a professional relationship)

Response to Immediacy Action 6: Inconclusive

The adult learner’s did not speak directly about the instructor’s use of formal or informal
pronouns. It was observed that all the adult learners in the study referred to their instructor with a
formal title when answering prompts. They all used either Dr. ‘last name’ or Professor ‘last
name’. Possibly the use of pronouns is more closely tied with the adult learner’s response to
Immediacy Action 4. The response to the use of pronouns and inclusive language is
inconclusive.

Immediacy Action 7: Instructor sent caring messages to adult learners

The instructors each expressed sensitivity to the circumstances unique to the adult
learner; that of being working adults with complex life situations. Around the midpoint of the
course I observed two instructors specifically encourage the class to take time outside of class to
“relax and reflect” for self-care. Professor Oliver explained that he asks his students to “take a
step back for that particular weekend and maybe do something fun. I think it reenergizes them to
finish the class strong.” Around the half way point Professor Mary encouraged her learners to practice holistic self-care strategies. I also observed Professor Oliver intermittently posting encouraging and caring announcements using emojis (i.e., Happy Nurse’s Week).

**Response to Immediacy Action 7: Adult learners felt the instructor cared about their success**

The instructors use of IA7 helped the adult learners to feel relaxed and encouraged them to feel comforted by the instructor’s messages of caring. Examples of the adult learner’s response:

- Jill’s class: The professor was light, kind, puts my mind at ease when I am worrying, always seems to know the ‘right’ thing to say.
- Mary’s class: You just knew the caring and commitment that she felt for the class.
- Oliver’s class: [Professor] was very encouraging.

**Immediacy Action 8: Instructor helped adult learners with technical and content issues**

Helping behaviors by the instructors occurred in both private and public interactions. The instructors stated that they help as much as is within their ability, but are careful to communicate their limitations for lending technical assistance. Through observation I could see the instructors help as much as capable, but if beyond their ability they provided detailed information for technical support and later followed up to ensure resolution. All instructors expressed the importance of a quick response when help is needed, and the adult learners echoed that a quick response is important for them. Many examples were given from both adult learners and instructors of immediate and helpful responses to technical and assignment-related questions.
Some adult learners in each class needed additional help with technical issues or content challenges. And some had personal challenges that interfered with completing classroom requirements on time. According to all four instructors, this help was given through private messages and other alternate means (telephone, video chat). Each instructor gave a detailed account of working with a struggling learner one-on-one for an extensive period of time. This intention of the instructor to care beyond the limits of the classroom is reflected in Professor Oliver’s statement “My intention is to make them successful in the course, and hopefully in their careers (Interview, 2018).”

The instructors showed a commitment to ‘going the extra mile’ for all the learners, but particularly for the struggling adult learner. In the classroom observations I was unable to see the one-on-one conversations between the instructor and adult learner. In this private space the instructors described sharing additional guidance and offering their expertise for adult learners that needed extra help, sometimes beyond the needs of the classroom. In these conversations the instructors served to support, guide, and inspire individuals who needed the extra assistance beyond the regular classroom experience. For this reason, I received from each instructor a copy of an extended private interaction they had with one learner from the class, which represented a typical scenario for giving additional support to an adult learner.

The instructors reported engaging in more intense interactions in the private messaging area with a smaller number of class members who require extra guidance. They estimated about 30 – 50% of individuals in a class require this extra communication and support.

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7 ‘Going the extra mile’ is a common phrase that suggests goodwill, goodwill being a necessary component of epistemic trust. It was used in the study as a relatable phrase for the study participants. This phrase is commonly used with participants in other studies of goodwill trust.
Response to Immediacy Action 8: Adult learners felt the instructor cared about their success

Adult learners in each of the online classrooms felt their instructor would ‘go the extra mile’ to assist them within or beyond the class. The adult learners believed that the instructors were invested in ensuring they achieved their goal, and were working to help them be successful (Survey Part 2, 2018). They felt the instructor’s expression of support and guidance throughout the course promoted a more meaningful relationship with the instructor. For example, in Jill’s class a learner stated, “[the instructor] believed in everyone no matter [their] strengths and weaknesses (Survey Part 2, 2018).” In Mary’s class a learner shared an experience, “Professor absolutely went the extra mile to help me… This was my first college course after over 20 years and she truly helped me (Survey Part 2, 2018).” Even without directly experiencing additional attention, the adult learners still perceived their instructor ‘would go the extra mile’ for them if needed. Adult learners found it “easy to have a conversation with the professor (Mary’s class, Survey Part 2, 2018).” In Oliver’s class a learner gave an example, “Professor … pointed out quickly when I made an error turning in an assignment to the wrong Drop box… and guided me to correct it (Survey 2, 2018).”

Causal Fragment for Immediacy Actions

To address question #3 and deepen the understanding and explanation of the phenomenon of immediacy actions a causal fragment was created based on these findings. A causal fragment is intentionally linear to best illustrate the trajectory of the adult learner’s story line in the data and it provides a rudimentary ‘map’ of “cause and effect” (Miles et al., 2014). Immediacy actions did follow a trajectory through the adult learner’s storyline. This complements the strong
correlation found in the quantitative analysis between immediacy actions and epistemic trust.

The result is illustrated in the normative action causal fragment in Figure 5.2.

**Summary for Immediacy Actions**

The trust relationship becomes interpersonal when the adult learners begin to feel a personal connection to the instructor. To encourage this relationship the instructors in this study were consistently and constantly encouraging the adult learners to contact them individually (IA2). They used personal experiences to enrich the knowledge they shared with the adult learners (IA1). And the instructors felt a strong responsibility to mentor the adult learners and foster a professional relationship with the adult learners by modeling professional behaviors in class (IA4). One professor used textual gestures to personally connect to learners through his communications (IA3).

The instructor’s positive and attentive communication influenced the adult learner to deepen their belief that the instructor is benevolent (willing to ‘go the extra mile’). Benevolence is a key antecedent to interpersonal trust and epistemic trust. When the instructor was able to
make a personal connection with an adult learner it influenced the adult learner to perceive the instructor as more human and trustworthy, fostering a belief in the benevolence of the instructor.

**Question #4**

*How does the instructor’s frequent and consistent presence in the online classroom (regulatory actions) influence the epistemic trust relationship with the adult learner?*

All four instructors were documented using **three** types of regulatory actions: early enthusiasm, transparent regularity, and being responsive to messages (RA2, RA4, RA5). Three of the four instructors reported and were documented being highly active early in course (RA1). Two of the instructors reported and were documented being consistent in word and deed (RA3).

There were **two** types of response from the adult learners to instructor regulatory actions. These actions and responses are displayed in Table 5.3.

<table>
<thead>
<tr>
<th>Instructor regulatory action</th>
<th>Adult learner response</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA1: Instructor was highly interactive early in course</td>
<td>The adult learners made a decision to trust the instructor</td>
</tr>
<tr>
<td>RA2: Instructor was enthusiastic early on in course</td>
<td></td>
</tr>
<tr>
<td>RA3: Instructor was consistent in word and deed</td>
<td>The adult learners believed the instructor was fair</td>
</tr>
<tr>
<td>RA4: Instructor was transparent about own regularity</td>
<td>The adult learners believed the instructor was available</td>
</tr>
<tr>
<td>RA5: Instructor interacted responsively</td>
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</table>

**Table 5.3.** Regulatory actions of the four online instructors and the corresponding response from the adult learners

Regulatory Action 1: Instructor was highly interactive early in the course

All the instructors created an early presence in the course by being highly interactive, which assisted adult learners to overcome uncertainty and begin to trust them. Three of the instructors were more active in the beginning of the course than later in the course. Professor Jill
was not more active in the early weeks as compared to later in the course, however she had
similar number of interactions in the first three weeks as the other three instructors. The
instructors all said that they strived to be very active in the classroom and interactive with the
adult learner at the very beginning of a course to help the learners to transition into the role of
adult learner or transition from a traditional classroom to the online classroom. They also
intended that this high level of activity made their ‘presence’ felt by the adult learner. As
Professor Mary said, “Just being present a lot”.

The instructors explained that in the first few weeks of the class they posted welcome
messages and greet the learners individually, either in the introductions area or in private
messages. Three of the instructors said they tried to connect with learners through things they
could have in common and shared interests. They also tried to connect the adult learner’s
interests to the topic of study. The instructors gave several reasons this early activity is
important. First, they are introducing themselves in an attempt to create a presence in the
classroom. Second, they wanted to make the adult learners comfortable with them in their role as
the instructor. Third, they wanted to quickly assist with any technical issues the adult learners
have and assist the learners in acclimating to the online learning environment. Lastly, they cued
the adult learners to prepare themselves for the upcoming first assignments. The classroom
observations confirmed what the instructors described. I observed them communicating in the
classrooms, particularly in announcements and the ‘Introduce yourself’ discussion area (a
standard discussion board in all the college courses at this particular college). I observed all the
instructors in the first two weeks of the class praising the class as a whole, particularly around
their accomplishments in the discussions.
Response to Regulatory Action 1: Adult learners decided to trust instructor

The adult learners expressed the importance of the instructor’s early activity. For example, in Jill’s class one learner stated, “The instructor’s initial communications to the class affected my level of trust”, and another stated, “the first few weeks of a course help to lay the groundwork for a working relationship.” In Mary’s class one learner found her “very welcoming from the first day.”

Regulatory Action 2: The instructor communicated enthusiasm early in the course

Though the instructors did not speak about their own enthusiasm for teaching the subject of the class, their enthusiasm was apparent in classroom observations and from the adult learners’ comments. For example, I observed Professor Oliver communicating enthusiastically about the topic of study to his learners. I also noted Professor April communicating with a light and positive enthusiasm about the topic of the course when initially engaging with her adult learners.

Response to Regulatory Action 2: Adult learners decided to trust instructor

When responding to the visual differential scale, the adult learners repeatedly used descriptors that included: ‘engaged’, ‘enthusiastic’, ‘excited about the course material’, and ‘excited when the class had a really good discussion’. One adult learner in Jill’s class explained, “I wanted to participate because Professor Jill was excited about teaching the course material (Survey Part 2, 2018)”.

Regulatory Action 3: Instructor was consistent in word and deed

There was little evidence of this regulatory action in the instructor interviews or classroom observations. However, the adult learners spoke recurrently about this regulatory action.

Response to Regulatory Action 3: The adult learners believed the instructor was fair

The adult learners in all the classrooms provided evidence that the instructors were consistent in word and deed. They described the instructors as fair and consistent in their grading and in their treatment of class members. For example, in Oliver’s class, “Fair and equal treatment… to all classmates.” In Jill’s class, “Always graded assignments fairly.” April’s class, “Treated the students fair.” And in Mary’s class, “Fair and balanced.” Additional comments:

- Oliver’s class: “Professor kept his word and stayed consistent with grading and expectations. This additionally added to the trust.”
- Mary’s class: “Consistent involvement in discussions.”
- Jill’s class: “Always graded assignments fairly.”

Regulatory Action 4: Instructor was transparent about own regularity

The instructors described how they make their presence known to the adult learners. They said they openly communicate their activities in the classroom, and model the presence they expect from the adult learners. Professor Oliver explained it this way, “I kind of play a student role. I want them to see that [attendance] expectations are not just for them. It’s also for me to be present and make sure that I am facilitating the experiences for them.” I observed the instructors communicating often with the class to keep them informed of their own activities such as grading. Professor Mary explained, “I don’t want students to rest on their laurels and think that
suddenly the [professor] is not out there. So I post announcements, one or two every week, just to kind of, let them know I’m here. Because [the student] can easily be in their own world doing the work and forget that there’s somebody out there who’s holding them accountable for that work (Interview, 2018).”

Two of the instructors were particularly transparent about their presence. They informed their class when their availability changed at certain points in the course. I observed two of the instructors disclose personal events that would affect their availability. Professor April told learners when her availability would be limited because she was going away for a family graduation. Professor April also had a family medical emergency during the term and she informed her class how this would affect her availability. In another classroom, Professor Mary shared her purchase of a new home that periodically took attention away from the class. When sharing such events with the class both instructors reassured the adult learners they could still be reached and reminded them about contact information.

Response to Regulatory Action 4: Adult learners believed the instructor was available

In response to Mary’s and April’s transparency the adult learners congratulated, commiserated, or inquired about the outcome of such events, sharing their concern and interest in the instructor. The adult learners thought they could depend on the instructors to be available when needed. For example:

- Mary’s class: “She was always available when you needed to speak with her.”
- Jill’s class: “Instructor was available every time there was an issue or concern in the class.”
- Oliver’s class: “[Professor] is present frequently, almost a daily basis.”
Regulatory Action 5: Instructor interacted responsively

The instructors stressed the importance of quickly responding to learner needs. Professor Mary states it well, “My feeling is, they don’t see you face to face, and they don’t hear your voice. So you just have to be as strong of a presence as possible in the classroom. That really helps them connect to you and perhaps be invested more. They know someone’s out there paying attention to what they’re doing.” Professor Oliver makes sure to grade regularly and quickly so the learners can improve their performance. These efforts by the instructors created a perception by the adult learners that the instructors were in the discussions daily and responding to messages daily. The Ridings, et al. (2002) study found that perceived responsiveness promotes trust in their expertise as well as in their benevolence/integrity: the two requisite dimensions for epistemic trust.

Response to Regulatory Action 5: Adult learners believed the instructor was available

By the instructors being responsive to inquiries and requests for assistance, either with technical problems or content questions, the adult learners felt they could rely on them to be available whenever needed. An adult learner in April’s class explained the importance of responsiveness this way, “When the instructor is prompt in assisting the students with their questions or concerns, this begins to build trust.” Here are examples of adult learner statements that reflect their perception of responsiveness.

- April’s class: “She was prompt to address questions and concerns.”
- Mary’s class: “[Instructor gave] timely responses.”
- Jill’s class: “Professor was always available to answer questions and clarify material.”
- Oliver’s class: “Professor is quick with responses.”
Causal Fragment for Regulatory Actions

During analysis of the data for questions 2 and 3, I identified coded themes that reflected the responses of the adult learners to the regulatory actions of the instructors. Regulatory actions did not follow a trajectory through the adult learner’s story line, but rather emerged at different points to support the causal fragments for normative actions and immediacy actions. This complements the weak correlation found in the quantitative analysis between regulatory actions and epistemic trust. Figure 5.3 illustrates the two adult learner responses related to regulatory actions.

Summary for Regulatory Actions

In the early stages of the course the adult learners were encouraged to participate and engage with the course by the instructor’s enthusiasm and high interactivity. This early frequent interaction gave the instructor the opportunity for meaningful interactions with the adult learners. By using regulatory actions to earn initial trust from the adult learners, it provided an opportunity to continue to build a trusting relationship using immediacy actions and normative actions. The initial decision by the adult learner trust created by early and enthusiastic regulatory interactions begins the possibility of building an interpersonal trust relationship with the adult learners. The adult learners in this study believed the instructors were available because they responded immediately when needed, and the instructors were transparent about their own activities within
the classroom particularly around grading. Because the instructors were perceived as always available, this served to influence the adult learners to believe they could rely on the instructor for guidance. And it also opened opportunities for frequent interactions for the instructors to show care and concern for the success of the adult learners through normative actions and immediacy actions.

**The Cause and Effect of Instructor Actions and Epistemic Trust**

For the final step in the cross-case analysis, I have constructed a causal network accompanied by a causal narrative for all three types of instructor actions using the causal fragments from Figures 5.1, 5.2, and 5.3. This final causal network traces the path of influence for all three types of instructor actions in the development of an epistemic trust relationship between the online instructor and adult learner. It also delineates the synergistic relationship of the three different types of instructor actions. It situates the effect of regulatory actions in a supportive role for the effect of immediacy and normative actions.

**Chronological Narrative**

What follows is a chronological narrative that traces the story of the adult learner’s experience of epistemic trust in the online classroom. This narrative explains each adult learner response as it appears in the story line, and how it is situated within the final cross-case causal network.

**Early trust.** In the early stages of the course the adult learners were encouraged to participate and engage with the course by the instructor’s show of enthusiasm and high interactivity (RA1 & RA2). This early frequent interaction gave the instructor the opportunity for meaningful interactions with the adult learners. Meaningful in that the instructor made personal
connections with individual learners in non-course related ways and shared their own enthusiasm for the course of study. The instructors also began to establish a basis for demonstrating consistency in word and deed (RA3), by communicating their expectations for the adult learner’s quality of work and professional behaviors (NA1 & NA2).

**Competence-based trust.** The initial trust created by early and enthusiastic regulatory interactions opened the possibility of building an interpersonal trust relationship with the adult learners. Once the adult learner made the decision to trust (based on regulatory actions 1 & 2) they were receptive to the instructor’s normative actions and immediacy actions. The instructor’s use of personal stories and professional experiences, regular encouragement to contact him/her, and the instructor’s efforts to model and coach on professional behavior built an interpersonal trust connection with the adult learners. In this way the adult learner began to have feelings of interpersonal trust. At the same time, the instructor guided classroom conduct, reminded learners about deadlines, and guided the quality of work expected from the adult learners. This encouraged a belief from the adult learners that they could rely on the instructor for this guidance.

The adult learners in this study believed their instructors were available because the instructors responded immediately when needed, and the instructors were transparent about their own activities within the classroom particularly around grading. When the instructors kept the adult learners informed of personal events that might interfere with grading or responding to learner needs, it created additional personal connections, which made the instructor’s online persona more human. Because the instructors were perceived as always available, this served to further influence the adult learners to believe they could rely on the instructor for guidance.
**Benevolence-based trust.** Demonstrating they were always available also opened opportunities for frequent interactions for the instructors to show care and concern for the success of the adult learners through their normative actions and immediacy actions. The regular praise and encouragement from the instructor for both the class as a whole as well as individuals encouraged participation and also created a feeling that the instructor cared about the learner’s success (IA5). By helping with technical and content-based issues the instructor further demonstrated this shared concern for the learner’s success (IA8). When the instructor sent caring messages to the adult learners this also reinforced that they cared about the adult learner’s success within and outside of the course (IA7). The instructors in this study provided additional assistance to any adult learner who was struggling with successfully completing course work, deepening the belief that the instructor was benevolent (NA3).

As the course progressed and the adult learner was provided feedback on quality of work and redirection on learner behaviors, it led the adult learner to believe the instructor was fair and consistent in grading and management of class members (RA3). The adult learners noted consistency between the instructor’s stated expectations and their follow through with grading, discussion participation, and feedback on quality of work. The belief in the instructor’s benevolence was supported by the adult learner’s confidence that the instructor was fair in grading and managing class members.

**Epistemic trust.** Once the adult learner developed a personal connection (interpersonal trust), they believed they could rely on the instructor for guidance, and was confident that the instructor shared in their goal of success in the course, they were receptive to relying on the instructor to guide their analytical thinking (NA4) and guide them to truth or knowledge (NA5).
The adult learners showed willingness to give over epistemic authority to the instructors in this study, within the circumstances of this particular study. By accepting the fiduciary relationship with and instructor the adult learner entered into an epistemic trust relationship. With reliance and confidence in the instructor combined, a thicker trust that is epistemic in nature was demonstrated (McCraw & Mollwo, 2015)
Figure 5.6. Cross-case causal network for three types of instructor actions and an epistemic trust relationship
Conclusion: Mixing the Results

The quantitative information extracted with the descriptive analysis of central tendency and correlation alongside the qualitative information enhances both representation and legitimation of the phenomenon of epistemic trust (Frels & Onwuegbuzie, 2013). By adding the quantitative data and analysis to the phenomenological component of the study, it addresses in more detail the research questions.

The correlation results support the findings in the qualitative analysis, strengthening the evidence for causation of epistemic trust relationships with the instructor’s normative actions and immediacy actions. The weak correlation and lack of significance in the regression analysis for regularity actions (frequency and consistency) suggest that the instructor’s regulatory actions play a minor or supportive role in the formation of an epistemic trust relationship between the instructor and adult learners. However, the qualitative analysis of consistency (a component of regulatory actions) does suggest that consistency adds to the epistemic nature of the trust relationship, and so this component of regulatory actions cannot be totally dismissed.

Mixed-method phenomenological research (MMPR) is defined as research that combines phenomenological methods with methods grounded in an alternative paradigm within a single study. The findings from the quantitative and qualitative data analysis were examined side-by-side and compared. The findings were presented in this study as a set of two (Frels & Onwuegbuzie, 2013). The quantitative analysis findings augmented the natural inquiry of the participant’s voices adding clarity, complementarity, and expansion. The quantitative dataset served in a supporting role for the phenomenological dataset when the results were combined as modeled in Figure 3.1. This allows for a more comprehensive discussion of the results in Chapter
6. By using the results of the quantitative method to inform the phenomenology findings it increased “the validity of constructs and inquiry results by capitalizing on inherent method strengths” (Greene et al., 1989, p. 259). In other words, the strength of the quantitative research results assisted in identifying common aspects of trust within the phenomenological findings.

Because the subject sampling is non-random the results cannot be generalized per se, however using a mixed method research strategy increased the generalizability of the results. I used a single crossover mixed-method approach to represent experience-oriented analysis. The crossover analysis was an integrated form of analysis that integrated the analysis types from quantitative data to qualitative data. I analyzed data in a way that yielded a naturalistic generalization (Ross & Onwuegbuzie, 2014). For the results that are reported in Chapter 4 and 5, and discussed in Chapter 6 the numerical data adds “precision” to the words and narratives (Johnson & Onwuegbuzie, 2004). Generalization can be applied to the larger population targeted by the dataset: adult learners in 8-week term, fully online, upper level, and undergraduate college courses. In Chapter 6, I discuss how these results align with the major theories of epistemic trust development.
Chapter 6: Discussion

This study explored instructor-adult learner online interactions to determine how the actions of the instructor influence the epistemic trust relationship with the adult learner. A number of trends were identified based on the results of this study. First, analysis of the quantitative measurements established a positive relationship between each type of instructor action and the level of epistemic trust in the instructor. Secondly, analysis of the qualitative data provided thick descriptions of the adult learners’ responses to each of the three types of instructor actions. The adult learner responses were subsumed into seven categories that revealed how the instructor actions might influence an epistemic trust relationship.

In this final chapter I summarize the key points of the mixed-method analysis and the implications for epistemic trust relationships. Next I give an overview of the adult learner responses to the instructor’s actions that resulted in epistemic trust development. Then, I provide a detailed discussion of each level of trust and how the instructor actions influenced each level of trust. I describe how the trust relationship builds between the instructor and adult learner from early trust to interpersonal trust, and finally to epistemic trust. Within each level of trust, I discuss each of the seven adult responses that were key to achieving an epistemic trust relationship with the instructor. After summarizing the discussion, this chapter closes with implications of this study and recommendations for future research.

Summary of Results

First, quantitative analysis of data collected with the Epistemic Trust Instrument Part 1 showed the level of epistemic trust in the instructor increased when the instructor interacted using the three types of instructor actions: normative actions, immediacy actions, and regulatory
actions. Respondents were significantly more likely to report higher levels of epistemic trust when they also reported that their instructor exhibited effective classroom management using normative actions. This was also the case when they reported that their instructor exhibited effective communication in the online classroom using immediacy actions. There was a less significant impact on epistemic trust levels when they reported their instructor exhibited effective frequency and consistency in the online classroom using regulatory actions. In a general sense, when adult learners reported the instructor used normative actions, immediacy actions, and regulatory actions, they were more likely to report higher levels of epistemic trust in the instructor.

A majority of the variance in the scores for epistemic trust can be explained by the adult learner’s sense of their instructor’s normative actions and immediacy actions. A multiple regression analysis revealed there was no significant relationship between regulatory actions and epistemic trust. However, the regression analysis reinforced the fact that there was a significant relationship between the other two types of actions and epistemic trust. With regulatory actions removed from the linear regression model it showed the remaining two predictors can explain 52% of variation in epistemic trust.

Secondly, the phenomenological findings showed that the instructors in this study used all three types of instructor actions to a greater or lesser degree, allowing for a successful examination of the influence these actions had on the adult learner’s trust relationship with the instructor. Eighteen (18) instructor actions were identified: five normative actions, eight immediacy actions, and five regulatory actions. Evidence was found that sixteen of the eighteen
actions contributed to building an epistemic trust relationship between the instructors and the adult learners in this study.

The progressive nature of trust is significant to this study because part of the intent is to explore the level of trust to which the adult learner-instructor relationship develops: to discover whether the relationship is one that ‘spirals up’ from swift trust to become epistemic (Spencer, 2001) and to differentiate epistemic trust from interpersonal trust. In a trust relationship that is epistemic in nature, initially there will be a cognitive state of “belief” by the adult learner about the competence and integrity (antecedent) of the instructor. This is the first principle component of epistemic trust: competence-based trust. As interactions continue an affective “feeling” of trust develops. This is the second principle component of epistemic trust: benevolence-based trust. These two principal components are present in both interpersonal trust and epistemic trust relationships.

In interpersonal trust relationships, unlike epistemic trust relationships, the competence-based trust fades and the relationship becomes purely benevolence-based. In epistemic trust relationships the competence-based trust remains, even as the benevolence-based trust builds to a more resilient level (McCraw & Mollwo, 2015). To show the lasting presence of both principle components during this study I compared the instructor actions to the “trust builders” used by online knowledge experts in Abrams, et al. (2003) study. The comparison can be extrapolated to suggest that the instructors elicited and maintained both principle components of epistemic trust in the relationship they developed with the adult learners. This distinguishes the instructor-adult learner epistemic trust relationship from an interpersonal trust relationship. And it advances the concept of epistemic trust proposed by McCraw et al. (2015) by demonstrating that the decisive
competence-based trust and feeling of benevolence-based trust both remained as the trust relationship grew between the instructor and adult learner. Table 6.1 compares the instructor actions in this study with the Trust Builders in the Abrams, et al. (2003) study.

Table 6.1. Alignment of instructor actions with Trust Builder (TB) behaviors and principle components of epistemic trust

TB7 - Publicizes key values in multiple forums. Signals trust behaviors are critical. *Promotes benevolence and competence trust.* |
| --- | --- |
| NA2: Manages quality of work and deadlines (sets class performance goals, discusses milestones) | TB6 - Sets common goals. *Promotes benevolence and competence trust.*  
| NA4: Guides analytical thinking toward truth and knowledge | TB6 - Looks for opportunities to create common terminology and ways of thinking. *Promotes benevolence and competence trust.* |
| NA5: Leads away from wrong information/thinking | TB6 - Looks for misunderstandings in thought process. *Promotes benevolence and competence trust.* |
| IA1: Connects with personal experiences | TB8 - Creates personal connections. *Promotes benevolence trust.*  
TB9 – Shares expertise. *Promotes benevolence trust.*  
TB3 – Interactions are meaningful and memorable. *Promotes benevolence and competence trust.* |
| IA2: Invites private messaging | TB3 – Frequent close interactions, one-on-one contact. *Promotes benevolence and competence trust.* |
| IA4: Fosters professional relationship or mentorship | TB3 - Develops close professional relationships. *Promotes benevolence and competence trust.*  
<p>| IA5: Encourages and praises to promote participation |  |
| IA7: Shows care and concern for individuals (verbally caring messages) |  |</p>
<table>
<thead>
<tr>
<th>IA8: Shares responsibility for individual student success (helpful)</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>TB4 - Engages in collaborative communication. Avoids being overly critical of</td>
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ideas, doesn’t demand solutions, works with people to improve on their partially formed ideas. *Promotes benevolence and competence trust.*

TB3 – Interactions are meaningful and memorable. *Promotes benevolence and competence trust.*

RA1: Highly interactive early in course

TB3 – Ensures frequent and rich communication. *Promotes benevolence and competence trust.*

RA2: Enthusiastic early on

TB3 – Makes interactions meaningful and memorable. *Promotes benevolence and competence trust.*

RA3: Consistent in word and deed

TB2 – Be consistent between word and deed. *Promotes benevolence and competence trust.*


RA4: Transparent regularity

TB2 – Be clear about what you have committed to do, and then deliver. *Promotes benevolence and competence trust.*

RA5: Responsive to messages


Lastly, the causation network constructed in Chapter 5 (Figure 5.6) traces the adult learners’ responses to the instructor actions as the trust relationship builds. By illustrating the trajectory of adult learner responses for building an epistemic trust relationship the path through the levels of trust is made visible. In the literature review I explained the levels of trust from Meyerson’s theory of swift trust to McAllister’s two levels of interpersonal trust, and finally to McCraw’s concept of epistemic trust. By illustrating these linkages in this study, the stages of trust are made apparent. This study is unique in detailing the levels of trust that lead from swift trust to epistemic trust.

The causation network makes clear the interdependent nature of the three types of instructor actions. This is particularly important for understanding the role that regulatory actions play in building epistemic trust. Quantitative analysis showed little correlation between regulatory actions and epistemic trust development. This can be explained by the fact that
regulatory actions play a role early in the trust relationship before the epistemic trust level has been reached. Regulatory actions are not only important early on to develop initial trust; they support the other two types of actions that influence epistemic trust development, and in this way indirectly influence epistemic trust development.

**Influencers of Instructor-Adult Learner Epistemic Trust Relationships**

From the findings and results, several adult learner responses to instructor actions that were potentially related to epistemic trust development emerged. Actions that did not appear to positively influence the adult learner response were isolated as well. The adult learner responses that were influenced by the instructor’s actions: (A) a decision to trust, (B) a belief that the instructor is available, (C) a belief the instructor is fair, (D) a reliance on the instructor for guidance, (E) a personal connection with the instructor, (F) a feeling the instructor cares, (G) a reliance on the instructor for truth and knowledge. Figure 6.1 is a modified view of the causation network that highlights the adult learners’ responses. It tracks the trajectory of the instructor-adult learner trust relationship from initial trust to epistemic trust. This visual is helpful when conceptualizing each response of the adult learner and its contribution to building an epistemic trust relationship. When viewing this trajectory of the building epistemic relationship, it is important to understand that as each response is introduced into the relationship, it continues throughout the rest of the relationship, unless there is an incident to cause the trust relationship to be hindered or broken. Nonetheless, as a trust relationship builds it becomes ever more tolerant and more resilient to violations of trust (McAllister, 1995). For this study, as is the case for many studies of trust relationships, the positive influences are the focus of the study.
Figure 6.1. Adult learner responses that influence building an epistemic trust relationship.
Regulatory Actions Influenced Early Trust

Regulatory actions positively influenced competence-based trust and supported other instructor actions that positively influenced benevolence-based trust. Regulatory actions had one direct influence and two indirect influences on building a trust relationship. They are labeled A, B, and C in Figure 6.1. The instructors’ initial regulatory actions elicited a response where the adult learner decided to initially trust the instructor, believing the instructor to be competent to teach the course (Figure 6.1; label A). This caused a direct positive influence to building a trusting relationship. It provided a foundation for building more resilient forms of trust that ultimately lead to an epistemic trust relationship. Regulatory actions also had two indirect influences on early trust. First, they elicited a belief by the adult learner that the instructor was available (Figure 6.1; label B). This belief supported the adult learner to rely on the instructor to guide them in classroom activities and expectations. Secondly, regulatory actions influenced the adult learner to believe that the instructor was fair (Figure 6.1; label C). This belief supported the adult learner to believe the instructor cared about their success.

The adult learner decided to trust the instructor (Response A). The adult learners in this study experienced a high level of engagement and enthusiasm from the instructors when the courses opened. This initialized early trust relationships with the adult learners. The adult learners demonstrated through their responses that a cognitive decision was made to trust the instructor, deciding that the instructor had the necessary expertise (competence). Meyerson, et al. (1996) described early trust to be purely cognitive and develop where interdependence exists such as in an online classroom. By being highly interactive and enthusiastic early in the course
the instructors created a welcoming environment and opened the opportunity to develop a competence-based trust relationship. According to McAllister’s Theory of Interpersonal Trust, competence-based trust is the first step in building an interpersonal trust relationship (McAllister, 1995). Mayer, et al. (1995) and Rusman, et al. (2009) both conducted meta-analyses that showed early trust develops in a short time span based on the instructor’s ‘expertise’ (1995; 2009), this study supports their findings.

The instructors in this study publicly and privately greeted every adult learner individually, generating interactions that were social in nature. They also promoted a conversational tone in the collaborative spaces. Spencer (2001) suggested in his Social Presence and Swift Trust Model that immersing the class into cooperative interactions early on will help to maintain early trust (2001). This theory concurs with the findings in this study. During this highly engaging period of socialization the instructor’s regulatory actions influenced early trust that laid the groundwork for immediacy actions and normative actions that would later influence a deeper form of trust (label D and label E).

**The adult learner believed the instructor was available (Response B).** The adult learners in this study reported that they believed their instructor was always available when needed. The regulatory actions that elicited this belief were not based on the instructor’s frequency in the classroom. Instead it was influenced by the instructor’s transparency about their availability and their immediate response to one-on-one correspondences with the adult learners. Ridings, et al. (2002) study of active virtual communities showed that perceived responsiveness promotes competence-based trust and benevolence-based trust. The importance of being responsive to private messaging prompted me to compare the frequency of one-on-one
correspondences because where the instructors in this study were active may have implications for trust building. There was a pattern when compared to METI scores of the instructors.

I noted that the instructors who were the most active in discussions and least active in private conversations had the lowest METI scores. While the instructors who were highly active in private conversations and least active in discussions had the highest METI scores. Figure 6.2 compares the frequency of the various types of interaction with the instructor’s METI scoring. These findings suggest that one-on-one interactions may have an impact on perceived responsiveness. Rusman, et al. (2010) examined knowledge-intensive collaborations. Their explanation of ‘availability’ supports this idea. They explained availability as “average response time when [an individual is] specifically addressed… through one-on-one messages (p. 840, 847).”

Figure 6.2. Comparison of type of interaction with adult learner and METI trust score.
Online environments have a distinct difference from traditional classrooms in that the classroom is always open, instructors are potentially ‘always available’. The instructors in this study, using regulatory actions, were successful in eliciting the belief from the adult learners in their classrooms that they were always available when needed. The trajectory of building trust in this study showed instructor availability indirectly influenced epistemic trust by serving to promote the adult learner’s response to normative actions that directly influenced the adult learner to rely on the instructor for guidance (Label D). This is more thoroughly discussed in section D.

The adult learner believed the instructor was fair (Response C). Quite regularly in the analysis of the adult learner’s qualitative data, the adult learners said they perceived the instructor to be trustworthy because he/she was fair in the feedback, grading, and handling of classroom situations. This result was compelling in the sense that it reflected an instructor characteristic important to adult learners. Abrams et al. (2003) identified two ‘trust builders’ related to fairness. Managing with “fair and transparent decisions” invokes a perception of benevolence by those being managed (Abrams et al., 2003, p. 67). Yet, analysis of the instructor interviews did not produce information concerning fairness. This could be explained as the instructor’s lack of viewing fairness as an external interaction. Rusman et al. (2010) categorizes fairness as an internalized norm. Rusman et al. (2010) classified “fairness” as “the moral norm that a trustee [the instructor] guards his actions with”. Rusman et al. (2010) differentiates the internalized norms, which includes fairness, from benevolence in that it is directed towards others in general, rather than an individual. This sheds light on how the instructors perceive their own characteristic of fairness.
Other researchers subsumed fairness under integrity (Hendriks et al., 2015; Rusman et al., 2009) and reliable role performance (McAllister, 1995). Refer to Table 2.2 for more detail. In the Abrams, et al. (2003) study integrity was subsumed under benevolence, which may explain the inconsistency. Regardless, this inconsistency in the literature for categorizing fairness additionally reinforces the importance of this study, which found fairness served an indirect role for influencing epistemic trust development. In this indirect role, fairness supported the influence of immediacy actions that elicited feelings of personal connection between the adult learner and instructor (label E). This is discussed further in section E.

In summary, the initial trust relationship between the instructor and the adult learner began with a shallow form of trust known as competence-based trust. In a competence-based trust relationship the adult learner makes a decision to trust the instructor (Jarvenpaa & Leidner, 1999). The instructors in the study accomplished this with regulatory actions early in the course (Label A). Competence-based trust is the first component necessary for an epistemic trust relationship. Also, regulatory actions that influenced the perception of the instructor as fair and available (Label B & C), serving a supportive role for normative and immediacy actions of the instructor and indirectly influencing the building of benevolence-based trust, the second necessary component of epistemic trust relationships.

**Normative and Immediacy Actions Influenced Interpersonal Trust**

Once competence-based trust was elicited, the adult learners were receptive to actions by the instructor that would build the trust relationship. The instructors shared personal stories and professional experiences, regularly encouraged personal contact, and promoted professional behavior. In response to these immediacy actions of the instructor the adult learner was
influenced to have feelings of interpersonal trust. At the same time, the instructor guided classroom conduct, reminded learners about deadlines, and guided the quality of work expected from the adult learners. These normative actions encouraged a belief from the adult learners that they could rely on the instructor for this guidance. The personal connection coinciding with the reliance for guidance influenced an interpersonal trust relationship between the instructors and the adult learners.

**The adult learner relied on the instructor for guidance (Response D).** As was stated earlier, the adult learner’s early response to regulatory actions supported the adult learners later response to normative actions. Once the adult learner made a cognitive decision to trust the instructor, the learner was able to rely on the instructor for these normative actions: guidance in classroom conduct, deadlines, and expectations for the quality of work. A longitudinal study by Crisp and Jarvenpaa (2013) demonstrated how normative actions relied on early trust to improve later trust and consequentially improved student’s academic performance. Their study similarly illustrates the relationship between of early trust and normative actions, and informs the importance of regulatory actions to this relationship.

The adult learners in this study relied on the instructor to guide their conduct and the conduct of their classmates. This guidance included explaining acceptable behaviors particularly for online classroom interactions and monitoring for compliance. The adult learners also relied on the instructor to manage their quality of work by setting performance goals, and reminding them of deadlines and milestones within the course.

The instructors earned this level of trust only after early trust was earned (Label A) and the instructors had demonstrated they were available when needed (Label B). In the process of
clarifying expectations the instructors in this study guided learners to a shared language and vision. The adult learners in the study responded to this positively, saying they felt willing to participate under the instructor’s guidance and they welcomed the instructor’s input on their quality of work. Likewise, Abrams, et al. (2003) study showed that a shared vision built competency-based and benevolence-based trust. Learning communities are more effective with shared goals (Shea et al., 2006).

These normative actions concur with two ‘trust builders’ identified in the Abrams, et al. (2003) study. Trust builder 5 – “Makes sure people know rules and reason for the rules” (Abrams et al., 2003, p. 67). And Trust builder 6 – “Sets common goals” (Abrams et al., 2003, p. 67). Abrams, et al. (2003) concluded that Trust Builder 5 elicited benevolence-based trust. Trust builder 6 elicited competence-based and benevolence-based trust. This concurrence of findings suggests the normative actions of the instructors in this study elicited both types of trust as well. Most importantly, these are the two components of interpersonal trust.

Another important point that this response suggests is that the trust relationship is building to a more robust relationship from early trust. The instructors in this study engendered early trust using regulatory actions. Because of the early trust response the adult learners viewed the normative actions as coordinating cooperative classroom behavior, rather than controlling the behaviors (Crisp & Jarvenpaa, 2013, p. 47). The instructor’s ability to influence a positive response from the adult learners at this stage of the relationship also suggests that the amount of control exerted by the instructors was not too strong. If it was too strong, it would have inhibited a trust response from the adult learners (Piccoli & Ives, 2004). In this study, by influencing the early trust development and exerting the right level of control using normative actions, the
instructors were able to influence the adult learners to rely on them for guidance demonstrating a developing epistemic trust relationship.

The adult learner felt a personal connection to the instructor (Response E). The instructors in this study connected with the adult learners with three key immediacy actions that elicited a response where the adult learners felt a personal connection to the instructor. The most influential immediacy action was when the instructors shared their own personal and professional experiences as part of their teaching. The adult learners found the instructor’s stories to be valuable and relatable to their learning experience. This concurs with the conclusions of Ridings, et al. (2002) that members of online discussions trust individuals more when they include something about themselves. Ridings et al. (2002) found that these personalized interactions induced trust in an individual’s ability, integrity, and benevolence. Abrams et al. (2003) study supports this by showing that, when the knowledge expert shared information about their personal lives, especially about similarities, a stronger benevolence-based trust developed. In the Abrams, et al. (2003) study and this study, when these personal connections were unrelated to course work, the adult learners said it made the instructor seem more human and thus trustworthy. The instructors regularly invited private messaging, which the adult learners felt made them approachable. They also sent private messages, which gave a sense of caring to the individual learner. The instructors expressed a responsibility to mentor and model professionalism and academic behaviors for the adult learners. This was especially evident in the nursing classrooms. There was a stronger association of mentorship between the nursing faculty and nursing adult learners, which may be explained by the common career track of the adult learners and the nurse leaders who served as instructors. In the health science classrooms, the
instructors also felt a responsibility to mentor and model professionalism for the adult learners. The tone in these classrooms was more informal and the instructors used inclusive pronouns. The adult learners respected the professionalism of these instructors as well. The adult learners in all the classrooms addressed the instructors with formal titles, rarely using inclusive pronouns.

**All Three Types of Instructor Actions Influenced Epistemic Trust**

The influence of normative actions, immediacy actions, and regulatory actions converged to influence the adult learners to feel the instructor cared about his or her success. This sense of the instructor’s care and concern expanded beyond success in the course to success in their career, personal life, and academics outside the classroom. To recap, at this point in the trust relationship the adult learner believed the instructor to be the expert in the classroom (Label A), believed the instructor to be available when needed (Label B), and believed the instructor to be acting fairly with them and their classmates (Label C). Additionally, they have successfully relied on the instructor for guidance (Label D), and they feel a personal connection with the instructor (Label E). The next step in developing an epistemic trust relationship was influenced by additional normative actions and immediacy actions, in which the adult learner felt that the instructor cared about their success. And, most importantly, they felt they could rely on the instructor for truth and knowledge. This will be discussed here (Label F & G).

Analysis demonstrated the communication immediacy actions of the instructor influenced an epistemic trust relationship to emerge with the adult learner. The personal connections the instructor made with the adult learner influenced the adult learner to perceive them as more human and trustworthy. As the instructor’s positive and attentive communication continued and the instructor prompted them individually, it influenced the adult learner to believe that the
instructor cared about them and their success within and beyond the classroom. This in turn deepened their belief that the instructor was benevolent, and created a benevolence-based component to the trust relationship.

**The adult learner believed the instructor cared about their success (Response F).**

After a period of time the previous interactions became more meaningful for the adult learner and at this stage of the developing trust relationship previous influences were continuing to impact the adult learner response:

- The personal connections the instructor made with adult learners (immediacy actions that influenced response E)
- The attributes demonstrated by the instructor of reliability, availability, fairness, and expertise (reliability actions that influenced response A, B, C)
- Continuing to share additional guidance and resources that were increasingly customized to the individual adult learner (normative actions that influenced response D)

These converged with additional immediacy actions and normative actions to where the adult learners believed the instructor cared about their individual success. An additional normative action that directly influenced this response was the private message reminders and prompts from the instructor to individuals struggling with meeting deadlines or meeting the expectations for quality of work. Additional immediacy actions that directly influenced this response included three: the instructor encouraged and praised the adult learner’s participation, sent caring messages, and helped with technical and content issues when adult learners struggled.

Empirical research found that instructor’s caring messages directed towards learners generated positive perceptions of the instructor’s “competence, trustworthiness and caring”
(Teven & Hanson, 2004). Also, the additional help that the instructors in the study were giving to struggling individuals was substantial and time consuming. This was help given to a greater or lesser degree to select learners who were facing critical personal or academic challenges.

The adult learners perceived all these actions as goodwill gestures on the part of the instructor. These goodwill gestures converged with the other characteristics listed above to influence the adult learners to believe that the instructor broadly cared about their success. This support given to the adult learner addressed both personal life outside of the classroom and academic life in the classroom. The adult learners perceived that the instructor by helping was sharing in the responsibility for their success and believed the instructor cared about their personal success in the class and in their careers.

Landrum, Eaves, and Shafto (2015) theorized that when learning in a social situation “automatic psychological reasoning involved in trust and learning creates a dynamic process of social learning that evolves over time (2015, p. 111).” Landrum, et al. (2015) suggest that when an instructor is perceived as helpful and “nice” as well as knowledgeable the learner’s beliefs about the instructor evoke epistemic trust. The results of this study advance Landrum, et al.’s (2015) theory about social learning and epistemic trust. The adult learner respondents in this study considered their instructor helpful as well as knowledgeable in a social learning situation. According to Landrum et al.’s (2015) theory this would evoke epistemic trust from the learners that they define as a belief in both the instructor’s expertise in the subject matter as well as their intent while guiding the instruction.

Computational modeling of epistemic trust by Shafto, Eaves, Navarro, and Perfors (2012) suggests that learners judge both helpfulness and knowledgeability of the instructor to form
beliefs that influence epistemic trust in the instructor. In Shafto’s study learners seeking out novel information chose a more helpful instructor over a more knowledgeable one. This suggests to this writer that the guidance and personal support the instructors provided through normative actions and immediacy actions were paramount in developing epistemic trust.

The adult learner relied on the instructor for truth and knowledge (Response G). Once the adult learner developed a personal connection (interpersonal trust), believed they could rely on the instructor for guidance, and was confident that the instructor shared in their goal of success in the course, they were receptive to relying on the instructor to guide their analytical thinking and guide them to truth and knowledge. The instructors guided the adult learner’s thinking and guided them away from misinformation. These normative actions additionally influenced the adult learners to rely on the instructor for truth and knowledge. This reliance showed a trust in the instructor as knowledge expert. In this way, the adult learners showed a willingness to give over epistemic authority to the instructors in this study, within the circumstances of this particular study. By accepting the fiduciary relationship with the instructor the adult learners entered into an epistemic trust relationship. With reliance and confidence in the instructor combined, a thicker trust that is epistemic in nature was demonstrated (McCraw & Mollwo, 2015). Abrams, et al. (2003) study identified a trust builder that aligns with these two normative actions and elicits both competence-based and benevolence-based trust. Trust builder 6 says, “create a common language and way of thinking. Looks out for misunderstandings, differences in jargon or thought process.”

All the necessary components for an epistemic trust relationship were present at this point in the causation network. Epistemic trust requires competence-based trust to be present (it will
fade in interpersonal trust), benevolence-based trust, and a trust in the instructor as knowledge-
expert. As the causation network progressed these key components were introduced and
reinforced, and ultimately combined for an instructor-adult learner epistemic relationship to
emerge.

**Summary**

Currently epistemic trust is a concept; a theory of epistemic trust is yet to be developed. The instructors in this study demonstrated how their actions promoted trusting relationships with adult learners in their classrooms that were unique because of the *epistemic* nature. The adult learners in this study trusted the instructors for the *intellectual value* and content expertise they possessed and trusted them to expertly guide the learning in the online classroom. The adult learners were able to give over epistemic authority to the instructor as knowledge expert due to the epistemic trust relationship they had with the instructor. This relationship developed as a fiduciary relationship (Lieberman, 1981) and under the specific circumstances of interdependence within the online classroom (Meyerson et al., 1996). It is hoped that this study will contribute to future research of epistemic trust in online courses, and potentially a future theory of epistemic trust.

The adult learners demonstrated trust in the instructor for important academic knowledge and guidance, overcoming the uncertainty of the online environment and at the risk of attaining success within the course. Trust can only manifest where risk and uncertainty exist. The adult learners in this study showed they epistemically trusted the instructor because they had a sense of *reliance* on the instructor for truth/knowledge combined with a *confidence* with respect to that truth/knowledge. This reliance and confidence combined to create a ‘thicker’ trust of the
instructor that is epistemic in nature (McCraw & Mollwo, 2015). This study demonstrated that the actions of these instructors influenced the development of the necessary epistemic trust relationship.

Other researchers have shown the important benefits when trust exists in an online classroom, including motivation, cooperation, and increased learner satisfaction (Dakhli, 2009; Jones & George, 1998; Lewicki, R.J., Bunker, 1996; McAllister, 1995; J Riegelsberger & Vasalou, 2007; Wilson et al., 2006). It has even been shown to improve learner’s academic performance (Crisp & Jarvenpaa, 2013).

The instructor’s regulatory actions initiated the trust relationship. The instructor’s use of normative actions and immediacy actions, supported by the regulatory actions, influenced both primary components of interpersonal trust to develop: competence-based trust and benevolence-based trust. Both components are significant in an epistemic trust relationship according to McCraw’s concept of epistemic trust (2015) and McAllister’s Interpersonal Trust Model (1995).

The results from the quantitative data analysis corroborated the significance of normative actions and immediacy actions for building epistemic trust. Despite the fact that the quantitative analysis showed little to no significance for regulatory actions and epistemic trust, the qualitative analysis proved it to be quite the opposite. Perhaps the supportive and indirect relationship may be the reason the significance was not apparent in the statistical analysis. The qualitative analysis supported the phenomenological findings in the relationship of normative actions and immediacy actions to epistemic trust. Benefiting from the choice of a complementary study design.
The adult learner-instructor trust relationship in this study became epistemic in nature when the adult learners initially accepted the instructor as expert and then relied on the instructor for guidance to truth and knowledge and away from misinformation (McCraw & Mollwo, 2015). Considering this alongside the high METI scores for epistemic trust that the instructors received from the adult learners, it suggests that the instructors in this study were able to build trust relationships with the adult learners in their classes that were epistemic in nature. In other words the instructor’s actions influenced an epistemic trust relationship with adult learners in this study; the learners trusted “in” the instructors as knowledge experts.

**Inconclusive Results**

This study was guided by immediacy actions identified by Arbaugh et al. (2001) and used in several other studies that include textual and linguistic behaviors (Abrams et al., 2003; Coppola et al., 2004; Gorham, 1988; Landrum et al., 2015; Ridings et al., 2002; Teven & Hanson, 2004). Past research showed that instructors adapt their textual and linguistic behaviors to develop social relationships in online classrooms (Walther & Burgoon, 1992). The results of this study were inconclusive concerning two of these immediacy actions. It was unclear whether the use of textual gestures contributed to building a personal connection. Textual gestures were difficult to specifically identify and only one instructor sparsely used emojis. There was some evidence that the adult learners were influenced to feel more connected with the one instructor in particular that used emojis with positive responses from the learners in his classroom, however it was not enough evidence to be conclusive.

The effect of using inclusive pronouns is another immediacy action that was also unclear. Though literature supports the use of inclusive pronouns in online classrooms, the instructors
were mixed on the use of inclusive pronouns versus formal titles, and the adult learners exclusively used formal titles to address the faculty. A future study focused on linguistic and textual gestures and use of inclusive pronouns would better serve analysis of these two immediacy actions, and to better understand how instructors overcome CMC barriers by communicating with these specific immediacy actions.

**Limitations**

There are several limitations to this study. It should be noted that the qualitative portion of this study is designed to explore adult learner’s perceptions of online instructor actions that contribute to building an epistemic trust relationship. Only a longitudinal study design employing multiple points of measurement could actually demonstrate a definite relationship or cause and effect evidence of instructor actions and epistemic trust relationships. Nevertheless, adult learner’s perceptions are an important source for exploratory investigation into this emerging area of research.

This study did not include observation of private messaging between the instructors and the adult learners. Though the instructors in this study reported similar approaches in the management of online classrooms, used similar instructor actions, and were observed to interact similarly in public spaces, there was variation in private versus public interactions. The high trust instructors were more interactive in private messages than the less trusted instructors. There was little difference in the use of announcements. The highly trusted instructors were less active in discussions. Perhaps as Jarvenpaa, et al. (2013) suggests, when instructors are highly active in discussions it creates too much control of the classroom and thereby reduces risk for the adult learner, reducing the need to trust the instructor. Too much control will hinder engaging
discourse and thus the co-creation of knowledge by the adult learners. One of the high-trust instructors said when private conversations with adult learners continue through the 8-week course they become increasingly meaningful. She said she listens and talks through the adult learner’s personal and academic struggles.

The study was limited to one online college setting. The institution contracted the instructors who participated in this study and the adult learners were enrolled in the same institution. The instructors received similar training, guidance, and professional development opportunities. The institutional expectations for instructor participation were the same. The online classrooms were organized similarly with comparable opportunities and methods of engagement between the instructor and adult learners. The areas of study included in the study were limited to the health professions. The courses were designed in accordance with Quality Matters© guidelines. The course design of other online institutions may vary.

**Implications**

This research study advances a theory-based practical understanding of the instructor-adult learner epistemic relationship. The significant benefits of an epistemic trust relationship in online classrooms include better learner motivation, cooperation, improved learning, and more. With trust important behaviors that enhance collaborative learning immerge including cooperation, motivation, helping one another, enthusiasm, effective feedback for learning, and a perceived sense of satisfaction with the learning experience (Bulu & Yildirim, 2008; Jones & George, 1998; McAllister, 1995; Peñarroja et al., 2015). The knowledge gained from this study can inform, in a practical sense, the practice of online instruction. Moreover, it can inform (A) the design of online courses to promote opportunities for building epistemic trust, (B) the
administrative decisions around online courses, and (C) oversight and professional development for online instructors. All with the idea of optimizing the learning experience for adult learners.

The findings in this exploratory mixed method study may invoke further research in understanding the instructor’s role in influencing the building of trust in online higher education classrooms. Extant educational research on trust in online classrooms is limited in scope. Most current research studies focus on small group collaboration and peer-to-peer trust relationships. With little research attending to what role epistemic trust relationships play in the adult learner experience, this writer hopes this study inspires further research with this focus.

**Future Research**

In a previous study, instructors described the relationship with online learners as more intimate than in traditional settings (Coppola et al., 2002). One-on-one messaging in the courses may play a significant part in this sense of intimacy. In this study, the private exchanges between instructor and individual adult learners were not available for observation, however a significant number of interactions occurred in the private messaging area of the LMS, particularly for the high-trust instructors. This suggests that exploration of private communications where one-on-one interactions between instructor and adult learner are occurring may reveal additional insight into how epistemic trust relationships develop in online classrooms between the instructor and adult learner. It may also be interesting to include the instructor’s level and type of trust of the adult learner in future research about this trust relationship.

I would recommend that future research on the epistemic relationship between instructor and adult learner consider the research being conducted in other disciplines such as business, psychology, and sociology, and build on that research as a resource. These researchers are also
studying fiduciary and team relationships in online settings and their results can be informative
to the field of online education. Additionally, this writer would hope to see future research in the
discipline of online education that focuses primarily on the instructor-adult learner trusting
relationship.

Rusman et al. (2010) identified two additional antecedents to trust in online classrooms:
communality and accountability. These were excluded from this study because they were not
linked to fiduciary relationships, but rather peer-to-peer relationships. However, it will be
important in future research to study the influence of these additional antecedents on the
instructor-adult learner epistemic trust relationship.

Future research should carefully consider whether to maintain integrity and benevolence
as independent antecedents, one from the other, or subsume integrity within benevolence. Abram
et al. (2003) researched fiduciary trust relationships in online environments and categorized
integrity and benevolence as one antecedent, whereas Rusman, et al. (2009) researched peer-to-
peer trust relationships and categorized integrity and benevolence as two antecedents
independent from one another. Hendriks et al. (2015) as well found integrity and benevolence to
be discrete indicators of epistemic trust. Future researchers should carefully consider the
categorization of trust antecedents, and make a choice that best fits their study parameters and
goals.

It is hoped that this study, in some small way, will contribute to and encourage future
researchers to consider Mixed-Method Phenomenology Research (MMPR). This study serves as
an example of qualitative dominant mixed-method research (Johnson, McGowan, & Turner,
2010). Possible areas of future research that may benefit from a greater understanding of
instructor-adult learner epistemic trust relationships in online higher education classrooms include: adult learner retention, adult learner achievement, instructor performance, and learner satisfaction. Future research on topics that are counter to epistemic trust, such as “lack of trust” and “distrust” will help to draw distinctions between positive and negative influencers of trust.

**Final Note**

This study recognized the adult learner’s autonomy within any relationship and that each individual comes to the online classroom with a propensity to trust (PTT) based on past experiences and individual traits (Mayer et al., 1995). The maturity of the individual adult learner’s epistemic belief impacts their ability to engage in the social identity described by John Dewey, and necessary for collaborative learning online. This will make trust more salient for some individuals in an online classroom. These variances among individual respondents were taken into consideration in the design of this study. This exploratory study examined general actions and responses of the participants. Trust is defined as positive intent by those involved and was the focus of this study. As was explained in Chapter 2, studies on professional and academic trust relationships examine trust defined as an attitude of positive expectation and willingness to depend on another (Mayer et al., 1995; McAllister, 1995; Rousseau et al., 1998), and a generalized expectancy of good will (Hendriks et al., 2015; Mcknight et al., 1998). This study of epistemic trust assumes these definitions as well. Lack of trust is not defined as absence of trust. Studies of “lack of trust” or distrust are important, but should be considered separately from studies of levels of trust like this one.
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### Appendix A

**List of Online Courses Included in Study**

*Table A1: Summer I, 2018 course list and enrollments (n=816)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Enrollments</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSC*305</td>
<td>Critical Issues on Health Care Management</td>
<td>10</td>
</tr>
<tr>
<td>HSC*310</td>
<td>Writing and Communication in the Health Science Professions</td>
<td>19</td>
</tr>
<tr>
<td>HSC*310</td>
<td>Writing and Communication in the Health Science Professions</td>
<td>18</td>
</tr>
<tr>
<td>HSC*312</td>
<td>Ethics of Health Care</td>
<td>17</td>
</tr>
<tr>
<td>HSC*312</td>
<td>Ethics of Health Care</td>
<td>16</td>
</tr>
<tr>
<td>HSC*316</td>
<td>Mind, Body and Health</td>
<td>20</td>
</tr>
<tr>
<td>HSC*316</td>
<td>Mind, Body and Health</td>
<td>19</td>
</tr>
<tr>
<td>HSC*316</td>
<td>Mind, Body and Health</td>
<td>19</td>
</tr>
<tr>
<td>HSC*320</td>
<td>Health Care Issues in Culturally Diverse Populations</td>
<td>23</td>
</tr>
<tr>
<td>HSC*330</td>
<td>Legal and Regulatory Environment for Health Care</td>
<td>10</td>
</tr>
<tr>
<td>HSC*331</td>
<td>Psychosocial Impact of Chronic Illness on Person and Environment</td>
<td>21</td>
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<td>HSC*365</td>
<td>Research for Evidence-based Practice</td>
<td>19</td>
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<tr>
<td>HSC*402</td>
<td>Managing Stress</td>
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<td>HSC*403</td>
<td>Nutrition for Wellness</td>
<td>11</td>
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<tr>
<td>HSC*404</td>
<td>Organizational Behavior in Health Care Environments</td>
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<td>HSC*407</td>
<td>Health and Wellness</td>
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<td>HSC*440</td>
<td>Leadership and Management in Health Care Environments</td>
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<td>HSC*445</td>
<td>Introduction to Health Care Informatics</td>
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<td>HSC*450</td>
<td>Economics of Health Care</td>
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<td>HSC*464</td>
<td>Health Sciences Capstone</td>
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<td>HSC*470</td>
<td>Health Care Management Capstone</td>
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<td>NUR*418</td>
<td>Human Resource Management in Health Care Organizations</td>
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<td>NUR*431</td>
<td>Introduction to Health Care Delivery Systems</td>
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<td>PBH*306</td>
<td>Our Environment, Our Health: An Introduction to Environmental Health</td>
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<td>PBH*320</td>
<td>Substance Abuse – Impact on Individual, Family, Community</td>
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<td>PBH*321</td>
<td>Introduction to Epidemiology</td>
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<td>PBH*346</td>
<td>Post Traumatic Stress Disorder: A Gathering Storm</td>
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<td>PBH*349</td>
<td>Planning and Evaluating Health Programs</td>
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<td>NUR*336</td>
<td>The Profession of Nursing: Becoming Influential</td>
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<td>The Profession of Nursing: Becoming Influential</td>
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<td>NUR*338</td>
<td>Introduction to Informatics for Nurses</td>
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<td>Holistic Health Care Across the Lifespan</td>
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<td>Holistic Health Care Across the Lifespan</td>
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<td>NUR*430</td>
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<td>Research in Nursing</td>
<td>17</td>
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<td>NUR*446</td>
<td>Teaching and Learning in a Diverse Society</td>
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Appendix B

Epistemic Trust Instrument

Part I: Likert Scales and Semantic Differential

This survey will take about 10 minutes to complete. By completing this questionnaire, you will be entered in a drawing to win a $50 Amazon gift card. At the end, you will be offered the opportunity to complete a second survey. If you are selected for the second survey you will receive a $10 Amazon gift card as a thank you for donating your time.

As you fill out this survey think about the (last instructor) you had in (online course). Please tell me what you believe about that instructor after having them in class.

Please answer with your FIRST thought. Let’s begin...

Epistemic Trust Scale (20 questions) - For each set of words, choose the number that best represents your beliefs about the instructor. The scale ranges from -3 to +3.

HERE IS AN EXAMPLE: If the word set is "happy" and "unhappy". And you think "Well my instructor is rather happy, but not very happy", you would pick a number less than 2.

![Rank your personal belief about your instructor](image)

Figure B1: Example of Semantic Differential

- Ranking:
  - 3 = extremely happy
  - 2 = quite happy
  - 1 = slightly happy
  - 0 = neutral
  - -1 = slightly unhappy
  - -2 = quite unhappy
  - -3 = extremely unhappy
Click on a number that best indicates your personal belief about your instructor's character for each pair of words below:

Competent–Incompetent
3, 2, 1, 0, -1, -2, -3
Intelligent–Unintelligent
3, 2, 1, 0, -1, -2, -3
Well educated–Poorly educated
3, 2, 1, 0, -1, -2, -3
Professional–Unprofessional
3, 2, 1, 0, -1, -2, -3
Experienced–Inexperienced
3, 2, 1, 0, -1, -2, -3
Qualified–Unqualified
3, 2, 1, 0, -1, -2, -3
Sincere–Insincere
3, 2, 1, 0, -1, -2, -3
Honest–Dishonest
3, 2, 1, 0, -1, -2, -3
Just–Unjust
3, 2, 1, 0, -1, -2, -3
Fair–Unfair
3, 2, 1, 0, -1, -2, -3
Moral–Immoral
3, 2, 1, 0, -1, -2, -3
Ethical–Unethical
3, 2, 1, 0, -1, -2, -3
Responsible–Irresponsible
3, 2, 1, 0, -1, -2, -3
Considerate–Inconsiderate
3, 2, 1, 0, -1, -2, -3

Normative Actions (13 Questions) –
I'd like to better understand how the instructor managed and facilitated your class. Indicate to what extent your instructor did the following. No answer is right or wrong.

Did your instructor discuss what should be considered acceptable conduct?
Never -2, -1, 0, 1, 2 Always
Did your instructor discuss how the communication technologies should be used?
Never -2, -1, 0, 1, 2 Always
Did your instructor discuss specific final performance goals?
Never -2, -1, 0, 1, 2 Always
Did your instructor discuss interim milestones for course activities?  
Never -2, -1, 0, 1, 2 Always

**Indicate how strongly you agree or disagree with these statements**

Your instructor tried to be aware of the class' level of performance.  
Disagree -2, -1, 0, 1, 2 Agree

Your instructor paid attention to what students did in this class.  
Disagree -2, -1, 0, 1, 2 Agree

Your instructor **attempted to judge** how well the class was performing.  
Disagree -2, -1, 0, 1, 2 Agree

Your instructor **paid attention** to how the class was performing.  
Disagree -2, -1, 0, 1, 2 Agree

Your instructor monitored the actions of class members.  
Disagree -2, -1, 0, 1, 2 Agree

Your instructor monitored what class members were doing to make sure they complied.  
Disagree -2, -1, 0, 1, 2 Agree

**Gorham’s Communication Immediacy – (19 questions)**

**Indicate how often your instructor did the following**

Asks questions or encourages students to **post and reply in discussions**  
Never -2, -1, 0, 1, 2 Very often

Is addressed by his/her first name by the students  
Never -2, -1, 0, 1, 2 Very often

Asks how students feel about an assignment, due date or discussion topics  
Never -2, -1, 0, 1, 2 Very often

Praises students' work, actions or comments  
Never -2, -1, 0, 1, 2 Very often

Asks questions that solicit viewpoints or opinions  
Never -2, -1, 0, 1, 2 Very often

Refers to class as "our" class or what "we" are doing  
Never -2, -1, 0, 1, 2 Very often

Addresses students by name  
Never -2, -1, 0, 1, 2 Very often

Invites students to message, chat or email meet with him/her outside of class activities if they have questions or want to discuss something  
Never -2, -1, 0, 1, 2 Very often

Uses humor in class  
Never -2, -1, 0, 1, 2 Very often

Provides feedback on my individual work through comments on papers, oral discussion replies, etc.  
Never -2, -1, 0, 1, 2 Very often
Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her plan
Never -2, -1, 0, 1, 2 Very often
Addresses me by name
Never -2, -1, 0, 1, 2 Very often
Refers to class as "my" class or what "I" am doing
Never -2, -1, 0, 1, 2 Very often

McAllister’s Frequency of Interaction – (4 questions)
Indicate the frequency of the following:

How frequently did the instructor initiate class-related interaction with you?
Daily, 4-6 times a week, 2-3 times a week, Once a week, Never
How frequently did you initiate class-related interactions with your instructor?
Daily, 4-6 times a week, 2-3 times a week, Once a week, Never
How frequently did you interact with your instructor in the online class?
Daily, 4-6 times a week, 2-3 times a week, Once a week, Never
How frequently did you interact with your instructor informally or socially in class?
Daily, 4-6 times a week, 2-3 times a week, Once a week, Never

Additional survey invitation –

Thank you for completing this part of the study. Please provide a contact email for entry in the Amazon gift card drawing. ______

Would you be willing to answer 10 open-ended questions as a second part of this study? I am inviting only a select number of individuals to participate in the second half. If you complete the second survey I will thank you with a $10 Amazon gift card for about 15 minutes of your time.

○ Yes
○ No

IF Yes
Thank you! Provide your email below where I can send the additional survey.

Part II: Open-ended questions

INSTRUCTIONS FOR THIS SECTION: Next are some short answer questions. I am very interested in you experience with trusting an online instructor, and what your experience was with Professor [last name].

1. Is it important to trust the instructor in an online class? Why or why not?
2. What did your instructor do or say that made you feel you could trust them?
3. Do you think trusting your instructor makes your learning experience better? Why or why not?
4. Do you think an instructor needs to earn your trust? Why or why not?
5. Was [INSTRUCTOR NAME]’s presence in the online class frequent enough that you felt you could rely on them? Please explain or give an example.
6. Did [INSTRUCTOR NAME] exert too much control or not enough control over how you and your classmates' are expected to interact in the discussions? Please explain or give an example.
7. Do you think [INSTRUCTOR NAME] cared about your learning? What did they do that indicated whether they cared or didn’t care?
8. Do you feel [INSTRUCTOR NAME] was willing to 'go the extra mile' to help you? Can you give an example of why you believe they would or wouldn’t?
9. What kinds of things did Professor [INSTRUCTOR LAST NAME] do that made you interested in participating?
10. Are there other things that contribute to or diminish your trust in [INSTRUCTOR NAME] that you would like to add?

Visual Semantic Differential: (18 questions)

INSTRUCTIONS FOR THIS SECTION: Choose one from each pair of images; write a phrase as to how it represents your instructor to you.

Phrase: _______________

Phrase: _______________

Phrase: _______________
Appendix C

Interview Prompts & Analytical Protocol

Semi-structured Interview Questions:

General questions, ease into interview
1. How many years have you taught online courses?
2. Do you have experience in teaching face-to-face courses?
3. Do you teach 8-week courses and/or 15-week courses?

Two broad questions to prompt interviewee thinking
4. What role do you think trust has in the online classroom?
5. Is it important for students to trust the instructor in an online class? Why or why not?

Semi-structured interview questions
1. How much does technology affect your ability to interact with students?
2. What edicts, policies, or expectations do you put in place when teaching an online class?
3. How do you convey your expectations to students?
4. What approach do you take or style do you use when communicating feedback?
5. What kinds of things do you do to build a connection with students?
   a. What receives positive responses?
   b. What receives no response or negative response?
6. What do you do when students ask you for help with technical issues? How about if they need help understanding the topic of study?
7. What kinds of things do you do to help students feel part of the discussion/group?
8. If you are asked about something that you don’t know the answer to, how do you respond to the students? Would you tell them you don’t know?
9. What kinds of things do you do to make a connection with students? Can you give an example?
10. How do you maintain control of the classroom?
    a. Tell me how you manage “flaming” or other conflicts between students?
11. What strategies do you use to keep students on track? Is it your responsibility?
12. What is your role in the online classroom? (How do you envision your role?)
13. Can you give an example of something you did that worked exceptionally well to get students excited and/or engaged in a discussion/class?
14. Can you give an example of something you thought would really engage students and you were surprised when it didn’t?
15. How do you balance formality and informality in the online classroom?
16. How well do you think you know your students?
17. How well do you think your students know you?
18. How much responsibility do you take on for the success of each student? How far do you go to help struggling students? Can you give an example?
Analytical Protocol for Classroom Observation:

Research Question #2: Normative actions

NA1: Guide conduct of members (Clarifies rules (policies) and reasons for rules, Discusses acceptable conduct, Controls actions of class members, Monitors compliance of class members)
NA2: Manage quality of work and deadlines (Sets performance goals, discusses milestones)
NA3: Prompt individuals who struggle with deadlines/quality of work
NA4: Guide analytical thinking to truth/knowledge
NA5: Guides away from misinformation
Sources: (Abrams et al., 2003; Crisp & Jarvenpaa, 2013)

Research Question #3: Immediacy Actions
IA1: Connects with personal experiences
IA2: Invites private messaging
IA3: Uses textual gestures (emojis)
IA4: Fosters professional relationship/mentors
IA5: Encourages and praises to promote participation
IA6: Uses inclusive pronouns (first names, ‘we statements’)
IA7: Shows care and concern for individuals (verbally caring messages)
IA8: Shares responsibility for individual student success (helpful)
Sources: (Abrams et al., 2003; Arbaugh, 2001; Coppola et al., 2004; Gorham, 1988; Landrum et al., 2015; Ridings et al., 2002; Teven & Hanson, 2004)

Research Question #4: Frequency and Consistency in the Classroom
RA1: Highly interactive early in course
RA2: Early enthusiastic early on
RA3: Consistent in word and deed
RA4: Transparent regularity
RA5: Responsive to messages
Source: (Abrams et al., 2003; McAllister, 1995)
Recruitment email –

Hello student,

I am a PhD student interested in learning about your experiences in online courses. I am conducting an important research study and have selected you to participate as an upper level Excelsior College student. Will you dedicate 10 minutes of your time to participate in this study? As a thank you for your time, I will enter you in a drawing for a $50 Amazon gift card once you complete the questionnaire.

The link below will take you to an online questionnaire that will ask you to give your impression of how the instructor of this course conducted the course and interacted with you and your classmates. The results of the questionnaire are purely for academic research purposes and not for evaluation of the instructor or this course. Your answers are confidential and will not be shared with anyone. Click on the link to read the consent form and then participate in this research study.

I look forward to your participation!

Lisa Rapple, PhD(c) student

Consent Form Student –

Institutional Review Board (IRB)
Informed Consent Information for Participation in a Research Study

Protocol (Study) Number

Study Title
ADVANCING EPISTEMIC TRUST RELATIONSHIPS WITH ADULT LEARNERS IN THE ONLINE CLASSROOM: THE ROLE OF THE INSTRUCTOR

Study Principal Investigator Name
Lisa Rapple

Study Principal Investigator Phone #
518-608-8463
Study Principal Investigator
Email address lrapple@albany.edu

Introduction
You are being asked to participate in this research study because you are an adult student enrolled in a graduate online course of study at Excelsior College. This study will explore how the actions of your instructor might instill trust and confidence in you for better participation in course discussions and activities.

What are the study procedures? What will I be asked to do?
You will complete an online questionnaire that consists of Likert scale items and short answer items.

How long will it take?
The will take approximately 10 minutes.

What are the risks or inconveniences of the study?
We do not anticipate any risk in your participation other than you may become uncomfortable answering some of the questions. Your participation will not reflect on your performance at the college.

What are the benefits of the study?
Although you may not receive direct benefit from your participation, others may ultimately benefit from the knowledge obtained from this research.

Will I receive payment for participation? Are there costs to participate?
There is no cost to you, and no payments will be made to you.

How will my personal information be protected?
The questionnaire data is collected anonymously. The Institutional Review Board and University officials responsible for monitoring this study may inspect these records.

Can I stop being in the study and what are my rights?
You should also know that participation in research is entirely voluntary. Even after you agree to participate in the research, you may decide to leave the study at any time without penalty or loss of benefits to which you may otherwise have been entitled. You should also be aware that the investigator might withdraw you from participation at his/her professional discretion.

Whom do I contact if I have questions about the study?
Take as long as you like before you make a decision. We will be happy to answer any question you have about this study. If you have further questions about this project or if you have a research-related problem, you may contact the principal investigator.

Whom do I contact if I have questions about my rights as a study participant?
If you have any questions about this study, please contact the Principal Investigator: Lisa

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Rapple, graduate student, 518-608-8463, lrapple@albany.edu, or the Faculty Advisor Dr. Alandeom Oliveira, 518-442-5021, aoliveira@albany.edu. You will be offered a copy of this form to keep.

Research at the University Albany involving human participants is carried out under the oversight of the Institutional Review Board (IRB). This research has been reviewed and approved by the IRB. If you have any questions concerning your rights as a research subject or if you wish to report any concerns about the study, you may contact University at Albany Office of Regulatory & Research Compliance at 1-866-857-5459 or hsconcerns@albany.edu. I have read the information about this study. By clicking on the link to begin the questionnaire I hereby give consent to participate in the study.

Name: ___________________ Signature: ____________________ Date: _____________

UNIVERSITY AT ALBANY
State University of New York

Recruitment Email -

Hello Faculty member,

I hope this email finds you well. I am asking a select number of faculty to participate in a small research study I am conducting to meet the requirements of my PhD journey at Albany University. I am seeking volunteers to be interviewed about their interactions with adult learners in 8 week and 15 week courses. The Consent Form attached explains in more detail what this study is about. If you are interested in helping me I will need about 45 minutes to conduct the interview with you in a face-to-face meeting.

If you are not able to participate I completely understand. I'm very appreciative of your time. And if you are able to participate I'd be thrilled. So if you are willing to volunteer, please email me back with a signed copy of the consent form attached and I will contact you to schedule an interview time.

(See attached file: ConsentInstructor.docx)
Lisa Rapple, MS. Ed.

Consent Form Instructor –

Institutional Review Board (IRB)
Informed Consent Information for Participation in a Research Study
Protocol (Study) Number

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Study Title

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Study Principal Investigator Name

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Study Principal Investigator Phone #

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Study Principal Investigator Email address

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You are being asked to participate in this research study because you teach online higher education courses, both 8 weeks and 15 weeks in length, at Excelsior College. With this study we hope to understand what you have observed in student collaborative spaces (i.e. online discussion threads). Of interest are students’ interactions around learning activities in the course.

You will be interviewed about your observations of students during course activities. The interview will take approximately one hour. We do not anticipate any risk in your participation other than you may become uncomfortable answering some of the questions. Your participation will not reflect on your work performance in any way nor will it impact your employment status at the college.

Although you may not receive direct benefit from your participation, others may ultimately benefit from the knowledge obtained from this research. There is no cost to you, and no payments will be made to you. All information obtained in this study is recorded anonymously. The Institutional Review Board and University officials responsible for monitoring this study may inspect these records.

You should also know that participation in research is entirely voluntary. Even after you agree to participate in the research, you may decide to leave the study at any time without penalty or loss of benefits to which you may otherwise have been entitled. You should also be aware that the investigator might withdraw you from participation at her professional discretion.

This interview will be recorded and upon completion of the study erased. During the interview avoid mentioning identifying information about third parties. Sign below if you are willing to have this interview audio recorded. You may still participate if you are not willing to be recorded.

Signed: _______________________________________________

If you have any questions about this study, please contact the Principal Investigator: Lisa Rapple, graduate student, 518-608-8463, lrapple@albany.edu, or the Faculty Advisor Dr. Alandeom Oliveira, 518-442-5021, aoliveira@albany.edu. You will be offered a copy of this form to keep.
Research at the University Albany involving human participants is carried out under the oversight of the Institutional Review Board (IRB). This research has been reviewed and approved by the IRB. If you have any questions concerning your rights as a research subject or if you wish to report any concerns about the study, you may contact University at Albany Office of Regulatory & Research Compliance at 1-866-857-5459 or hsconcerns@albany.edu.

I have read the information about this study. I hereby consent to participate in the study.

Name: ________________________ Signature: ________________________ Date: ________________