TRAITS AND BEHAVIORS: CONNECTING IN THE CLASSROOM

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MASTER OF SCIENCE

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ABSTRACT

Immediacy is a topic that has been frequently explored in communication and education research; however, it is not understood if perceptions of immediacy are related to certain behaviors or trait-based similarities between teachers and students. For this study, nine Graduate Teaching Assistants (GTAs) were observed and 76 undergraduate students surveyed in order to understand which factors are associated to perceptions of immediacy. Findings indicate that behaviors and perceived similarity are related to perceptions of GTAs being high in immediacy. No significant results were found with trait-based similarities. Students were also found to be more motivated to learn when they perceived their GTA as high in immediacy.

Keywords: immediacy, GTAs, perceptions, student motivation

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CHAPTER 1. INTRODUCTION

Previous research has found that students are more motivated to learn in conditions of high instructor immediacy (Christensen & Menzel, 1998; Christophel, 1990; Christophel & Gorham, 1995; Elliot & Knight, 2005; Frymier & Houser, 2000; Furlich, 2014; Glynn, Aultman, & Owens, 2005; Jaasma & Koper, 1999; Kelly, Rice, Wyatt, Ducking, & Denton, 2015; Pogue & AhYun, 2006; Seifert, 2004; Sidelinger, 2010). Immediacy is defined as a psychological or physical closeness or proximity between individuals who communicate with each other. These communication behaviors between individuals include both nonverbal and verbal communication. Some examples of immediacy behaviors in the classroom include using personal examples, calling on students by their name, using humor, and being available for students (Furlich, 2014; Gorham, 1988). Furthermore, immediacy may be positively correlated with student motivation in the classroom. Ultimately, these immediacy behaviors may help increase student learning. Behaviors that are high in immediacy create approachability and liking between individuals.

Limited research has been conducted on Graduate Teaching Assistants' (GTAs) use of immediacy behaviors. For the present study, GTAs are, "any graduate student who has any teaching or teaching-related responsibilities" (Branstetter & Handelsman, 2000, p. 27). Many GTAs receive little or no training development to prepare them for their role as an instructor (Gardner & Jones, 2011; Hardré, 2003; Komarraju, 2008). This lack of training may leave GTAs with uncertainty of how to establish classroom norms or handle classroom situations. Effective teaching is also difficult in light of the lack of autonomy and many roles GTAs are required to fulfill. GTAs are students, instructors, and researchers that are oftentimes undefined in their roles and not held to high standards within their departments (Austin, 2002; Hendrix, 1995). Park and

Ramos (2002) stated that GTAs feel like the "donkeys in the department" due to their heavy workload, significant responsibility, and limited autonomy within their classrooms (p. 47).

Perceived immediacy may be influenced by behavior and by traits. The degree to which GTAs employ immediacy behaviors may be related to maintaining authority in the classroom. GTAs may not feel comfortable using these immediacy behaviors in the classroom because they are trying to create a sense of authority. Students tend to perceive GTAs as having less experience and knowledge in the classroom (Muzaka, 2009). Conversely, graduate students might be more immediate than a professor because they can relate to students based on similarities. This is especially true for age-similarity. GTAs and undergraduates are generally more similar in age. Trait-based similarities may have students perceiving that their GTA is using immediacy behaviors, when in fact they are not. Immediacy suggests similarities between individuals allow people to feel closer to one another (Mehrabian, 1969, 1981). Along with similarity in age, other trait-based similarities include sex and ethnicity. These trait-based similarities may lead students to perceive their instructor as being easier to relate to.

This study seeks to compare undergraduate perceptions of GTA immediacy with observations of GTAs' immediacy behaviors, in order to better understand (a) whether GTAs are perceived by their students as being high in immediacy, and (b) what factors are associated with student perceptions of GTA immediacy. Much of the literature has looked at students' perceptions of instructors' immediacy behaviors (Frymier & Weser, 2001; Furlich, 2014; Gorham, 1988; Gorham & Christophel, 1992; Gorham & Zakahi, 1990; Grellhesl, Smith, & Punyanunt-Carter, 2011; Horan, Houser, Goodboy, & Frymier, 2011; Jaasma & Koper, 1999; Lizzio, Wilson, & Simons, 2002; McCroskey & Teven, 1999; Özmen, 2011; Pytlak & Houser, 2014; Schrodt et al., 2009; Sidelinger, 2010), while little research has looked at instructors'

observable immediacy behaviors (see Henning, 2012 for one example). As mentioned earlier, trait-based similarities include GTA and student age, sex, and ethnicity. The observations will help to understand the relationship between perceived age and other similarities between the GTA and student when looking at perceptions of immediacy.

This study will advance research in the field of communication and education. Research has shown that higher levels of immediacy increase students' motivation to learn (Allen, Witt, & Wheeless, 2006; Christensen & Menzel, 1998; Christophel & Gorham, 1995; Elliot & Knight, 2005; Furlich, 2014; Glynn et al., 2005; Jaasma & Koper, 1999; Pogue & AhYun, 2006; Seifert, 2004; Sidelinger, 2010). The present research will help researchers understand how classroom behaviors and trait-based similarities relate to students' perceptions of immediacy. Both student motivation and instructor behaviors are important to study, because GTAs play an essential role for a large number of undergraduates and their educational success. According to the United States Department of Labor (2016), there were 121,120 GTAs across the United States who were performing teaching or teaching-related duties at college, universities, and professional schools. High levels of immediacy behaviors may communicate to students that the classroom is a welcoming environment, encouraging participation and interaction between the instructor and student. Instructor and student interaction is important to achieve in any classroom. Student participation can help instructors understand how well their students understand the content. Additionally, interaction between instructors and students allow students to voice concerns or problems.

This study not only contributes to research on GTAs, but also to the literature on immediacy. Much of the immediacy research has looked at student perceptions of immediacy but has failed to look at how classroom behaviors and trait-based similarities relate to students'

perceptions of immediacy. This study will expand the literature beyond its current focus on student perceptions of immediacy to include observations. The observations will allow a deeper understanding of whether those perceptions of immediacy are based on traits or behaviors. To provide background for this study, the next chapter reviews relevant research regarding GTAs in the classroom, immediacy behaviors, and motivation and student engagement in relation to immediacy.

CHAPTER 2. LITERATURE REVIEW

Over the past one hundred years, graduate students have evolved from being a student only to taking on much larger roles such as university instructors (Austin, 2002; Austin & Wulff, 2004; Hendrix, 1995). The GTA role has expanded since it was first created and is becoming more demanding with teaching sections as a lead instructor, rather than supervising a lab or serving as a grader. The increased demands have caused GTAs to face challenges within their classrooms that can have an effect on their students' perceptions of immediacy. The expansion of GTA responsibilities makes this an important area to study. First, I will discuss the evolution of GTAs and look at the challenges GTAs face. Additionally, I will characterize the many roles GTAs have in the classroom.

GTAs in the Classroom

The roles of graduate students have evolved significantly over time. In the late 1800s, Graduate Assistantships were created (Hendrix, 1995). Assistantships were formed in order to draw student interest in graduate school and used to encourage students to continue their education (Hendrix, 1995). It was not until after World War II that GTAs were required to take on a heavier workload. This heavier workload required GTAs to take on the multiple roles of graders, teachers, and students (Austin, 2002; Branstetter & Handelsman, 2000; Hendrix, 1995) resulting in more hours worked and an increase in classes and students taught. This workload was initiated after the war, because those who served came home and started enrolling in universities to continue their education. Two million returning veterans flooded college campuses while taking advantage of the GI Bill (Allen & Rueter, 1990). The increased numbers of GTAs were needed to cover the increased number of veterans returning to higher education as students. Before World War II, GTAs were not required to fulfill duties in order to receive

stipends (Hendrix, 1995). Today, GTAs work longer hours than past GTAs, teach a number of classes and students, and must keep up with their own coursework and research.

With an expansion of teaching obligations since World War II, there are also significant challenges GTAs face. GTAs have recently graduated from college themselves and are expected to teach with little or no prior experience or training in the field they are teaching (Gardner & Jones, 2011; Golish, 1999; Luo, Bellows, & Grady, 2000; Pytlak & Houser, 2014; Williamson, 2001). Many of the courses GTAs are required to teach have a large number of students enrolled. GTAs are often required to teach large sections of introductory undergraduate courses, especially at research institutions (Austin, 2002; Gardner & Jones, 2011). GTAs' heavier workload and low pay can be problematic. University departments are benefiting from GTAs, because they are a rather inexpensive way of filling teaching positions. This setup allows full time faculty to focus on other important areas within the department, such as research (Park & Ramos, 2002).

The recent heavy workload of teaching duties, research, and being a student themselves, plus their lack of expertise, may make it difficult for GTAs to employ immediacy behaviors in their classrooms. On the other hand, GTAs are typically close in age to their students, which may create greater perceptions of immediacy. In addition to understanding instructors' behaviors, we must better understand the advantages and disadvantages GTAs face in the classroom, which may promote or reduce immediacy. Here, I will look at these two specific areas.

Promoters of Immediacy

GTAs and students are closer in status, making this an important area to explore. The student status clearly distinguishes a graduate student from a professor. The decreased status difference between GTAs and students may lead to a higher level of comfort and may help promote immediacy. Students often view professors and GTAs differently, and these different

student perceptions of professors and GTAs create both advantages and disadvantages for GTAs. Past research has found that undergraduates are more likely to envision a younger individual when describing the ideal instructor, and that students are more inclined to envision an older person when describing an unfavorable teacher (Edwards & Harwood, 2003). However, Semlak and Pearson (2008) argue that students perceive older instructors to have more competence, care, and trustworthiness. Similarly, GTAs are often younger than other faculty members. It is in this way that GTAs could be seen by students as closer to their own age and easier to approach (Kendall & Schussler, 2012; Muzaka, 2009). Edwards and Harwood (2003) found students who mentioned their ideal instructor are more likely to imagine a younger instructor, while students who mentioned an unfavorable instructor are likely to imagine an older instructor. Furthermore, individuals view their own age groups positively as this influences their own self-concept, suggesting that students might view their GTAs as high in immediacy because of similarity in age.

Students perceive GTAs as having many positive teaching qualities. Undergraduate students appear to see professors as having more knowledge and control of what content will be distributed over the course, yet appreciate the instructional style of GTAs (Kendall & Schussler, 2012). GTAs are perceived as relaxed, laid-back, engaging, interactive, relatable, understanding, and able to personalize teaching (Kendall & Schussler, 2012). While GTAs are perceived as having less credibility and power than professors (Golish, 1999), students might be more willing to answer questions and engage in classes with instructors who appear to have less expertise. This may be because students do not want to look incompetent and are afraid of answering incorrectly to an expert. In this way, GTAs may have an easier time creating an atmosphere that encourages students to demonstrate what they know.

GTAs can also be perceived as having more enthusiasm and passion about their subject matter compared to professors (Muzaka, 2009). In addition to adding more excitement to a course, student learning may be enriched with the instruction of a GTA. GTAs' novice teacher status can make courses more interesting and engaging for students (O'Neal, Wright, Cook, Perorazio, & Purkiss, 2007; Park & Ramos, 2002). This is because GTAs "are not putting across the same information for the tenth or more time" (Park & Ramos, 2002, p. 4). By making classroom engaging, fun, and welcoming, and communicating enthusiasm, GTAs can positively influence student retention in the classroom (O'Neal et al., 2007).

Barriers to Immediacy

We can conclude from past literature that GTAs may have some advantage over older professors that may influence immediacy. However, most of the literature focuses on the challenges GTAs often face, which may be barriers to being perceived as high in immediacy. These challenges and barriers come from GTAs' increase in roles, reduced credibility and power, and lack of training and autonomy in the classroom. Here, I will explore the disadvantages of being a GTA and barriers to immediacy, first looking at the recent increase in multiple roles GTAs have and then discussing their lack of credibility, power, control, and training.

GTAs often find themselves juggling multiple roles: student, teacher, and their role of a person, which connects them to family and friends outside of the university (Gardner & Jones, 2011; Hendrix, 1995). These multiple demanding roles keep a GTA busy with little free time in his or her academic or personal life. Work and life balance may be a problem for GTAs; "teachers need time to reflect on their work, plan lessons, develop skills and knowledge, and interact with colleagues" (Bubb & Earley, 2004, p. 3). GTAs are in charge of large introductory courses but are not held to high esteem in their departments, because they lack status or degree

ranking (Austin, 2002; Hendrix, 1995). Studies over the past 75 years have consistently found that GTAs have a lack of training, insecure feelings about their teaching, problems managing time and role conflicts, and uncertainty with their department (Allen & Rueter, 1990; Austin, 2002; Buerkel-Rothfuss & Fink, 1993; Haggerty, 1927; Hardré, 2003; Hendrix, 1995; Koen & Ericksen, 1967; Park & Ramos, 2002). These problems may discourage GTAs from using immediacy behaviors in the classroom, because they do not feel they have the power to do so.

There are ways that GTAs are fundamentally different from professors or other instructors that may affect perceived immediacy and ultimately, motivation to learn. GTAs may have feelings of imposter syndrome because they have less knowledge than professors, prompting them to second guess what they are doing. Although GTAs have credibility and power, GTAs are perceived to be less credible and powerful than professors (Golish, 1999). Professors are generally associated with more positive characteristics, while GTAs are associated with more negative characteristics. Professors are seen as confident, in control, organized, experienced, knowledgeable, distant, formal, strict, and respected; GTAs are seen as uncertain, hesitant, and nervous (Muzaka, 2009). These characteristics between professors and GTAs may lead students to see their instructor as high or low in immediacy behaviors.

GTAs' lack of control may lead to students feeling like they have more control over how the course is arranged when they are taking a class taught by a GTA. Golish (1999) found that students feel like they have more power with GTAs when it comes to classroom discrepancies, such as extended time for homework and exams, than they do with professors. Students are more accepting of grades given by someone they perceive as a competent instructor (Paulsel, Chory-Assad, & Dunleavy, 2005), which GTAs may struggle with due to their lack of power, status, and training. This evidence suggests GTAs and professors are perceived differently in terms of

power. For this specific study, only GTA instructors will be investigated, to better determine what role GTAs' behaviors are playing in the classroom.

The undefined roles GTAs have within their department may also reduce their credibility. Research on GTA credibility has found that using prosocial messages, such as placing the responsibility on the student early in the semester and recognizing students for when they do something well, increases perceived GTA credibility; alternatively, the use of antisocial messages decrease credibility (Pytlak & Houser, 2014). Other examples of prosocial power include complimenting and praising individuals (Finn, 2012). Examples of antisocial power messages include "Because I said so" or "You will lose points" (Pytlak & Houser, 2014, p. 291). Prosocial power has greater classroom outcomes and encourages students to learn (Horan et al., 2011). However, it may be more difficult for GTAs to use these prosocial behaviors, because they have a lack of training and lack of status within the department. The lack of defined roles (being both an instructor and student) may reduce GTA credibility, because GTAs are not sure how to answer student questions, respond to students, and lack necessary training and status. GTAs may find themselves using antisocial messages in an attempt to maintain authority, which could diminish their credibility.

Another problem that GTAs often face is their lack of autonomy in the courses they are assigned to teach. Park and Ramos (2002) interviewed GTAs who expressed great frustration over the limits to experiment with course content, delivery, and assessment. GTAs were told to teach courses in a prescribed manner, while professors have more control over the classroom and content to be delivered to students. GTAs are usually given assignments with the curriculum in place, which allows little alteration to the course a GTA is teaching (Kendall & Schussler, 2012). An increase in power may allow students to see an instructor as having more knowledge and

expertise in their subject. However, students may see GTAs having a lack of power, because their lack of autonomy does not allow most GTAs to have the option to modify course content or curriculum midway through the semester. The prescribed manner of teaching may inhibit GTA immediacy.

The challenges GTAs face may affect their ability to use immediate behaviors. GTAs may try to maintain interpersonal distance from their students and may avoid using immediacy behaviors, because they lack the confidence and authority in the classroom to do so. For example, GTAs may refrain from asking for student feedback and how students feel about an assignment, topic, or due date, because the GTA knows that they cannot change the curriculum in place due to their lack of autonomy. GTAs might also find themselves using antisocial messages such as "Because I said so" or "You will lose points," because they do not have the authority to change course curriculum and do not want students to know they lack authority and autonomy.

Differences in authority may also be the result of differences in the amount of experience in the classroom. Generally, professors and faculty have been teaching longer than GTAs. There are very few instructors who are naturally gifted enough to teach without training, let alone start a new job without any training. The most successful teachers benefit a large deal from training (Park & Ramos, 2002), but recent research suggests GTAs receive little or no professional development to prepare them for their critical role in educating students (Gardner & Jones, 2011; Hardré, 2003; Komarraju, 2008). If we want better faculty teachers, we need to train GTAs better as graduate students. This lack of training may lead to GTAs struggling in the classroom. GTAs' lack of overall subject knowledge and teaching skills are two problems that occur in classrooms across many universities (Muzaka, 2009). GTAs feel unsure of how to gain and maintain control

in the classroom because of their younger age, limited experience, lack of expertise, and insufficient training (Cho, Kim, Svinicki, & Decker, 2011; Golish, 1999; Muzaka, 2009). With GTAs teaching large courses at universities and having an impact on a large amount of students, this remains an important area to explore.

The evidence suggests that without proper training, GTAs will continue being a marginalized group who struggle to be successful teachers. This training does not have to be comprehensive; Hardré (2003) found that a brief six-hour training benefited GTAs' instructional design knowledge. Instructor training programs can increase GTAs' confidence and understanding of pedagogy and learning (Gardner & Jones, 2011). Proper GTA training may also help instructors gain the authority or confidence in the classroom to use immediacy behaviors that increase student engagement and learning. Proper training will not only benefit the teaching assistant in charge of the classroom, but also the students enrolled in courses taught by GTAs.

Immediacy Model

The current project considers a number of variables related to students' perceptions of GTA immediacy behaviors, including GTAs' verbal and nonverbal immediacy behaviors; age, sex, and ethnicity of both students and GTAs, perceived similarities, perceived immediacy, and motivation to learn. Each of these variables will be discussed in depth in the remainder of the literature review. We know there is a positive relationship between perceptions of high instructor immediacy and motivation to learn (Allen et al., 2006; Christensen & Menzel, 1998; Christophel & Gorham, 1995; Elliot & Knight, 2005; Furlich, 2014; Glynn et al., 2005; Jaasma & Koper, 1999; Pogue & AhYun, 2006; Seifert, 2004; Sidelinger, 2010). This study investigates how an instructor's traits (age, sex, and ethnicity) and behaviors relate to their students' perceptions of immediacy, and how those perceptions of immediacy relates to students' motivation to learn in

the course. It is guided by the immediacy model presented in Figure 1. It is predicted that there will be a positive relationship between the GTAs' use of immediate behaviors and on students' perceptions of GTA immediacy, and that the outcome of perceived immediacy is increased motivation to learn. This study tests immediate behaviors and trait-based and perceived similarity to understand the relationship with perceived immediacy and students' motivation to learn.

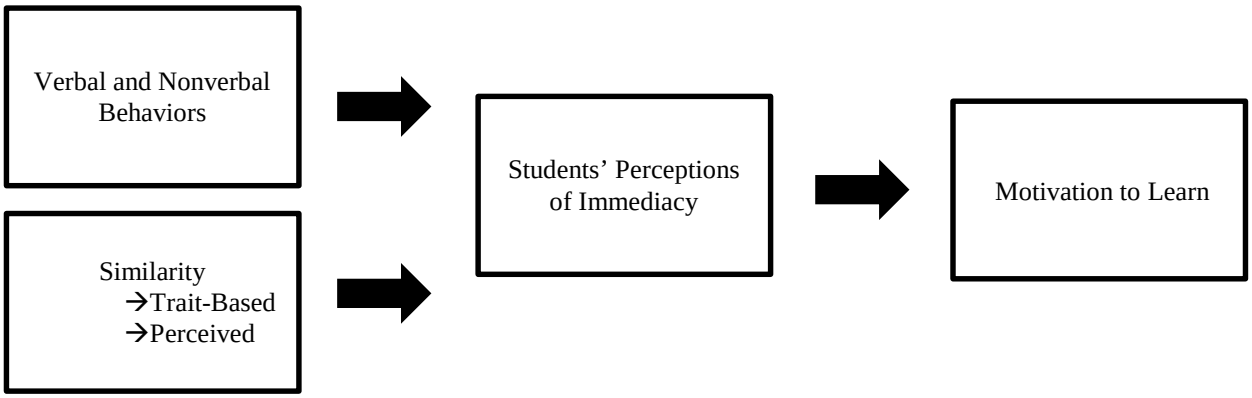

Figure 1. Immediacy Model

Immediacy

Instructors' immediacy behaviors are likely to play a role in students' perceptions of immediacy. In order to better understand immediacy, I will first look at immediacy as an overall concept. Then, I will explore verbal immediacy and nonverbal immediacy. Finally, I will discuss trait-based immediacy and how this may relate to similarities between students and instructors.

Immediacy, or a perception of psychological or physical closeness between people who communicate with each other, is a concept that has been studied in both communication and education research. This concept was first developed in 1969 by social psychologist Albert

Mehrabian. Examples of immediacy behaviors in the classroom include being available for students in and out of class, addressing students by their name, asking for feedback, and using gestures while speaking. Nonimmediate behaviors include asking questions with specific answers in mind, sitting behind a desk or standing behind a lectern while teaching, and pointing out faults of students; these behaviors create distance between individuals. The more immediacy behaviors used, the less psychological distance there will be between two people and the closer the individuals become (Mehrabian, 1969, 1981). For example, instructors who call on their students by name or ask students open-ended questions have students who are more likely to perceive their instructor as having high levels of immediacy (Furlich, 2014; McCroskey & Teven, 1999; Powell, Hamilton, Hickson, & Stuckey, 2001).

The amount of immediacy present in the classroom can have an affect on the learning environment, increasing motivation to learn in students. Students perceive instructors who use immediacy behaviors in the classroom more positively than instructors who do not use immediacy (Baringer & McCroskey, 2000). Verbal immediacy and nonverbal immediacy can both affect the student-instructor relationship.

Immediacy behaviors also influence perceptions of instructor power, credibility, and effectiveness. Johnson and Miller (2002) studied verbal and nonverbal immediacy, teacher credibility, and learning. Participants in this study were asked (a) to indicate how much they learned from the professor or lecturer teaching the course and (b) how much they could have learned if the course was taught by their ideal professor or lecturer. Verbal and nonverbal immediacy, teaching credibility, and perceived learning were all positively related, and higher immediacy instructors were perceived to be more effective and credible. GTAs may find themselves using both nonverbal and verbal immediacy behaviors in the classroom to make up

for their lower levels of credibility. Alternatively, GTAs may be less likely to use immediacy behaviors in order to maintain authority and power.

Next, I will take a deeper look at verbal and nonverbal immediacy to see how they might affect GTAs' communication with students within the classroom.

Verbal Immediacy

Verbal immediacy behaviors signal openness to communication. Some examples of verbal immediacy behaviors include using personal examples; using humor; engaging in conversations with students before, after, or outside of class; and encouraging students to talk during class (Furlich, 2014; Gorham, 1988). It may also include referring to the class as "we" or "our," and asking for students' input on how the class is progressing throughout the semester. Asking students for their opinion and suggestions can improve learning, and this openness may make students feel like they are in control of their learning. Learning student names early in the course and letting students address you by first name are also signals of high verbal immediacy (Frymier & Houser, 2000; Furlich, 2014; Gorham, 1988). These verbal immediacy behaviors may create an inclusive learning environment. However, they may also be difficult for GTAs to use in the classroom if they feel it undermines their authority.

Verbal immediacy exists when people communicate warmth, interest, and approachability. As seen in the previous section, GTAs are often seen as being approachable (Muzaka, 2009; Park & Ramos, 2002), but it is not clear how that approachability is related to similarities in traits or immediate behaviors. This study seeks to compare undergraduate perceptions of GTA immediacy with observations of GTAs' immediacy behaviors, in order to better understand the factors associated with student perceptions of GTA immediacy. When investigating this question it is important to consider both verbal and nonverbal immediacy.

Nonverbal Immediacy

Nonverbal immediacy is comprised of warm and inviting nonverbal behaviors. Nonverbal behaviors include volume of speech, movement, posture, facial expression, and eye contact (Mehrabian, 1969). Specific nonverbal immediacy behaviors include gestures, eye contact, smiling, relaxed body position, and movement throughout the classroom (Gorham, 1988; Mehrabian, 1969, 1981). Nonverbal immediacy behaviors may lead to an increase in student learning. Research has shown nonverbal immediacy allows students to better relate to the material and form a better understanding (Grellhesl et al., 2011; Lowman & Mathie, 1993). Therefore, GTAs who use immediacy behaviors may help students learn more.

Instructor qualities may play a more important role than providing content to the class. Halawah (2011) found that teaching methods and classroom management were not as important as an instructor's personal qualities when it came to student motivation. Some personal qualities have a strong relationship with immediacy use in the classroom. Students reported being more motivated by instructors who were open-minded, friendly, enthusiastic, and knowledgeable about their names and interests (Halawah, 2011). Gorham's (1988) immediacy measurement looks at verbal and nonverbal immediacy measures such as the instructor's smiling, use of humor in class, and addressing students by their names. These behaviors will be addressed in the present study to understand immediacy behaviors and student motivation.

Nonverbal immediacy may be more important than verbal immediacy. Özmen (2011) looked at students' perceptions of effective instruction and found the more nonverbal immediacy behaviors displayed in the classroom, the more effective the teacher was seen as. Certain nonverbal immediacy traits may be more important than others. The two nonverbal immediacy traits noticed most often by students are eye contact and movement (Henning, 2012). In addition

to the communication behaviors discussed, trait-based similarities can also contribute to perceptions of immediacy.

Trait-Based Immediacy

Similarity between individuals can also lead to perceptions of immediacy. GTA age and their more recent experience of being an undergraduate may lead GTAs to perceptions of similarity and therefore higher immediacy. These recent experiences lead to students perceiving GTAs as more approachable and less intimidating (Muzaka, 2009; Park & Ramos, 2002). GTAs and undergraduates share similarities in not only age, but also in their status as students who have the goal to earn a degree. These similarities may prompt students of GTAs to feel more of a connection with their GTA instructor (Branstetter & Handelsman, 2000).

Given the typical age similarity between GTAs and students, it is important to understand the role trait-based similarity plays in the perception of immediacy. Students who have similarities with their instructors are more likely to perceive their instructor as displaying high levels of immediacy (Furlich, 2014; McCroskey & Teven, 1999; Powell et al., 2001). This relates back to the idea that immediacy is based on similarities and a feeling of closeness between individuals. Being similar in age may result in perceptions of higher instructor immediacy when, in fact, the GTA instructor is not displaying many immediacy behaviors. Understanding how GTA behaviors and trait-based similarities relate to students' perceptions of immediacy behaviors is the central goal of this study.

Perceptions Versus Behaviors

The majority of past research on immediacy in the classroom has focused on students' perceptions of instructors' immediacy behaviors (Frymier & Weser, 2001; Furlich, 2014; Gorham, 1988; Gorham & Christophel, 1992; Gorham & Zakahi, 1990; Grellhesl et al., 2011;

Horan et al., 2011; Jaasma & Koper, 1999; Lizzio et al., 2002; McCroskey & Teven, 1999; Özmen, 2011; Pytlak & Houser, 2014; Schrodt et al., 2009; Sidelinger, 2010) instead of empirically observing instructors' immediacy behaviors (Henning, 2012).

The current study extends scholarship on immediacy by combining student perceptions of immediacy with systematic observation of GTA teaching. Immediacy behaviors will be tracked during these observations, and then compared to students' perceptions of immediacy. After determining whether GTAs are perceived as being high in immediacy by using Kelly's perceived immediacy measurement, the research will investigate the relationship of the perception – trait-based similarity and behavior. This study is designed to fill what Kelly refers to as a "hole pertaining to perceived immediacy" (2012, p. 32). It will help further research by providing more information on factors related to immediacy.

One previous study employed observation and interviews to compare behaviors with student perceptions of immediacy. Henning (2012) documented specific verbal and nonverbal immediacy behaviors through observation in the classroom, and interviewed students to understand which immediacy behaviors they noticed most often. High immediacy behaviors used in Henning's (2012) study included using personal examples, maintaining eye contact with the entire class, making learning fun, and incorporating technology into class to keep students engaged. These specific high immediacy behaviors created the perception of a caring and welcoming learning environment. Nonimmediate behaviors of instructors identified in this study were minimal eye contact, limited gestures with hands in pockets, limited movement, a monotone voice, reliance on technical terms, and quick pace of speech. All of these verbal and nonverbal immediacy behaviors are based upon Mehrabian's (1969, 1981) immediacy behaviors,

excluding the use of technology. The current study builds on Henning (2012) by observing multiple instructors and surveying a greater number of students.

Measuring students' perceptions of immediacy behaviors and GTAs' immediacy behaviors separately may lead to a better understanding of perceptions of immediacy. Hess, Smythe, and Communication 451 (2001) argue immediacy must continue to be studied using multiple approaches such as self-reports and observer-driven instruments. However, without researchers observing immediacy behaviors in the classroom and comparing those observations to student perceptions of immediacy, we are uncertain if student perceptions of immediacy are an accurate representation of GTA immediacy behaviors or if they are the result of trait-based similarity. Much of the research suggests immediacy behaviors should be used in the classroom to enhance student learning. The present study will explore the specific immediacy behaviors employed by GTAs, the association of these behaviors on student perceptions of GTA immediacy, and the relationship between immediacy and motivation for learning.

Motivation

When an instructor walks into the classroom, they usually have one goal: to facilitate learning. However, being motivated may be a challenge for college students. The college environment is more flexible than elementary or secondary schools and is a new experience for most students. Because of its flexible structure, students in college often struggle to find the motivation to learn (Glynn et al., 2005). Instructors can play a critical role in student motivation, and researchers have found a direct link between instructor immediacy and students' motivation to learn (Allen et al., 2006; Christensen & Menzel, 1998; Christophel & Gorham, 1995; Elliot & Knight, 2005; Furlich, 2014; Glynn et al., 2005; Jaasma & Koper, 1999; Liu & Tomasi, 2015; Seifert, 2004; Sidelinger, 2010). Students with instructors who use a greater number of

immediacy behaviors have better cognitive and affective learning outcomes (Grellhesl et al., 2011). Richardson and Swan (2003) suggest instructor immediacy can influence students' satisfaction, motivation, and learning and is essential to incorporate into classrooms. This study documents GTAs' use of immediacy behaviors in the classroom, and how they are related to motivation.

While the link between perceptions of immediacy and student motivation has been established, it is unclear how these perceptions (behavior- vs. trait-based immediacy) of immediacy are related. Students may perceive instructors as immediate due to similarity in age, sex, or ethnicity, when in fact their instructor is not displaying immediacy behaviors in the classroom. There may be a difference in the levels of the student's motivation to learn based on what is driving immediacy.

Current Study

This chapter has examined the challenges GTAs face, conceptualized immediacy in its verbal, nonverbal, and trait-based forms, and explained how immediacy can play a role in motivating students. The communication process between a student and instructor can be critical to learning and motivation within a course. Most research on immediacy has been conducted using students' perceptions of immediacy while lacking direct instructor observations. This study will measure both student perceptions of GTA's immediacy and actual immediacy behaviors employed by GTAs, in order to compare student perceptions of immediacy with immediacy behaviors. The ultimate goals are to determine whether GTAs are perceived as being high in immediacy by their students, and to identify which factors are associated with student perceptions of GTA immediacy.

Hypotheses and Research Question

Past research has shown that students perceive instructors to be using immediacy behaviors in the classroom (see Henning, 2012; Kendall & Schussler, 2012; Muzaka, 2009; O'Neal et al., 2007). However, most of the research on instructors' immediacy behaviors assumes that student perceptions of immediacy reflect actual immediacy behaviors (see Frymier & Weser, 2001; Furlich, 2014; Gorham, 1988; Gorham & Christophel, 1992; Gorham & Zakahi, 1990; Grellhesl et al., 2011; Horan et al., 2011; Jaasma & Koper, 1999; Lizzio et al., 2002; McCroskey & Teven, 1999; Özmen, 2011; Pytlak & Houser, 2014; Schrodt et al., 2009; Sidelinger, 2010). To test this assumption, the following hypothesis was proposed:

H_1: GTAs who enact a higher frequency of immediate behaviors in class will be perceived by students as having greater immediacy.

Verbal and nonverbal immediacy can have a positive impact on the student-instructor relationship (Baringer & McCroskey, 2000; Frymier & Houser, 2000; Furlich, 2014; Gorham, 1988). We also know that students' perceptions of their instructor's immediacy can influence their desire to learn (Grellhesl et al., 2011; Halawah, 2011; Lowman & Mathie, 1993). Based on this previous knowledge of immediacy and its potential benefits for learning in the classroom, this study will also test the relationship between student perceptions of GTA's immediacy and student motivation, via the following hypothesis:

H_2: There will be a positive relationship between perceived GTA immediacy and the degree of student motivation for learning.

There is limited research exploring the role GTA identity plays in the classroom. Past research has focused on how age and sex affect students' evaluation of instruction (see Wilson, Beyer, & Monteiro, 2014). Past research has shown similarity can lead to an increase in liking

and higher levels of perceived immediacy (Furlich, 2014; McCroskey & Teven, 1999; Powell et al., 2001). This is important to consider when discussing immediacy in the classroom as different perceived immediacy levels could be based upon trait-based similarity, including similarities of age, sex, or ethnicity of the instructor and student.

Furthermore, past research on the impact of similarity in sex has been mixed (Gorham, 1988; Grellhesl et al., 2011; Kelly, 2012; Lizzio et al., 2002). However, when specifically looking at GTAs male and female students perceive same sex GTAs as having higher nonverbal immediacy (Grellhesl et al., 2011). To address this discrepancy, the current study seeks to understand how perceptions of immediacy relate to trait-based similarities between GTAs and students, specifically similarities in age, sex, and ethnicity. These similarities and perceptions of immediacy will be considered through the following hypotheses and research question:

H_3: Students who perceive their instructor as similar in age to themselves will perceive high instructor immediacy.

H_4: Students who are the same sex as their instructor will perceive higher instructor immediacy than students with instructors of a different sex.

H_5: Students who are the same ethnicity as their instructor will perceive higher instructor immediacy than students with instructors of a different ethnicity.

RQ_1: What is the relationship between perceived instructor immediacy and perceived similarities between the GTA and student?

CHAPTER 3. METHOD

In order to test the proposed hypotheses and research question, a mixed-methods research design was used. The research was carried out in two phases. Phase I consisted of counts of various verbal and nonverbal behaviors to document instructor immediacy behaviors in the classroom. Phase II consisted of a survey on students' perceptions of instructors' immediacy behaviors and student-instructor similarities. The following sections describe both phases of this study, including the research participants, recruitment, procedures, measures, and data analysis for each phase.

Phase I – Observations

Participants. Nine GTAs teaching small introductory public speaking communication courses participated. GTA participants included six male and three female graduate student instructors. Their teaching experience ranged from six months to six years.

Recruitment. GTAs teaching small introductory public speaking communication courses were recruited for this study via email (see Appendix A). GTA instructors were told that the research being conducted was to better understand student-teacher interaction in small and large classes. Instructors were not told that the study would compare behaviors and perceptions of immediacy in the classroom to avoid influencing the instructor's behaviors.

Procedures. Because student perceptions of immediacy must be matched with observations of their instructors' immediacy behaviors, each introductory public speaking communication course was identified based on the willingness of GTAs to participate in the study. Every student enrolled in that course section was invited to participate in the study. This was most appropriate for this study because the researcher needed to obtain student participants

from the specific sections that were observed in order to match instructors' immediacy behaviors with students' perceptions of immediacy.

This research project used human subjects; therefore, procedures were submitted to the Institutional Review Board (IRB) for approval. After IRB approval and permission from the GTAs, observations were conducted. All observations took place in Spring 2016. The researcher first attended the selected sections to document immediacy behaviors using the observational protocol (see Appendix F). Pseudonyms were created to ensure the identity of GTAs remained confidential. Demographic information for the nine GTAs is summarized in Table 1.

Table 1

GTA Demographic Information

Pseudonym	Age	Ethnicity	Teaching Experience (in years)
Tessa	23	White	½
Brandon	30	White	½
Brittany	26	White	2
Andrew	31	White	3
Kyle	30	White	3
Joel	30	White	½
Matt	30	White	3
Sarah	24	White	2
Nate	26	White	6

Note. n=9

Age

Range 23-31
M = 27.77 years

Teaching Experience

Range 0.5-6 years
M = 2.27 years

Phase I data collection took place during weeks five (February 8-12) and six (February 15-19) of the semester. Two observations were conducted in each GTA's classes in order to ensure that immediacy behaviors being observed were consistent rather than by chance. By

weeks five and six of the course, students should be familiar with their GTA's typical teaching behaviors. Week five and six content was also uniform for all class sections observed, reducing the possibility of course content acting as a confounding variable. Additionally, all GTA observations were 50-minute class sessions to ensure a standardization of content and class length. The multiple observations were conducted to ensure consistency. However, the second observation had the most consistent content between all nine instructors. All of these class sessions included 50 minutes of instruction and a brainstorming activity within that time. Therefore, only the second observation was used for the immediacy count.

To better understand instructors' immediacy, the researcher took the role of an observer in the classroom and made counts of the instructor's immediacy behaviors. These behaviors were counted based on an adapted version of Gorham's (1988) immediacy survey and Mehrabian's (1969, 1981) nonverbal and verbal immediacy behaviors (see Appendix D). Items pertaining to behaviors outside of class, or those that did not pertain to the college classroom, were altered or removed because the researcher only observed instructor immediacy behaviors for the duration of the class. Immediacy behaviors were recorded by counting the frequency of each behavior displayed by GTAs in the classroom.

Measures. Data were collected from GTAs via observations and surveys. The researcher observed each GTA. After the observations, GTAs completed a demographic questionnaire to document trait-based characteristics. Both verbal and nonverbal immediacy behaviors were counted throughout the observation, using the adapted version of Gorham's (1988) scale. To accurately count these behaviors at a fast pace, similar behaviors were color coded, and verbal and nonverbal behaviors were split on the observation protocol.

The format of the observation protocol (see Appendix F) was based on Smith, Jones, Gilbert, & Wieman's (2013) Classroom Observational Protocol for Undergraduate for college STEM courses (COPUS). Although the introductory public speaking course is not a STEM course, the easy to learn observational protocol of the COPUS allows researchers to systematically document what students and instructors are doing in any college classroom. Furthermore, COPUS allows researchers with little observational training and experience to reliably observe in higher education settings (Smith et al., 2013). For this study, instructors' immediacy behaviors were observed in two-minute increments.

Before entering the classroom and observing the GTA, interrater reliability was established using the observation protocol. Interrater reliability was established, because two coders were used to assign communication behaviors to specific categories. To determine reliability, two researchers watched a video of an instructor teaching. Using the COPUS method of timed intervals, both researchers used the adapted instructor immediacy scale to record the presence or absence of GTAs' immediacy behaviors every two minutes. Interrater reliability was calculated using the Kappa statistic (kappa = .79), indicating an acceptable level of consistency in observation (Keyton, 2015). Discrepancies between instructor immediacy behaviors were resolved by referring to the video. Once reliability was established, the primary researcher conducted all GTA observations.

Observational Protocol. Instructor immediacy observations were based on 19 items. There were two subscales within this measure. The first subscale is based on 12 items focused specifically on verbal immediacy behaviors. The second subscale had seven items on nonverbal immediacy behaviors. Higher counts indicate that the instructor is using greater amounts of immediacy in the classroom. Gorham (1988) reported the initial reliability of this scale as .94.

Prior studies using the immediacy scale have reported reliability coefficients ranging from .80 to .89 (Christophel, 1990). The closer the reliability coefficient is to 1.00 indicates the greater degree of stability, trustworthy, and dependability of the scale; however, a commonly accepted standard for an acceptable reliability coefficient is .70 or above (Keyton, 2015), making this scale a good fit for the study. Appendix D displays Gorham's original scale and the adapted immediacy behavior scale used in this study.

Verbal immediacy items include behaviors like, "Asks questions or encourages students to talk" and "Addresses students by name." Nonverbal examples include "Gestures while talking to class" and "Moves around the classroom while teaching." Items 9, 12, 15, 18, 21, 23, 26, 29, 30, and 31 from Gorham's (1988) original immediacy behavior scale are designed to identify *non*immediate behaviors. Nonimmediate behaviors are behaviors that create a psychological distance. Examples include "Calls on students to answer questions, even if they have not indicated that they want to talk," or "Uses monotone/dull voice when talking to class." Nonimmediate behaviors were not included in the observational protocol tool, because it is not possible to have both vocal variety (immediacy behavior) and a monotone voice (nonimmediate behavior) at the same time. These are intended to have a validity check in the survey, but not needed in the observation. However, higher scores of nonimmediate instructor behaviors indicate that their instructor has low immediacy. A detailed list is found in Appendix D.

GTA Survey. After the researcher observed the GTA's class, GTAs were asked to complete a short demographic survey. The GTA demographic survey asked for the GTA's sex, ethnicity/race, native language, birth year, and amount of teaching experience. These GTA demographic questions served as a check on the accuracy of student perceptions of GTA sex,

ethnicity/race, language status, and age. The demographic questions for GTAs can be found in Appendix B.

Analysis. The observations of GTAs' immediacy behaviors were categorized into a total number of immediacy behaviors counted from the observation. The analysis also broke the GTAs' immediacy behaviors into verbal and nonverbal immediacy behaviors to see which were used most frequently. GTA surveys were analyzed to check accuracy of student perceptions of demographic information.

Phase II – Student Perceptions

Participants. The second phase consisted of student surveys. 43 male (56.6%) and 33 female (43.3%) undergraduate students enrolled in the introductory public speaking communication course participated, with an average age of 20 years (*SD* = 3.39).

Using the introductory public speaking courses allowed for a wider variety of participants for the study, because it is a general education course required for all students at the university. A wider variety of participants are important for increased generalizability. This course generally serves students of various ages and majors; however, most students who completed this survey were in their first or second year (93.4%). According to the university's enrollment summary, there were 11,049 undergraduate students enrolled in Spring 2016. The majority of undergraduate students are between the ages of 18 to 21 (71%, n = 7,834), with a lesser number of students between the ages of 25 to 64 (9%, n = 953). Furthermore, the sample matched gender (males, 54%, n = 6,019; females, 46%, n = 5,030) and ethnicity distribution at the university (white, 86%, n = 9,535). Students' demographic information for the present study can be found in Table 2.

Recruitment. Students were recruited from courses in which GTAs elected to participate in the study. This ensured that student responses were based on the same class the researcher observed. At the end of the observation of each willing GTA, I informed students that I was conducting research on student learning for my thesis, that they would receive an email with a link to the study, and that they would have one week to complete the survey for course research requirement points. The student recruitment email informed students about the rights of human research participants and directed them to the survey link. Because the researcher taught multiple sections of the same course, a portion of students did not have the opportunity to participate. In order to get credit for taking the survey, students were given a certificate at the end that verified their participation in the study.

Procedures. 79 undergraduate students participated in this study. Of the total student survey responses, three were immediately discarded due to students reporting the wrong small group instructor. This discrepancy threatened the researcher's ability to compare student perceptions of immediacy to observations of immediacy behaviors. The data reflected small classes (1-25 students). Demographic information for the student participants is grouped by individual sections observed and is summarized in Appendix I. Additionally, demographic information for the entire sample is summarized in Table 2.

Table 2

Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	66	86.8
	American Indian/ Alaska Native	1	1.3
	Asian	2	2.6
	Black or African American	2	2.6
	Hispanic	1	1.3
	Mixed	4	5.3
Sex	Female	33	43.4
	Male	43	56.6
Year in College	First-Year Student	58	76.3
	Sophomore	13	17.1
	Junior	2	2.6
	Senior	3	3.9
English First Language	Yes	72	94.7
	No	4	5.3
Expected Grade	A	57	75.0
	B	16	21.1
	C	3	3.9

Note. n=76

After the GTA observation, online surveys were administered to students via email with a link. To ensure student responses were accurately matched to the GTA being observed, each section observed had a separate Qualtrics survey link. To ensure accuracy, students were also asked to indicate their instructor's name. The URL link opened up to an online survey hosted on Qualtrics, which displayed the informed consent document on the first page. Participants were given more details on the project, reminded of their rights to withdraw from the study at any time, and assured anonymity throughout the study. Students were also assured that their GTA would not see any results from this study.

After participants consented to participate, a variety of questions were asked. Questions focused on their instructor's immediacy behaviors, their own motivation to learn, and perceived similarity between themselves and their instructors. The online surveys allowed students to complete the survey on their own time and at their own pace. The survey remained open for participants to complete for one week following the researcher's classroom observation. This timeframe ensured that students' perceptions of immediacy could be linked to the instructor's immediacy behaviors in the specific week of the researcher's observation.

Measures. Student surveys measured demographics, perceived instructor immediacy, perceived similarities between the instructor and student, and motivation to learn.

Demographics. The first part of the student surveys focused on student demographics and educational characteristics (see Appendix C). The demographic section asked participants to report their age, sex, ethnicity/race, and whether or not they spoke English as their first language. Students also reported their instructor's name, sex, and age (as perceived by the student) to ensure a match between student perceptions of instructor traits and their actual traits. Additional questions included the student's grade point average (GPA), status in school, major, and predicted course grade.

Perceived instructor immediacy. An 18-item semantic differential questionnaire adapted by Kelly (2012) was used to measure students' perceptions of their GTA's immediacy behaviors (see Appendix C). Kelly opted to develop her own scale because prior knowledge of the definition of immediacy was needed to complete Andersen, Andersen, and Jensen's (1979) instrument. Kelly argues that how students perceive their instructor's behaviors is more important than their perception of frequency of behaviors. According to Kelly (2012), her measurement of immediacy behaviors has good face and construct validity. Tests for reliability

confirmed that the scale for perceived instructor immediacy was internally consistent (Cronbach's α = .97). A pilot test was used to test comprehension of the survey. Based on student responses from the pilot survey, the original word "aloof" was changed to a more commonly used word, "uninvolved."

Perceived similarity. The third part of the survey measured students' perceived similarity with their GTA. A 25-item questionnaire from McCroskey, McCroskey, and Richmond (2006) was used in order to measure perceived similarity. The homophily scales were used to measure perceived similarities between individuals on a series of seven-point scales ranging from "strongly agree" to "strongly disagree." The questionnaire contained two homophily subscales: background and attitude. The background homophily subscale consisted of ten questions, while the attitude homophily subscale consisted of 15 questions. Both of these subscales are determined to have reliability and validity (McCroskey et al., 2006). Tests for reliability confirmed that the scales for perceived similarity between students and their instructor were internally consistent (Cronbach's α = .902).

Motivation to learn. The fourth and final part of the survey measured students' motivation to learn. A 12-item questionnaire from Christophel (1990) was used to measure students' motivational attitudes in the specific course taught by the GTA observed (see Appendix C). These 12 items use bi-polar adjectives to measure student motivation, interest in the course, involvement, and enthusiasm for the course. Participants were informed that the items were concerned with how students feel about taking this class and asked to select the number that best describes their feelings. In some cases, the most positive score is "1" while in other cases it is a "7." Reliabilities from Christophel's studies ranged from .91 to .96. Tests for reliability in the

current study confirmed that the scale for students' motivation to learn was internally consistent (Cronbach's α = .954).

Analysis. Out of the 79 total surveys completed, three were removed from analysis, because the students did not identify their instructor. Out of the 76 completed surveys, one student failed to complete the motivation to learn and perceived similarity section; this incomplete survey was used, because the perceived immediacy section had usable data. Instructor's actual age and students' perceptions of their instructor's age were used to see the match between the two.

Bivariate Pearson correlations and independent samples t-tests were used to answer the hypotheses and research question discussed in the previous chapter. A bivariate Pearson correlation was an appropriate test, because the goal of the first three hypotheses and research question was to look at the relationship between two variables. An independent samples t-test was used to answer the two remaining hypotheses. The independent samples t-test was appropriate, because it investigated the difference between two groups (students who had the same sex/ethnicity as their GTA and students who had a different sex/ethnicity than their GTA).

CHAPTER 4. RESULTS

The purpose of this study was to compare undergraduate perceptions of GTA immediacy with observations of GTAs' immediacy behaviors, in order to better understand (a) whether GTAs are perceived as being high in immediacy, and (b) what factors are associated with student perceptions of GTA immediacy. The observational data is presented first, followed by the quantitative results from student surveys.

Immediacy Behaviors

The potential range for GTA immediacy behavior using the observational protocol was 0-475 counts. Total GTA immediacy scores for the 50-minute in-class observations ranged from counts of 47 to 225. The average of all nine GTA observations was 117.56 counts per 50-minute observation. The potential range for verbal immediacy behaviors was 0-300 counts, while nonverbal immediacy behaviors was 0-175 counts. Verbal immediacy scores ranged from 8-90 with a mean of 29.11 counts. Nonverbal immediacy score counts ranged from 39 to 135 with a mean of 88.44. The nonverbal, verbal, and total immediacy counts from the observation are summarized in Table 3. The most dominant nonverbal immediacy behaviors noted across all of the observations included having a relaxed body position (24.1%), looking at the class while talking (24.1%), gesturing (19.3%), and having vocal variety while talking (16.1%). This is displayed in Table 4.

Joel had the lowest total immediacy score of 47. His tendency to teach while sitting led to a lower nonverbal immediacy behavior score. Joel used very few gestures while talking to the class and had a limited variety of vocal expressions. The majority of Joel's immediacy score resulted from having a relaxed body position and looking at the class while speaking. Additionally, Brandon and Tessa also sat while they were teaching and displayed many similar

nonimmediate behaviors. The majority of Brandon and Tessa's immediacy scores came from having a relaxed body position and looking at the class while talking.

Alternatively, Andrew had the highest levels of nonverbal and verbal immediacy behaviors, resulting in the largest total immediacy score of 225. His nonverbal behaviors involved constant movement, which included acting, marching around the classroom, and nonverbal behaviors asking students to indicate they understood what the GTA was teaching. His verbal behavior included asking a variety of open-ended questions that solicited viewpoints, opinions, and encouraged students to talk. Andrew also repeatedly praised students' work, actions, and comments with vocal variety, stating, "That's a great question" or "Fantastic!" Additionally, Andrew referred to the class as "we" and "our" several times. Nate showed similar behaviors, referring to his class as "we" and praising students for their comments. Nate also engaged his students by moving around the classroom and drawing on the board.

Table 3

GTA Immediacy Behavior Counts

Pseudonym	Nonverbal Immediacy	Verbal Immediacy	Total Immediacy
Andrew	135	90	225
Nate	113	33	146
Kyle	113	21	134
Matt	101	24	125
Brittany	102	21	123
Sarah	88	19	107
Tessa	61	29	90
Brandon	44	17	61
Joel	39	8	47

Note. n=9

Table 4

Nonverbal Immediacy Behavior Counts

Behavior	Count	Percentage
Relaxed Body Position	192	24.1
Eye Contact	192	24.1
Gestures	154	19.3
Vocal Expressions	128	16.1
Movement	73	9.2
Smiling At Class As Whole	41	5.2
Smiling At Individuals	16	2.0

Student Perceptions

Hypothesis one predicted that instructors who enact more immediate behaviors will be perceived by their students as having higher immediacy than instructors who display fewer immediate behaviors. To test this, a bivariate Pearson correlation was used. Instructors' in-class observation immediacy scores and perceived immediacy were positively correlated, $r = .26$, $p < .05$, providing support for hypothesis one.

Hypothesis two predicted that students who perceive their instructor as high in immediacy will be more motivated to learn, and students who perceive their instructor as low in immediacy will be less motivated to learn. In order to test this hypothesis, a bivariate Pearson correlation was used to look at the relationship between the two variables. The correlation was significant and in a positive direction, $r = .34$, $p < .01$, providing support for hypothesis two.

Hypothesis three predicted that students who perceive their instructor as similar to them in age would perceive higher instructor immediacy. To test this hypothesis, a bivariate Pearson correlation was used. The absolute difference was calculated between the student's actual age and instructors' age (as perceived by the student). Perceived instructor immediacy and the

absolute value of perceived GTA age minus student age were not significantly correlated, r = .14, p = .14. Therefore, the data were not consistent with hypothesis three.

Hypothesis four predicted that students who are the same sex as their instructor would perceive higher instructor immediacy than students with an instructor of the opposite sex. In order to test this, an independent samples t-test was used to compare two groups: 1) students who had the same sex as their GTA and 2) students who had a different sex than their GTA. For sex similarity and perceived immediacy, the t-test was not statistically significant. Students who were the same sex as their GTA (M = 5.85, SD = .99) did not differ in their perceived immediacy from students who were a different sex than their GTA (M = 6.03, SD = .73), $t(74) = -.88$, p = .38. Therefore, the data were not consistent with hypothesis four.

Hypothesis five predicted similarity in student and instructor ethnicity would result in students perceiving their instructor as having high levels of immediacy. In order to test this, an independent samples t-test was conducted. The t-test was not statistically significant. Students who were the same ethnicity as their GTA (M = 5.88, SD = .90) did not differ in perceived immediacy from students who were a different ethnicity than their GTA (M = 6.22, SD = .75), $t(74) = -1.14$, p = .26. Thus the data were not consistent with hypothesis five.

Research question one sought to understand the relationship between perceived similarity and perceived instructor immediacy. In order to answer this research question, a bivariate Pearson correlation was used. The correlation was significant and in a positive direction, r = .39, $p < .01$. Students who perceive themselves as being similar to their GTA also perceive their GTA as being highly immediate. Table 5 shows a bivariate correlation matrix with means and standard deviations.

Table 5

Correlation Matrix With Means and Standard Deviations

	Perceived Immediacy	Perceived Similarity	Motivation to Learn
Perceived Immediacy			
Perceived Similarity	.39**		
Motivation to Learn	.34**	.25*	
M	5.92	4.33	4.20
SD	.89	.74	1.39

**Correlation is significant at the .01 level.
*Correlation is significant at the .05 level.

CHAPTER 5. DISCUSSION

This study investigated factors associated with student perceptions of GTA immediacy. All GTAs displayed immediacy behaviors, but some used more immediacy behaviors than others and there was a large range in the number of immediacy behaviors used. Overall, the findings suggest that perceptions of immediacy are associated more with instructor behavior and student perceptions of similarity in background and attitude than by similarity in age, sex, or ethnicity. This chapter will provide a more in-depth discussion of the study's results. First, the class observations and survey results will be discussed. The study's implications and future areas of research will then be reviewed.

This study extended scholarship by focusing specifically on GTAs. The class observations revealed that all GTAs were using some level of immediacy behaviors. This result is consistent with Kendall and Schussler (2012), who found that GTAs are perceived as more engaging, interactive, relatable, understanding, and able to personalize teaching. Overall, GTAs observed in this study were seen as engaging and interacting throughout the 50-minute class period. However, some GTAs displayed immediacy behaviors at higher rates than others. The GTA that showed the highest number of immediacy behaviors was relaxed, laid-back, engaging, and interactive. This GTA's teaching style was a theatrical performance with movement throughout the classroom, constant eye contact, asking for student feedback, and vocal variety. However, there was a large range in the number of immediacy behaviors displayed by GTA instructors, indicating that some GTAs used fewer immediacy behaviors. This is important, because some GTAs lack of immediacy behaviors present may affect their students' motivation to learn.

The results demonstrate that there is a relationship between an increase in immediate behaviors and an increase in students' perceptions of immediacy consistent with past findings (Henning, 2012; Kelly, 2012). Mehrabian (1969) originally argued that immediacy is increased when there are greater degrees of touching, leaning forward, eye contact, mirroring of body position, and smaller distances between individuals. These immediate behaviors were observed in the GTA's classrooms, in addition to being perceived as immediate by the students. The most dominant nonverbal immediacy behaviors noted across all of the observations included having a relaxed body position, looking at the class while talking, gesturing, and having vocal variety while talking to the class. These dominant immediacy behaviors are important, because nonverbal immediacy traits that students most often notice are eye contact and movement (Henning, 2012). Eye contact was one of the most dominant immediacy behaviors displayed by GTAs in this study.

A portion of this study was dedicated to understanding how immediacy behaviors are related to students' motivation to learn. I found a relationship between students who perceive their instructor as having a high level of immediacy were more motivated to learn. Findings suggest that there is also a relationship between lower perceived immediacy and low motivation to learn. This correlation is consistent with past research on instructor immediacy and an individual's motivation to learn (Allen et al., 2006; Christensen & Menzel, 1998; Christophel & Gorham, 1995; Elliot & Knight, 2005; Furlich, 2014; Glynn et al., 2005; Jaasma & Koper, 1999; Pogue & AhYun, 2006; Seifert, 2004; Sidelinger, 2010). Past research suggests that student engagement and enjoyment increase when instructors use immediacy behaviors (Horan et al., 2011; Sidelinger, 2010). Many of the GTAs observed in this study used verbal immediacy behaviors such as praising students for their work, action, or comments, and asking open-ended

and opinion-based questions. For example, GTAs asked how students' weekends were or asked if students had questions about what had been covered so far in class.

One of the main goals of this study was to understand how GTA behaviors and trait-based similarities between GTAs and their students relate to students' perceptions of immediacy. To answer this question, three traits were examined in this study: age, sex, and ethnicity. No significant correlations were found between trait-based similarities and perceptions of instructor immediacy, so we cannot conclude that students who had similar age, sex, and ethnicity as their GTA will view them as being more immediate. This result is in line with past research finding that instructor sex is not related to immediacy in a meaningful way (Gorham, 1988; Lizzio et al., 2002), and in contrast to other studies finding that female and male students perceive same sex GTAs as having higher immediacy (Grellhesl et al., 2011).

However, perceived similarity and perceived immediacy were significantly correlated, suggesting that similarity is multifaceted and driven by factors beyond being close in age, or the same gender and ethnicity. Powell et al. (2001) suggests, "if we are drawn to things that we like and we are drawn to those thing which we find similar to us, then it is possible that developing a homophilous relationship results in immediacy" (p. 218-219). These similarities may come from a combination of things such as having similar hobbies, similar gender, same interested, etc. Individuals may want to get to know other individuals we are similar to because we are like them. Examples of similarity questions participants were asked to rate in the instrument and mentally reference were the student and GTA's status, social class, background, childhood, behavior, values, thoughts, ideas, and commonalities. Previous research has found that perceptions of similarity contribute to both liking and a reduction in psychological distance (Al-Natour, Benbasat, Cenfetelli, 2006; Edwards, Lee, & Ferle, 2009), and that perceptions of

similarity stem from a combination of factors (Morry, 2007). The current study's findings suggest that individual's perceptions of similarity are associated more than actual trait-based similarities, particularly when it comes to the relationship between similarity and immediacy.

Behaviors also relate more than trait-based similarities to students' perceptions of GTAs being high in immediacy. The results of the hypotheses and research question revealed that the number of immediate behaviors and perceptions of similarity did have an association with students' perceptions of immediacy. It is interesting that perceived similarities had a stronger correlation with perceived immediacy than behaviors observed and perceived immediacy. It may be easier for GTAs to change their behaviors to increase their students' perceptions of immediacy rather than establishing similarities with their students. GTAs may want avoid establishing similarity with their students and focus on their behaviors instead to help maintain their authority. Furthermore, the results from this study indicated that motivation to learn was related to students' perceptions of GTA immediacy.

Implications

These results have implications for GTAs and beginning instructors. We know that when students perceive their instructor as being high in immediacy, they have more motivation to learn. According to the results, GTAs should focus on using immediacy behaviors in the classroom to motivate their students to learn. An increase in motivation to learn could help students enjoy the course, retain more information, and ultimately learn more. The current study builds on Kelly's work by demonstrating a high level of correspondence between observed behaviors and perceived immediacy, challenging her contention that immediacy behaviors may not be perceived as immediate by students. The observational protocol tool could be used as a set of suggested teaching practices. Using the observational protocol tool from this study could help

instructors focus on both specific verbal and nonverbal behaviors that they should use in their classroom in order to motivate their students. Additionally, this tool could be used as training suggestions for GTAs. Hardré (2003) suggested that training does not have to be comprehensive; perhaps implementing a training in which GTAs learn specific immediacy behaviors could benefit the GTA and their teaching.

Limitations and Directions for Future Research

Though this study provides some useful insights, it did have some limitations. First, the sample consisted of students from an introductory Communication course. Future studies should look at perceptions of students involved in other fields and lab sections taught by GTAs. Additionally, only small class sizes were included in this study. The small class sizes may have made immediacy more easily employed and it may be more difficult to achieve immediacy in larger classes. Gorham's (1988) past research has looked at immediacy in small (1-25), mid-sized classes (26-50 students), and large classes (51 or more students). Gorham found that gesturing, smiling at individual students, having a relaxed body position, and moving around the classroom become more important as the class size increases. Future studies should look at how different class sizes affect GTAs' immediacy behaviors, students' motivation to learn, and perceptions of behaviors.

Because researchers still do not have a clear understanding of how traits play a role in the classroom, research should continue to look at ethnicity, sex, and age in relation to immediacy in the classroom. It would interesting to see if instructors with different ethnicities are seen as using different types of immediacy and how students perceive those immediate behaviors. Looking at different contexts could help understand how ethnicities affect the interpretation. For example, authoritarian, traditional Middle Eastern, and Oriental cultures typically respect traditions,

wisdom of old age, and status (Mehrabian, 1961). Are instructors from different cultures using more nonverbal immediacy, because they value those behaviors culturally? Additionally, if I would have done face-to-face interviews in addition to the observations and student survey, I may have gotten more rich descriptions of what specific immediacy behaviors students noticed specifically, and why the students were perceiving their instructor as being high or low in immediacy.

On a larger scale, it would be interesting to look at both GTAs and faculty instructors who have been teaching a number of years to see what types of immediacy are displayed in addition to understanding how their students perceive their immediacy behaviors. Kendall and Schussler (2012) suggest that professors and GTAs are perceived differently by students while both are seen as having negative and positive teaching qualities. Future research should look at how these positive teaching qualities are related to perceptions of immediacy. How do faculty and GTA immediacy behaviors differ? How are GTA and faculty behaviors similar? Answering these questions could unveil new implications for immediacy research.

REFERENCES

Al-Natour, S., Benbasat, I., & Cenfetelli, R. T. (2006). The role of design characteristics in shaping perceptions of similarity: The case of online shopping assistants. *Journal Of The Association For Information Systems, 7*(12), 821-861. Retrieved from http://web.b.ebscohost.com.ezproxy.lib.ndsu.nodak.edu/ehost/detail/detail?sid=ba8e6d7a-8c35-4428-a862-d34544650898%40sessionmgr113&vid=0&hid=106&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl&preview=false#AN=24979090&db=keh

Allen, M., Witt, P. L., & Wheeless, L. R. (2006). The role of teacher immediacy as a motivational factor in student learning: Using meta-analysis to test a causal model. *Communication Education, 55,* 21-31. doi:10.1080/03634520500343368

Allen, R.R., & Rueter, T. (1990). *Teaching assistant strategies: An introduction to college teaching*. Dubuque, IA: Kendall/Hunt.

Andersen, J. F., Andersen, P. A., & Jensen, A. D. (1979). The measurement of nonverbal immediacy. *Journal Of Applied Communications Research, 7*(2), 153-180. doi:10.1080/00909887909365204

Austin, A. E. (2002). Preparing the next generation of faculty: Graduate school as socialization to the academic career. *The Journal of Higher Education, 73*(1), 94-122. doi:10.1353/jhe.2002.0001

Austin, A. E., & Wulff, D. H. (2004). The challenge to prepare the next generation of faculty. *Paths to the professoriate: Strategies for enriching the preparation of future faculty,* 3-16. Retrieved from http://dx.doi.org/10.2139/ssrn.1699342

Baringer, D. K., & McCroskey, J. C. (2000). Immediacy in the classroom: Student immediacy. *Communication Education, 49*(2), 178-186. doi:10.1080/03634520009379204

Bubb, S., & Earley, P. (2004). *Managing teacher workload: Work-life balance and wellbeing*. Sage.

Buerkel-Rothfuss, N. L., & Fink, D. S. (1993). Student perceptions of teaching assistants (TAs). *Basic Communication Course Annual, 5*, 71-100.

Branstetter, S. A., & Handelsman, M. M. (2000). Graduate teaching assistants: Ethical training, beliefs, and practices. *Ethics and behavior, 10*(1), 27-50. doi:10.1207/S15327019EB1001_3

Christensen, L. J., & Menzel, K. E. (1998). The linear relationship between student reports of teaching immediacy behaviors and perceptions of state motivation, and of cognitive, affective, and behavioral learning. *Communication Education, 47*(1), 82-90. doi:10.1080/03634529809379112

Cho, Y., Kim, M., Svinicki, M. D., & Decker, M. L. (2011). Exploring teaching concerns and characteristics of graduate teaching assistants. *Teaching in Higher Education, 16*(3), 267-279. doi:10.1080/13562517.2010.524920

Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education, 39*(4), 323-340. doi:10.1080/03634529009378813

Christophel, D. M., & Gorham, J. (1995). A test-retest analysis of student motivation, teacher immediacy, and perceived sources of motivation and demotivation in college classes. *Communication Education, 44*(4), 292-306. doi:10.1080/03634529509379020

Edwards, C., & Harwood, J. (2003). Social identity in the classroom: An examination of age identification between students and instructors. *Communication Education, 52*(1), 60-65. doi:10.1080/03634520302463

Edwards, S. M., Lee, J. K., & Ferle, C. L. (2009). Does place matter when shopping online? Perceptions of similarity and familiarity as indicators of psychological distance. *Journal of Interactive Advertising, 10*(1), 35-50. doi:10.1080/15252019.2009.10722161

Elliot, J., & Knight, J. A. (2005). Student motivation: The bottom line. *The argricultural education magazine, 77*(4), 8-10. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume77/v77i4.pdf#page=8

Finn, A. N. (2012). Teacher use of prosocial and antisocial power bases and students' perceived instructor understanding and misunderstanding in the college classroom. *Communication Education, 61*(1), *67-79.* doi:10.1080/03634523.2011.636450

Frymier, A. B., & Houser, M. L. (2000). The teacher student relationship as an interpersonal relationship. *Communication Education, 49*(3), 207-219. doi:10.1080/03634520009379209

Frymier, A. B., & Weser, B. (2001). The role of student predispositions on student expectations for instructor communication behavior. *Communication Education, 50*(4), 314-326. doi:10.1080/03634520109379258

Furlich, S. A. (2014). Exploring instructor verbal immediacy behaviors and student motivation with institution type through self-determination theory. *Kentucky Journal of Communication, 33*(1), 52-64. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.ndsu.nodak.edu/ehost/detail/detail?vid=10&sid=86be9d20-522f-4267-92a3-b7cc56ec41f2%40sessionmgr4004&hid=4112&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=98060797&db=ufh

Gardner, G. E., & Jones, M. G. (2011). Pedagogical preparation of the science graduate teaching assistant: Challenges and implications. *Science Educator*, *20*(2), 31-41. doi:10.1080/09500691003743244

Glynn, S. M., Aultman, L. P., & Owens, A. M. (2005). Motivation to learn in general education programs. *The Journal Of General Education*, *54*(2), 150-170. doi:10.1353/jge.2005.0021

Golish, T. D. (1999). Students' use of compliance gaining strategies with graduate teaching assistants: Examining the other end of the power spectrum. *Communication Quarterly, 47*(1), 12-32. doi:10.1109/CIC.1999.826055

Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors and student learning. *Communication Education, 37*(1), 40–53. doi:10.1080/03634528809378702

Gorham, J., & Christophel, D. M. (1992). Students' perceptions of teacher behaviors as motivating and demotivating factors in college classes. *Communication Quarterly, 40*(3), 239-252. doi:10.1080/01463379209369839

Gorham, J., & Zakahi, W. R. (1990). A comparison of teacher and student perceptions of immediacy and learning. Monitoring process and product. *Communication Education, 39*(4), 354-368. doi:10.1080/03634529009378815

Grellhesl, M., Smith, J., & Punyanunt-Carter, N. M. (2011). An investigation of college students' perceptions of teaching assistants' immediacy behaviors. *Human Communication, 14*(2), 105-116. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.ndsu.nodak.edu/ehost/detail/detail?vid=57&sid=38943b4e-8a1e-4e97-b4fa-

52108b2dff2c%40sessionmgr4003&hid=4112&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZz
Y29wZT1zaXRl#AN=61775255&db=ufh

Haggerty, M. E. (1927). The professional training of college teachers. *The North Central Association Quarterly, 2*(1).

Halawah, I. (2011). Factors influencing college students' motivation to learn from students' perspective. *Education, 132*(2), 379-390. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.ndsu.nodak.edu/ehost/detail/detail?vid=63&sid=3
8943b4e-8a1e-4e97-b4fa-
52108b2dff2c%40sessionmgr4003&hid=4112&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZz
Y29wZT1zaXRl#AN=70532607&db=eue

Hardré, P. L. (2003). The effects of instructional training on university teaching assistants. *Performance Improvement Quarterly, 16*(4), 23-39. doi:10.1111/j.1937-8327.2003.tb00292.x

Hendrix, K. G. (1995). Preparing graduate teaching assistants (GTAs) to effectively teach the basic course. Paper presented at the annual meeting of the Southern States Communication Association, New Orleans, Louisiana. Retrieved from http://eric.ed.gov/?id=ED384933

Henning, Z. T. (2012). From barnyards to learning communities: Student perceptions of teachers' immediacy behaviors. *Qualitative Research Reports in Communication, 13*(1), 37-43. doi:10.1080/17459435.2012.719207

Hess, J. A., Smythe, M. J., & Communication 451. (2001). Is teacher immediacy actually related to student cognitive learning?. *Communication Studies, 52*(3), 197-219. doi:10.1080/10510970109388554

Horan, S. M., Houser, M. L., Goodboy, A. K., & Frymier, A. B. (2011). Students' early impressions of instructors: Understanding the role of relational skills and messages. *Communication Research Reports, 28*(1), 74-85. doi:10.1080/08824096.2011.541362

Jaasma, M., & Koper, R. (1999). The relationship of student-faculty out-of-class communication to instructor immediacy and trust and to student motivation. *Communication Education, 48*(1), 41–47. doi:10.1080/03634529909379151

Johnson, S., & Miller, A. (2002). A cross-cultural study of immediacy, credibility, and learning in the US and Kenya. *Communication Education, 51*(3), 280-292. doi:10.1080/03634520216514

Kelly, S. E. (2012). *Examining the role of perceived immediacy as a mediator: Revisiting the relationships among immediate behaviors, liking, and disclosure* (Doctoral dissertation). Retrieved from http://trace.tennessee.edu/utk_graddiss/1414

Kelly, S., Rice, C., Wyatt, B., Ducking, J., & Denton, Z. (2015). Teacher immediacy and decreased student quantitative reasoning anxiety: The mediating effect of perception. *Communication Education, 64*(2), 171-186. doi:10.1080/03634523.2015.1014383

Kendall, K. D., & Schussler, E. E. (2012). Does instructor type matter? Undergraduate student perception of graduate teaching assistants and professors. *CBE-Life Sciences Education, 11*(2), 187-199. doi:10.1187/cbe.11-10-0091

Keyton, J. (2015). *Communication research: Asking questions, finding answers.* New York, NY: McGraw-Hill Education.

Koen, F., & Ericksen, S. C. (1967). An analysis of the specific features which characterize the more successful programs for the recruitment and training of college teachers. Retrieved from http://files.eric.ed.gov/fulltext/ED010556.pdf

Komarraju, M. (2008). A social-cognitive approach to training teaching assistants. *Teaching of Psychology, 35*(4), 327-334. doi:10.1080/00986280802374344

Liu, J., & Tomasi, S. D. (2015). The effect of professor's attractiveness on distance learning students. *Journal Of Educators Online*, *12*(2), 142-165. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.ndsu.nodak.edu/ehost/detail/detail?vid=18&sid=38943b4e-8a1e-4e97-b4fa-52108b2dff2c%40sessionmgr4003&hid=4112&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#db=eue&AN=108511976

Lizzio, A., Wilson, K., & Simons, R. (2002). University students' perceptions of the learning environment and academic outcomes: Implications for theory and practice. *Studies in Higher Education, 27*(1), 27-52. doi:10.1080/03075070120099359

Lowman, J., & Mathie, V. A. (1993). What should graduate teaching assistants know about teaching? *Teaching of Psychology*, *20*(2), 84-88. doi:10.1207/s15328023top2002_4

Luo, J., Bellows, L., & Grady, M. (2000). Classroom management issues for teaching assistants. *Research in Higher Education, 41*(3), 353-383. doi:10.1023/A:1007042911919

McCroskey, L. L., McCroskey, J. C., & Richmond, V. P. (2006). Analysis and improvement of the measurement of interpersonal attraction and homophily. *Communication Quarterly*, *54*(1), 1-31. doi:10.1080/01463370500270322

McCroskey, J. C., & Teven, J. J. (1999). Goodwill: A reexamination of the construct and its measurement. *Communication Monographs, 66*(1), 90–103. doi:10.1080/036377599093-76464

Mehrabian, A. (1969). Some referents and measures of nonverbal behavior. *Behavioral Research Methods and Instrumentation, 1*(6), 203-207. doi:10.3758/BF03208096

Mehrabian, A. (1981). *Silent messages: Implicit communication of emotions and attitudes.* Belmont, CA: Wadsworth.

Morry, M. M. (2007). The attraction-similarity hypothesis among cross-sex friends: Relationship satisfaction, perceived similarities, and self-serving perceptions. *Journal of Social and Personal Relationships*, *24*(1), 117-138. doi:10.1177/0265407507072615

Muzaka, V. (2009). The niche of graduate teaching assistants (GTAs): Perceptions and reflections. *Teaching In Higher Education, 14*(1), 1-12. doi:10.1080/13562510802602400

North Dakota University System. (2016). *Compliance report* [Data file]. Retrieved from https://www.ndsu.edu/fileadmin/data/enrollment/1630/report-k.pdf

North Dakota University System. (2016). *Enrollment summary of students by age* [Data file]. Retrieved from https://www.ndsu.edu/fileadmin/data/enrollment/1630/report-n.pdf

O'Neal, C., Wright, M., Cook, C., Perorazio, T., & Purkiss, J. (2007). The impact of teaching assistants on student retention in the sciences: Lessons for TA training. *Journal of College Science Teaching,* 36(5), 24-29. Retrieved from http://search.proquest.com/openview/0a1657e2efd558584501bf17af985354/1?pq-origsite=gscholar

Özmen, K. S. (2011). Perception of nonverbal immediacy and effective teaching among student teachers: A study across cultural extremes. *International Online Journal Of Educational Sciences*, *3*(3), 865-881. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.ndsu.nodak.edu/ehost/detail/detail?vid=25&sid=38943b4e-8a1e-4e97-b4fa-52108b2dff2c%40sessionmgr4003&hid=4112&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZz

Y29wZT1zaXRl#AN=70424157&db=eue

Park, C., & Ramos, M. (2002). The donkey in the department? Insights into the graduate teaching assistant (GTA) experience in the UK. *Journal of Graduate Education, 3*(2), 47-53. Retrieved from http://www.lancaster.ac.uk/people/gyaccp/park%20and%20ramos%20(2002).pdf

Paulsel, M. L., Chory-Assad, R. M., & Dunleavy, K. N. (2005). The Relationship between student perceptions of instructor power and classroom justice. *Communication Research Reports, 22*(3), 207-215. doi:1080/000368105002070303

Pogue, L., & AhYun, K. (2006). The effect of teacher nonverbal immediacy and credibility on student motivation and affective learning. *Communication Education, 55*(3), 331-344. doi:10.1080/03634520600748623

Powell, L., Hamilton, T., Hickson III, M., & Stuckey, J. (2001). The relationship of homophily to verbal and nonverbal immediacy in the classroom. *Communication Research Reports, 18*(3), 217-222. doi:10.1080/08824090109384801

Pytlak, M. A., & Houser, M. L. (2014). Because I'm the teacher and I said so: GTA use of behavior alteration techniques to establish power and credibility in the college classroom. *Western Journal of Communication, 78*(3), 287-309. doi:10.1080/10570314.2014.893010

Richardson, J. C., & Swan, K. (2003). Examining social presence in online courses in relation to students' perceived learning and satisfaction. Retrieved from http://hdl.handle.net/2142/18713

Schrodt, P., Witt, P. L., Turman, P. D., Myers, S. A., Barton, M. H., & Jernberg, K. A. (2009). Instructor credibility as a mediator of instructors' prosocial communication behaviors and students' learning outcomes. *Communication Education, 58*(3), 350-371. doi:10.1080/03634520902926851

Seifert, T. (2004). Understanding student motivation. *Educational Research, 46*(2), 137-149. doi:10.1080/0013188042000222421

Semlak, J. L., & Pearson, J. C. (2008). Through the years: An examination of instructor age and misbehavior on perceived teacher credibility. *Communication Research Reports, 25*(1), 76-85. doi:10.1080/08824090701831867

Sidelinger, R. (2010). College student involvement: An examination of student characteristics and perceived instructor communication behaviors in the classroom. *Communication Education, 61*(1), 87–103. doi:10.1080/10510970903400311

Smith, M. K., Jones, F. H. M., Gilbert, S. L., & Wieman, C. E. (2013). The classroom observation protocol for undergraduate STEM (COPUS): A new instrument to characterize university STEM classroom practices. *CBS Life Science Education, 12*(4), 618-627. doi:10.1187/cbe.13-08-0154

United States Department of Labor. (2016). *Occupational employment statistics*. Retrieved from http://www.bls.gov/oes/current/oes251191.htm

Williamson, K. L. (2001). *The pedagogy of pedagogy: Teaching GTAs to teach*. Paper presented at the Annual Meeting of the Popular Culture Association and the American Culture Association Conference, Philadelphia, PA. Retrieved from http://files.eric.ed.gov/fulltext/ED461900.pdf

Wilson, J. J., Beyer, D., & Monteiro, H. (2014). Professor age affects student ratings: Halo effect for younger teachers. *College Teaching, 62*(1), 20-24. doi:10.1080/87567555.2013.825574

APPENDIX A. GTA AND STUDENT RECRUITMENT

GTA Recruitment Email
Hello Comm 110 GTAs!

You are receiving this email, because I am conducting research to better understand student-teacher interaction in small and large classes for my thesis research. If you teach a small group, I was hoping to visit during week five and six. This will allow me sufficient time to analyze my data. During my visit, I will be observing student-teacher interaction.

If you have multiple sections, I would be happy to come visit multiple sections. Feel free to let me know information for all other sections you're willing to let me observe. If you're willing to let me observe your class/other sections, please reply to this email with the following information:

- Whether the class is a small group or mass lecture
- Class section number(s)
- Time(s)/Day(s)/Location of your class(es)

If willing to let me come into your classroom, I will send a follow up email confirming my observations time for your class.

The NDSU Institutional Review Board (IRB), approval number, has accepted this study #(insert number). If you have any questions about the rights of human research participants, or if you would like to report a problem, please contact the NDSU IRB Office at (701) 231-8995 or email at ndsu.irb@ndsu.edu. In addition, if you have any questions regarding this study or would like additional information, please contact me at emily.bublitz@ndsu.edu or Dr. Carrie Anne Platt at carrieanne.platt@ndsu.edu.

Thank you for your consideration. My thesis research would not be possible without your help!

Emily Bublitz

Student Recruitment Email
Dear NDSU Comm 110 students:

We are conducting a study on student-teacher interaction in small and large classes. Our goal is to gain a better understanding of how students best learn in the classroom. We are most interested in your perspectives on your instructor.

You are receiving this email, because you qualify to participate in our survey. This survey will take approximately 10-15 minutes of your time to fill out. *When you finish the survey, please print off the "Thank You" page, and bring it to your small group public speaking class in order to receive your research credit.* To take the survey, please click the URL link (insert URL link).

The NDSU Institutional Review Board (IRB), approval number, has accepted this study #(insert number). If you have any questions about the rights of human research participants, or if you would like to report a problem, please contact the NDSU IRB Office at (701) 231-8995 or email at ndsu.irb@ndsu.edu. In addition, if you have any questions regarding this study or would like additional information, please contact me at carrieanne.platt@ndsu.edu.

Thank you,

Carrie Anne Platt
Associate Professor of Communication
North Dakota State University
Department #2310
P.O. Box 6050 • Minard 338B12
Fargo, ND 58108-6050
Phone: 701-231-7294

APPENDIX B. GTA DEMOGRAPHIC QUESTIONNAIRE

1. Please identify your sex.
    a. Male
    b. Female
2. What is your race/ethnicity? Please select all that apply.
    a. Black or African American
    b. White
    c. Asian
    d. American Indian/Alaska Native
    e. Native Hawaiian/Other Pacific Islander
    f. Hispanic
    g. Other Race (please specify in box below) _____
3. Is English your first language?
    a. Yes
    b. No
4. What year were you born?
    a. _____
5. How long have you been teaching? (this includes any teaching experience)
    a. _____

APPENDIX C. SMALL GROUP STUDENT QUESTIONNAIRE

Small Group Student Questionnaire

All of your responses will be anonymous.

1. What year were you born?
    a. _____
2. Please identify your sex.
    a. Male
    b. Female
3. What is your race/ethnicity? Please select all that apply.
    a. Black or African American
    b. White
    c. Asian
    d. American Indian/Alaska Native
    e. Native Hawaiian/Other Pacific Islander
    f. Hispanic
    g. Other Race (please specify in box below) _____
4. Is English your first language?
    a. Yes
    b. No
5. On a four-point scale, what is your GPA?
    a. _____
6. Please identify your status in school.
    a. First-Year Student
    b. Sophomore
    c. Junior
    d. Senior
7. Are you a Communication major?
    a. Yes
    b. No
8. Are you a Communication minor?
    a. Yes
    b. No
9. What is the name of your small group COMM 110 instructor?
    a. _____
10. What is the sex of your small group COMM 110 instructor?
    a. Male
    b. Female
11. How old do you think your small group COMM 110 instructor is? (give your best estimate of their age in years)
    a. _____

12. Which grade do you think you'll get in your COMM 110 class?
    a. A
    b. B
    c. C
    d. D
    e. F

As a reminder, COMM 110 is split into a mass lecture and small group section. <u>The next questions refer to your small group instructor.</u>

Directions: The following is a list of terms that describes your COMM 110 small group instructor. Place an "X" in each of the following scales to indicate how you would describe your COMM 110 small group instructor. Note that in some cases the most positive score is "1" while in other cases it is a "7." (Kelly, 2012)

Note: Based on student responses from the pilot survey, the original word "aloof" was changed to a more common term to increase student understanding, "uninvolved."

**Item reversed before scoring.*

13. Cold	_____ _____ _____ _____ _____ _____ _____	Warm
14. Unfriendly	_____ _____ _____ _____ _____ _____ _____	Friendly
15. *Close	_____ _____ _____ _____ _____ _____ _____	Distant
16. *Comforting	_____ _____ _____ _____ _____ _____ _____	Uncomforting
17. *Responsive	_____ _____ _____ _____ _____ _____ _____	Unresponsive
18. *Approachable	_____ _____ _____ _____ _____ _____ _____	Unapproachable
19. *Personable	_____ _____ _____ _____ _____ _____ _____	Disagreeable
20. Unsettling	_____ _____ _____ _____ _____ _____ _____	Alleviating
21. *Pleasant	_____ _____ _____ _____ _____ _____ _____	Unpleasant
22. *Soothing	_____ _____ _____ _____ _____ _____ _____	Distressing
23. *Reassuring	_____ _____ _____ _____ _____ _____ _____	Disheartening
24. Uncompanionable	_____ _____ _____ _____ _____ _____ _____	Companionable
25. *Welcoming	_____ _____ _____ _____ _____ _____ _____	Unwelcoming
26. *Benign	_____ _____ _____ _____ _____ _____ _____	Threatening
27. *Favorable	_____ _____ _____ _____ _____ _____ _____	Unfavorable
28. Uninvolved *(Aloof)*	_____ _____ _____ _____ _____ _____ _____	Involved
29. *Sociable	_____ _____ _____ _____ _____ _____ _____	Unsociable
30. *Connected	_____ _____ _____ _____ _____ _____ _____	Disconnected

Directions: The next questions ask about similarities between you and your small group COMM 110 instructor. Please indicate your level of agreement between each type of similarity. (McCroskey et al., 2006)

Note: Similarity research measure taken from Dr. James C. McCroskey's website (www.jamesmccroskey.com) with written permission.

1=Strongly agree, 2=Agree, 3=Somewhat agree, 4=Neither agree or disagree, 5=Somewhat disagree, 6=Disagree, 7=Strongly disagree

31. *This person is from a social class similar to mine.
32. This person's status is different from mine.
33. This person is from an economic situation different from mine.
34. *This person's background is similar to mine.
35. *This person's status is like mine.
36. This person is from a social class different from mine.
37. *This person is from an economic situation like mine.
38. This person's background is different from mine.
39. *This person and I come from a similar geographic region.
40. *This person's life as a child was similar to mine.
41. *This person thinks like me.
42. This person doesn't behave like me.
43. This person is different from me.
44. *This person shares my values.
45. *This person is like me.
46. *This person treats people like I do.
47. This person doesn't think like me.
48. *This person is similar to me.
49. This person doesn't share my values.
50. *This person behaves like me.
51. This person is unlike me.
52. This person doesn't treat people like I do.
53. *This person has thoughts and ideas that are similar to mine.
54. This person expresses attitudes different from mine.
55. *This person has a lot in common with me.

Directions: These items are concerned with how you feel in general about taking COMM 110. Please select the number which best describes your feelings. Note that in some cases the most positive score is "1" while in other cases it is a "7." (Christophel, 1990)

56. *Motivated	1	2	3	4	5	6	7	Unmotivated
57. *Interested	1	2	3	4	5	6	7	Uninterested
58. *Involved	1	2	3	4	5	6	7	Uninvolved
59. Not stimulated	1	2	3	4	5	6	7	Stimulated
60. Don't want to study	1	2	3	4	5	6	7	Want to study
61. *Inspired	1	2	3	4	5	6	7	Uninspired
62. Unchallenged	1	2	3	4	5	6	7	Challenged
63. Uninvigorated	1	2	3	4	5	6	7	Invigorated
64. Unenthused	1	2	3	4	5	6	7	Enthused
65. *Excited	1	2	3	4	5	6	7	Not Excited
66. *Aroused	1	2	3	4	5	6	7	Not Aroused
67. Not fascinated	1	2	3	4	5	6	7	Fascinated

Thank you for completing the survey! If you're a COMM 110 student, you must print the next page and bring it to your small group COMM 110 instructor for 10 research points.

As a reminder, your responses are anonymous and will NOT be shared with your instructor.

APPENDIX D. ORIGINAL AND ADAPTED IMMEDIACY BEHAVIOR SCALE

Gorham's (1988) Original Immediacy Behavior Scale

Verbal Items:

1. Uses personal examples or talks about experiences she/he has had outside of class.
2. Asks questions or encourages students to talk.
3. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan.
4. Uses humor in class.
5. Addresses students by name.
6. Addresses me by name.
7. Gets into conversations with individual students before or after class.
8. *Has initiated conversations with me before, after or outside of class.
9. *Refers to "my "class or what "I" am doing. *Nonimmediate*
10. Refers to "our" class or what "we" are doing.
11. *Provides feedback on individual work through comments on papers, oral discussions, etc.
12. *Calls on students to answer questions, even if they have not indicated that they want to talk. *Nonimmediate*
13. Asks how students feel about an assignment, due date or discussion topic.
14. *Invites students to telephone or meet with him/her outside of class if they have questions or want to discuss something.
15. *Asks questions that have specific, correct answers. *Nonimmediate*
16. Asks questions that solicit viewpoints or opinions.
17. Praises students' work, actions, or comments.
18. *Criticizes or points out faults in students' work, actions or comments. *Nonimmediate*
19. Will have discussions about things unrelated to class with individual students or with the class as a whole.
20. Is addressed by his/her first name by the students.

Nonverbal Items:

21. *Sits behind desk while teaching. *Nonimmediate*
22. Gestures while talking to class.
23. *Uses monotone/dull voice when talking to class. *Nonimmediate*
24. Looks at class while talking.
25. Smiles at the class as a whole, not just individual students.
26. *Has a very tense body position while talking to the class. *Nonimmediate*
27. *Touches students in the class.
28. Moves around the classroom while teaching.
29. *Sits on a desk or in a chair while teaching. *Nonimmediate*
30. *Looks at the board or notes while talking to the class. *Nonimmediate*
31. *Stands behind podium or desk while teaching. *Nonimmediate*
32. Has a very relaxed body position while talking to the class.
33. Smiles at individual students in the class.
34. Uses a variety of vocal expressions while talking to the class.

Above questions with asterisks indicate the question was removed or adapted for this study.

Adapted Immediacy Behavior Scale

Verbal Items:

1. Uses personal examples or talks about experiences she/he has had outside of class.
2. Asks questions or encourages students to talk.
3. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan.
4. Uses humor in class.
5. Addresses students by name.
6. Refers to "our" class or what "we" are doing.
7. Asks how students feel about an assignment, due date or discussion topic.
8. Invites students to email or meet with him/her outside of class if they have questions or want to discuss something.
9. Asks questions that solicit viewpoints or opinions.
10. Praises students' work, actions, or comments.
11. Will have discussions about things unrelated to class with individual students or with the class as a whole.
12. Is addressed by his/her first name by the students.

Nonverbal Items:

13. Gestures while talking to class.
14. Looks at class while talking.
15. Smiles at the class as a whole, not just individual students.
16. Moves around the classroom while teaching.
17. Has a very relaxed body position while talking to the class.
18. Smiles at individual students in the class.
19. Uses a variety of vocal expressions while talking to the class.

APPENDIX E. CODE BOOK

Observational Protocol Definitions

Verbal Behaviors	Definition
1. Uses personal examples or talks about experiences she/he has had outside of class.	Instructor uses examples or experiences from his or her personal life. Includes anything that happens outside of the classroom. Example: Talking about personal experiences with other students at past university.
2. Uses humor in class.	The student or students laugh at what the instructor has said. Example: “The creepy girlfriend video on YouTube.”
3. Refers to "our" class or what "we" are doing.	Instructor uses “we” or “our” language to give some instruction. Examples: “We’re almost ready for you,” “We’ve talked about,” “We’ll talk about this in a minute,” or “We’re starting our informative speeches next week.”
4. Asks how students feel about an assignment, due date or discussion topic.	Instructor asks for students’ feeling about an assignment, due date or discussion topic. This may also include feelings about tests or activities not worth a grade.
5. Praises students' work, actions, or comments.	Includes responses of “yeah,” “yes,” “exactly,” “thank you,” “right on,” “that’s a great question,” “that’s a creative way to approach that,” or “awesome.” Any response that lets a student know that their work, action, or comments were correct. Does not include clapping or nonverbal gestures; the praise must be verbal only.
6. Will have discussions about things unrelated to class with individual students or with the class as a whole.	Instructor will talk to student(s) not related to course content; this includes anything unrelated to class. Example: “It’s so cold out today!”
7. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan.	Instructors who continue a discussion that is brought up by student; the discussion is not included in the class lecture plan.
8. Invites students to email or meet with him/her outside of class if they have questions or want to discuss something.	Instructor makes known email and/or office hours held outside of class; encourages students to come and meet with them to answer question or talk about something related/unrelated to the class. Example: “If you have questions feel free to email me or meet with me during my office hours.”
9. Asks questions that solicit viewpoints or opinions.	Instructor asks a question that has no one specific answer. Answer is based upon opinions and viewpoints of students. Examples: “What else?” or “Why is this a bad idea?’
10. Asks questions or encourages students to talk.	Instructor asks questions that encourage communication. Question may have one specific answer, be open-ended, or may be opinion based. Examples: “How was your weekend?” or “Any questions over what we’ve covered so far?

11. Is addressed by his/her first name by the students.	Students talk to their instructor using their first name. Does not include an instructor's last name.
12. Addresses students by name.	Instructor calls on students by name or talks to students using their name.

Nonverbal Behaviors	**Definition**
1. Gestures while talking to class.	Motions with hands, moves with points, does not speak with hands in pockets, arms crossed, arms behind the back, with legs crossed, etc. Examples: pointing at students or sensory aids, thumbs up for encouragement, etc.
2. Moves around the classroom while teaching.	Walks side to side and/or back and forth of the classroom. The instructor does not stand in one spot.
3. Uses a variety of vocal expressions while talking to the class.	Does not use "robotic" voice or an artificial-sounding vocal tone; voice is not monotone but instead rises and falls in pitch based on the information presented (voice rises to create interest/excitement, falls to demonstrate seriousness).
4. Has a very relaxed body position while talking to the class.	Does not appear pained while teaching; facial expressions align with the information (example: smiling during happy/exciting/lighthearted information while using a more somber expression for serious information). A relaxed body positions may include sitting while talking.
5. Looks at class while talking.	Frequently looks up from notes/computer screen; does not look at the floor or ceiling.
6. Smiles at the class as a whole not just individual students.	Smiles while scanning the room rather than looking at one student.
7. Smiles at individual students in the class.	Smiles while looking at one student rather than scanning the room.

Note: Verbal and nonverbal behaviors listed on the observational protocol are based on Gorham's past research (1988).

GTA Demographic Questionnaire

1. Please identify your sex.
   [GTASex]
   1. Male
   2. Female
2. What is your race/ethnicity? Please select all that apply.
   [GTARace]
   1. Black or African American
   2. White
   3. Asian
   4. American Indian/Alaska Native
   5. Native Hawaiian/Other Pacific Islander
   6. Hispanic
   7. Other Race (please specify in box below) _____
3. Is English your first language?
   [GTALanguage]
   1. Yes
   2. No
4. What year were you born?
   [GTAYear]
   1. _____
5. How long have you been teaching? (this includes any teaching experience)
   [Experience]
   1. _____
6. [ImmediacyTotal]
7. [Verbal]
8. [Nonverbal]
9. [ExperienceYears]
10. [Gendermatch] 1=yes; 2=no
11. [Ethnicmatch] 1=yes; 2=no

Small Group Student Questionnaire

1. What year were you born?
   [Age]
   1. _____
2. Please identify your sex.
   [Sex] 1=male; 2=female
   1. Male
   2. Female
3. What is your race/ethnicity? Please select all that apply.
   [Ethnic1], [Ethnic 2], [Ethnic 3]
   1. Black or African American
   2. White
   3. Asian
   4. American Indian/Alaska Native
   5. Native Hawaiian/Other Pacific Islander
   6. Hispanic
   7. Other Race (please specify in box below) _____
4. Is English your first language?
   [Language]
   1. Yes
   2. No
5. On a four-point scale, what is your GPA?
   [GPA]
   1. _____
6. Please identify you status in school.
   [Status]
   1. First-Year Student
   2. Sophomore
   3. Junior
   4. Senior
7. Are you a Communication major?
   [Major]
   1. Yes
   2. No
8. Are you a Communication minor?
   [Minor]
   1. Yes
   2. No
9. What is the name of your small group COMM 110 instructor?
   [Name]
   1. _____
   2.
10. What is the sex of your small group COMM 110.
    [IGender]
    1. Male
    2. Female

11. How old do you think your small group COMM 110 instructor is? (give your best estimate of their age in years)
[IAge]
    1. _____
12. Which grade do you think you'll get in your COMM 110 class?
[ExpGrade]
    1. A
    2. B
    3. C
    4. D
    5. F

13. Cold _____ _____ _____ _____ _____ _____ _____ Warm
[Immediacy1]
14. Unfriendly _____ _____ _____ _____ _____ _____ _____ Friendly
[Immediacy2]
15. *Close _____ _____ _____ _____ _____ _____ _____ Distant
[Immediacy3]
[Immediacy3_r]
16. *Comforting _____ _____ _____ _____ _____ _____ _____ Uncomforting
[Immediacy4]
[Immediacy4_r]
17. *Responsive _____ _____ _____ _____ _____ _____ _____ Unresponsive
[Immediacy5]
[Immediacy5_r]
18. *Approachable _____ _____ _____ _____ _____ _____ _____ Unapproachable
[Immediacy6]
[Immediacy6_r]
19. *Personable _____ _____ _____ _____ _____ _____ _____ Disagreeable
[Immediacy7]
[Immediacy7_r]
20. Unsettling _____ _____ _____ _____ _____ _____ _____ Alleviating
[Immediacy8]
21. *Pleasant _____ _____ _____ _____ _____ _____ _____ Unpleasant
[Immediacy9]
[Immediacy9_r]
22. *Soothing _____ _____ _____ _____ _____ _____ _____ Distressing
[Immediacy10]
[Immediacy10_r]
23. *Reassuring _____ _____ _____ _____ _____ _____ _____ Disheartening
[Immediacy11]
[Immediacy11_r]
24. Uncompanionable _____ _____ _____ _____ _____ _____ _____ Companionable
[Immediacy12]
25. *Welcoming _____ _____ _____ _____ _____ _____ _____ Unwelcoming
[Immediacy13]

[Immediacy13_r]

26. *Benign _____ _____ _____ _____ _____ _____ _____ Threatening
    [Immediacy14]
    [Immediacy14_r]
27. *Favorable _____ _____ _____ _____ _____ _____ _____ Unfavorable
    [Immediacy15]
    [Immediacy15_r]
28. Aloof _____ _____ _____ _____ _____ _____ _____ Involved
    [Immediacy16]
29. *Sociable _____ _____ _____ _____ _____ _____ _____ Unsociable
    [Immediacy17]
    [Immediacy17_r]
30. *Connected _____ _____ _____ _____ _____ _____ _____ Disconnected
    [Immediacy18]
    [Immediacy18_r]

1=Strongly agree, 2=Agree, 3=Somewhat agree, 4=Neither agree or disagree, 5=Somewhat disagree, 6=Disagree, 7=Strongly disagree

31. *This person is from a social class similar to mine.
    [Similar1]
    [Similar1_r]
32. This person's status is different from mine.
    [Similar2]
33. This person is from an economic situation different from mine.
    [Similar3]
34. *This person's background is similar to mine.
    [Similar4]
    [Similar4_r]
35. *This person's status is like mine.
    [Similar5]
    [Similar5_r]
36. This person is from a social class different from mine.
    [Similar6]
37. *This person is from an economic situation like mine.
    [Similar7]
    [Similar7_r]
38. This person's background is different from mine.
    [Similar8]
39. *This person and I come from a similar geographic region.
    [Similar9]
    [Similar9_r]
40. *This person's life as a child was similar to mine.
    [Similar10]
    [Similar10_r]

41. *This person thinks like me.
    [Similar11]
    [Similar11_r]
42. This person doesn’t behave like me.
    [Similar12]
43. This person is different from me.
    [Similar13]
44. *This person shares my values.
    [Similar14]
    [Similar14_r]
45. *This person is like me.
    [Similar15]
    [Similar15_r]
46. *This person treats people like I do.
    [Similar16]
    [Similar16_r]
47. This person doesn’t think like me.
    [Similar17]
48. *This person is similar to me.
    [Similar18]
    [Similar18_r]
49. This person doesn’t share my values.
    [Similar19]
50. *This person behaves like me.
    [Similar20]
    [Similar20_r]
51. This person is unlike me.
    [Similar21]
52. This person doesn’t treat people like I do.
    [Similar22]
53. *This person has thoughts and ideas that are similar to mine.
    [Similar23]
    [Similar23_r]
54. This person expresses attitudes different from mine.
    [Similar24]
55. *This person has a lot in common with me.
    [Similar25]
    [Similar25_r]
56. *Motivated 1 2 3 4 5 6 7 Unmotivated
    [Motivation1]
    [Motivation1_r]
57. *Interested 1 2 3 4 5 6 7 Uninterested
    [Motivation2]
    [Motivation2_r]
58. *Involved 1 2 3 4 5 6 7 Uninvolved
    [Motivation3]

[Motivation3_r]								
59. Not stimulated [Motivation4]	1	2	3	4	5	6	7	Stimulated
60. Don’t want to study [Motivation5]	1	2	3	4	5	6	7	Want to study
61. *Inspired [Motivation6]	1	2	3	4	5	6	7	Uninspired
[Motivation6_r]								
62. Unchallenged [Motivation7]	1	2	3	4	5	6	7	Challenged
63. Uninvigorated [Motivation8]	1	2	3	4	5	6	7	Invigorated
64. Unenthused [Motivation9]	1	2	3	4	5	6	7	Enthused
65. *Excited [Motivation10]	1	2	3	4	5	6	7	Not Excited
[Motivation10_r]								
66. *Aroused [Motivation11]	1	2	3	4	5	6	7	Not Aroused
[Motivation11_r]								
67. Not fascinated [Motivation12]	1	2	3	4	5	6	7	Fascinated

APPENDIX F. OBSERVATION PROTOCOL

Similar questions were color-coded.

X = Facial Expressions
X=Voice
X=Movements
X=Body Position
X=Name
X=Asks Questions

Verbal Behaviors:

1. Uses personal examples or talks about experiences she/he has had outside of class.
2. Uses humor in class.
3. Refers to "our" class or what "we" are doing.
4. Asks how students feel about an assignment, due date or discussion topic.
5. Praises students' work, actions, or comments.
6. Will have discussions about things unrelated to class with individual students or with the class as a whole.
7. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan.
8. Invites students to email or meet with him/her outside of class if they have questions or want to discuss something.
9. Provides feedback on individual work through comments on discussions.
10. Asks questions that solicit viewpoints or opinions.
11. Asks questions or encourages students to talk.
12. Is addressed by his/her first name by the students.
13. Addresses students by name.

Nonverbal Behaviors:

14. Gestures while talking to class.
15. Moves around the classroom while teaching.
16. Uses a variety of vocal expressions while talking to the class.
17. Has a very relaxed body position while talking to the class.
18. Looks at class while talking.
19. Smiles at the class as a whole, not just individual students.
20. Smiles at individual students in the class.

Note: The items listed in the observational protocol are based on Gorham's past research (1988).

Verbal Behaviors	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
1. Uses personal examples or talks about experiences she/he has had outside of class.																									
2. Uses humor in class.																									
3. Refers to "our" class or what "we" are doing.																									
4. Asks how students feel about an assignment, due date or discussion topic.																									
5. Praises students' work, actions, or comments.																									
6. Will have discussions about things unrelated to class with individual students or with the class as a whole.																									
7. Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan.																									
8. Invites students to email or meet with him/her outside of class if they have questions or want to discuss something.																									
9. Asks questions that solicit viewpoints or opinions.																									
10. Asks questions or encourages students to talk.																									
11. Is addressed by his/her first name by the students.																									
12. Addresses students by name.																									
Nonverbal Behaviors	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
1. Gestures while talking to class.																									
2. Moves around the classroom while teaching.																									
3. Uses a variety of vocal expressions while talking to the class.																									
4. Has a very relaxed body position while talking to the class.																									
5. Looks at class while talking.																									
6. Smiles at the class as a whole, not just individual students.																									
7. Smiles at individual students in the class.																									

APPENDIX G. OBSERVATION CONSENT STATEMENT

NDSU **North Dakota State University**
Department of Communication
PO Box 6050; Fargo, ND 58108-6050
(701) 231-7705; Fax: (701) 231-7784

Title of Research Study: Student-Teacher Interactions in Small and Large Classes

This study is being conducted by: Dr. Carrie Anne Platt, Associate Professor, Department of Communication at NDSU and Emily Bublitz, graduate student in the Department of Communication at NDSU.

Why am I being asked to take part in this research study?
You are invited to take part in this research study because you currently teach COMM 110 and are 18 years of age or older.

What is the reason for doing the study?
The purpose of this research project is to better understand student and teacher interactions in small and large classes. We are interested in how students' learning and motivation can be influenced by these interactions.

What will I be asked to do?
If you agree to participate in this study, your 50-minute small group course will be observed for 50 minutes during week five and six of the semester. After the observation, you will be asked to complete a short demographic survey sent via email. Your answers to these questions will later be analyzed to understand interactions within the classroom and student learning.

Where is the study going to take place, and how long will it take?
The observations will take place during class in week four or five of the spring 2016 semester; these observations will last for 50-minutes. The demographic survey will be distributed after the observation via email on Qualtrics and will take no more than five minutes to complete.

What are the risks and discomforts?
Given the nature of the questions we are asking, we do not anticipate harm or discomfort for participants. You will be assured confidentiality during the in class observation and your answers to the survey. However, you may refuse to answer any question, for any reason, or you may stop the survey and/or observation at any point.

What are the benefits to me?
By participating in this study, you will have the opportunity to reflect on your teaching experiences.

What are the benefits to other people?
This study has the potential to reveal new information about student and teacher interactions in the classroom. This information will contribute to the knowledge about how students are

motivated and learn best. This could potentially redefine how teachers interact within the classroom.

Do I have to take part in the study?
Your participation in this research is voluntary. If you decide to participate in the study, you may change your mind and stop participating at any time.

Who will have access to the information that I give?

- We will keep private all research records that identify you, to the extent allowed by law.
- Survey files will be stored in a password protected file on a computer that is only accessible to the primary investigator and the co-investigators.
- Data and records created by this project are owned by NDSU and the researchers. You may view information collected from you by making a written request to the researchers. You may only view information collected from you, and not information collected about others participating in the project.

Will I receive any compensation for taking part in this study?
Instructors who participate in this survey will not receive compensation.

What if I have questions?
Before you decide whether to accept this invitation to participate in the research study, please ask any questions that might come to mind now. Later, if you have any questions about the study, you can contact the lead researcher, Dr. Carrie Anne Platt, at carrieanne.platt@ndsu.edu.

What are my rights as a research participant?
You have rights as a participant in research. If you have questions about your rights, or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program at:

- Telephone: 701.231.8908
- Email: ndsu.irb@ndsu.edu
- Mail: NDSU HRPP, 1735 NDSU Research Park Dr., NDSU Dept. 4000, PO Box 6050, Fargo, ND 58108-6050

The role of the Human Research Protection Program is to see that your rights are protected in this research; more information about your rights can be found at: www.ndsu.edu/research/irb.

Documentation of Informed Consent:
You are freely making a decision whether to be in this research study. Signing this form means that

1. You have read and understood this consent form
2. You have had your questions answered, and
3. You have decided to be in the study.

You may request a copy of this consent form to keep if you so choose.

SIGNING BELOW SIGNIFIES THAT YOU HAVE READ THE INFORMED CONSENT AND AGREE TO PARTICIPATE IN THE STUDY.

Printed Name

Signature

Date

APPENDIX H. SURVEY CONSENT STATEMENT

NDSU **North Dakota State University**
Department of Communication
PO Box 6050; Fargo, ND 58108-6050
(701) 231-7705; Fax: (701) 231-7784

Title of Research Study: Student-Teacher Interactions in Small and Large Classes

This study is being conducted by: Dr. Carrie Anne Platt, Associate Professor, Department of Communication at NDSU and Emily Bublitz, graduate student in the Department of Communication at NDSU.

Why am I being asked to take part in this research study?
You are invited to take part in this research study because you are currently enrolled in or teach COMM 110 and are 18 years of age or older.

What is the reason for doing the study?
The purpose of this research project is to better understand student and teacher insteractions in small and large classes. We are interested in how students' learning and motivation can be influenced by these interactions.

What will I be asked to do?
If you agree to participate in this study, you will be asked to complete a short survey regarding your COMM 110 class. Your answers to these questions will later be analyzed to understand interactions within the classroom and student learning. The survey is completely anonymous, and you will not provide any contact information.

Where is the study going to take place, and how long will it take?
The survey will take place on the online survey distributor, Qualtrics. The survey should take no more than 15 minutes to complete. If you are an instructor taking this survey, the survey should take no more than 5 minutes to complete.

What are the risks and discomforts?
Given the nature of the questions we are asking, we do not anticipate harm or discomfort for participants. However, you may refuse to answer any question, for any reason, or you may stop the survey at any point.

What are the benefits to me?
By participating in this study, you will have the opportunity to reflect on your experiences in your COMM 110 class.

What are the benefits to other people?
This study has the potential to reveal new information about student and teacher interactions in the classroom. This information will contribute to the knowledge about how students are

motivated and learn best. This could potentially redefine how teachers interact within the classroom.

Do I have to take part in the study?
Your participation in this research is voluntary. If you decide to participate in the study, you may change your mind and stop participating at any time.

Who will have access to the information that I give?

- We will keep private all research records that identify you, to the extent allowed by law.
- Survey files will be stored in a password protected file on a computer that is only accessible to the primary investigator and the co-investigators.
- Data and records created by this project are owned by NDSU and the researchers. You may view information collected from you by making a written request to the researchers. You may only view information collected from you, and not information collected about others participating in the project.

Will I receive any compensation for taking part in this study?
COMM 110 students will receive credit for the research opportunity requirement of the class. Please print the "Thank You" page at the end of the survey, and turn it in to your small group instructor. Instructors who participate in this survey will not receive compensation.

What if I have questions?
Before you decide whether to accept this invitation to participate in the research study, please ask any questions that might come to mind now. Later, if you have any questions about the study, you can contact the lead researcher, Dr. Carrie Anne Platt, at carrieanne.platt@ndsu.edu.

What are my rights as a research participant?
You have rights as a participant in research. If you have questions about your rights, or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program at:

- Telephone: 701.231.8908
- Email: ndsu.irb@ndsu.edu
- Mail: NDSU HRPP, 1735 NDSU Research Park Dr., NDSU Dept. 4000, PO Box 6050, Fargo, ND 58108-6050

The role of the Human Research Protection Program is to see that your rights are protected in this research; more information about your rights can be found at: www.ndsu.edu/research/irb.

Documentation of Informed Consent:
You are freely making a decision whether to be in this research study. Signing this form means that

1. You have read and understood this consent form
2. You have had your questions answered, and
3. You have decided to be in the study.

You may print a copy of this consent form to keep if you so choose.

By clicking on the button below titled "I agree to participate," you are agreeing to participate in this survey and verifying that you are at least 18 years old.

APPENDIX I. STUDENTS' DEMOGRAPHIC INFORMATION

Table I1

Tessa's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	10	100.0
Age	19	3	30.0
	20	3	30.0
	21	3	30.0
	24	1	10.0
Sex	Female	2	20.0
	Male	8	80.0
Year in College	First-Year Student	4	40.0
	Sophomore	4	40.0
	Junior	1	10.0
	Senior	1	10.0

Note. n=10

Table I2

Brandon's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	7	100.0
Age	19	2	28.6
	20	2	28.6
	No Age Given	3	42.8
Sex	Female	3	42.9
	Male	4	57.1
Year in College	First-Year Student	7	100.00

Note. n=7

Table I3

Brittany's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	8	80.0
	Mixed	2	20.0
Age	19	2	20.0
	20	6	60.0
	No Age Given	2	20.0
Sex	Female	5	50.0
	Male	5	50.0
Year in College	First-Year Student	10	100.0

Note. n=10

Table I4

Andrew's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	7	87.5
	Hispanic	1	12.5
Age	19	4	50.0
	20	2	25.0
	21	1	12.5
	27	1	12.5
Sex	Female	4	50.0
	Male	4	50.0
Year in College	First-Year Student	7	87.5
	Sophomore	1	12.5

Note. n=8

Table I5

Kyle's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	6	100.0
Age	19	4	66.7
	20	2	33.3
Sex	Female	2	33.3
	Male	4	66.7
Year in College	First-Year Student	5	83.3
	Sophomore	1	16.7

Note. n=6

Table I6

Joel's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	6	66.7
	Asian	2	22.2
	Mixed	1	11.1
Age	19	1	11.1
	20	4	44.4
	27	1	11.1
	33	1	11.1
	No Age Given	2	22.2
Sex	Female	2	22.2
	Male	7	77.8
Year in College	First-Year Student	2	22.2
	Sophomore	5	55.6
	Senior	2	22.2

Note. n=9

Table I7

Matt's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	4	80.0
	Black or African American	1	20.0
Age	19	3	60.0
	21	1	20.0
	22	1	20.0
Sex	Female	2	40.0
	Male	3	60.0
Year in College	First-Year Student	3	60.0
	Sophomore	1	20.0
	Junior	1	20.0

Note. n=5

Table I8

Sarah's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	11	100.0
Age	19	7	63.6
	20	4	36.4
Sex	Female	9	81.8
	Male	2	18.2
Year in College	First-Year Student	11	100.00

Note. n=11

Table I9

Nate's Students' Demographic Information

Demographic	Category	n	Percentage of sample
Ethnicity	White	7	70.0
	Mixed	1	10.0
	Black or African American	1	10.0
	American Indian/ Alaska Native	1	10.0
Age	19	5	50.0
	20	3	30.0
	26	2	20.0
Sex	Female	4	40.0
	Male	6	60.0
Year in College	First-Year Student	9	90.0
	Sophomore	1	10.0

Note. n=10