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MEETING THEIR EXPECTATIONS: STUDENT EXPECTATIONS AND PERCEPTIONS OF INSTRUCTOR CLARITY, CREDIBILITY, RAPPORT, AND CLIMATE IN ONLINE COURSES

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DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Communication and Information
at the University of Kentucky

By

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ABSTRACT OF DISSERTATION

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Continued advancements in technology have steadily increased accessibility to online learning and have provided more tools with which instructors can communicate with their students. As our technology evolves, so too does the students' expectations for how course content will be communicated. It is important to understand students' expectations for their online learning experiences so that those expectations can be met. The field of instructional communication has demonstrated the importance of behaviors that establish an instructor's credibility, clarity, rapport, and climate in the classroom finding these constructs contribute to student cognitive and affective learning. The significance of these constructs has been studied in face-to-face learning environments, but more exploration needs to be done in online contexts.

Using expectancy violations theory, this dissertation examines student expectations for online instruction to determine what instructor credibility, clarity, rapport, and climate behaviors are expected in online classes and whether those expectations are being met. To do this, the author collected data from a group of university undergraduate students at the beginning and end of a semester. Using established measures as well as open-ended questions, the first questionnaire collected student expectations for their instructor behaviors related to credibility, clarity, rapport, and climate and the second questionnaire collected their experiences with these behaviors.

Data from the two questionnaires were analyzed to determine whether student expectations for each construct were met, unmet, or exceeded. These results were then compared to student reports of perceived cognitive and affective learning to determine that those with unmet expectations reported lower levels of cognitive and affective learning. The qualitative and quantitative data were analyzed in conjunction to identify specific instructor behaviors that support student perception of credibility, clarity, rapport, and climate in the online class environment.

Keywords: Expectancy violations theory, instructor credibility, clarity, rapport, climate, online learning

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August 2, 2021
Date

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CHAPTER 1: INTRODUCTION

Colleges and universities began offering online courses in the 1990s, with the popularity of such formats rapidly growing from the late 1990s into the early 2000s (Kentnor, 2015). The early efforts of these institutions had varying degrees of success, with many unable to fully adapt to the online format. Many of these failures are attributed to the lack of understanding of online pedagogy and learning styles (Kentnor, 2015). There are significant differences between teaching and learning online versus the traditional face-to-face (FTF) environment and these differences require a different pedagogy (Bernard et al., 2004). It is through careful study of these differences that scholars have worked to enhance our understanding of how to improve online instruction.

Today, the popularity of online learning shows no sign of dwindling as the demand for online classes remains strong. Students appreciate the flexible access to content and instruction at any time, in any place (Means et al., 2013) while universities have found online classes a viable option to reducing costs (Joo et al., 2017). Students report choosing online courses because their current life situations (e.g., jobs, families, location, etc.) do not permit them to attend traditional face-to-face (FTF) courses (Means et al., 2010; Paul & Jefferson, 2019). Online learning affords access to a range of individuals who may not have the opportunity to access education, thus allowing for potential learning access to a wider variety of student. In 2018, 6.9 million of the 19.6 million students enrolled in courses at degree-granting postsecondary institutions were enrolled in some form of online learning courses (National Center for Education Statistics, 2019). The number of faculty who have taught an online course has increased from 39% in 2016 to 46% in 2019 (Jaschik & Lederman, 2019).

Although online learning has garnered some criticism since its inception, research has found it to be an effective learning method (Means et al., 2013; Shachar & Neumann, 2010) and 85% of online students who have previously taken FTF courses rate their online learning experience as the same or better than their FTF classes (Wiley Education Services, 2018). Further advantages of online learning technologies are that they enable educational collaboration to be more dynamic, interactive, and accessible thereby enhancing the learning experience and expanding opportunities for participation (Carr et al., 2012).

As it is likely online learning will retain its importance into the near future, and because the field is based on ever-evolving technology, educators must have a foundational knowledge of online learning with which to work from. Instructional communication scholars are uniquely positioned to guide the construction and execution of online courses that can meet the unique needs of the online student. We have spent decades examining the methods and practices that support the successful attainment of learning outcomes in the classroom; that knowledge can now be applied to comprehensively examine all aspects of online instruction in order to assist with the effective transition of traditional courses into the online learning environment (Morreale et al., 2020). The present study aims to answer this call for instructional communication scholarship and advance our understanding of online instruction through the exploration of specific instructional behaviors that have already been demonstrated to be crucial in the FTF learning environment. This replication is necessary as "what we know about the traditional classroom may not translate or duplicate well into the online environment"

(Kaufmann & Buckner, 2018, p. 1; Kaufmann & Tatum, 2017; Sellnow & Kaufmann, 2017).

Although advancements in technology have provided extensive options for implementing online education (Haythornthwaite & Andrews, 2011). The transition from face-to-face instruction to online instruction is not intuitive; careful consideration needs to be given to the way that lessons are planned and communicated (Vallade & Kaufmann, 2018). In addition, students may or may not have previous experience with online learning, which shapes their expectations of the course and how instruction should occur. Instructional communication scholars see the challenges presented by the evolution of online learning technologies as opportunities to examine teaching methods and evaluate how teaching behaviors can be better translated to the online environment. If faculty have an understanding of students' expectations for the teaching of online classes, instructors may be better able to meet those expectations. This study examines student expectations of online instruction and identifies opportunities for improvement.

Instructional communication research has identified several instructor communication constructs that, when appropriately and effectively enacted, can lead to improved classroom relations and learning. One such construct is instructor credibility. Instructor credibility has been tied to instructor justice (Chory, 2007), immediacy behaviors (Schrodt & Witt, 2006), power (Pytlak & Houser, 2014), and even students' intent to persist in college (Wheeless et al., 2011). Indeed, instructor credibility is so ubiquitous in instructional research it has been deemed by some to be one of the most important variables in the instructor-student relationship (Myers, 2001).

Another construct that has been the focus of instructional communication research is instructor clarity. This variable represents how effectively an instructor is able to convey the desired meaning of course content such that the students understand the material as intended (Chesebro, 1988). Although Chesebro (1988) originally conceptualized instructor clarity as the verbal and nonverbal messages sent by the instructor, it has been expanded to include the organization and presentation of class material (Chesebro & McCroskey, 1998b). Since communication in online class environments can dramatically differ from those of FTF classes, it is important to understand how instructor clarity is achieved in them.

Successfully achieving student learning outcomes requires more than just expertly and patently conveying course material. Instructional research has found that fostering relational connections in the classroom to be an important component in the learning process. Instilling positive perceptions of the instructor (Myers & Goodboy, 2014) and the course (Frisby et al., 2013) can facilitate student learning experiences. This may be particularly important in the online learning environment where physical distance can increase the perception of relational distance. A qualitative study asked students what their general expectations were for being online students. The most frequent response (83%) was that the students expected frequent communication from their instructor so that they felt supported in their learning efforts (Mupinga et al., 2006). This relational aspect is an important component in the instructor-student dynamic and needs to be examined in the online setting (Kaufmann & Vallade, 2020). While research has begun to explore how instructors' communication can aid in student learning in online environments (Limperos et al., 2015), further investigation is needed on how students

perceive the relational aspects such as rapport and climate in their online classes (Kaufmann & Vallade, 2020).

Rapport and climate are closely related but distinct relational components of the classroom. Rapport is defined as the mutual feeling of trust or prosocial bond between two people (Gremler & Gwinner, 2000) and is relationship-centered, capturing the experience of an interpersonal relationship (Jorgenson, 1992). Rapport is one of several constructs that contribute to the perception of a supportive classroom climate (Johnson, 2009). Both of these constructs contribute to how connected students feel to their instructor and classes, which is crucial for student learning outcomes (Kaufmann & Vallade, 2020). The importance of rapport and class climate has been examined with regards to FTF classes and recently expanded upon to address online class contexts as well, but there is more to learn about students' expectations of the behaviors that contribute to their perceptions of these constructs.

Therefore, that for online classes to be successful, it is important to ensure the translation of these instructor constructs to the online classroom. Some instructor behaviors can be more readily translated to online classrooms than others; the question is, what credibility-, clarity-, rapport-, and climate-building behaviors do students expect from their online classes and which do they find lacking? By understanding how students perceive these behaviors in the online classroom, and which students find lacking, instructors can work to better meet student expectations.

To aid in determining whether the students perceive these constructs to be suitably demonstrated in the online classroom, this study utilizes expectancy violations theory (EVT). The central premise of EVT is that when entering a communication

interaction, participants have expectations for how the other person will behave (Burgoon, 2016). In the context of the online classroom, students may have varying expectations for their interactions with the instructor based upon past classroom experiences and past experiences with online learning. If their current experience with the instructor of an online class does not meet their expectations formed through previous experiences, the students will experience an expectancy violation. The valance of the violation depends on whether the student views this violation as positive or negative (Houser, 2005).

Given this research on EVT, this dissertation employs it to explain student expectations of instructor behaviors as they relate to credibility, clarity, rapport, and climate to determine if student expectations are being met. The objective of this study is to identify any disparities between student expectations and their perceptions of their instructors' behaviors in the online class setting to be able to recommend behaviors instructors should attend to when teaching online courses. The relevant literature on EVT, credibility, clarity, rapport, and climate will be reviewed in the next chapter.

CHAPTER 2: LITERATURE REVIEW

The growth of online learning has been a common trend for more than two decades now with the continued advancement of learning technologies helping to erode the perception of online learning being inferior to FTF instruction (Allen & Seaman, 2014). Research on online learning has found that students perceive online classes as more advantageous because the flexible format allows them control over their schedules (Bourdeaux & Schoenack, 2016). This can be especially advantageous for those students who need to work, those who have families, or those who live in remote areas (Haythornthwaite & Andrews, 2011).

Despite its popularity, with continued growth in course options and technological advances (Allen & Seaman, 2016), educators have yet to perfect online teaching. "Online teaching is complex" (Hislop, 2009, p. 94), making it challenging to examine how instructional communication functions in the online setting. There are two stark differences between FTF and online classes: time and space (Kaufmann & Vallade, 2021). These differences can influence how instructors and students communicate with one another and pose challenges to implementing traditional methods of instructional communication in online settings. In a recent review of online literature, Vlachopoulos and Makri (2019) posit that learning success is dependent on students' interactions with their instructors, peers, and course content. Online students themselves report a desire to engage with their instructors (Chakaraborty & Muyia Nafukho, 2014) as this helps them learn course material (Hew, 2016). Research has identified communication between the instructor and student as key to improving student learning outcomes in online courses, stressing the importance of establishing a strong instructor presence (Stone, 2017). Hence

the importance of exploring ways to facilitate and improve these interactions is essential to the online learning experience.

The online format enables practically anyone to learn from anywhere they have access to the internet. This flexibility of online learning is, in part, because of the asynchronicity and longevity of class information and discussions. Conversations can be contributed to after thorough contemplation and revisited long after they occurred allowing for further reflection. This can allow for more meaningful conversations as participants can fully ponder topics leading to more thoughtful/educated responses (Haythornthwaite & Andrews, 2011). But this asynchronicity is also one of the major challenges of online learning. Some instructors and students struggle to overcome the lack of physical presence in the classroom. This can lead to a perception of isolation in students which is exacerbated by the delays in communication caused by asynchronicity (Borup et al., 2011). This sensation can be combated by establishing the social presence of everyone involved in the class by using pictures and videos with basic biographical information to personalize users so they can be perceived as real people (Garrison et al., 2000). Even in online classes that meet synchronously, there can be limited nonverbal communication between the instructor and students. The lack of physical presence still can hinder the perception of social presence due to the absence of human contact in interactions that cannot completely be replaced or replicated with live interactions via technology (McBrien et al., 2009).

Online programs tend to have higher dropout rates than traditional programs (Allen & Seaman, 2010) in part due to students' lack of understanding of the course content or the technology used to facilitate the content (Ali et al., 2011) combined with

"feeling alone" where they do not perceive a connection to their instructor or classmates (Muir et al., 2019). Studies on student persistence and retention have found that encouraging communication with the instructor and increasing social presence can combat this confusion and feelings of isolation (Horzum, 2015; Shea et al., 2015). "The presence of the online teacher or instructor is vital for building interaction and connectedness between teacher and student, and student and student" (Muir et al., 2019, p. 264). To accomplish this, instructors need to understand how to help students perceive them without the typical communication cues relied on in traditional class settings. How instructors and students interact and communicate with each other is one of the primary differences between FTF and online learning (Kaufmann & Tatum, 2018); in order to create effective learning experiences, instructors must understand how to work with this difference (Sellnow & Kaufmann, 2017).

Instructional communication research has identified several instructor behaviors that have been found to enhance student learning may be interpreted differently in online environments that challenge the exchange of visual and audible cues. The constructs explored in this study were chosen because of their effects on learning outcomes and because of their close relation to the communication needs found by previous online studies such as social presence (Mupinga et al., 2006; Muir et al., 2019). The importance of these instructor behaviors necessitates exploration of how they can be translated to online environments.

Research has found that student perceptions of instructor behaviors, such as nonverbal immediacy, are negatively impacted in online classrooms (Carrell & Menzel, 2001; Freitas et al., 1998), but that, even without the aid of visual cues, individuals are

still able to effectively form impressions of others (Walther, 1992). Since immediacy behaviors have been closely tied to instructor credibility (McCroskey et al., 2004), it is likely that demonstrating credibility online faces similar challenges. Improvement of online instruction outcomes may be possible by understanding how instructor behaviors, such as those that lead to students' assessments of the instructors' credibility, are perceived in online classes.

2.1 Instructor Credibility

Credibility, or ethos, has been recognized across contexts and since the time of Aristotle as a crucial component any speaker needs to convince an audience to accept what they say (Finn et al., 2009). It comes as no surprise then that instructor credibility has been found to be a key component in teacher-student interactions and outcomes. "If teachers are to transfer meaning to students to increase learning, then students must perceive their teachers as credible sources of information" (Fin et al., 2009, p. 518). Thus, this construct applies to any situation in which learning is being facilitated.

The credibility of instructors has been researched since the late 1960s with the work by McCroskey et al. (1974) becoming the standard by which the construct is measured (Myers & Martin, 2018). Since then, McCroskey and Teven (1999) have established instructor credibility as a multidimensional construct closely tied with student affective and cognitive learning. Their measure defines instructor credibility as a combination of competence, trustworthiness, and goodwill (Teven & McCroskey, 1997). Competence refers to the extent to which students consider their instructors to be subject matter experts; trustworthiness (also referred to as character; Myers & Martin, 2018) centers on the degree to which students believe their instructors possess integrity;

goodwill (also referred to as caring; Myers & Martin, 2018) entails whether students perceive their instructors as being concerned about their welfare through the demonstration of empathy, understanding, and responsiveness (Teven & McCroskey, 1997). When students view their instructor as credible, they are more motivated to learn, they are more communicative, and they are less likely to perform acts of incivility (McCroskey et al., 1974).

Although various physical attributes of instructors have been examined for the effect they may have on students' perceptions of instructor credibility, it is instructors' communication behaviors in and outside of the classroom that have been found to have the greatest influence (Obermiller et al., 2012). The student outcomes from the presence of instructor credibility range from increasing the likelihood of re-enrollment with the instructor or recommending the instructor to other students (McCroskey et al., 1974) to increasing accuracy and recall of lecture information (Finn et al., 2009) and increasing students' intent to persist in college (Wheeless & Witt, 2011).

It has been widely accepted that credibility is an important component in the instructor-student exchange, but it was not until the 1990s that scholars began investigating what instructor behaviors influence students' perception of it. Since then, it has been discovered that instructor immediacy behaviors (Mottet et al., 2007), technology use (Schrodt & Witt, 2006), justice (Chory, 2007), clarity (Schrodt et al., 2009), humor (Dunleavy, 2006), and self-disclosures (Schrodt, 2013) can all lead to positive student perceptions of instructor credibility. These positive perceptions of instructor credibility have in turn been associated with positive relationships with affective and cognitive learning with studies finding students who perceived the instructor as credible score

higher on post-tests (Carr et al., 2012). Positive perceptions of instructor credibility have also been found to increase class participation, increase communication with instructors outside of class, and decrease student incivility behaviors (Myers & Martin, 2018). These connections between instructor credibility and positive student outcomes indicate the important role credibility plays in classroom instruction.

With regards to online instruction, research on credibility has focused on instructors' technology use in relation to how it is incorporated in FTF classes (Schrodt & Witt, 2006). Other studies have examined instructors' Facebook (Hutchens & Hayes, 2014) and Twitter (DeGroot et al., 2015) use on credibility perceptions, but there is little research that focuses on student perceptions of instructor credibility in online instruction.

A conceptually close construct to credibility is expert power; both are associated with positive perceptions of the instructor and perceived cognitive learning (Schrodt et al., 2007; Kaufmann & Buckner, 2018). Kaufmann and Buckner (2018) recommend instructors demonstrate expert power in their online instruction as their study found it associated with positive motivation to study, affect for the course and instructor, and perceived cognitive learning. They suggest several behaviors online instructors can do to demonstrate their credibility, which can bolster the instructors' expert power. Since credibility contributes to expert power, it is likely a replication of this study with a focus on credibility would reach similar conclusions.

Although there is limited research on the instructor behaviors that might contribute to credibility in online instruction, it may be construed that some constructs, such as nonverbal immediacy and humor, are difficult to translate to environments where visual and auditory signals are limited or nonexistent. One study of online text-only

instructional communication compared the influence of nonverbal immediacy behaviors to face threat mitigation. The study found that the text-only face threat mitigation condition produced similar student state motivation to the nonverbal immediacy condition (Trad et al., 2014). This indicates that face threat mitigation may influence student perceptions of instructor credibility in text-only online courses similar to the effects of nonverbal immediacy behaviors in FTF courses.

Further investigation is needed to determine if established credibility behaviors translate to online instruction or if there are other constructs of credibility unique to online learning. The limited research on online credibility found that timelines and presence play a major role in how students view instructors (Myers & Martin, 2018). It has yet to be determined whether these constructs fit within the competence, goodwill, and trustworthiness dimensions of credibility or if they are unique dimensions of online instructor credibility.

2.2 Instructor Clarity

Instructor clarity, broadly conceptualized as the instructor's ability to present course content in an understandable and organized manner (Bolkan et al., 2016), is a complex construct that has been defined by both the verbal clarity with which material is conveyed as well as the structure of presentations, time spent on a topic, and speaking pace (Chesebro & McCroskey, 1998a). In short, it is the intelligibility of both the instructor's performance as well as the course material which facilitates student engagement and comprehension. Students in the qualitative, longitudinal study by Muir et al. (2019) repeatedly reported organization, clear instructions, and clear expectations as integral to supporting and maintaining their engagement in online courses. Higher levels

of sustained engagement translate into greater student outcomes and retention (Muir et al., 2019) pointing to the importance of instructor clarity in online learning.

Instructor clarity has been found to be positively associated with student motivation and cognitive learning as well as student affective evaluations of the teacher and the course (Chesebro & McCroskey, 2001; Sidelinger & McCroskey, 1997). Thus, striving to facilitate learning and creating a positive learning environment by instructing students in a clear and concise manner is considered fundamental to teaching (Chesebro, 2001, Chesebro, 2003).

Research has found that there are several key ways instructors can address their clarity in the classroom by exploring ways instructors can better enable students to follow instruction. These studies have found the structure of presentations, organization of content, and use of transitions and previews as effective methods for improving instructional clarity (Chesebro & McCroskey, 1998a). Signaling entails emphasizing content and using outlines and headings to aid in focusing student attention on important content (Mayer & Moreno, 2003; 2010). Vagueness addresses terminology or explanations that lack concrete meaning or "tangles of words" (Smith, 1977, p. 199) that can lead to confusion and utterances such as "uh" or "um" (Land, 1979) that can inhibit message reception. Coherence and redundancy refer to the relevance of the information provided by instructors (Mayer & Moreno, 2010). If instructors burden students with repetitive, unnecessary, or "extra" information in their lectures it can have detrimental effects on student learning. If students cannot keep up with the course materials, they cannot understand their lessons, hence pacing has been noted as an important factor in student comprehension (Bolkan et al., 2016). Appropriate pacing gives students time to

think about the content they are being taught and does not overload their working memory capacity (Chesebro & McCroskey, 1998b).

Since there is significant evidence as to the importance of clarity in effective instruction, it is included as a construct of focus for the present study. With regards to online instruction, there has been limited exploration of clarity in recent years. Most research on online learning was conducted heavily during the initial rise of its popularity at the end of the 20th and beginning of the 21st centuries. Due to the rapid evolution of technology, the conditions these studies evaluated have likely changed significantly, but some aspects are timeless. A 2006 qualitative study asked students explicitly what they needed to be successful in an online class. The majority expressed a need for guidance and clear instructor expectations and feedback on assignments (Mupinga et al.). A synthesis of the work of the late 20th century also found clear feedback along with consistent layout, clear navigation, and learner control of pacing to be key concepts that support effective online instruction (Janick & Liegle, 2001).

Despite this significant support for clarity, online learning is dependent on technology, therefore, as technology has evolved, how clarity is perceived by students may have evolved as well, necessitating a current examination of students' expectations for clarity in their online classes. An early study of asynchronous online learning found clarity of course design to be one of three significant factors in influencing students' satisfaction and perceived learning (Swan, 2001). However, a more recent study by Limperos et al. (2015) did not find clarity to be positively associated with perceived or actual learning leading the researchers to speculate that instructional context may moderate the influence of clarity. This study had limited manipulations of the construct,

only adding preview and summary slides to the high-clarity condition and removing them for the low-clarity condition, but the discrepancy between findings indicates a need for further exploration of clarity in online settings. The Limperos et al. study did find that the higher clarity condition was associated with higher perceptions of instructor credibility, measured using the McCroskey and Teven (1999) credibility scale. This indication of a relationship between the two constructs provides support for the inclusion of both in the present study.

2.3 Instructor Rapport

Rapport in the instructional setting was inspired by the work of Gremler and Gwinner (2000) who originally conceptualized it for organizational settings, identifying it as the personal connection between interactants, such as when a customer has a pleasant interaction with a service provider. It is comprised of an enjoyable interaction, which is when an individual positively perceives a communication interaction, and the personal connection or link the interactants feel with each other that extends beyond the roles they perform (Gremler & Gwinner, 2000). Frisby and Myers (2008) adapted this construct for the classroom and found rapport to be significantly related to affect, motivation, satisfaction, and participation. Instructor rapport has been found to consistently predict both cognitive and affective learning, establishing it as a key construct in instructional communication (Frisby & Martin, 2010).

Students report the ability to establish rapport as an essential characteristic of effective instructors (Catt et al., 2007; Faranda & Clarke, 2004). When students experience rapport with an instructor, they perceive an understanding or caring affiliation (Frisby & Buckner, 2018) which leads to more positive attitudes and motivation in the

students (Wilson et al., 2010). Additionally, rapport has been shown to increase positive affective states, such as confidence (Strage, 2000), and decrease negative affective states, such as anxiety (Frisby et al., 2014).

Naturally, the effect of rapport of most interest to educators is that which it has on cognitive learning. Studies have found it to have a positive influence on anticipated final grades (Frisby & Gaffney, 2015), quiz scores (Frisby et al., 2013), GPA (Strage, 2000), and actual final grades (Wilson & Ryan, 2013). A prevalent line of research associated with rapport focuses on participation (Frisby et al., 2014; Frisby & Martin, 2010; Frisby & Myers, 2008, Frisby et al., 2016) finding that when students have rapport with their instructors, they are more likely to participate in communication behaviors linked to learning outcomes. As participation has been deemed "an essential part of the teaching and learning process" (Bento & Schuster, 2003, p. 156) building and maintaining rapport should be an important focus for instructors. To-date there has been a significant lack of research conducted on rapport in online classes (Frisby & Buckner, 2018) and since encouraging participation is a primary challenge in online classes (Bento & Schuster, 2003), this is a research gap that the present study aims to address.

Rapport encompasses many prosocial instructor behaviors. When asked what behaviors their instructors use to build rapport, students identified attentive behaviors (e.g., using names), common grounding behaviors (e.g., being personable), courteous behaviors (e.g., empathy), connecting behaviors (e.g., humor), and information sharing behaviors (e.g., credibility; Webb & Barrett, 2014) indicating that there are a variety of ways to build rapport. Less well explored, is how these behaviors are translated to online learning environments (Kaufmann & Vallade, 2020).

Even with the continual development of online learning technologies, instructor rapport may be difficult to convey in the online setting. The asynchronous nature of online learning that makes it popular with students can make building rapport challenging. Instructors are encouraged to use video and audio recording to decrease social distance while others attempt to carry out synchronous classes via video conferencing software, but these methods do not fully reverse the loss of communication cues that online learning experiences. Lacking visual input from a speaker can also be a benefit, however, as participants are judged only on the words they write, not how they look or speak (Haythornthwaite & Andrews, 2011), thus this study will ask participants if their courses were synchronous or asynchronous and whether they saw their instructor (either live or recorded) at any time to factor in what effect this visual input may have on students' perceptions of rapport.

There is some evidence that rapport in online classroom settings leads to greater perceptions of social presence (Frisby et al., 2013) and social presence has been positively linked to satisfaction and perceived learning (Richardson et al., 2017). Kaufmann and Vallade (2020) recently found evidence that students who experience rapport with their instructor and classmates experience lower levels of loneliness in online classes. Still, further exploration of rapport in online settings is needed including how expectations of rapport being met or unmet may impact student perceptions of affective and cognitive learning. As rapport has been found to be an important relational component that positively affects classroom climate (Neer & Kircher, 1989), this study also includes an examination of students' perceptions of climate in the online classroom.

2.4 Instructor Climate

Climate is "the perceived connection, rapport, or affinity between instructor and students" (Kaufmann et al., 2016, p. 307). Although perceptions of climate can be based upon both instructor-student communication (Hays, 1970) and student-student communication (Dwyer et al., 2004), the present study is primarily focused on student perceptions of instructor behaviors and thus only attends to instructor-student climate variables. This is not a shortcoming of the present research as Kaufmann et al. (2016) found that in online class settings, the role of the instructor is critical to the establishment of a positive classroom climate. In their study, Kaufmann et al. identified four factors that contribute to classroom climate: instructor behaviors, student connectedness, course clarity, and course structure. The significance of the role clarity plays in classroom climate is why both of these constructs are included in this study. Rapport is connected to climate as it aids in the perception of social presence and social presence fosters climate in online settings (Sellnow & Kaufmann, 2018); thus, each of these constructs is crucial to the study of online learning.

Although there are apparent links to clarity and rapport, climate is significant as a stand-alone construct. A positive classroom climate has been linked to retention (Hays, 1970), affective learning (Johnson, 2009), and academic success (Dwyer et al., 2009). Most research on classroom climate has been in the traditional FTF classroom and has focused on specific instructor behaviors such as immediacy (Johnson, 2009), humor (Stuart & Rosenfeld, 1994), affinity-seeking (Myers, 1995), and feedback (Kerssen-Griep et al., 2008). Each of these has been found to contribute to positive perceptions of climate in the FTF classroom and further exploration is needed to determine if and how these

behaviors translate to online class climate (Kaufmann et al., 2016). Since there appear to be connections between instructor clarity, rapport, and climate, the present study includes each of them in an effort to advance online learning research.

Despite substantial research to-date, climate is still a somewhat amorphous construct, generally being described as feeling socially connected and supported (Dwyer et al., 2009), making it difficult to ensure specific climate-building behaviors are translated to the online classroom. Johnson (2009) points out the need for measuring specific instructor behaviors in conjunction with classroom climate so that their interaction may be determined. In addition, the majority of classroom climate research has been conducted in the traditional FTF classroom setting, thus even less is known about what contributes to climate or how it affects learning outcomes in online classes (Kaufmann et al., 2016).

Online classes have faced criticism for their lack of interaction and engagement, but the continued advancement of new technologies has combated this issue, enabling instructors to increase the social presence between themselves and their students (Manstead et al., 2011). These innovations in virtual interaction have created new opportunities to advance research on classroom climate in the online setting (Kaufmann et al., 2016). The importance of the instructor's role in building online class climate is paramount. The instructor must monitor student perceptions of his or her communication behaviors as well as how the course is perceived (Kaufmann et al., 2016). The development of the Kaufmann et al. (2016) online learning climate scale was the first step toward a deeper understanding of online classroom climate; now further research is

needed to extend understanding about students' perceptions of online class climate and how those perceptions influence their performance in the course.

2.5 Affective and Cognitive Learning

Educators endeavor to convey knowledge and the penultimate goal is to provide evidence that the students have learned the intended information. Bloom's (1956) taxonomy of learning identified three domains of learning (psychomotor, cognitive, and affective) which are recognized as the foundation from which we define learning. Learning is a complex phenomenon and no one method accurately conveys it (DeHouwer et al., 2013). Most scholars generally agree, however, that "learning is a change in individuals due to the interaction of the individuals and their environment" (Beebe et al., 2013, p.28). This change is relatively stable and enables the learner to be more capable of dealing with their environment (Olson & Hergenhahn, 2013). Research in instructional communication endeavors to explore how learning can be best facilitated and learning outcomes can be achieved.

Cognitive learning, defined as the comprehension and retention of knowledge (Christophel, 1990), is considered to be a "variable of consequence" in instructional communication research (King & Witt, 2009, p. 120) that is frequently measured in relation to other variables. Students, instructors, and institutions alike are concerned with ensuring the comprehension and retention of knowledge that constitutes cognitive learning (Christophel, 1990). This is judged to have occurred when changes are observed in the development of a student's intellectual abilities and skills, recall or recognition, and knowledge (Lane et al., 2018). Cognitive learning has been frequently operationalized in online learning research as the students' performance in the course or

on specific tasks. This alone is not adequate as scores on assignments are not considered accurate representations of learning (Christophel, 1990) and typically only report one aspect of learning such as recall (Frisby & Kaufmann, 2014). Self-assessment measures such as the cognitive learning measure (CLM) have been found to be a more valid measure of cognitive learning as it is composed of items that represent acquisition, recall, and the application of knowledge (Frisby & Martin, 2010; Frisby et al., 2014). Frisby and Kaufmann (2014) conducted a confirmatory factor analysis on the CLM to assess the factor structure finding it to be a reliable and valid measure, thus, this study employs the CLM to assess students' cognitive learning.

Affective learning involves the student internalizing positive feelings toward the course content and subject matter (Waldeck et al., 2010). It is judged to have occurred when students "experience a systematic change in their values, preferences, or attitudes (Lane et al., 2018). Affective learning is important, not just because it has been demonstrated to be entwined with cognitive learning, but also because students who report positive affect toward the course, topic, and instructor are more likely to complete their courses, be more involved with the curriculum, and experience greater satisfaction from the class (Russo & Benson, 2005). Instructor behaviors that have been found to support students' affective learning are those that foster a supportive and connected learning environment (Johnson, 2009), outcomes found to be connected to instructor rapport and classroom climate.

Research has found support for the relationship between affective and cognitive learning, indicating that it is important to measure both when establishing relationships between learning constructs. The affective learning model positions affective learning as

a predictor of cognitive learning (Rodriguez et al., 1996), a relationship that has also been found in online classrooms (see Freitas et al., 1998; LaRose & Whitten, 2000; Russo & Benson, 2005). In online classes, affect towards the instructor has been found to be particularly salient in predicting student perceptions of cognitive learning (Anderson, 2004). Since affect toward the instructor is associated with instructor rapport and climate, this study includes an examination of affective learning to identify relationships between affective learning and student expectations and perceptions of rapport and climate.

2.6 Expectancy Violations Theory

In all interactions, participants enter with certain expectations of how each person will behave. The meeting, exceeding, or failing to meet those expectations influences the participants' evaluations of the interaction (Burgoon, 2016). As students likely begin an online class with expectations of how their interactions with the instructor will be, it is important to understand what those expectations are and how they influence their perceptions of the instructor. In a study of an online course at a secondary school, Journell (2010) reported that students expected the course to be easy, but some found it to be quite difficult instead. This study did not probe into what outcome resulted from this expectancy violation and it would be interesting to know what effect it had on the students' perceptions of online learning and/or the instructor. This study was qualitative and asked the instructor what experience he thought the students expected to have from his online class. The instructor stated that the students who take online classes do not want social interaction, they just want to have the course information conveyed to them so they can pass the exam and move on. The students, however, responded that they missed the social interaction they experience in the FTF classroom.

This could be an example of the instructor not understanding student expectations and therefore not meeting them. The additional communication challenges associated with online learning increase the likelihood that even the most experienced instructors may engage in behaviors that violate student expectations (Vallade & Kaufmann, 2020). When student expectations are violated, learning goals such as the perception of affective and cognitive learning can be compromised (Kearney et al., 1991). It is important to determine what students expect from their online courses, so that instructors may be better able to meet the students' expectations. To accomplish this, the present study utilizes expectancy violations theory to explore student expectations for online courses and discover if they are being met.

The birth of expectancy violations theory (EVT) began with Burgoon and Jones (1976) who were examining how people reacted to proxemics violations. Burgoon (1978) later built upon this initial conceptualization of the perception of personal space to define the components of EVT. Research has evolved the theory over the decades since its conception from one centered on personal space to a comprehensive exploration of other communication behaviors (Burgoon, 2016). Although it was not originally intended as an instructional theory, scholars have found EVT to be quite useful in evaluating instructional communication. A recent meta-analysis of 15 years of instructional communication literature found EVT to be the third most referenced theory (tied with attribution theory with 18 references) out of 283 articles that mentioned at least one theory (Conley & Yun, 2017).

Although EVT was originally devised as a theory explaining personal space, it quickly evolved to include other behaviors such as eye contact, touch, and larger

collections of communication behaviors like involvement and immediacy behaviors (Burgoon, 2016). EVT research has examined individual communication behaviors to determine when and how they will elicit an expectancy violation. The perception of some behaviors depends on the situation or conditions in which they are experienced while others have more consistent interpretations (Burgoon, 2016).

Further findings have indicated that expectancies guide behavior and have lasting effects on interactions. In an interaction, the relationship between the individuals shapes their perception of the expectancy (Burgoon, 2016). If the receiver holds the violator in high regard, they will not perceive the violation as negatively. Further, the value of interacting with the violator is used to evaluate a behavior when said behavior is ambiguous or has multiple meanings (Burgoon, 2016). This may relate to instructor credibility, rapport, and climate in that the more favorably students perceive their instructor, the less likely they will be to perceive expectation violations of instructor credibility negatively. It may apply to online instruction in that the reduction of communication cues online may place greater importance on establishing favorable impressions of the instructor early in the relationship.

In the instructional communication context, much of the research incorporating EVT has examined how instructor behaviors influence student attitudes and behaviors. Studies have investigated how instructor immediacy behaviors (Mottet et al., 2006), affinity-seeking and clarity (Houser, 2006), humor (Frymier & Weser, 2001), student self-disclosure expectations (Frisby & Sidelinger, 2013), and even instructors' use of technology (Schrodt & Witt, 2006) interact with the concepts of EVT.

One study found that "student affect toward their instructors is preserved by instructor nonverbal immediacy behaviors even when the instructor violates student expectations for course workload demands" (Mottet et al., 2006, p. 160). This might be further explained using EVT concepts by comparing the student affect generated by the instructor's immediacy behaviors to how the violator's reward power moderates the target's response to the violation. In this case, the more positively the students perceived the instructor, the less likely they were to react negatively to demanding course loads. These authors expanded their study to relate immediacy behaviors to credibility by finding that positive assessments of immediacy behaviors preserved perceptions of instructor credibility when students' course-workload expectations were violated (Mottet et al., 2007). This might be applicable to online learning in cases where students could become frustrated from dealing with online learning technology they are unfamiliar with. Positive perceptions of instructor credibility may moderate negative evaluations of online learning expectancy violations.

Further exploration of credibility using EVT has identified credibility as a mediator of students' unmet expectations for instructor communication and student satisfaction with the instructor (Sidelinger & Bolen, 2016). Thus, the more credible an instructor is perceived, the less negatively the communication violation was evaluated, and student satisfaction with the instructor was maintained. EVT has also been used to demonstrate how students' expectations for instructors' nonverbal immediacy and technology use can influence students' perceptions of instructor credibility (Schrodt & Witt, 2006).

A previous study by Schrodt and Turman (2005) found a curvilinear relationship between instructors' use of technology to facilitate learning and students' perceptions of their credibility. Students enter the classroom with expectations for the instructors' degree of technology use; if that expectation is unmet or exceeded it can lead to negative perceptions of the instructors' credibility (Schrodt & Turman, 2005). Schrodt and Witt (2006) followed up this study by examining how instructors' nonverbal immediacy behaviors can moderate this interaction. They found that student expectations of nonverbal immediacy had a greater influence over perceptions of credibility than student expectations of technology use. The instructors who were perceived to be the most credible were those considered to be high immediate and minimal to moderate users of technology (Schrodt & Witt, 2006). This research was conducted on instructor use of technology in FTF classes and it raises questions about student expectations in online courses when technology is the medium through which all instruction occurs. It does support the strong relationship between immediacy and credibility, suggesting a significant need for incorporating immediacy behaviors in online instruction to bolster credibility.

With regards to clarity, a study by Houser (2006) found that instructors are violating student expectations of the construct in their classroom communication. Traditional students in particular have high expectations for instructor clarity, expecting instructors to provide clearer explanations, thorough feedback, and extra help preparing for assignments and exams. In her study, Houser found clarity expectations and clarity experiences accounted for 24% and 19% respectively of the variance in the cognitive learning of nontraditional college students. This study also found that the difference

between expectations and experiences with instructor clarity predicted 22% of the variance in state motivation and 16% of the variance in cognitive learning in traditional students. Houser advocates for using EVT to further explore student expectations for instructor communication, comparing this to how they are being perceived by students in an effort to identify violations. The present study endeavors to do just that.

The literature review for this dissertation was unable to locate studies that specifically applied EVT to instructor rapport or classroom climate, however much of EVT research has been on closely related constructs such as immediacy behaviors (Mottet et al., 2006), affinity-seeking (Houser, 2006), and humor (Frymier & Weser, 2001). It can be argued that these all can be conceptually compared to rapport and climate indicating EVT is an appropriate framework to apply to these constructs. The present study aims to advance theory by contributing to the apparently limited application of EVT to rapport and climate.

EVT Online. As much of our communication is now conducted electronically, it is a natural extension to attempt to apply our communication theories to how we interact online. Although there has not been a tremendous number of studies applying EVT to online student-instructor interactions, there has been enough to indicate the usefulness of EVT in this context. One early study of online teaching found that students had low expectations for instructor nonverbal immediacy and that repeat online students only have slightly higher expectations (Witt & Wheeless, 1999). A more recent study on "chronemic expectancy violations" in email found people have expectancies for how long it should take a person to respond to an email (job candidates in the case of this study) and that their credibility and attractiveness are negatively impacted when the expectancy

violation is negatively evaluated (Kalman & Rafaeli, 2011). From these findings, it might be inferred that students have expectations for instructors' communication online. The timeframe and frequency in which instructors communicate may be important to meeting students' immediacy expectations and thus their perceptions of instructor credibility.

A study that applied EVT to examine the instructor online misbehaviors of indolence, incompetence, and offensiveness found that students will continue to communicate with their instructors after an indolent digital expectancy violation in order to maintain their relationship with the instructor (MacArthur & Villagran, 2015). This may be relevant to the current study as these instructor misbehaviors may be seen as the inverse of credibility, rapport, and climate behaviors. This study classified expectancy violations by the degree of infraction. The lesser transgression was deemed an incompetent violation whereas the more severe was an offensive violation. When instructors perform an incompetent digital expectancy violation, students are still motivated to communicate for educational purposes and when instructors perform an offensive digital expectancy violation, students are only motivated to continue to communicate with them if they had preexisting favorable relationship experience with them (MacArthur & Villagran, 2015). While the results from this study are useful, it only explored email messages from an instructor and asked the participants to think of the teacher they last had class with when reading the messages. Results may be much different if the instructor was not known to the student in person prior to the interaction.

There was one study found that most closely aligned with the efforts of this dissertation which utilized EVT for examining student experiences with instructors in online classes (Bourdeaux & Schoenack, 2016). The researchers conducted a thematic

analysis of student interviews and concluded that students expected clarity, respect, and intentional course design in their online classes. It can be argued that instructor credibility and rapport may be closely related to the respect construct identified in the Bourdeaux and Schoenack study. Clarity ties in with both credibility and climate, and rapport contributes to climate, thus, it is likely that these instructor behaviors chosen for this dissertation play a significant role in the delivery of online courses. Further investigation is needed to determine if student expectations for them are being met.

2.7 Summary and Hypotheses

This study used the framework defined by EVT to investigate students' perceptions of their instructors' credibility, clarity, rapport, and climate in online course formats. Through applying the EVT framework, the researcher was able to evaluate whether students' expectations for their instructors' behavior for these constructs were met/unmet/exceeded during their classes. As recommended by Kaufmann and Vallade (2020), to extend our understanding of how these variables change within an online course, instructional communication scholars should collect data at multiple points in time. To accomplish this, this study collected data from the same set of students at the beginning of the semester and then again toward the end. This study aims to identify students' expectations for these constructs at the start of the semester, how they perceive this behavior at the end of the semester, how/if their expectations are met, and how the students themselves perceive their expectations to have been met. Thus, this study endeavors to answer the following questions:

RQ1a: What are student expectations for instructor credibility at the start of the semester?

RQ1b: What are student expectations for instructor clarity at the start of the semester?

RQ1c: What are student expectations for instructor rapport at the start of the semester?

RQ1d: What are student expectations for instructor climate at the start of the semester?

RQ2a: Were student expectations for instructor credibility met/unmet/exceeded?

RQ2b: Were student expectations for instructor clarity met/unmet/exceeded?

RQ2c: Were student expectations for instructor rapport met/unmet/exceeded?

RQ2d: Were student expectations for instructor climate met/unmet/exceeded?

Since meeting learning outcomes is the goal of any class, cognitive and affective learning will be assessed to determine correlations between meeting student expectations with regards to instructor credibility, clarity, rapport, and climate and student learning. Thus, this study presents the following hypothesis:

H1a: Unmet student expectations with regard to credibility will result in decreased cognitive/affective learning.

H1b: Unmet student expectations with regard to clarity will result in decreased cognitive/affective learning.

H1c: Unmet student expectations with regard to rapport will result in decreased cognitive/affective learning.

H1d: Unmet student expectations with regard to climate will result in decreased cognitive/affective learning.

The results from the questionnaire used for this study have been analyzed to determine which component(s) of credibility, clarity, rapport, and climate did not meet the online students' expectations. This has been determined from analysis of the construct measures as well as the open-ended questions. The open-ended questions for each construct asked students what behaviors they expected their instructor to perform at the start of the semester. On the second questionnaire at the end of the semester, the open-ended questions for each construct asked students what behaviors they would have liked to have seen and which they found the most helpful. From this information, this study endeavors to suggest answers to the questions:

RQ3a: How might instructors better meet students' expectations for credibility in online courses?

RQ3b: How might instructors better meet students' expectations for clarity in online courses?

RQ3c: How might instructors better meet students' expectations for rapport in online courses?

RQ3d: How might instructors better meet students' expectations for climate in online courses?

The responses to the open-ended questions have also been analyzed and the themes therein compared to the content of the associated measures to answer the following questions:

RQ4a: Are student reports for credibility consistent with current measures?

RQ4b: Are student reports for clarity consistent with current measures?

RQ4c: Are student reports for rapport consistent with current measures?

RQ4d: Are student reports for climate consistent with current measures?

This chapter reviewed the literature on EVT, credibility, clarity, rapport, and climate. The next chapter will describe the methodology used to explore the research questions and hypothesis outlined here.

CHAPTER 3: METHODOLOGY

The purposes of this dissertation are to better understand student expectations for instructor behaviors related to credibility, clarity, rapport, and climate and what effect not meeting these expectations has on perceptions of cognitive and affective learning. To accomplish these goals, this study employed a mixed data collection approach. By using a combination of validated quantitative measures and open-ended qualitative questions this study has been able to glean a more comprehensive understanding of student expectations and experiences in online learning than if a singular method was employed. Asking the students explain their expectations and experiences in their own words is particularly important to a better understanding of evolving areas of instructional communication research, such as instructional technology (Meluch, 2017), particularly as in this case where some of the existing quantitative measures were not developed specifically for online learning. The open-ended questions can also collect participants' spontaneous responses and avoid any influence or bias that may occur from providing participants with their possible responses (Reja et al., 2003). In this way, it is intended that the findings from this study can add value and depth to the results and conclusions derived from the data collected.

The findings from the thematic analysis of the open-ended responses were used to determine if student expectations for their instructors' behaviors are reflected in their responses collected via the established measures for credibility, clarity, rapport, and climate. Much can be learned from this data by comparing the students' open-ended answers to the criteria included in the construct measures. The themes identified from the

thematic analysis can be contrasted with those that comprise the established measures to determine if there are any discrepancies.

As the measures were all created a significant amount of time ago, the characteristics and perspectives of the students that these scales were based upon may have changed. Since the development of these measures, the current student population has transitioned to the most recent generation Z, who may have different perspectives on online learning. It is possible that this new generation of students may have different expectations for these instructor behaviors in the online classroom. By collecting their expectations in the open-ended questions, this study can glean these in the students' own words and determine if the current scales are still relevant in the online class context. As advocated for by Kaufmann and Tatum (2017), replication in social science research is important in the process of verifying findings and identifying the conditions in which the phenomena can be observed. Thus, reexamining these constructs in the online setting with a new generation of students is a valuable endeavor to confirm or update current measures.

Data for this dissertation was collected during a pandemic year, however participants were asked to focus on their online learning experiences in general. No reference to, or mention of, anything related to the pandemic was included in the instructions for either questionnaire.

3.1 Participants

Participants were recruited from research participant pools and from lower-division communication courses of a large southeastern US university and received either a research credit or a small amount of course credit for completion of each survey.

Participants were required to be at least 18 years old and currently enrolled in a 100% online course, but no specific demographics were targeted or excluded. The questionnaires were confidential, email addresses were collected to qualify participants to take the second questionnaire and let them know when the second questionnaire became available but were not retained once data collection was complete.

Undergraduate students were the ideal targeted population as this study endeavors to glean their class experiences. A total of 288 complete survey responses to both the pre-questionnaire and the post-questionnaire were obtained. Of these, 177 were female, 105 male, and 6 preferred not to answer. Ages ranged from 18 to 51 years with an average age of 20. Participants reported their academic standing as freshman (n = 107), sophomore (n = 65), junior (n = 73), senior (n = 40) and 3 students did not identify their current academic status. Participants identified as Caucasian (n = 236), African American (n = 24), Asian (n = 7), Hispanic/Latino (n = 5), American Indian/Alaska Native (n=3), other (n = 9), and 4 students did not report their ethnicity.

3.2 Procedures

Following approval from the Institutional Review Board, data for this study was collected via two online questionnaires using Qualtrics, the first during the second week of the semester and the second eight weeks later. As Muir et al. (2019) point out, much research of online learning collects student experiences via surveys administered at one point in time, often at the end of the course. Since the purpose of this study is to determine student expectations and whether those expectations have been met, it is necessary to first collect the students' expectations are at the beginning of the course and then determine what their actual experience with the course was at its conclusion.

Drawing on the recommendation from Muir et al. and the need to contrast the student's expectations at the start of the semester with their experiences at the end, this study used a two-part pre- and post-questionnaire.

The second questionnaire was administered during weeks 10-13 of the same spring semester. The objective of the first questionnaire is to collect student's expectations before they have had significant exposure to their instructor. The timing of the second questionnaire is such that students have had enough time to have established perceptions of their instructor but that it is far enough from the end of the term that final grades do not influence their assessments.

3.3 First Phase

After authenticating consent and verifying age, the first questionnaire began by asking students whether they are currently enrolled in a 100% online course. Those who answered "no" were dismissed from the study. For those students who answered in the affirmative, the questionnaire asked them to enter the course code (i.e., COM 101) for the 100% online course they wanted to think about while completing this study. This information was then linked in the directions throughout the questionnaire to remind the participants to think of the instructor of this course while responding to the questionnaire. The questionnaire was designed to take 15 minutes to complete.

For each construct, a description of the construct was given and then the students were asked to answer, in their own words, how they expect their instructor to exhibit the behavior. Descriptions of the construct provided guidance. Asking the open-ended questions before the construct measure assured that the students' responses were not primed by the measure. Each measure was utilized on a 7-point scale to be more sensitive

and consistent with regard to variance across all variables. The open-ended questions collected student perspectives not captured by the construct measures as well as students' expectations for the instructor's behavior in their own words.

Credibility Expectations. The questionnaire began by giving participants a description of instructor credibility and then asked them to answer two open-ended questions about their expectations: "What characteristics of your instructor would make you feel that he/she is credible?" and "What should your instructor do to make him/her seem more credible to you?" They then were asked to complete the McCroskey and Teven (1999) credibility measure (see appendix A) consisting of an 18-item, bipolar scale used to assess student perceptions of their instructor's competence (e.g., "unintelligent/intelligent"), goodwill (e.g., "doesn't care about me/cares about me"), and trustworthiness (e.g., "dishonest/honest") using 7-point scales. To direct the students to answer the credibility measure with their expectations in mind, the directions prompted participants to answer each item in response to, "I *expect* my instructor to be…" Previous reliabilities using this scale have ranged from .71 to .85 (Semlak & Pearson, 2008). The current study obtained similar reliabilities for these dimensions for competence (a = .89, M = 6.29, SD = 1.19), goodwill (a = .84, M = 6.10, SD = 1.23), and trustworthiness (a = .90, M = 6.19, SD = 1.21), as well as for overall instructor credibility (a = .95, M = 6.19, SD = 1.21).

Clarity Expectations. After the credibility measure, participants were given a description of instructor clarity and asked two open-ended questions: What should your instructor do to help clarify the course content for you?" and "What should your instructor do to help you better understand the course content?" They then completed

Chesebro & McCroskey's (1998) teacher clarity short inventory (TCSI; see Appendix B), a 10-item measure demonstrated to have appropriate construct validity and highly related to teacher clarity (a = .92; Bolkan et al., 2016). Participants responded strongly disagree (1) to strongly agree (7) for each item. For the first questionnaire, the TCSI items have been adapted to ask what the students' expectations are for each item (i.e., "My instructor's objectives for the course *should be* clear."). Reliability of this measure for this study was a = .85 with M = 6.54 and SD = 1.01.

Rapport Expectations. After the clarity measure, participants were asked the open-ended question: "What should your instructor do to ensure you have a good relationship with him/her?" Following this question, the questionnaire employed the Gremler and Gwinner (2000) rapport scale as successfully adapted by Frisby and Myers (2008) and then used again by Frisby and Martin (2010) with a .94 internal reliability. Internal reliability for this study was a = .91 (M = 5.25, SD = 1.31). The measure consists of an 11-item scale that measures enjoyable interaction and personal connection (see Appendix C). The statements for this measure were adapted for the first questionnaire to collect participants' expectations (i.e., "I *should be* comfortable interacting with my instructor"). Participants rated each statement on a 7-point Likert scale from strongly disagree (1) to strongly agree (7).

Climate Expectations. For the climate expectation part of the questionnaire, participants were first asked the open-ended question, "What should your instructor do to ensure you have a positive class climate (i.e., environment, atmosphere)?" to gather their expectations in their own words. Next, the questionnaire used the online learning climate scale (OLCS; Kaufmann et al., 2016) to collect the students' perceptions of their online

classroom climate (see appendix D). Classroom climate is comprised of students' perceptions of their relationships with their instructor as well as their perceptions of the course structure or organization (Moos, 1979). The OLCS has been specifically designed to assess the climate of the online classroom as interactions virtually are significantly different than in face-to-face classrooms. The 15-item measure assesses student perceptions of instructor behaviors, course structure, student connectedness, and course clarity and has been demonstrated to be highly reliable with an alpha of .81 to .90. The items on the measure have been adapted to address student expectations (i.e., "My instructor *should be*: understanding/supportive/respectful toward me…" Participants rated each statement on a 7-point Likert scale from strongly disagree (1) to strongly agree (7). The current study obtained similar reliabilities for instructor behavior (a = .93, M = 6.60, SD = .71), course structure (a = .90, M = 5.82, SD = 1.22), course clarity (a = .92, M = 6.66, SD = .76), student connectedness (a = .85, M = 6.61, SD = .73), and overall online learning climate (a = .92, M = 6.46, and SD = .83).

The second half of the questionnaire asked participants general questions about the course and themselves such as how much they like learning online, how comfortable they are with it, how motivated they are, and how successful they feel they will be, as well as what grade they anticipate receiving for the class. These questions established the students' familiarity and comfort level with online classes as well as their motivation and self-efficacy. The questionnaire also asked the gender of their instructor, if they have ever taken a class with this instructor before, if the class is synchronous or asynchronous, and if they will see their instructor either live via Zoom or in pre-recorded videos at any point in the semester. A control question to check for participant engagement was also included

in this section (e.g., “This question is to ensure you are paying attention. Please select ‘somewhat disagree.’”). Responses with incorrect answers to this question were discarded. The questionnaire concluded with basic demographic questions.

3.4 Second Phase

The second questionnaire began by reminding the participants about the online class they used to fill out the first questionnaire. This course code information was stored with the random identification number Qualtrics assigned to each participant from the first survey so that the program could recognize the participants and insert their course code into the instructions for the second questionnaire. They were again instructed throughout the questionnaire to think about that class while responding to the questions. In this way, it could be ensured they were answering both questionnaires with the same course in mind. This information was removed from the data before analysis to ensure confidentiality.

After establishing consent and asking the initial qualification questions of age and whether they were still taking the online class, the second questionnaire was organized similarly to the first with open-ended questions asked before each construct measure to capture student perceptions in their own words. They again completed the established scales for each construct following the open-ended questions. These questions verified the items included on the construct measures and captured any additional criteria not identified by them. The questions for the second questionnaire were all phrased to capture the students’ experiences with the class (e.g., I found my instructor to be…), rather than their expectations as was the intent of the first questionnaire. In addition, the second

questionnaire asked the students' perceptions of how they felt their expectations were met with regard to each construct.

Credibility Experiences. The two open-ended questions for instructor credibility were, "What characteristics of your instructor made you feel that he/she is credible?" and "What could your instructor have done to make him/her seem more credible to you?" They were then asked to complete the credibility measure (see appendix A) given in the first questionnaire, but instead of asking what they expected of their instructor, they answered the 7-point, bipolar scale in response to, "I *found* my instructor to be [intelligent/honest/trustworthy/etc.]." The answers to these questions were then compared to the students' answers from the first questionnaire to determine if their experience met or violated their expectations, and if violated, what the direction and valence of the violation were. Previous reliabilities using this scale have ranged from .71 to .85 (Semlak & Pearson, 2008). For this study, internal reliability for competence was a = .93 (M = 6.00, SD = 1.62), goodwill was a = .92 (M = 5.93, SD = 1.64), trustworthiness was a = .95 (M = 5.91, SD = 1.59), and overall credibility was a = .97 (M = 5.94, SD = 1.61).

To also evaluate the students' perceptions of how their expectations were met, the questionnaire then asked participants to respond to the statement, "Compared to what I expected, my instructor was…" for each of the credibility items (intelligent/honest/trustworthy/etc.), rating them on a 7-point scale from significantly more than expected (7), about what I expected (4), to significantly less than expected (1). A statement for each of the credibility constructs was given, both positive and negative, from the McCroskey and Teven (1999) scale. The negative dimensions were reverse coded. Reliability of this measure was a = .97 (M = 5.32, SD = 1.35). Answers to this

expectation measure were compared with the students' expectations from the first questionnaire and their reported experiences on the second questionnaire to determine if there is a discrepancy between what they expected and experienced and how they perceive their expectations to have been met.

Clarity Experiences. Two open-ended questions asked participants to answer, "What did your instructor do to help clarify the lessons for you?" and "What could your instructor have done to better clarify the lessons for you?" The answers were compared to the answers the students gave on the first questionnaire. Next participants were asked to complete the Chesebro & McCroskey's (1998) TCSI, this time worded as originally intended (i.e., "My instructor used clear and relevant examples"). Internal reliability for this construct was a = .85 (M = 6.02, SD = 1.45).

They then answered a set of three questions designed to collect their perceptions of how their instructor met their expectations of instructor clarity (i.e., "Compared to what I expected, the clarity of my teacher's instruction was…") rating them on a 7-point scale from significantly more than expected (7), about what I expected (4), to significantly less than expected (1). Reliability for this measure was a = .92 (M = 5.10, SD = 1.40). Answers to this expectation measure were compared with the students' expectations of clarity from the first questionnaire and their reported clarity experiences on the second questionnaire to determine if there is a discrepancy between what they expected and experienced and how they perceive their clarity expectations to have been met.

Rapport Experiences. The rapport section of the second questionnaire first asked, "What has your instructor done to ensure you have a good relationship with

him/her?" after which it asked participants to respond to the modified rapport scale (Frisby & Myers, 2008) worded as originally intended to collect participants' experiences. Previous use of this measure found a .94 internal reliability (Frisby & Martin, 2010). Internal reliability for this study was a = .95 (M = 4.80, SD = 1.64).

Participants then answered the question, "Compared to what I expected, my relationship with my instructor is…" rating them on a 7-point scale from significantly better than expected (7), about what I expected (4), to significantly worse than expected (1). This question was designed to collect student perceptions of how their instructor met their expectations of instructor-student rapport. Participants' mean response to this question was 4.44 with SD = 1.21.

Climate Experiences. For the climate experience part of the questionnaire, participants were first asked the open-ended question, "What did your instructor do to ensure you have a positive class climate (i.e., environment, atmosphere)?" to gather their experiences in their own words. Next, the questionnaire used the OLCS (Kaufmann et al., 2016) as originally worded to assess participant climate experiences. Previous reliabilities have been found to have alphas of .81 to .90. Internal reliability for this study found instructor behavior was a = .96 (M = 6.09, SD = 1.21), course structure was a = .95 (M = 5.16, SD = 1.80), course clarity was a = .94 (M = 6.02, SD =1.32), student connectedness was a = .93 (M = 5.82, SD = 1.28), and overall online learning climate was a = .96 (M = 5.83, SD = 1.37).

Next, participants answered two questions on a 7-point scale from significantly better than expected (7), about what I expected (4), to significantly worse than expected (1) designed to collect student perceptions of how their instructor met their expectations

of classroom climate. These questions were: “Compared to what I expected, my overall experience in this course was…” (M = 5.08, SD = 1.50) and “Compared to what I expected, my overall experience with this instructor was…” (M = 5.15, SD = 1.45).

Cognitive Learning. Participants were first asked the open-ended questions, “What characteristics of your instructor do you feel were most important in helping you learn?” and “Describe the element of your online class you feel was most important in helping you learn.” They then completed the cognitive learning measure (CLM; see Appendix E; Frisby & Martin, 2010; Frisby et al., 2014), a 10-item self-report of students’ acquisition, retention, and application of knowledge. Confirmatory factor analysis has demonstrated factor validity of the CLM on a three-dimensional scale (Frisby et al., 2014) and previous reliabilities have ranged from .79 to .88 (Frisby & Martin, 2010; Vallade et al., 2015). This study found similar reliability of a = .87 (M = 5.60, SD = 1.54).

The cognitive learning section of the questionnaire also included four 7-point Likert questions to assess the participants’ perceptions of how they feel their learning expectations were met. The first question was, “Compared to what I expected, the content of this class…” with answers from “fell far short of expectations” (1), and “met expectations” (4), to “far exceeded expectations” (7). This question had a mean of 4.76, SD = 1.36. The next three questions were: “Compared to what I expected, I learned,” “Compared to what I expected, my knowledge of this subject increased,” and “Compared to what I expected, my understanding of this subject increased” Each was answered from “much less” (1) to “much more” (7). The means for these were 5.03 (SD = 1.28), 5.36 (SD = 1.23), and 5.29 (SD = 1.25) respectively.

Affective Learning. Affective learning was evaluated by the affective learning measure (McCroskey, 1994; see appendix F). This measure consists of two sets of four bipolar scales that assess student attitudes toward the course content as well as taking future courses in the content area. Although some researchers have questioned whether this scale measures affective learning versus affect toward learning (Lane et al., 2018), a reevaluation of the content and construct validity by Mottet and Richmond (1998) found it to be a satisfactory measure for affective learning. Reliabilities for this measure have ranged from .85 to well above .90 with good predictive validity (McCroskey, 1994). Reliability for this study was a = .95 (M = 4.38, SD = .95).

The second half of the questionnaire asked the same questions as the first questionnaire, this time aimed at collecting their experiences (i.e., "How successful do you feel you were in this course?") and concluded with general questions about the course and the students such as whether the course was required, what grade they expect to receive in the class, their academic status (i.e., freshman/sophomore/junior/senior), age, race, and gender.

3.5 Qualitative Data Analysis

A total of 1,728 open-ended responses were analyzed from the first questionnaire and another 1,728 responses from the second questionnaire for a total of 165 single-spaced pages containing 54,267 words. The author reviewed the responses, identifying repeated keywords and phrases to develop a codebook of themes. The author discussed the codebook with a second coder and together they coded 15% of the data while discussing the responses to ensure agreement (Pidgeon & Henwood, 2004). They then

independently coded the rest of the data set using the established codebook. Intercoder reliability was calculated, finding Cohen's Kappa to be high at .91.

An inductive thematic analysis was performed on the open-ended question responses to establish emergent themes present before comparing the themes identified to those in the existing measures. In the inductive approach, the researcher attempts to discard any preconceptions and codes the data without attempting to fit it into any pre-existing framework (Braun & Clarke, 2008). This approach was utilized in an attempt to avoid classifying responses into themes already identified by the existing measures however, as Braun and Clarke (2008) note, "researchers cannot free themselves of their theoretical and epistemological commitments, and data are not coded in an epistemological vacuum" (p. 12). Additionally, themes were identified at a semantic level; the analysts identified the explicit meanings of the responses and did not look for meaning beyond what the participant said. This approach is appropriate for this data as participants were responding to explicit questions about behaviors of their instructors resulting in specific and concise answers. Once the data was organized to identify patterns in semantic content and summarized, the researcher interpreted the patterns to determine what criteria participants reported as most relevant or important to each construct.

Quantitative and qualitative data that assessed student expectations and experiences of their instructors' credibility, clarity, rapport, and climate behaviors were collected in a two-part, longitudinal questionnaire. Established quantitative measures combined with open-ended questions gathered a comprehensive picture of what students expected of each construct at the start of the semester and what they experienced at the

end of the semester. The analysis compared these findings to determine if expectations were being met and if there was any difference in reports of cognitive or affective learning between those students whose expectations were met, unmet, or exceeded. The next chapter will report each of these findings.

CHAPTER 4: RESULTS

Consistent with the data analysis plan, results were analyzed and reported in response to the outlined research questions and hypothesis. The findings from the thematic analysis of the first questionnaire were used to answer RQ1a-d and the thematic analysis of both questionnaires was used to answer RQ4a-d. Data from analysis of the quantitative measures from both questionnaires were used to answer RQ21-d and H1a-d. Data from the quantitative measures were compared to the results of the thematic analysis of the open-ended responses from both questionnaires to answer RQ3a-d.

4.1 Expectations

Research questions 1a-d inquired about student expectations for each construct at the start of the semester. The themes that emerged from the analysis conducted to answer RQ1a-d can be found in tables 1 through 6 with the descriptions and frequencies of each theme. Bolded words indicate terms that appeared most frequently in those themes.

Credibility. For RQ1a, instructor credibility, the most frequently occurring themes were the quality of the instructor's credentials and his or her conduct. In response to the open-ended question, "What characteristics of your instructor make you feel that he/she is credible?" 49% pointed to their instructor's years of teaching, degrees earned, and research in the discipline as key indicators of their instructor's credibility. For instance, as one participant stated, "They talk about their background (i.e. education, previous jobs, etc.)." This theme was further supported in the responses to the second question, "What should your instructor do to make him/her seem more credible to you?" Of the 137 participants who responded to this question, 39 (28.5%) want their instructor to discuss his/her expertise, what education, experience, and/or skills they have that make

them qualified to be teaching the class. The second most frequent response to this question (n = 28) called for quality, up-to-date information used in lessons with detailed and well-organized content. As one participant stated, “Organize the class well and explain things thoroughly.”

Participants also frequently identified their instructor’s conduct as suggestive of their credibility. The overall theme from the participant responses is that the perception of credibility is strongly formed from the instructor’s command of the information and how expertly they deliver it. Of the 288 respondents to the first question, 124 (41.9%) mentioned the instructor’s conduct, indicating that their perception of his or her credibility depends in part on how well-spoken and confident they are. Examples of this response theme are, “Confidence is key because when you are confident in your lectures and in general you sound like you know what you're talking about” and “The confidence that the instructor uses when they speak, the speed at which they answer questions, and the constant reference to the textbook are all ways my instructor shows credibility.” Data from the McCroskey and Teven (1999) credibility scale indicate high desirability of goodwill, competence, and trustworthiness with means of 5.8, 6.4, and 6.4 respectively.

Table 1

Credibility Open-Ended Responses Regarding Characteristics

Theme	Description	Frequency (*n*)
Credentials	**Education,** demonstrating apparent **knowledge** (beyond what is in textbook), status with the university, teaching **experience**, ability to answer questions fully and clearly, background **experience**, command of the material, **depth and breadth of apparent knowledge**.	145

Table 1
(continued)

Relational	Helpful, considerate, caring, understanding, approachable, charismatic, open, honest, personal attention, kind, personal, sympathetic, patient, sincere, empathetic, fun	81
Organization	Clear/good structure, gives regular updates/instructions/reminders, well-prepared, easy to navigate course material/info/Canvas shell	33
Conduct	**Well-spoken**, sound intelligent, frequent comm, **engaging**, **confident**, outgoing, enthusiastic, competent, quick to respond, energetic, professional, genuine, entertaining, passionate, authoritative, smooth delivery of info, reliable, **articulate**	124
Clarity	Communicates clearly, clear lectures, clear directions, clear examples, appropriate speed of delivery of content, clear expectations	34
Quality Materials/Info	Quality of sources, examples, Credible theories and evidence, quality materials, clean/clear/well organized PowerPoints, **broad/complete/deep info provided**, drawing connections to real-life/using real-life examples, relevant facts/examples/descriptions, material given is backed up by textbook/credible sources	53
Other	Could not otherwise be coded	2

N = 288

Table 2

Credibility Open-Ended Responses Regarding Behaviors

Theme	Description	Frequency (*n*)
Credentials	Discuss expertise/**experience**/knowledge/**education** (in depth/detail)	39
Supporting Evidence	Give adequate/numerous **examples**, personal/real-life examples, cite quality sources	23
Relational	Be understanding/accommodating of online learning challenges, check-in, be helpful	23
Conduct	Be consistent, professional, confident, authoritative, on time, engaging	25
Quality Materials/Info	Be accurate/detailed/thorough with lessons/discussion, use **quality and up-to-date info** in lessons, be organized, be consistent	28
Communication	(Fully) respond to questions/email, be clear: with directions, requirements, expectations	23
Other	Could not otherwise be coded	159

N = 137

Clarity. For RQ1b, instructor clarity, the most frequently occurring comments (*n* = 78; 26.4%) in response to the question, "What should your instructor do to help clarify course content for you?" were related to the navigability of the course, its syllabus, lesson materials, and Canvas shell. In addition, 61 (20.6%) students reported desiring high quantities of information relating to the content of the course (e.g., thorough and detailed descriptions with numerous, relatable examples). Many comments to this effect were along the lines of these two participants' responses: "Examples! They always help me truly understand a concept" and "The instructor should give examples when possible to connect concepts to real-life and she could give a summary at the end to bring it all together."

Beyond the quantity and quality of the information provided in the course, 64 (21.6%) participants indicated a desire for high levels of communication between themselves and the instructor as well as with each other. One participant's response reflecting this common response was, "Making themselves available as far as offering quick responses to emails and even being available for a one-on-one zoom call is need be to help clarify any content I may be struggling with" indicating the need to have adequate access to the instructor for dialog. Another participant responded with, "Send out an announcement each week about that week's expectations for material, assignments, etc." which was another frequently stated desire for help with staying on top of class responsibilities.

Data from the Chesebro & McCroskey's (1998) teacher clarity short inventory (TCSI) indicate high desirability of clarity with item means ranging from 5.89 to 6.78. The composite mean for the TCSI responses was 6.54.

Table 3

Clarity Open-Ended Responses Regarding Content

Theme	Description	Frequency (*n*)
Live Help	Host Zoom sessions, office hours	20
More/Repetitive Communication	Check-ins, announcements, emails, discussion boards, class discussion, chats, reminders, **answer questions**	64
Descriptions and Examples	**Relatable**, clear, numerous, **real-life**, detailed, thorough	61
More/Varied Content	Lecture Notes, review sessions, multiple format explanations (visual/audio/text), post slides (before class), video demos, visuals, extra resources	53
Pace/Timing	Appropriate pace, not too much info at one time or too fast delivery, Extra time for those who need more explanation/need to ask questions, explain (repeatedly/at length) topics/points/material until understood	31
Good Course Organization /Plan	Easy to read/complete syllabus, **easy Canvas navigation**, easy to follow schedule, instructor follows the syllabus/schedule, easy to find needed info, provide study guides	78
Other	Could not otherwise be coded	46

Table 4

Clarity Open-Ended Responses Regarding Understanding

Theme	Description	Frequency (*n*)
Quality/Complete Info	Be thorough/detailed in **explanations** and lessons, present info clearly/concisely, give good/numerous (real-life) **examples**, use visuals, provide clear schedule, homework/assignments clearly relate to content, provide detailed info/instructions on Canvas	80
Vary Content Delivery	Provide videos, host Zoom sessions, use PowerPoint, breakout rooms, activities, games	35
Pace/Schedule	Talk slowly, clearly, take time to fully explain, moderate content **delivery pace**, weekly to do lists/**reminders**, repeat key/complex concepts	27
Supporting Resources	Hold study/review sessions, office hours, provide lecture notes, study guides, tutoring, practice quizzes, post PowerPoints online, provide supporting resources	56
Thorough Communication	Ask for feedback/questions, answer questions, provide an FAQ, provide learning objectives and expectations	45
Other	Could not otherwise be coded	82

Rapport. For RQ1c, instructor rapport, the most frequently occurring comments were related to the instructor's communication (n = 131), the behaviors they performed to convey emotional support (n = 88), and efforts to provide personal attention to individual students (n = 108). The 44.3% of respondents that mentioned the instructor's communication referenced the desire for their instructor to be accessible, personable, and approachable. They want an instructor who establishes an open line of communication via frequent emails or other opportunities for feedback such as being on Zoom before or after class and encouraging questions. Instructors' emotionally supportive behaviors mentioned by 29.7% of participants ranged from being empathetic, kind, and supportive to engaging, positive, and enthusiastic. Comments such as this participant's embody both of these sentiments:

> I think to ensure that I have a good relationship with them, instructors should have a lot of communication with the students, especially during this time of online courses when we are unable to meet our professors in person it is important that we still know they are there to help us. I also think that the way the instructor acts during lecture is very important, in order to have a good relationship with my professor it's important for me to know that they are kind and welcoming so I know that I can go to them with any questions I may have.

The request for individual attention, mentioned by 36.5% of respondents, included requests for one-on-one or small group interactions as well as the desire for relational behaviors such as calling students by name, asking about their well-being, and getting to know them personally. This theme was expressed well by the participant who

stated, “I think the instructor could do check ins with students and see if they are doing well and understand the course material.” Comments such as this demonstrate the students’ need to feel a personal connection to their instructor and that their instructor cares about them.

Data from the modified rapport measure (Frisby & Martin, 2008) indicate high desirability of rapport with item means ranging from 4.22 – 6.39 and a composite variable mean of 5.24. The lowest rated items from the measure were “My instructor should take a personal interest in me” (M = 4.28) and “I should have a close relationship with my instructor” (M = 4.22). As responses of 4 on a 7-point scale can indicate a neutral response, this may indicate students in an online class have lower expectations for this aspect of rapport.

Table 5

Rapport Open-Ended Responses

Theme	Description	Frequency (n)
Email	Frequent, timely	33
Emotional Support	Empathize, be **understanding** of challenges, be positive, outgoing, caring, engaging, kind, supportive, patient, friendly, helpful, encouraging, enthusiastic, respectful, compassionate	88
Availability/Open Communication	Encourage questions, be accessible, **approachable**, personable, relatable, open, self-disclose, solicit feedback from students, be on Zoom before and after class for questions	98
Personal Attention	Knowing/using names, asking questions about how they are doing, **reach out**, get to know students, one-on-one meetings, **check-ins**, small breakout groups, face-to-face time	108
Feedback to Student	Be honest, be fair, be clear, help with difficulties grasping lessons/material	40
Office Hours	Facilitate, invite/encourage attendance	27
Other	Could not otherwise be coded	17

Climate. RQ1d asked about student expectations for instructor climate at the start of the semester. From the analysis of the open-ended responses, three major themes stood out. The first theme mentioned most frequently by participants was the desire to have a positive, encouraging instructor (33.8%). Comments to this effect were, "[The instructor should have a] great attitude and interaction with students, especially on zoom. Be helpful and responsive" and "Remain positive and open for discussion! They should be confident and enthusiastic about material."

The second most mentioned desire was for an accepting, positive environment for asking questions and sharing (32.1%). This common theme is represented by this participant's response that stated: "Have a class that is open to discussion about course material and makes students feel welcome to share their thoughts and opinions without judgement."

Third, 31.4% of participants mentioned a need for numerous opportunities for interaction and a desire for their instructor to encourage engagement with the class. Examples of comments to this effect were, "Encourage communication in class among all students and promote networking with other students in the class," and "Allow for students to speak up during class when we have questions and even give us designated time throughout to ask questions. We should also have time to do a class discussion on things as we learn them."

Data from the online learning climate scale (Kaufmann et al., 2016) indicate high desirability of classroom climate for instructor behaviors ($M = 6.6$), course structure ($M = 5.8$), course clarity ($M = 6.6$), and student connectedness ($M = 6.6$).

Table 6

Climate Open-Ended Responses

Theme	Description	Frequency (*n*)
Engagement	**Encourage conversation**, encourage discussion board conversations, encourage Zoom chats, get everyone involved/interested	93
Positive Class	Make content relatable, fun, entertaining, upbeat, light, humorous, interesting	49
Positive Instructor	Be friendly, helpful, responsive, **open**, inviting, personal, empathetic, understanding, enthusiastic, positive, energetic, kind, encouraging, respectful	100
Rules/Guidelines for Conduct	Make safe space for sharing, prevent discrimination, answer questions neutrally, make **students feel comfortable** talking/sharing, judgment-free zone, accepting/open-minded/**positive environment**, everyone is respectful of each other	95
Clarity	Speak clearly, give clear instructions, **answer questions**, give examples, clear expectations, make sure everyone understands	31
Other	Could not otherwise be coded	16

4.2 Expectancy Violations

Scores from the first questionnaire have been regarded as students' initial expectations. Scores from the second questionnaire, administered eight weeks later, have been employed as the students' experiences with the difference between the two scores being the students' expectancy violations. The difference in the scores from questionnaires 1 and 2 was compared to the students' responses to how they felt their expectations were met. The second questionnaire reminded students of the course they had entered on the first questionnaire to ensure they were thinking about the same course and instructor for both questionnaires.

RQ2a-d inquired whether student expectations for each construct were met, unmet, or exceeded over the course of the semester. To calculate this, scores for each

measure on the first questionnaire were subtracted from the scores on the second questionnaire to find the difference between what the student expected at the beginning of the semester and what they reported experiencing at the end. If the difference was negative, the expectation was considered unmet. If the difference was positive, the expectation was considered exceeded. A difference of 0 indicated the same score for both the pre- and post-questionnaire and the expectation was considered met.

Additionally, descriptive statistics for each measure composite was used to compare the means of each measure on the first questionnaire to the means on the second. For every variable, the means for the experiences (second questionnaire) were lower than the means for the expectations (first questionnaire) indicating that overall student expectations were not met.

Table 7

Measure Composite Descriptive Statistics

		M	*N*	*SD*	*Std. Error M*
Pair 1	Credibility Goodwill Expectation	5.79	288	1.04	.06
	Credibility Goodwill Experience	5.65	288	1.43	.08
Pair 2	Credibility Competence Expectation	6.39	288	0.96	.06
	Credibility Competence Experience	6.12	288	1.44	.09
Pair 3	Credibility Trust Expectation	6.40	288	0.96	.06
	Credibility Trust Experience	6.07	288	1.44	.08
Pair 4	Clarity Expectation	6.54	288	0.69	.04
	Clarity Experience	6.02	288	0.98	.06
Pair 5	Rapport Expectation	5.24	288	0.98	.06
	Rapport Experience	4.80	288	1.38	.08

Table 7 (continued)

Pair 6	Climate Instructor Behavior Expectation	6.61	287	0.62	.04
	Climate Instructor Behavior Experience	6.09	287	1.12	.07
Pair 7	Climate Course Structure Expectation	5.82	287	1.12	.07
	Climate Course Structure Experience	5.16	287	1.73	.10
Pair 8	Climate Course Clarity Expectation	6.67	287	0.70	.04
	Climate Course Clarity Experience	6.02	287	1.25	.07
Pair 9	Climate Connectedness Expectation	6.61	287	.65	.04
	Climate Connectedness Experience	5.82	287	1.21	.07

Credibility. For instructor credibility, frequency analysis found that the majority of participants had their expectations met or exceeded for all three factors of credibility: competence (62.8%), goodwill (60.1%), and trustworthiness (60.1%). While it is positive that overall expectations were met or exceeded, for each credibility factor, over one-third of participants did not have their expectations met (competence n = 108; goodwill n = 115; trustworthiness n = 115 expectations not met).

In response to the credibility measure asking how their instructor compared to what they expected for each credibility item, 12 (4.2%) participants indicated their expectations were not met, 24 (8.3%) met, and 252 (87.5%) exceeded. The mean response was 5.31 (SD = 1.01).

Clarity. For instructor clarity, analysis of the composite variable or the measure found that 60.4% of expectations were not met, however, for each individual item

expectations were met or exceeded in 57.1% to 74.3% of participants. To explore the cause of this the individual measure items were examined to see which were bringing the overall composite average down. The items that had the highest percentage of unmet expectations were: “My instructor is explicit in her or his instruction” (42.9%), “My instructor’s answers to student questions are unclear” (42.7%), “Canvas guidelines for assigned class projects are unclear” (41%), The unmet mean responses for these items were the largest which seems to have made an impact of the overall perception of clarity.

In response to the measure asking how their instructors’ clarity compared to what they expected, 21 (7.3%) participants indicated their expectations were not met, 82 (28.5%) met, and 185 (64.2%) exceeded. The mean response was (M = 5.10, SD = 1.30).

Rapport. For instructor rapport, the composite variable indicated that 40.3% of responses were met or exceeded leaving 59.7% of participants experiencing unmet expectations. Analysis of each item on the modified rapport measure found that the items with the greatest unmet expectations were, “I am comfortable interacting with my instructor” (50.3% unmet), “My instructor has taken a personal interest in me” (50.7% unmet), and “I have a close relationship with my instructor” (55.9% unmet).

In response to the question, “Compared to what I expected, my relationship with my instructor is,” 27 (9.4%) participants indicated their expectations were not met, 174 (60.4%) met, and 87 (30.2%) exceeded. The mean response was 4.44 (SD = 1.21).

Climate. For instructor climate, frequency analysis of the four climate factors found that expectations for instructor behaviors and course clarity were met or exceeded 51.2% and 55.1% respectively. Expectations for course structure and student

connectedness were not met 50.3% and 52.1% respectively. From the descriptive statistics, it can be noted that the course structure composite variable was also rated the lowest by participants. This variable entails how well the course design supported student interaction and communication. Likewise, student connectedness was the composite variable with the greatest decrease in response means (6.61 on the first questionnaire down to 5.82 and the second). This variable relates to how respectful, cooperative, and comfortable students are with each other.

In response to the question, "Compared to what I expected, my overall experience in this course was" M = 5.08, SD = 1.50. In response to the question, "Compared to what I expected, my overall experience with this instructor was" M= 5.15, SD = 1.45. A composite analysis of this measure found 95 (33%) participants indicated their expectations were met, 172 (59.7%) exceeded, and 21 (7.3%) not met. The mean response for the composite of this measure was 5.11 (SD = 1.43).

4.3 Effect on Learning

A general linear model was employed to compare participant ratings of credibility, clarity, rapport, and climate to their reports of cognitive and affective learning. Additionally, descriptive statistics were run to compare means and standard deviations for each construct. The findings are as follows.

Credibility. H1a predicted that unmet student expectations with regard to credibility will result in decreased cognitive/affective learning. Support for this hypothesis was found by examining credibility as a whole and as its individual composite variables. Looking at credibility as a whole, cognitive learning was highest for those whose expectations were met ($M = 6.15$, $SD = .64$, $p < .001$, $n = 20$) than those whose

expectations were exceeded ($M = 5.86$, $SD = .93$, $p < .001$, $n = 136$) and those whose expectations were not met ($M = 5.25$, $SD = 1.10$, $p < .001$, $n = 132$).

Affective learning was also highest for those whose expectations were met ($M = 4.66$, $SD = .56$, $p < .001$, $n = 20$) than those whose expectations were exceeded ($M = 4.57$, $SD = .55$, $p < .001$, $n = 136$) and those whose expectations were not met ($M = 4.14$, $SD = .88$, $p < .001$, $n = 132$).

For the credibility competence composite variable, it was found that those who had their expectations met reported greater cognitive learning ($M = 5.95$, $SD = .82$, $p < .001$, $n = 78$) than both those who had their expectations not met ($M = 5.16$, $SD = 1.34$, $p < .001$, $n = 107$) and those whose expectations were exceeded ($M = 5.80$, $SD = .96$, $p < .001$, $n = 103$).

Reports of affective learning were slightly greater for individuals whose expectations were met ($M = 4.58$, $SD = .55$, $p < .001$, $n = 78$) than those whose expectations were exceeded ($M = 4.55$, $SD = .55$, $p < .001$, $n = 103$), but both were greater than those whose expectations were not met ($M = 4.21$, $SD = .81$, $p < .001$, $n = 107$).

For the credibility goodwill composite variable, it was found that those who had their expectations met reported greater cognitive learning ($M = 5.95$, $SD = .74$, $p < .001$, $n = 39$) than both those who had their expectations not met ($M = 5.28$, $SD = 1.13$, $p < .001$, $n = 115$) and those whose expectations were exceeded ($M = 5.78$, $SD = .98$, $p < .001$, $n = 134$).

Reports of affective learning were greater for individuals whose expectations were met ($M = 4.65$, $SD = .51$, $p < .001$, $n = 39$) than those whose expectations were exceeded ($M = 4.50$, $SD = .64$, $p < .001$, $n = 134$) and those whose expectations were not met ($M = 4.14$, $SD = .88$, $p < .001$, $n = 115$).

For the credibility trustworthiness composite variable, it was found that those who had their expectations met reported greater cognitive learning ($M = 6.12$, $SD = .59$, $p < .001$, $n = 79$) than both those who had their expectations not met ($M = 5.16$, $SD = 1.13$, $p < .001$, $n = 115$) and those whose expectations were exceeded ($M = 5.70$, $SD = 1.02$, $p < .001$, $n = 94$).

Reports of affective learning were greater for individuals whose expectations were met ($M = 4.72$, $SD = .48$, $p < .001$, $n = 79$) than those whose expectations were exceeded ($M = 4.51$, $SD = .63$, $p < .001$, $n = 94$) and those whose expectations were not met ($M = 4.04$, $SD = .85$, $p < .001$, $n = 115$).

These findings are summarized in Table 8. This data supports H1a.

Table 8

Credibility Composite Variables

		Cognitive Learning		Affective Learning	
Overall Composite	*n*	*M*	*SD*	*M*	*SD*
Met	20	6.15	0.64	4.66	0.56
Exceeded	136	5.86	0.93	4.57	0.55
Not Met	132	5.25	1.10	4.14	0.88

		Cognitive Learning		Affective Learning	
Competence	*n*	*M*	*SD*	*M*	*SD*
Met	78	5.95	0.82	4.58	0.55
Exceeded	103	5.80	0.96	4.55	0.55
Not Met	107	5.16	1.34	4.21	0.81

Table 8 (continued)

		Cognitive Learning		Affective Learning	
Goodwill	*n*	*M*	*SD*	*M*	*SD*
Met	39	5.95	0.74	4.65	0.51
Exceeded	134	5.78	0.98	4.50	0.64
Not Met	115	5.28	1.13	4.14	0.88

		Cognitive Learning		Affective Learning	
Trustworthiness	*n*	*M*	*SD*	*M*	*SD*
Met	79	6.12	0.59	4.72	0.48
Exceeded	94	5.70	1.02	4.51	0.63
Not Met	115	5.16	1.13	4.04	0.85

$p < .001$

Clarity. H1b predicted that unmet student expectations with regard to clarity will result in decreased cognitive/affective learning. Those who had their expectations met reported greater cognitive learning ($M = 6.26$, $SD = .67$, $p < .001$, $n = 49$) than both those who had their expectations not met ($M = 5.29$, $SD = 1.12$, $p < .001$, $n = 174$) and those whose expectations were exceeded ($M = 5.92$, $SD = .72$, $p < .001$, $n = 65$).

Reports of affective learning were slightly greater for individuals whose expectations were exceeded ($M = 4.65$, $SD = .49$, $p < .001$, $n = 65$) than those whose expectations were met ($M = 4.62$, $SD = .63$, $p < .001$, $n = 49$), but both were greater than those whose expectations were not met ($M = 4.21$, $SD = .81$, $p < .001$, $n = 174$), therefore, H1b was supported.

Rapport. H1c predicted that unmet student expectations with regard to rapport will result in decreased cognitive/affective learning. Those who had their expectations met with regards to rapport reported greater cognitive learning ($M = 5.85$, $SD = .96$, $p < .001$, $n = 14$) than those who did not have their expectations met ($M = 5.33$, $SD = 1.07$, $p < .001$, $n = 172$) and those who had their expectations exceeded reported greater

cognitive learning ($M = 6.02$, $SD = .87$, $p < .001$, $n = 102$) than those who had their expectations met.

Those who had their expectations met with regards to rapport also reported greater affective learning ($M = 4.58$, $SD = .75$, $p < .001$, $n = 14$) than those who did not have their expectations met ($M = 4.20$, $SD = .80$, $p < .001$, $n = 172$) and those who had their expectations exceeded ($M = 4.65$, $SD = .55$, $p < .001$, $n = 102$), therefore, H1c was supported.

Climate. H1d predicted that unmet student expectations with regard to climate will result in decreased cognitive/affective learning. The means for cognitive and affective learning for each variable can be seen in Table 8. Support was found for this hypothesis in that reports of cognitive and affective learning were greater for each composite variable by those who had their expectations met than those who had their expectation exceeded or unmet.

Table 9

Climate Composite Variables

		Cognitive Learning		Affective Learning	
Instructor Behavior	*n*	*M*	*SD*	*M*	*SD*
Met	95	6.15	0.62	4.71	0.48
Exceeded	52	5.91	0.94	4.52	0.57
Not Met	140	5.12	1.10	4.11	0.85

		Cognitive Learning		Affective Learning	
Course Structure	*n*	*M*	*SD*	*M*	*SD*
Met	66	6.00	0.87	4.74	0.54
Exceeded	76	5.87	0.87	4.51	0.57
Not Met	145	5.28	1.11	4.15	0.83

Table 9 (continued)

		Cognitive Learning		Affective Learning	
Course Clarity	*n*	*M*	*SD*	*M*	*SD*
Met	119	6.15	0.75	4.74	0.46
Exceeded	39	5.73	0.70	4.40	0.58
Not Met	129	5.06	1.10	4.05	0.85

		Cognitive Learning		Affective Learning	
Student Connectedness	*n*	*M*	*SD*	*M*	*SD*
Met	106	6.19	0.64	4.75	0.45
Exceeded	31	5.66	0.97	4.39	0.61
Not Met	150	5.17	1.10	4.12	0.83

$p < .001$

4.4 Meeting Expectations

Credibility. RQ3a asked how instructors might better meet students' expectations for credibility in online courses. The frequency analysis of the component variables shows each to have almost 40% unmet expectations (e.g., credibility was 37.2%, goodwill and trustworthiness were 39.9%). From the descriptive statistics of participant responses to the credibility scale (McCroskey & Teven, 1999) on the pre- and post-questionnaire, the means for each composite variable were slightly lower for participant experiences versus expectations. Overall, the goodwill factor was rated lower (expectation $M = 5.79$, $SD = 1.04$; experience $M = 5.65$, $SD = 1.43$) than the competence (expectation $M = 6.39$, $SD = .96$; experience $M = 6.12$, $SD = 1.44$) and trustworthiness factors (expectation $M = 6.40$, $SD = .96$; experience M = 6.07, SD = 1.44).

The items that comprise the goodwill factor are related to the instructor's care and concern for his/her students. This lower score may indicate that the students feel lower levels of instructor goodwill than competence or trustworthiness so instructors should endeavor to perform behaviors to demonstrate they care about their students. This finding

is also reflected in the responses to the open-ended questions for credibility (What characteristics of your instructor would make/have made you feel that he/she is credible?). The relational characteristics of the instructor, such as how kind, helpful, and empathetic they are, was the third most mentioned item comprising 27.4% of responses on the first questionnaire and 24% of responses on the second questionnaire.

The high rating of instructor competence also corresponds with the high number of responses to the open-ended questions that mentioned instructor credentials. The importance of the instructor's education, degree earned, or experience in the field was the most mentioned criteria, mentioned by 49% of participants on both the first and second questionnaire with comments such as, "My instructor has a doctorate in her field of study, along with years of experience teaching not only [this course] but [similar] courses at the University as well." This suggests instructors should be sure to outline their credentials to their students and highlight relevant experience.

One other theme that also arouse frequently in participant responses was the quality of the material and/or information they provided. On the first questionnaire 53 (17.9%) of participants mentioned quality materials and relevant, real-life examples backed up with credible theories, evidence, and sources. Interestingly, this number rose to 76 (25.7%) on the second questionnaire indicating this expectation has been exceeded. This viewpoint is well articulated by the participant who stated, "The instructor is credible because of how confident they speak and the facts that they have in order to back themselves up. They may have the education to be credible but [they] have amazing sources as well." This theme was continued in the responses to the second credibility question, "What should/could your instructor do/have done to make him/her seem more

credible to you?" On the first questionnaire, 23 (16.8%) of the 137 participants who answered this question mentioned wanting substantial supporting evidence in the form of numerous, real-life examples. Of the 91 participants who answered this question on the second questionnaire, 25 (27.5%) said their instructor could have provided more supporting evidence.

Clarity. RQ3b asked how instructors might better meet students' expectations for clarity in online courses. To answer this question, the items from the teacher clarity short inventory (Chesebro & McCroskey, 1998) were analyzed. The descriptive statistics of the measure revealed the means for the composite variable as well as all ten clarity items to be slightly lower on the post-questionnaire. Frequency analysis of the individual items determined those with the highest percentages of unmet expectations to be those related to the instructors answering student questions (42.7%), giving assignment guidelines (41%), and giving instructions for the course/lessons (42.7%).

Student desire for explicit directions and thorough communication can also be inferred from their responses to the open-ended clarity questions from the first questionnaire as comments such as, "Be willing to repeat herself and/or go more in-depth if necessary as well as provide relatable examples" were frequent (e.g., 20.6% in response to "What should your instructor do to help clarify course content for you?" and 27% in response to "What should your instructor do to help you better understand the course content?"). As one participant stated, "I would expect my instructor to continue to elaborate on course material and thoroughly explain the points that make up the topics. Also, being able to discuss the content and get feedback for our explanations can assist clarify the content as well."

This was also the most frequently occurring answer (39.2%) on the second questionnaire (What did your instructor do to help clarify the course content for you?), indicating instructors may be meeting this expectation. The students report appreciating thorough explanations of material and numerous examples as exemplified by this participant's comment, "She provides many examples to help us relate course content to our lives. Many lectures she has us watch short clips from movies to see examples of the content." They also valued their instructors' communicativeness, praising quick responses to questions and timely, frequent reminders (24.3%) as one participant stated, "She held office hours and work sessions regularly. Whenever I emailed her about a question, she got back to me quickly as soon as she could."

Also from the second questionnaire, this theme was continued in the responses to "What could your instructor have done to help you better understand the course content?" The most frequent answer (39 of the 117 responses) related to the provision of supporting resources and more information in the form of example assignments, practice exams, additional lecture notes, slides, or readings. The second most frequent theme (33 of the 117 responses) mentioned wanting more complete or thorough information in the form of extensive explanations, weekly summaries, detailed or additional rubrics, and more complete/organized Canvas shells.

Rapport. RQ3c asked how instructors might better meet students' expectations for rapport in online courses. The descriptive statistics also show a lower mean for the rapport composite variable from the first questionnaire to the second questionnaire (M = 5.24 versus M = 4.80). Comparison of the individual items shows lower means on the second questionnaire for ten of the eleven items (all but item 5). From the frequency

analysis of the difference between participant expectation ratings and experience ratings, the highest percentages of those who did not have their expectations met were in response to the items “I have a close relationship with my instructor” (55.9%), “My instructor has taken a personal interest in me” (50.7%), and “I am comfortable interacting with my instructor” (50.3%). The reason for these scores may be partly because 22% of participants did not meet live with their class during the semester, but this may also indicate that even live classes via Zoom lack the interaction necessary for relationship-building.

From the open-ended questions, the three major themes that emerged from the student responses and were slightly different from the pre- to the post-questionnaire. The greatest number of responses from both the expectations questionnaire and the experiences questionnaire related to the ability of the instructor to be readily available to the students. On the first questionnaire, 98 (33.1%) participants mentioned needing their instructor to be accessible and readily available to answer questions. From the second questionnaire, the number of students who reported experiencing this was 139 (47%) indicating that students had this expectation met.

A significant percentage (36.5%) of responses to the first questionnaire indicated the desire among students to have personal attention from their instructor in the form of getting to know the students personally and reaching out to them for one-on-one contact. An example of comments in this theme can be seen from the participant who stated, “I think the instructor could do check ins with students [to] see if they are doing well and understand the course material.” From the experiences reported on the second questionnaire, however, the number of students who reported experiencing personal

attention was 51 (17.2%) indicating this is an area in which expectations are not being met.

The third theme that emerged from the open-ended responses was emotional support. From the first questionnaire data, 88 (29.7%) of responses mentioned wanting to feel their instructors cared about them, were understanding of challenges, and were kind and supportive. The number of students who reported experiencing this rose to 105 (35.5%) on the second questionnaire indicating this expectation is being met. As one participant summarized, “She is very nice to her students and displays a warm and welcoming personality which makes reaching out and asking questions a lot less stressful. She makes sure to answer any questions and always has a positive attitude. She also makes sure everyone understands the material which helps grade wise as well.”

Climate. RQ3d asked how instructors might better meet students’ expectations for climate in online courses. The descriptive statistics show lower means for all four composite variables of the online learning climate scale (Kaufmann et al., 2016) from the second questionnaire. All four factors hovered around the 50% mark for expectations not met (range: 44.8% - 52.1%) indicating a need for directed efforts at improving online class climate. Specific ways to do this may be gleaned from the responses to the open-ended questions. Comparing the answers to the open-ended questions from what participants expected from their instructors on the first questionnaire to what they experienced with their instructors on the second questionnaire, there are several consistencies and one area of inconsistency.

The most frequent comments on both the first and second questionnaires related to the instructor’s demeanor and energy. On the first questionnaire, 100 participants

(33.8%) mentioned wanting their instructor to be positive, kind, and encouraging and on the second questionnaire, 104 (35.1%) participants stated they appreciated their instructor's upbeat, enthusiastic attitude. This indicates the instructor's demeanor is significant in setting the tone of the class.

The same percentage of participants (31.4%) on both the pre-questionnaire and post-questionnaire mentioned class engagement. Students want and appreciate opportunities and encouragement to interact with each other and their instructor. A common sentiment expressed well by one participant was, "She gave all students the opportunity to participate in every class but she did not force students to unmute. She gave students the option to participate through the chat which demonstrated that the student's comfort was of high importance to her. She was also extremely encouraging and complimentary when students would participate."

One theme that was mentioned frequently on the first questionnaire (32.1%) but then less frequently on the second questionnaire (14.9%) was the students' desire to feel comfortable answering questions and sharing thoughts in class. Comments to this effect were, "Don't tolerate disrespectful comments" and "Make us feel comfortable enough to speak up." Another participant stated, "I think she along with the TA's should keep an eye out for any discriminatory or disrespectful comments or remarks during discussion to help make sure everyone feels comfortable when speaking on zoom or sending something in the chat." There were fewer of these comments on the post-questionnaire, but there were still 44 students who stated they appreciated the respectful environment they felt comfortable interacting in. As one participant stated, "It was a judge[ment] free space."

One other theme of note is those students who answered the second questionnaire (What did your instructor do to ensure you have a positive class climate (i.e., environment, atmosphere)?) with "Nothing" or mentioned they did not have a classroom climate because they did not interact with their classmates because the class was online. There were 16 students who made such a response on the first questionnaire (What should your instructor do to ensure you have a positive class climate (i.e., environment, atmosphere)?) this number more than doubled to 35 on the second questionnaire possibly indicating more students felt disconnected from their class by the end of the semester.

Online learning can be an isolated experience without specific efforts to connect students. As one participant stated, "I do not feel very connected to my classmates at the moment. We do not meet on zoom or anything so there is really no way for me to connect with them." Another stated, "I do not feel like a have a close relationship with any of my instructors or classmates. I don't like the zoom environment and it is really difficult for me to form any type of relationship with my peers. It makes it easier when I have an upbeat professor that makes class enjoyable. If he/she seems like they care about their job and us, it makes me more motivated to watch zoom lectures."

4.5 Reexamination of Current Measures

RQ4a-d sought to discover if the student reports of credibility, clarity, rapport, and climate are consistent with current measures. The responses to the open-ended questions were analyzed to determine if the items included on the established measures matched the themes found within responses to the current study's questions for each construct.

Credibility. Overall, participant responses to the credibility questions were in line with the items on the credibility scale (McCroskey & Teven, 1999). The one area that may not be fully assessed by the credibility scale relates to the technology and the resources utilized by the instructor and the clarity or ease with which he/she utilizes them. Reference to the clarity of the instructors' communication whether in relation to examples or expectations was made 34 times, while references to the instructors' organization of the class and lessons being well prepared were made 33 times. Comments such as "…very clear in their instruction, follow the syllabus exactly as they made it" and "…clear lectures, posts announcements often to keep us updated and tells us exactly what we need to do on a weekly basis" comprised these two themes and were present in more than 20% of participants' responses, indicating that this may be an important component to instructor credibility in the online environment where face-to-face interaction is missing. As one participant stated, online instructors should "be more organized in terms of [layout of] assignments. With a lot of classes being online, it's easy to get lost or miss something because each teacher has somewhere different to output their information. So, it's helpful to put things on the dashboard on Canvas for example, because I can automatically see what needs to be done without having to look in other locations."

Clarity. In general, participant responses to the clarity questions align well with the Chesebro & McCroskey (1998) teacher clarity short inventory. The themes from the open-ended responses indicate a strong desire for thorough and expansive directions with multiple opportunities for assistance such as review sessions, study guides, and office hours. As one participant stated, "Explain in depth exactly what he/she expects from their students throughout the course. Have a schedule of what we will be doing throughout the

semester. Go over what we will be expected to know for exams." Likely due to the online setting, students place emphasis on the instructor's communication, desiring instruction and supporting resources to be plentiful and easy to find/access. One participant expressed this common need, "It would be helpful if resources were provided if we wanted to seek out further information. I suppose we could research on our own, but it makes me feel better to have content vouched for by the professor."

Rapport. Comparing the responses to the open-ended rapport question to the items on the modified rapport measure (Frisby & Martin, 2008), the one aspect absent from the measure that was mentioned 160 times (45.9%) by participants is the availability of the instructor for support. As the modified rapport measure was developed for FTF classes, it does not assess how accessible the instructor is, as it is assumed the students see them in person regularly. Comments such as, "Be open about times she is available and extend offers to meet with her if anyone wanted to. Just make students feel like you're available for them" indicate that in the online setting, access to the instructor for questions or feedback is a priority for students. For online students, rapport is more than just a good relationship with their instructor, it is the feeling that the instructor is willing to support them through the learning process. As one participant stated, "My instructor should make it clear that she is here for us whenever we have questions, especially with it being an asynchronous course. Midterm conferences would also be a good idea to see where everyone is at in the course." Many students (47.6%) expressed the desire for one-on-one contact or for their instructor to check in with them regularly.

Climate. Participant responses to the open-ended climate question very closely align with the items in the online learning climate scale (Kaufmann et al., 2016). As this

scale was recently developed for the online environment, it accurately reflects the responses of the students in the current study. The only component not directly included in the OLCS that was mentioned somewhat frequently by students (16.6%) pertained to the class being enjoyable. Comments such as, “Make the class enjoyable with activities or interactions” and “The instructor should make learning fun and allow for friendly interaction” are representative of this line of responses. As this was a comparatively small percentage of responses, its significance may be too low to warrant inclusion in the measure.

This chapter presented the quantitative and qualitative results related to student expectations and experiences regarding instructor credibility, clarity, rapport, and climate in online instruction and the relationship expectation violations have with student reports of cognitive and affective learning. This analysis listed the findings from each of the quantitative measures and the themes with their frequencies from the open-ended questions. To further derive meaning from the data, the final chapter will discuss the interpretation of these results as well as the theoretical and practical implications of the findings. Finally, limitations of this study and future directions for this research will be demarcated.

CHAPTER 5: DISCUSSION

The effectiveness of an instructor in an online class is not just a matter of creating content; it is dependent on the instructor's ability to use effective communication to engage students in the digital space (Reyna et al., 2018). By identifying the gaps between students' experiences and expectations of instructor credibility, clarity, rapport, and climate, this study sought to identify areas to focus on for improvement of online instruction. As demand for online learning continues to be high, a greater understanding of how to effectively execute online instruction is important general knowledge for all instructors. The findings of this study can be cross-referenced with existing instructor behavior research to determine if recommendations for how to bolster these dimensions already exist that can be translated into online contexts.

5.1 Meeting Expectations

The results from this study corroborate previous work on credibility, clarity, rapport, and climate finding consistent support for the hypotheses which stated that meeting student expectations for these constructs in the online classroom leads to perceptions of greater cognitive and affective learning. The findings further indicate that it is best to meet student expectations rather than exceed them. This indicates a possible curvilinear relationship with expectations of these constructs and cognitive and affective learning. The only deviation from this pattern was for the relationship between the trustworthiness composite variable of credibility and clarity and the perception of affective learning. For these two constructs, reports of affective learning were slightly higher when expectations were exceeded (i.e., positively violated). This could indicate that the more trustworthy and clear an instructor is, the more affect the student feels toward the class and the instructor. Thus, instructors should endeavor to exemplify

honesty and authenticity while employing tactics that contribute to clarity as much as possible to ensure affective learning in online courses.

RQ1a-d inquired about student expectations for instructor credibility, clarity, rapport, and climate at the start of the semester, RQ2a-d inquired whether student expectations for these instructor behaviors were met/unmet/exceeded, and RQ3a-d asked how instructors might better meet students' expectations for these behaviors in online courses. The descriptive statistics of all composite variables show that the mean of student expectations for each construct was higher at the start of the course than the mean of their reported experiences at the end of the course. This may indicate that, overall, student experiences are not measuring up to their expectations. Individual analysis of composite variables identified the specific areas participants indicated where components were lacking from their experiences and a thematic analysis of the open-ended responses indicated what participant expectations were at the start of the semester as well as what behaviors they appreciated during the semester.

Credibility. Although the majority of participants (n = 173-180) had their expectations met or exceeded for all three factors of credibility, over one-third (n = 108-115) did not, indicating room for improvement across all three variables. From the thematic analysis of the open-ended questions from the pre- and post-questionnaires, the instructor behaviors that are effective for meeting credibility expectations seem to be elucidating their education/experience and conducting themselves in a professional, confident manner (demonstrating competence) while attending to the students' relational needs by being helpful, considerate, and caring (demonstrating goodwill). Instructors should also be sure to provide detailed, thorough, well-organized information and

resources that the students can be confident in its accuracy while providing personal examples that demonstrate real-life experience with topics (demonstrating trustworthiness).

Looking at the means for each credibility item on the credibility scale (McCroskey & Teven, 1999), the items that were rated the lowest for participant experiences were "concerned with me," "cares about me," and "sensitive." All three of these are components of the goodwill composite variable indicating a dearth of behaviors relating to this aspect of instructor credibility. This is likely due to the challenge of conveying caring or concern in the online environment. These items are similar to components of rapport and climate, thus particular attention should be paid to the parallels here. It is likely students feel a lack of these relational components in the online environment, thus instructors should make an effort to perform rapport and climate-building behaviors as recommended in the rapport and climate sections to follow.

Clarity. To meet expectations for clarity, instructors should strive to provide appropriate depth and breadth of information to their students. The desire for thorough explanations and varied content was identified both at the start of the semester and reiterated at the end in the open-ended responses. A surplus of information is only useful if it is easily navigable, however. Instructors should also endeavor to lay out course content (e.g., syllabus and assignments in the Canvas shell) in a concise, well-organized manner that makes navigation easy and be ready to answer any questions thoroughly while checking that their answers are understood.

In addition to being the most prevalent themes from the open-ended questions, the items from the teacher clarity short inventory (Chesebro & McCroskey, 1998) with the

highest percentages of unmet (negatively violated) expectations were related to the clarity of answers to questions (42.7%), the clarity of assignment guidelines (41%), and clarity of course objectives (34.4%) indicating a possible need for improvement in these areas of clarity in the online environment. Limited access or interaction with the instructor and their classmates increases the importance of the clarity of the class resources. Students may be more dependent on finding information about the class on their own and so need the materials to be well organized and easy to find. If they are unclear on something, they need their instructor to be readily available to clarify and answer their questions.

Instructor clarity is important not only because it contributes to positive learning outcomes (Bolkan, 2017), but because it has been shown to be positively related to instructor credibility as well (Shrodt et al., 2009). To meet student expectations in these areas, instructors should ask for feedback from students to confirm understanding of directions or expectations. Instructors can ask students to reflect on assignments or lessons after their completion to learn what parts they struggled with. In this way the instructors can learn how to better inform future classes.

Rapport. Rapport had the lowest percentages of met expectations of the four constructs examined in this study. This should be concerning as positive instructor behaviors, such as rapport, have been found to evoke affect toward the instructor and the class (components of affective learning), which enhances cognitive learning (Rodriguez et al., 1996). As rapport is a relational construct, the idea that relationship building being different online than in-person is not revolutionary. The lack of FTF interaction may hinder the fostering of relationships in online classes as the perception of loneliness may be higher in online classes (Ali & Smith, 2015). The items from the rapport measure with

the highest percentages of negatively violated expectations were related to the student feeling a comfortable, close personal relationship with their instructor. This desire was echoed in the open-ended responses on both the pre- and post-questionnaire. The distance created by the lack of FTF interaction (Hara, 2000) is likely the cause of these unmet expectations. Students must feel the presence of their instructor in order to build the interactions and connectedness that fosters rapport between themselves and their instructor (Muir et al., 2019).

Recommendations for meeting student expectations regarding rapport can be made using the responses to the open-ended questions in which participants frequently mentioned wanting their instructor to foster open communication with them and provide emotional support by being personable and performing behaviors that demonstrate that the instructor is present and attentive to their individual needs. Behaviors such as checking in with students and soliciting feedback from them were frequently mentioned by participants as just the act of reaching out makes the student feel acknowledged and supported. Students in online courses are concerned with having access to their instructor when they need help or have questions, therefore it is important the instructor provides ways to interact with them.

Climate. The importance of rapport is also tied to classroom climate, as positive correlations between the two have been observed (Frisby & Martin, 2010). Thus, meeting student expectations with regards to rapport may also aid in meeting their expectations related to class climate. As the results from this study found all four composite variables of climate hovered around the 50% mark for expectations met, there is likely a significant need for improvement in this area.

As Kaufmann et al. (2016) noted, the instructor's role is critical in building online classroom climate as they are the architects of the course. The instructor must orchestrate opportunities for the students to interact with themselves and their classmates as the students are limited in what collaborative behaviors they can initiate on their own. The instructor's demeanor also plays a significant role in the classroom climate as a distant, negative, or indifferent instructor cannot foster positive perceptions of the class climate among his/her students. Indeed, the instructor possessing a positive demeanor was the most mentioned desire on both the pre- and post-questionnaire. Instructors should strive to be open, inviting, empathetic, and encouraging to students. Repeatedly encouraging students to reach out if they have questions and sending motivational messages that edify students during times of high stress such as before an exam or during mid-terms demonstrate that they care about their students' well-being as well as success in the course.

5.2 Practical Implications for Online Instruction

The online learning environment differs significantly from that of FTF; instructors who simply apply their traditional FTF strategies to the online classroom will not have good results (Baran et al., 2011). For this reason, this dissertation endeavored to determine key behaviors instructors should enact to ensure that they are meeting their students' needs. In addition to finding support for the importance of instructor behaviors related to credibility, clarity, rapport, and climate in the online setting, this study identified specific components of these constructs that did not meet student expectations, several of which may be specific to the online environment.

Analysis of responses to the credibility and clarity open-ended questions found related expectations for course content. Responses frequently mentioned the navigability of the syllabus and assignments, the organization of the instructor's communication, and the layout of the Canvas shell as being key factors in the perception of the instructor's credibility. Similarly, responses to the clarity questions expressed the desire for plentiful and well-organized resources. This is likely because the students must rely on these aspects in an online course more than in a traditional class where they see their classmates and instructor regularly to ask questions, seek feedback, and receive reminders.

A common theme in the rapport comments that may be unique to online learning is the accessibility of the instructor to answer questions or provide further explanation. In FTF classes, students can expect to see/speak to their instructor regularly and likely are not as concerned with the instructor's availability. Students in online classes, particularly those that do not meet synchronously, have a greater need for access to the instructor. They want their instructor to answer their emails in a timely manner, be available to meet with them if necessary, and generally know that they can get help when needed. In this way, rapport in the online setting is more than just having a good relationship with their instructor, it is about feeling their instructor is present and willing to help them as much as possible.

One item of particular interest was found in the themes from the thematic analysis of climate. Frequent comments referenced the students' desires to feel comfortable answering questions and sharing thoughts in class. Students stated they wanted to be assured that their instructor would maintain a safe space for sharing in which everyone is

considerate of each other. This theme was mentioned frequently on the first questionnaire (32.1%) but then less frequently on the second questionnaire (14.9%). This decline in comments centered around building an accepting, respectful environment from the beginning to the end of the semester does not necessarily mean this expectation was not met. At the start of the semester, the students may have been uncertain about the format of the online class and may have had anxiety over engaging in the class, leading to a high number of comments in this theme. As the course progressed, the students may have found this fear to be unfounded or perhaps they became more comfortable with the class format. This initial apprehension is interesting and deserving of further investigation.

The recommendation that can be made from these findings is that online instructors should make a concerted effort to seek feedback from their students to ensure that they are meeting student expectations with regard to these constructs. Instructors can have different perspectives than students; they may feel they are providing substantial resources or explaining lessons in detail, but the students may not agree. Without the regular face-to-face interaction, instructors may be missing nonverbal cues from students (e.g., blank stares or furrowed brows) that their communication efforts are falling short. In isolation, students may feel that they are the only ones struggling and may be hesitant to speak up. Normalizing and encouraging student feedback can give instructors insight into areas of improvement and can aid in meeting students' expectations with regards to all four of the constructs explored in this dissertation.

With regards to the applicability of the current construct measures to the online learning environment, there seem to be slight disconnects between the measure items and what the participants in this study reported for each construct. For credibility, participants

placed significant emphasis on the organization and quality of the course materials as well as the clarity of the content, directions, and objectives. In online courses, the way the instructor organizes his/her class and the resources and content provided seem to have a significant relationship to the student's perceptions of their credibility. These criteria were also indicated in the clarity responses with the addition of volume of communication. As students may not see or speak to their instructors regularly, they want to be sure they understand directions and do not miss any instructions. To ensure this, they want frequent and detailed explanations and reminders.

This desire for frequent and open communication was echoed in the responses to the rapport questions. Again, the perception of limited access to the instructor in the online format likely led students to focus on the accessibility of their instructor. An instructor who is readily available to help, who has regular office hours, gives clear feedback and timely responses to questions will be perceived as higher in rapport with students. The current rapport measure does not directly take this into account and may need modification for the online environment.

5.3 Theoretical Implications

The present study extends the application of expectancy violations theory to help us understand what instructor behaviors are negatively violating students' expectations in the online classroom with regards to credibility, clarity, rapport, and climate. Past studies have traditionally asked students at the end of an experience whether that experience met their expectations, thereby relying on the participants to accurately reflect on their attitudes over time. The present study sought to improve the accuracy of this measure by

preemptively asking the participants what they expect and then following up after the experience to determine how the experience aligned with the initial expectation.

Expectancy violations theory, in this case, helped identify gaps between what the students desire from their instructors in the online learning environment and what behaviors they find lacking so that instructors can adapt their use of these communication behaviors for the online classroom. One result from this study is that student expectations were consistently negatively violated for rapport indicating that rapport may be perceived differently in the online environment. This could indicate that there is either a lack of rapport-building behaviors being performed by instructors, the rapport-building behaviors are not translating to the online classroom, or that the modified rapport measure (Frisby & Martin, 2008), which was developed for the traditional FTF classroom, needs some revision to better evaluate rapport in online settings.

Examination of the responses to the questions that directly asked the participants how their experiences measured up to their expectations found that the majority response was moderately better than "4 = about what I expected" (M = 4.44 – 5.31). These findings provide support for developing and employing measures for assessing these constructs as well as the need for collecting longitudinal responses for expectations. When asked to reflect on their overall impressions of a construct at the end of the experience, the participants, on average, felt it was moderately better than expected. However, when expectations of individual items that have been demonstrated to reflect the construct are asked before the experience occurs and then the individual items are assessed again after the experience has occurred, a more nuanced and accurate picture of what parts of each construct met expectations.

5.4 Limitations

One limitation of this study was the limited response detail in the questionnaire format used. To make the questionnaire widely available to the greatest number of participants, an online format was chosen. In-person interviews may garner more detailed, in-depth responses but may result in a lower response rate. Because this study needed a significant number of participants to complete a pre- and post-questionnaire, preference was given to the format that would enable the researcher to contact participants and follow up with a large number of them at once. Future qualitative studies might be conducted to gather more elaborate responses and learn what specific behaviors students are missing from their instructors.

A second limitation of this study was that a large number of participants were recruited from two sections of the same online introductory communication class. Although one department research system was used to recruit participants in the beginning of the semester, the second system was not available during the second week of the semester. In an attempt to recruit as many students as possible for the first questionnaire, the invitation to participate was sent directly to three large online communication classes that would reach the greatest number of students from that department. Additionally, this study lacked diversity in both participants and the instructors of the courses. Future studies should recruit from a wider variety of courses and aim for a more diverse participant sample. Future studies should also examine if the demographics of the instructor influence participant ratings of their behaviors.

Finally, the collection of data for this dissertation was conducted during a pandemic year. Although no mention of the pandemic was included in the verbiage of the questionnaires, it could have influenced student perceptions of their classes.

5.5 Future Research

Beyond expanding the diversity of the students and instructors used, and gathering more in-depth responses using qualitative data collection in the form of interviews or focus groups, there are several other directions that can be further explored to add to this study. Future research should explore what instructor behaviors can bolster the relational aspects of the student-instructor interaction. As mentioned previously, this study found participant expectations consistently unmet for rapport-building behaviors. Further exploration is needed to examine how instructors can improve the perception of rapport in the online classroom. As this study has identified some parallels between specific components lacking in rapport to those lacking in credibility, clarity, and climate, these constructs should be included as well to determine if the methods that improve online rapport also improve those aspects of credibility, clarity, and climate.

Future research may also repeat this study with the addition of surveying students in traditional FTF classes and then comparing the results of the online class to those of the FTF class to determine if there are any differences between the findings. Further understanding of the difference between online and FTF learning might be discovered by discovering if there are instructor behaviors the two populations rate their expectations of differently. As the online students in this study consistently rated their experiences at the end of the semester lower than their expectations at the start, it may be interesting to see if this is also the result in FTF classes or if it is unique to the online environment. If

differences between these modalities are perceived, these studies may be used to inform the course evaluation process. Future research may explore how online courses and instructors might be evaluated differently from traditional courses.

The courses evaluated by students for this study were in a variety of formats; some students reported their courses had synchronous weekly Zoom lectures, some said they only heard or saw their instructor via pre-recorded videos, and some said they never heard or saw their instructor. Previous research on FTF classes found no effect of course format (i.e., mass lecture, self-contained; Todd et al., 2000) or the presence of a supplemental website (Witt, 2004) on student perceptions of instructor credibility, but in the online setting, these components may be far more significant due to the lack of FTF communication. From the second questionnaire, 20 of the 83 students who answered the question regarding what the instructor could have done to make him/her seem more credible requested more interaction in the form of Zoom sessions, breakout rooms with small groups, more interactive classes, or more feedback from the instructor. Future research should explore the most important instructor communication components in online classes to determine if different formats such as live Zoom classes or pre-recorded videos followed by live Q&A sessions are more effective at meeting student expectations.

Not all course content is equal, thus it is likely that the type of content, discipline, or student learning level may influence student perceptions of instructor behaviors. Naidu (2017) highlighted the need for context-based online research to identify different formats online learning might need to conform to based upon the varying characteristics of the subject and the learner. Future research might examine the instructor behaviors of

credibility, clarity, rapport, and climate in different contexts to identify differences between, for example, grade school students, undergraduate college students, and graduate students or with different class sizes. The present study did not collect information on how large or small the classes reported on were. Students in large, 200-person classes may have different expectations and therefore different perceptions of these instructor behaviors than those in smaller, 30-person classes. Additionally, future research should look at the instructor type or status (e.g., teaching assistants and adjunct instructors versus tenure-track faculty) and how student expectations and perceptions of their behaviors might differ.

5.6 Conclusion

Online learning is a popular and useful tool to educators and students. To fully utilize the benefits online learning can offer, it is important to understand how instructional communication can best meet student expectations in the online environment. This dissertation accomplished its goals to examine student expectations for the instructor behaviors related to credibility, clarity, rapport, and climate in the online class, to determine if their experiences violate these expectations, to identify instructor behaviors of particular importance in the online environment, and to determine the applicability of the established measures of each construct to online instruction. Findings from this study indicate that there is currently a gap between what students expect from their online classes and what they experience. Students whose expectations are not being met with regards to instructor credibility, clarity, rapport, and climate reported lower cognitive and affective learning than those whose expectations were met.

Instructor credibility, clarity, rapport, and climate have been demonstrated to be important components of student learning. This dissertation fills some of the gaps in our understanding of how these instructor behaviors translate to the online classroom. Some specific behaviors were found to be important to the perception of individual constructs. Participants of this study indicated that the credibility behaviors they desire entail the instructor explaining his/her credentials and using examples of personal experience in their lessons. They also expect their instructors to be well-prepared for class and professional and confident in their conduct. Expectations for clarity can be met in part by providing a plethora of resources in a variety of formats. Expectations of rapport behaviors include those which demonstrate emotional support and personal attention to the student while desired climate behaviors entail those which encourage and facilitate interaction between the students as well as with the instructor.

Some responses were common or similar across constructs, indicating parallels between them and signifying a need for instructors to attend to all four to enhance the perception of each. Desires of empathetic, helpful, and positive instructors were obtained in response to the credibility, rapport, and climate expectation questions as were the need for their instructors to be approachable, personable, and engaging. Responses also indicate a strong relationship between clarity, credibility, and climate with comments identifying the need for clarity in the organization of the course, descriptions assignments, explanations of material, and responses to questions received for all three constructs. Further, comments specifying frequent, clear, and timely communication were received in response to all four instructor behavior expectation questions.

Online classes can lack a perception of presence and connection; thus, the importance of these instructor behaviors may be even greater in this format. The conclusion that can be drawn from the findings of this study is that students do not want to undertake the journey of learning on their own; they want to feel supported by their instructor both in information and resources and in emotional and relational aspects. Students may have a significant level of apprehension entering an online class, thus an instructor who is clear in their instructions and expectations will bolster their perceived credibility while contributing to a positive class climate. Being approachable and engaging will enhance students' perceptions of their rapport and credibility and also contribute to a positive class climate.

This study extends previous research on credibility, clarity, rapport, and climate to the online learning environment by finding that effectively meeting these expectations in the online classroom can lead to student perceptions of greater cognitive and affective learning. Although this research was conducted during a pandemic year, the pandemic or its effects was not a focus of this dissertation. Future research may explore the recommendations of this dissertation to determine how to better meet those expectations to further our understanding of how they can be used to improve student learning in online classes.

APPENDIX 1. CREDIBILITY SCALE

Instructions: On the scales below, indicate your feelings about your instructor. Numbers 1 and 7 indicate a very strong feeling. Numbers 2 and 6 indicate a strong feeling. Numbers 3 and 5 indicate a fairly weak feeling. Number 4 indicates you are undecided.

I expect my instructor to be:

1) Intelligent 1 2 3 4 5 6 7 Unintelligent

2) Concerned with me 1 2 3 4 5 6 7 Not concerned with me

3) Untrained 1 2 3 4 5 6 7 Trained

4) Cares about me 1 2 3 4 5 6 7 Doesn't care about me

5) Honest 1 2 3 4 5 6 7 Dishonest

6) Has my interests at heart 1 2 3 4 5 6 7 Doesn't have my interests at heart

7) Untrustworthy 1 2 3 4 5 6 7 Trustworthy

8) Inexpert 1 2 3 4 5 6 7 Expert

9) Self-centered 1 2 3 4 5 6 7 Not self-centered

10) Honorable 1 2 3 4 5 6 7 Dishonorable

11) Informed 1 2 3 4 5 6 7 Uninformed

12) Moral 1 2 3 4 5 6 7 Immoral

13) Incompetent 1 2 3 4 5 6 7 Competent

14) Unethical 1 2 3 4 5 6 7 Ethical

15) Insensitive 1 2 3 4 5 6 7 Sensitive

16) Bright 1 2 3 4 5 6 7 Stupid

17) Phony 1 2 3 4 5 6 7 Genuine

18) Not understanding 1 2 3 4 5 6 7 Understanding

Competence Factor (1, 3, 8, 11, 13, and 16)

Caring/Goodwill Factor (2, 4, 6, 9, 15, and 18)

Trustworthiness Factor (5, 7, 10, 12, 14, and 17)

(McCroskey & Teven, 1999)

APPENDIX 2. TEACHER CLARITY SHORT INVENTORY

Rate each statement from strongly disagree (1) to strongly agree (7):

1. My instructor clearly defines major concepts (Explicitly states definitions, corrects partial or incorrect student responses, refines terms to make definitions clearer).
2. *My instructor's answers to student questions are unclear.
3. In general, I understand my instructor.
4. *Projects assigned for the class have unclear guidelines.
5. My instructor's objectives for the course are clear.
6. My instructor is straightforward in her or his lecture.
7. *My instructor is not clear when defining guidelines for out of class assignments.
8. My instructor uses clear and relevant examples {He/she uses interesting, challenging examples that clearly illustrate the point. He/she refines unclear student examples. He/she does not accept incorrect student examples).
9. * In general. I would say that my instructor's classroom communication is unclear.
10. My instructor is explicit in her or his instruction.

* Reverse coded

(Chesebro & McCroskey, 1998)

APPENDIX 3. MODIFIED RAPPORT MEASURE

Rate each statement from strongly disagree (1) to strongly agree (7):

1. In thinking about my relationship with my instructor, I enjoy interacting with them
2. My instructor create(s) a feeling of ‘‘warmth’’ in our relationship
3. My instructor relates well to me
4. In thinking about this relationship, I have a harmonious relationship with my instructor
5. My instructor has a good sense of humor
6. I am comfortable interacting with my instructor
7. I feel like there is a ‘‘bond’’ between my instructor and myself
8. I look forward to seeing my instructor in class
9. I strongly care about my instructor
10. My instructor has taken a personal interest in me
11. I have a close relationship with my instructor

(Frisby & Martin, 2008)

APPENDIX 4. ONLINE LEARNING CLIMATE SCALE

Instructions: Rate each statement from strongly disagree (1) to strongly agree (7):

Based on my online class interactions with the instructor, I perceived my instructor:

As understanding.

As respectful toward me.

As supportive.

As responsive (e.g., provides feedback on assignments).

As engaged in the course.

As approachable (e.g., someone I would email or visit in virtual office hours).

Based on my experiences with and perceptions of this online course:

The design of this course encouraged student interaction with students.

The technology used in this course fostered collaboration among students.

This online course provided ample opportunities for communication among students.

Based on my experiences with and perceptions of this online course:

The organization of the course was clear.

The instructions for use of technology were clear.

The instructions for assignments were clear.

Based on my online class interactions with students in my class, I perceive:

Students as respectful of one another.

Students as cooperative with one another.

Students as comfortable with one another.

Note: IB = Instructor Behaviors; CS = Course Structure; CC = Course Clarity; SC = Student Connectedness.

(Kaufmann et al., 2016)

APPENDIX 5. COGNITIVE LEARNING MEASURE

Instructions: Rate each statement from strongly disagree (1) to strongly agree (7):

1. I have learned a great deal in this class
2. I have learned more in other classes than in this class∗
3. My knowledge on this class topic has increased since the beginning of class
4. I have learned nothing in this class∗
5. I can see clear changes in my understanding of this topic
6. I did not understand what I learned in this class∗
7. I can clearly recall information from this class
8. I am unable to recall what I have learned in this class∗
9. I would be unable to use the information from this class∗
10. I have learned information that I can apply

*Reverse scored items

(Frisby & Martin, 2010)

APPENDIX 6. AFFECTIVE LEARNING MEASURE

Instructions: Rate each statement from strongly disagree (1) to strongly agree (5):

I feel this class content is: (Affect toward content measure)

1. Bad 1 2 3 4 5 Good

2. Valuable 1 2 3 4 5 Worthless

3. Unfair 1 2 3 4 5 Fair

4. Positive 1 2 3 4 5 Negative

My likelihood of taking future courses in this content area is: (Affect toward classes in this content measure)

5. Unlikely 1 2 3 4 5 Likely

6. Possible 1 2 3 4 5 Impossible

7. Improbable 1 2 3 4 5 Probable

8. Would 1 2 3 4 5 Would not

Overall, the instructor I have in this class is: (Affect toward instructor measure)

9. Bad 1 2 3 4 5 Good

10. Valuable 1 2 3 4 5 Worthless

11. Unfair 1 2 3 4 5 Fair

12. Positive 1 2 3 4 5 Negative

Were I to have the opportunity, my likelihood of taking future courses with this specific teacher would be: (Affect toward taking classes with this instructor measure)

13. Unlikely 1 2 3 4 5 Likely

14. Possible 1 2 3 4 5 Impossible

15. Improbable 1 2 3 4 5 Probable

16. Would 1 2 3 4 5 Would not

Scoring for Affective Learning and Instructor Evaluation:

Affective Learning = Affect toward content + Affect toward classes in this context.

Instructor Evaluation = Affect toward instructor + Affect toward taking classes with this instructor (McCroskey, 1994).

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