

An Exploration of the Relation among Verbal and Nonverbal Instructor
Immediacy Behaviors and Student Motivation to learn within the Higher
Education Classroom

by

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ABSTRACT

This quantitative study explores relationships between instructors' nonverbal and verbal immediacy behaviors and students' motivation to learn at three institutions. Data were collected at a major research university, a small liberal arts university, and a community college. ANCOVA analyses indicated significant relationships between students' motivation to learn and both forms of immediacy for some of the institutions' results. Some slope differences of immediacy and students' motivation to learn were found between the major research university and community college. However, slope differences did not significantly differ between the institutions after a Bonferoni test was performed. The results are discussed and implications are given for instructors and administrators at different higher education institutions. Future researchers are encouraged to further investigate relationships between instructors' immediacy behaviors and students' motivation to learn at different Carnegie classification higher education institutions.

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CHAPTER I INTRODUCTION

Classroom instruction is one of the primary responsibilities of a higher education institution and its faculty members (Ottewill, 2003). Institutions of higher education often spend a tremendous amount of time, effort, and money attempting to increase their quality of instruction (Duffuaa, Al-Turki, & Hawsawi, 2003). One way to improve instruction within higher education is by identifying specific variable relationships between instructors' behaviors and students' motivation to learn (Covington, 2000; Hancock, Bray, & Nason, 2002; Jacobson & Xu, 2002; Martin, Mottet, & Myers, 2000; Noels, Clement, & Pelletier, 1999). Institutions may then be able to better inform their instructors as to what behaviors are positively related to students' motivation to learn.

Instructors have some control over the impact that they have on their students' motivation to learn (Cunha & Cunha, 2002) because their position allows them to display certain communication behaviors likely to increase students' motivation to learn. Deci (1971) conducted experiments examining a person's level of motivation when an extrinsic reward is presented. He found that an external reward such as money decreased an individual's intrinsic motivation. However, positive verbal feedback served as an extrinsic reward but was found to increase a person's intrinsic motivation. This finding is important for two reasons. First, Deci's work was an early work that brought to the forefront social interactions influencing motivation. Social interactions provide a venue for

delivering positive verbal feedback with the hope of increasing intrinsic motivation of the recipient. The second reason why this study is important is because scholars following Deci's work began to concentrate more on social interactions and the use of positive feedback when studying motivation. For instance, studies conducted after Deci's investigated relationships between instructor's positive feedback and students' motivation to learn. They suggest instructors' behaviors, both inside and outside of the classroom, can influence their students' motivation to learn during social interactions (Christensen & Menzel, 1998; Christophel, 1990; Christophel & Gorham, 1995; Frymier, 1994; Gorham & Christophel, 1992).

Problem Statement

Students' motivation to learn is an important variable to understand in the higher education classroom (Covington, 2000; Hancock, Bray, & Nason, 2002; Jacobson & Xu, 2002; Martin, Mottet, & Myers, 2000; Noels, Clement, & Pelletier, 1999), but is not fully understood. Findings from previous literature are mixed in terms of the relationships of students' motivation to learn and instructors' teaching behaviors (Deci & Ryan, 1985; Wiersma, 1992). Furthermore, a problem in the literature exists because there are areas relating to relationships between instructors' behaviors and students' motivation to learn that researchers have not explored. For example, previous literature has indicated that instructors' immediacy behaviors are positively related to students' motivation to learn (Anderman, 2004; Christensen & Menzel, 1998; Christophel, 1990; Christophel &

Gorham, 1995; Elliot & Knight, 2005; Frymier, 1994; Gorham & Christophel, 1992; Turner & Patrick, 2004). However, previous research in this area has been conducted exclusively at major research universities. Therefore, we do not know whether or not students' motivation to learn is related to instructors' immediacy behaviors at higher education institutions that are not major research universities. This lack of knowledge is a problem for researchers in higher education who strive to fully understand students' motivation to learn. Thus, researchers do not have a clear understanding of the relationships between instructors' behaviors and students' motivation to learn.

Purpose

This study seeks to explore relationships between variables consisting of instructors' nonverbal immediacy behaviors and instructors' verbal immediacy behaviors with students' motivation learn. Previous research findings indicate that both forms of immediacy are correlated positively with students' motivation to learn (Christensen & Menzel, 1998; Christophel & Gorham, 1995; Elliot & Knight, 2005; Ellis, 2004; Jaasma & Koper, 1999). However, previous research on the relationships between these variables has been conducted primarily at major research universities (Elliot & Knight, 2005; Ellis, 2004). Researchers do not know how these relationships may differ at institutions that are not major research universities. Therefore, this study aims at better understanding students' reactions to instructors' immediacy behaviors at different Carnegie institutional types.

Immediacy Conceptualized

Previous research addressing instructors' immediacy behaviors has used the concept of immediacy as a theoretical framework from which to study instructors' immediacy behaviors (Frymier & Shulman, 1995; Rocca, 2004; Teven & Hanson, 2004). Previous research articles begin by stating the definition of immediacy and then relationships between variables and immediacy that prior studies have found. These articles usually begin with defining immediacy as behaviors that communicate approachability (Mehrabian, 1971). People tend to communicate with and become close to people they like and avoid communicating with people they dislike (Mehrabian, 1971).

Immediacy is often classified as either verbal or nonverbal. When applied to a teaching/learning environment verbal immediacy behaviors are verbal messages that convey the "use of pro-social as opposed to antisocial messages to alter student behavior" (Gorham, 1988, p. 41). When applied to a teaching/learning environment nonverbal immediacy behaviors are nonverbal "behaviors that reduce physical and/or psychological distance between teachers and students" (Andersen, 1979, p.543). Examples of nonverbal immediacy behaviors include making eye-contact, using physical gestures, having a relaxed body position, directing body position toward students, smiling, using vocal expressiveness, movement, and proximity (Andersen, 1979). Verbal immediacy behaviors include using personal examples, humor, engaging in conversations with students before, after, or outside of class, encouraging students to talk, referring to the class as "we," or "our," asking for students' input, teachers' self-

disclosure, addressing students by name, praising students' work, allowing students to address instructors by their first name, and being available for students outside of class if they have any questions (Gorham, 1988).

Research Questions

RQ1a: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a major research university?

RQ1b: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a community college?

RQ1c: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a small liberal arts university?

RQ2: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn when data from a major research university, community college, and small liberal arts university are analyzed together?

RQ3: If there is a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn, does the strength of the

correlation differ depending on whether the student attends a research university, community college, or a small liberal arts university?

Need for the Study

This study is needed to further understand the relationships between instructors' immediacy behaviors and students' motivation to learn at different Carnegie classification institutional types. By understanding the relationships between instructors' immediacy behaviors and students' motivation to learn instructors may be able to improve students' motivation to learn.

Students and instructors at major research universities, community colleges, and small liberal arts universities may differ from each other (Ovington, Diamantes, Roby, & Ryan, 2003; Sorcinelli, 2002). Therefore, these differences may impact the relationships between instructors' immediacy behaviors and students' motivation to learn between a major research university, community college, and small liberal arts university. A difference between a major research university, small liberal arts university, and community college is the focus of the institution. The major research university is focused more on research than a small liberal arts university or a community college (Donelan, 2004; Ovington, Diamantes, Roby, & Ryan, 2003). Furthermore, small liberal arts universities and community colleges are focused more on instruction than the major research institution. This is often evident when reviewing faculty promotion requirements for the institutions (Donelan, 2004; Ovington, Diamantes, Roby, & Ryan, 2003; Sorcinelli, 2002; Wright, 2005).

The differences in mission between these institutions may impact relationships between instructors' immediacy behaviors and students' motivation to learn. One can speculate that students at major research universities may not expect their instructors to display immediacy behaviors because the focus of the institution is on research. Therefore, instructors displaying immediacy behaviors may exceed students' expectations and positively impact their motivation to learn. On the other hand, students at community colleges may expect instructors to display immediacy behaviors because the focus of the institution is on teaching. Thus, when instructors at community colleges do display immediacy behaviors they have less of an impact on students' motivation to learn.

Another difference between these institutions is the qualifications and experiences of the faculty members. Major research universities have more faculty members with a Ph.D. than do small liberal arts universities. In addition, small liberal arts universities have more faculty members with a Ph.D. than do community colleges (U.S. Department of Education, 1999). This indicates a difference in training during their graduate studies and possibly a difference in instruction with regard to relationships between instructors' verbal immediacy behaviors, nonverbal immediacy behaviors, and students' motivation to learn. However, one can only speculate because previous research has not explored institutional type differences with relation to these variables.

Definitions

Nonverbal Immediacy- nonverbal “behaviors that reduce physical and/or psychological distance between teachers and students” (Andersen, 1979, p. 543).

Examples of nonverbal immediacy behaviors are

having eye-contact, using physical gestures, having a relaxed body position, directing body position toward students, smiling, using vocal expressiveness, movement, and proximity (Andersen, 1979).

Students’ motivation to learn- The amount of effort a student desires to exert in a particular class (Richmond, 1990).

Immediacy- behaviors that communicate approachability (Mehrabian, 1971).

Verbal Immediacy- the “use of pro-social as opposed to antisocial messages to alter student behavior” (Gorham, 1988, p. 41).

Examples of verbal immediacy behaviors are

using personal examples, humor, engaging in conversations with students before, after, or outside of class, encouraging students to talk, referring to the class as “we,” or “our,” asking for students’ input, teachers’ self-disclosure, addressing students by name, praising students’ work, addressing instructors by their first name, and being available for students outside of class if they have any questions (Gorham, 1988).

Research University- classified by the Carnegie Foundation as an institution with a high level of research activity and grants at least 20 doctorates per year.

Small Liberal Arts University- classified by the Carnegie Foundation as an institution consisting of smaller programs and awards at least 50 Master's degrees per year.

Community College- classified by the Carnegie Foundation as an institution that awards only degrees at the Associate's level.

Assumptions

- Instructors' behaviors influence students' motivation to learn.
- Relationships exist between instructors' immediacy behaviors and students' motivation to learn.
- Students completing the measurement instruments will understand the directions and each item for all measurement instruments.
- Instructors will differ with regard to the levels of immediacy behaviors that they use.

Delimitations

- This study used a convenience sample. The sample consisted of undergraduate students enrolled in communication classes. The classes that participated in the study were taught by colleagues of the researcher.
- Each institution was located in a particular region of the United States. The major research university and community college were located in the Southwestern part of the United States and the small liberal arts university was located in the Midwestern part of the United States.

- Only students enrolled in Communication Studies classes participated.

Limitations

- Measuring instructors' immediacy behaviors is dependent upon student perceptions.
- The vocabulary used on the measurement instruments may be interpreted differently by participants.
- The vocabulary used on the measurement instruments may be interpreted differently by participants. The researcher did not test the reading level of the instruments. The vocabulary of the instruments may be interpreted differently by students at the major research university from those at the community college based upon their vocabulary level.
- The measurement instruments may have build in biases. The measurement instruments may have phrases and words that are unique to the discipline of Communication Studies because scholars from that discipline created the instruments. Participants who are Communication Studies majors may interpret the measurement instruments differently from those students who are not Communication Studies majors.

Summary

This chapter introduces the study, which is focused on further understanding relationships between instructors' behaviors and students' motivation to learn. Previous literature does not address relationships between instructors' immediacy behaviors and students' motivation to learn at institutions that are not major research universities. This study is intended to further understand students' motivation to learn by investigating relationships between instructors' immediacy behaviors and students' motivation to learn at a major research university, community college, and small liberal arts university. The research questions are formed from previous research studies. The research questions are formed to investigate relationships between instructors' behaviors and students' motivation to learn. The definitions that are used for the variables in this study are defined. Assumptions about the study are stated that relationships exist between instructors' immediacy behaviors and students' motivation to learn and that the measurement instruments will have the same level of accuracy as found in previous studies. Delimitations are described such as using only undergraduate students and limitations of the study are lastly described in the chapter.

CHAPTER II

REVIEW OF LITERATURE

This chapter is organized by addressing students' motivation to learn and instructor immediacy behaviors as they pertain to this study. These areas are first generally addressed in relation to higher education. They are then addressed specifically to instructor immediacy behaviors as influential to students' motivation to learn in the context of classrooms within higher education.

Formation of Motivation

Intrinsic and Extrinsic

Several factors determine an individual's motivation level. Two common forms of motivation are intrinsic motivations and extrinsic motivations. Intrinsic motivations result from satisfying an individual's beliefs and values. On the other hand, extrinsic motivations are based on tangible economic returns, goods, or services to the individual (Kreps, 1990). One form of extrinsic rewards in the instructional context is grades. Students are rewarded with something external to them. However, intrinsic motivation occurs when an activity is performed in the absence of a tangible reward based upon personal interest (Cheak & Wessel, 2005). People experience enjoyment, competence, and self-motivation when performing a task and credit their behaviors to internal factors, which they control when they are intrinsically motivated. Kreps (1990) explains that intrinsic motivation occurs when someone is

moved to act for the sake of that action rather than for some type of reward. A student enjoying the topic in a class is motivated to learn more about the topic is an example of intrinsic motivation to learn within the higher educational instructional context. Intrinsic motivation has an important role within higher education.

There is often a disagreement concerning some of the findings on motivation (Wiersma, 1992). Deci (1971) found a relationship between external rewards and internal motivation. The results indicated that intrinsic motivation decreases when an individual receives a monetary (i.e., an extrinsic) reward. However, intrinsic motivation increases when the individual received positive verbal reinforcement and positive feedback. One can argue that based upon Deci's findings that intrinsic motivation may be linked to instructor behaviors because instructors can exhibit verbal reinforcement behaviors and positive nonverbal feedback behaviors. Therefore, positive instructor feedback may be viewed as a reward that increases students' intrinsic motivation to learn.

Other research also supports the notion that instructors impact students' motivation to learn (Cunha & Cunha, 2002). Deci (1971) presents research that today can be considered a classic on the influence a person in the position to provide feedback may have on his or her subordinate's intrinsic motivation. Deci's work is important for two reasons. First, it was an early work that brought to the forefront intrinsic motivation as influenced by social interactions. Secondly, it indicates that instructors' behaviors can influence students' motivation to learn, which is also supported by more recent research (Anderman, 2004; Christensen

& Menzel, 1998; Christophel, 1990; Christophel & Gorham, 1995; Elliot & Knight, 2005; Frymier, 1994; Gorham & Christophel, 1992; Gorham & Millette, 1997; Turner & Patrick, 2004).

Perricone's (2005) article is similar to Deci (1971) in that external rewards such as giving candy to students can increase students' motivation to learn. However, he argues that this motivation is only in the short term and that students should be intrinsically motivated for class work so that they enjoy it and are motivated for the long term. He supports his argument by stating that several previous findings indicate that external rewards given to children for behaviors they should perform in the absence of a reward can be detrimental. He describes one particular study in which participants were divided into three groups. All of the groups were to have the participants drink a soft drink. However, one condition had the participants receive positive verbal reinforcement for drinking the soft drink, another condition had the participants receive an external reward for drinking the soft drink, and the last condition had the participants drink the soft drink without receiving any reinforcement. The findings indicate that participants who do not receive an external reward drank more of the soft drink in the long term. This finding indicates that rewards for behaviors that people are expected to do, such as studying, may decrease their motivation.

Perricone's study and findings are different from a traditional instructional context so caution must be taken when implementing his suggestions. However, some value can be taken from this comparison because both instances involve reinforcement for behaviors. He suggests that instructors should display

behaviors that encourage students to enjoy the task and not some reward for doing the task. A main point that he makes is that teachers should stress the importance of learning particular material and how it is relevant to their lives. Another point that one can make is that instructors' behaviors do have an influence on students' motivation to learn. Furthermore, instructors should exhibit behaviors that make the students enjoy learning in the classroom such as providing particular examples that illustrate the relevance of the topic to their students' lives.

Other researchers hold a similar position to that of Perricone (2005). Elliot and Knight (2005) state that external rewards for students are likely to increase students' motivation to learn only for the short term when students are told about the reward before performing the task because the students focus less on enjoying the task and more on completing the task for the reward. They further state that it is much better for instructors to exhibit behaviors aimed at increasing students' motivation to learn. Some of the behaviors that instructors can exhibit when focusing on increasing students' motivation to learn are those that communicate a message to students such as having choices, providing feedback, interpersonal involvements, acknowledging students feelings, having celebrations rather than rewards, real life models, and cooperating learning. These suggestions indicate that instructors may influence students' motivation to learn through their behaviors.

Further research supports increasing intrinsic motivation rather than extrinsic motivation for instructors to increase with students. Shim and Ryan

(2005) also find that external rewards are less effective for students' motivation to learn than internal motivation factors. They found that grades are an external motivation and that they can drastically decrease students' motivation to learn when a student receives a low grade on an assignment in a class during a semester. However, they found that internal goals are more effective for increasing students' motivation to learn. Students should have mastery goals for themselves in classes. When students accomplish personal goals in a class their motivation is likely to increase more than students who receive grades based upon more external factors. Therefore, instructors should concentrate on behaviors that can influence students' motivation to learn rather than relying on external rewards.

Other researchers also contend that instructors' behaviors do influence students' motivation to learn. Anderman (2004) argues that students' motivation to learn is influenced by the instructional context. He supports this position by stating that students' mean motivational levels change in different courses. These findings indicate that instructors within the classroom do have some influence on students' motivation to learn and that students' motivation to learn is less stable and more difficult to predict across contexts. The indications that students' motivation to learn varies from class to class can lead to the inference that students' motivation to learn is not predetermined for a particular class but influenced by the interactions that take place within the context of a class. For instance, instructor communication behaviors may influence students' motivation to learn. Turner and Patrick (2004) found that students' motivation to learn does

change from class to class and year to year. Their findings indicate that these changes often occur as a result of teacher communication behaviors that open communication between students and the teacher. Some of the instructor behaviors that they identified as influential to students' motivation to learn were behaviors that communicated that they cared for the students. Other positive instructor behaviors included teacher self-disclosure and calling on students.

The previous studies addressed in the prior pages indicate that students' motivation to learn can be influenced by the instructor. The research findings suggest that instructors should abstain from using external rewards to motivate students. Rather, they should exhibit behaviors that increase students' interest in the topic that can lead to increasing intrinsic students' motivation to learn.

Early Research in Immediacy

Instructors' behaviors in the classroom have been studied extensively. Instructors' behaviors often influence students' motivation to learn (Winstead, 2004). One area in higher education that has addressed instructors' behaviors influencing students' motivation to learn is instructors' immediacy behaviors (Anderman, 2004; Christensen & Menzel, 1998; Christophel, 1990; Christophel & Gorham, 1995; Elliot & Knight, 2005; Gorham & Christophel, 1992; Frymier, 1994; Turner & Patrick, 2004). The influential impact of immediacy has been addressed by scholars over the past three decades (Andersen, 1979; Chesebro, 2003; Christensen & Menzel, 1998; Comstock, Rowell, & Bowers, 1995; Dobransky & Frymier, 2004; Gorham, 1988; Gorham & Christophel, 1990;

Gorham & Zakahi, 1990; Houser, 2005; Kearney, Plax, & Wendt-Wasco, 1985; Kelley & Gorham, 1988; Menzel & Carrell, 1999; Richmond, Gorham, & McCroskey, 1987; Rocca, 2004; Sanders & Wiseman, 1990; Smythe & Hess, 2005; Teven & Hanson, 2004; Titsworth, 2004; Witt, Wheelless, & Allen, 2004).

Immediacy behaviors come in two forms, verbal and nonverbal. Andersen (1979) acknowledged nonverbal immediacy as nonverbal “behaviors that reduce physical and/or psychological distance between teachers and students” (Andersen, 1979, p.543). Verbal immediacy has been defined as the “use of pro-social as opposed to antisocial messages to alter student behavior” (Gorham, 1988, p. 41). Mehrabian (1966) is often credited with initially addressing immediacy as an influential component in forming attitudes from communication interactions finding that less immediate communication was associated with more negative communication assessments. Teachers do have some control over the impact that their immediacy behaviors have on their students (Glynn, Aultman, & Owens, 2005). Teachers often monitor their immediacy behaviors in order to achieve certain desired behaviors from their students (Gorham & Zakahi, 1990).

Instructors can become aware of which behaviors that they exhibit are likely to increase students’ motivation to learn. Hampton and Reiser (2004) found that instructors can be taught immediacy behaviors. They investigated graduate student teaching assistants’ changes in behavior and the relation that these behaviors have with students’ motivation to learn. The graduate teaching assistants who previously did not use immediacy behaviors but did implement them in their instruction, such as providing relevant examples and providing

positive feedback that increases students' confidence, created more students' motivation to learn than those graduate teaching assistants who did not use these behaviors. These findings indicate that instructors can learn to exhibit particular behaviors to increase students' motivation to learn, specifically through the use of immediacy behaviors.

Nonverbal Immediacy

Instructors can exhibit nonverbal immediacy behaviors. Nonverbal behaviors identified as immediate include: eye-contact, physical gestures, relaxed body position, directing body position toward students, smiling, vocal expressiveness, movement, and proximity (Andersen, 1979). Vocal expressiveness, smiling at the class, and a relaxed body posture were found to have the most significant effect on students' cognitive learning (Richmond, Gorham & McCroskey, 1987). Nonverbal immediacy behaviors can influence students' perceptions of teachers and result in positive instructional outcomes (McCroskey, Valencic & Richmond, 2004). Chaikin, Gillen, Derlega, Heinen and Wilson (1978) found certain nonverbal immediacy behaviors such as eye-contact, leaning forward, smiling, and head nods as influential to teacher evaluation ratings. These nonverbal behaviors produced more positive ratings of teachers than did their counterparts: little eye contact, leaning away, frowning, and side to side head movements.

Nonverbal immediacy plays an intricate role in several areas. One can argue that instructors who display positive nonverbal immediacy behaviors make

their class instruction more interesting than those who do not. Making the class interesting is important for instructors to do because Gump (2004) found that students' motivation to attend a class increased when the instructor made the class interesting. One can make the inference that if instructors' nonverbal immediacy behaviors increase students' motivation to attend a class then instructor immediacy behaviors may increase students' motivation to learn.

Verbal Immediacy

Instructor immediacy behaviors can also come in the form of verbal behaviors. Some verbal immediacy behaviors exhibited by teachers include: using personal examples, humor, engaging in conversations with students before, after, or outside of class, encouraging students to talk, referring to the class as "we," or "our," asking for students' input, teachers' self-disclosure, addressing students by name, praising students' work, addressing instructors by their first name, and being available for students outside of class if they have any questions (Gorham, 1988).

Immediacy and Motivation

Instructors' displaying immediacy behaviors can lead to beneficial outcomes (Houser, 2005) such as increased students' motivation to learn (Christensen & Menzel, 1998; Christophel & Gorham, 1995; Elliot & Knight, 2005; Ellis, 2004; Glynn, Aultman & Owens, 2005; Jaasma & Koper, 1999; Seifert, 2004). Both forms of immediacy, verbal and nonverbal, are found to have a linear

relationship with students' motivation to learn (Christensen & Menzel, 1998; Ellis, 2004). Students' motivation is important to understand because it has been linked to student learning (Paas, Tuovinen, Merrienboer & Darabi, 2005). Furthermore, students often perceive their motivation as a major factor to their educational success (Lebedina-Manzoni, 2004). Therefore, it is imperative that instructors use verbal immediacy and nonverbal immediacy behaviors as opposed to non-immediacy behaviors for positive student outcomes such as motivation.

Positive instructor behaviors can be influential to students' motivation to learn. Instructors who use more prosocial behaviors increase students' motivation to learn (Seifert, 2004). Ellis (2004) found that instructors who display immediacy behaviors increase students' motivation to learn. More specifically, she found that instructors who exhibit confirmation behaviors with students increase students' intrinsic motivation to learn. Confirmation behaviors are those that affirm student understanding and come in two forms. One set of instructor behaviors were used to explain a task and the other set of behaviors increased the interpersonal relationship between the instructor and student. The confirmation behaviors addressing a task such as covering class material included taking time to answer student questions fully. Instructors' behaviors that increased interpersonal relations with students included answering student questions in a polite manner. This study is of interest to understanding teacher immediacy behaviors and students' motivation to learn because it demonstrates that instructors can display immediacy behaviors to increase students' motivation

to learn, while at the same time covering class material. It is important for instructors to realize that displaying immediacy behaviors does not take time away from their classroom teaching but serves as an additive.

Out of Class Communication

One aspect of immediacy that instructors can use is out-of-class communication (Jaasma & Koper, 1999). Dobransky and Frymier (2004) found when instructors and students communicate outside of class the interpersonal relationship between them increases. More specifically, they found that the areas of trust, shared control, and intimacy, which are factors of an interpersonal relationship, increase. The findings from this study are important because students who perceived more trust, shared control, and intimacy with their instructor were also found to achieve more learning than those students who did not.

Since Dobransky and Frymier found out of class communication between students and teachers as important and student motivation to learn in a course is positively related to both formal and informal communication (Jaasma & Koper, 1999), then instructors should increase the opportunity for out of class communication. Instructors can increase the potential for out-of-class communication through the use of language that increases rapport with students. Therefore, informal and formal communication interactions between students and instructors such as out of class communication are another way in which

instructors can increase their display of immediacy behaviors while at the same time increasing students' motivation to learn.

Mottet, Martin and Myers (2004) found immediacy behaviors to be beneficial for students needing to communicate with instructors. This can be beneficial since instructors often prefer to be informed when students miss classes due to out of class related circumstances. This finding indicates that instructor immediacy behaviors can increase students' motivation to communicate with their instructor. Furthermore, increasing the likelihood that students will communicate with their instructor may lead to students having more interest in discussing the topic of the class with their instructor and increase their intrinsic motivation to learn for the class.

Other research addresses instructor immediacy behaviors and out of class communication. Furlich (2004) also found behaviors resembling immediacy as influential to students approaching instructors to communicate. The findings indicated that graduate students were more motivated to communicate outside of the classroom with faculty members from whom they perceived higher levels of immediacy behaviors. Again, students communicating with instructors outside of the classroom can lead to more students' intrinsic motivation to learn from an increased interest in the topic.

Attributed Sources of Motivation in the Classroom

The factors contributing to students' motivation to learn and demotivation are often difficult to identify. Instructors and students tend to differ about the

factors that influence students' motivation to learn. Christophel and Gorham (1995) found that students attributed positive motivation to their own actions, while demotivation was attributed to instructors' actions. In addition, teachers' demotivating actions had a greater impact on the students than teachers' positive behaviors. These findings are interesting because students are not attributing their motivation to learn to the instructor, but only their lack of motivation to learn to their instructor. This finding seems to be inconsistent with previous research indicating a strong relationship between teacher immediacy behaviors and students' motivation to learn (Christophel & Gorham, 1995; Christensen & Menzel, 1998; Ellis, 2004; Glynn, Aultman, & Owens, 2005; Jaasma & Koper, 1999; Seifert, 2004).

The relationship between instructors' immediacy behaviors and students' motivation to learn is further complicated by student note-taking. One can argue that students who take more notes are more motivated to learn. Titsworth (2004) found that students who perceived high levels of instructor immediacy behaviors took fewer notes than students who perceived moderate levels of teacher immediacy behaviors. One may speculate that students who perceive higher levels of instructor immediacy behaviors were less motivated to take notes in their class. This interpretation of the findings is contrary to prior research that found a positive relationship between students' motivation to learn and instructors' immediacy behaviors (Frymier, 1994). On the other hand, the students may have paid more attention to the instructor, while taking fewer notes when perceiving more immediacy behaviors from their instructor. This

interpretation of the findings would be consistent with previous research finding positive relationships between instructors' immediacy behaviors and students' motivation to learn (Christophel, 1990).

Instructor immediacy behaviors also influence other student outcomes in addition to students' motivation to learn. One can argue that these student outcomes are related to their learning experience. These experiences within the classroom help to create a positive learning atmosphere. Gorham and Christophel (1990) discovered that the amount and type of humor displayed by an instructor influences learning. Therefore, it can be implied from this study that teachers who use more humor are perceived as more immediate and an increase in learning often occurs. In addition, verbal immediacy behaviors can influence students with communication apprehension. Ellis (2004) found that teachers who used verbal immediacy behaviors, decreased anxiety for students with high apprehension. Some of the outcomes include more effort, less anxiety, and more confidence (Noels, Clement & Pelletier, 1999). Teacher credibility has also been found to be related to instructor immediacy behaviors. Teven and Hanson (2004) found that teacher immediacy and perceived caring positively increased student perceptions of teacher credibility in the areas of competence and trustworthiness. The reverse also was found with less caring and less immediate instructors being perceived as less credible. Interaction effects were also found with less caring instructors being perceived as less credible regardless of their immediacy level. Furthermore, when instructor caring was high and immediacy levels were low, student perceptions of instructor credibility

were greatly reduced. These results indicate that instructor behaviors resembling immediacy and caring influence student perceptions of teacher credibility. Further benefits of teacher immediacy behaviors include instructor clarity and reduced receiver apprehension (Chesebro, 2003) and increased student attendance (Gump, 2004; Rocca, 2004).

These student outcomes related to instructor immediacy behaviors just described indicate that instructor immediacy behaviors play an intricate role with student learning within the higher education classroom. Furthermore, one can argue that instructor immediacy behaviors have positive student outcomes in several different areas and that students' motivation to learn is likely to increase as a result of instructor immediacy behaviors. Students will enjoy more of their classroom experiences with their instructor as a result of these positive student outcomes.

Decreasing Motivation

Since studies have indicated that factors related to instructor behaviors can increase students' motivation to learn, there are instructor behaviors that can also decrease students' motivation to learn (Rocca, 2004). Elliot and Knight (2005) state that students' motivation to learn is essential for student learning. Furthermore, they indicate that certain teacher behaviors that are perceived negatively by students are likely to decrease students' motivation to learn and, in turn, their learning. These behaviors are those that students perceive as aggressive teacher behaviors directed towards them. Rocca (2004) found that

particular instructor behaviors can increase student attendance, while other instructor behaviors can decrease attendance. The behaviors that can lead to increasing student attendance are using nonverbal gestures, eye-contact, and facial expressions. Some of the behaviors that can lead to a decrease in student attendance are using insults, ridicules, and threats. More specifically, she found that teachers who use more immediacy behaviors had higher levels of attendance than those instructors who use less. Furthermore, she found that those instructors who used more verbally aggressive behaviors had lower levels of student attendance. This study further illustrates the influence that teacher behaviors have on student outcomes such as motivation to attend class. One can argue that these findings indicate that students have more interest and are more motivated to learn in a class taught by an instructor who uses immediacy behaviors because they are more likely to attend their class.

Further research has investigated instructor behaviors that decrease students' motivation to learn. Rocca and McCroskey (1999) explored the relation among student ratings of instructor immediacy, instructor verbal aggressiveness, homophily, and interpersonal attraction. Their results indicated that as students perceived an increase in immediacy behaviors from teachers, they also perceived less verbally aggressive behaviors. Immediacy was also positively related to homophily. Lastly, teacher verbal aggressive behaviors were perceived as less immediate, less interpersonally attractive, and less similar to students. One can then infer from these findings that students who perceive less

immediacy behaviors from their instructors have less motivation to learn since immediacy and motivation have been linked (Frymier, 1994).

Understanding students' motivation to learn can be complex. One component connected to demotivation is non-compliance (Richmond, 1990). Non-compliance can serve as a demotivating factor for students. For instance, a student not completing assignments can be thought of as lacking motivation to learn, or having demotivation. Demotivation has been studied in the higher education classroom context. It has been found that students attribute their resistance to a non-immediate teacher to the teacher's behaviors. Therefore, non-immediate instructor behaviors can lead to non-compliance on the part of a student, who is less motivated to learn. Conversely, resistance to an immediate teacher was recognized as governed dispositionally by student priorities and needs, which may indicate that instructors displaying immediacy behaviors do not increase the likelihood of student resistance (Kearney, Plax & Burroughs, 1991). Thus, the source attributed for student noncompliance and lack of motivation to learn may stem from student perceptions of their teacher's immediacy behaviors or lack of immediacy behaviors. Punishment and the coercion with punishment should be used as a last resort for maintaining control in the classroom (Richmond, 1990) because the instructor is likely to be perceived as exhibiting less immediacy behaviors as a result.

A further understanding of sources attributed to students' motivation to learn and demotivation can shed more light on students' motivation to learn. Christophel and Gorham (1995) studied the reasons behind motivation and

demotivation. Teachers and students tend to have differing perspectives concerning motivational factors and demotivational factors. For instance, teachers are more likely to attribute demotivation factors to students' poor evaluation on assignments, students' lack of prior knowledge or skill necessary to perform adequately on course material, and the students' abundance of work within and outside of the class. Students, however, attributed motivation to learn to personal factors that are out of an instructor's control such as the amount of time spent studying. Conversely, students ascribed demotivation factors to the teacher. Teachers and students agree that the most significant motivating to learn factors are perceiving relevance of the subject, yearning to know the subject, and having an interest in the subject.

The teachers and students disagreed on the top demotivating factor for both intrinsic and extrinsic motivation. Teachers ranked irrelevant assignments, unclear objectives, lack of reinforcement for application, unfair grading, and lack of student success on graded work, while students rated the top demotivator as inadequate presentational ability, lacking a sense of humor, language barriers, too many examples, and lack of enthusiasm by the teacher. Overall, students and teachers attributed different sources for motivating and demotivating students. The teachers accredited their positive behaviors with students' motivation to learn and students' personal circumstances for demotivation. Unfortunately, the reverse holds for students. Students consistently accredited the choices they make for motivation to learn and their teacher misbehaviors for demotivation (Christophel & Gorham, 1995). These findings are important to

understand for further explaining students' motivation to learn and instructor immediacy behaviors. For instance, instructors and students both agree that increasing student interest in the subject and making the subject relevant can increase students' motivation to learn. Instructors can increase student interest in the subject and make it more relevant by displaying more immediacy behaviors, which would then lead to more students' motivation to learn. Furthermore, instructors who display more immediacy behaviors may be perceived as having better presentation skills, while not doing so can lead to a perception of their having poor presentation skills that students attribute for their demotivation.

More recent research has also been conducted on students' motivation to learn and demotivation. Kelsey, Kearney, Plax, Allen, and Ritter (2004) found similar results to Christophel and Gorham (1995). Kelsey, Kearney, Plax, Allen, and Ritter found that students attribute the causes for instructor misbehaviors, such as verbal aggressiveness, to that of the instructor and not from to their behaviors. Furthermore, instructors' use of immediacy behaviors did not change student perceptions that instructor misbehaviors such as verbal aggressiveness are a result of the instructor and not coming as a reaction to student behaviors. These findings are important for instructors to understand because their immediacy behaviors do not excuse them for exhibiting misbehaviors and may even change student perceptions of them as a result and students' motivation to learn may then be influenced. Furthermore, instructor immediacy behaviors may have less of an impact with students' motivation to learn when instructors misbehave.

Additional research supports the notion that instructor misbehaviors can increase the likelihood of student negative outcomes. Chory-Assad and Paulsel (2004) also shed light on instructor misbehaviors and their connection to negative student outcomes in higher education. They found that instructors who use anti-social behavioral alteration techniques were more likely to be perceived as not being fair to students. Students in turn, used covert aggressive behaviors toward these instructors. These behaviors included the instructor communicating “just do what I say and don’t ask questions,” “if you don’t do your work you will receive an “F,”” and “I am the teacher and you are just the student.” The researchers postulated that these behaviors may be perceived by students as an instructor abusing his or her power. Furthermore, the students may use covert aggressive behaviors as a means to express the way that they feel. They may feel bad as a result of these behaviors and want their instructor to feel bad as well. Therefore, instructor misbehaviors can lead to students’ demotivation to learn coming in the form of student covert aggressive behaviors.

Chapter Summary

This review of literature chapter covering instructor immediacy behaviors as related to students’ motivation to learn indicates that instructor immediacy behaviors may influence students’ motivation to learn. Furthermore, instructor immediacy behaviors influence other student outcome areas in addition to students’ motivation to learn. This is important to understand because instructor immediacy behaviors influencing these other areas may impact student overall

enjoyment of the class and in turn, their motivation to learn for the class. The reverse can also hold true. Instructors who display fewer immediacy behaviors can lead to students lacking motivation to learn.

CHAPTER III

METHODOLOGY

This chapter discusses the research design, restates the research questions, describes the participants, instruments, data collection, data analyses, IRB approval/confidentiality, and chapter summary.

Research Design

Two important components to address in a research design are to indicate what is of interest and the best approach for the investigation (Babbie, 1998).

This study explores whether there are relationships between instructors' verbal and nonverbal immediacy behaviors and students' motivation to learn. Therefore, the most appropriate research design is a descriptive correlational.

This study is considered descriptive research because it attempts to accurately inform the reader about a particular situation or phenomena (Babbie, 1998). This study is intended to describe the relationships between instructors' immediacy behaviors and students' motivation to learn. This study is an initial study to determine whether instructors' behaviors influence students' motivation to learn. The findings of this study may then determine whether or not future studies to investigate instructors' behaviors and students' motivation to learn are warranted.

A correlational design was used in this study. A correlational design investigates the relationships between the variables of interest but can not

determine causation (Babbie, 1998). A correlational design can show how variables are positively or negatively related to each other. This design is used to determine if an increase in one variable is associated with either an increase or decrease in another variable. Therefore, it is beneficial in determining whether relationships exist between variables (Babbie, 1998). In this study a correlational design is used to determine whether instructors' immediacy behaviors are correlated with students' motivation to learn. This design investigates whether or not students' motivation to learn increases or decreases when instructors use more or fewer immediacy behaviors. Researchers can then have a better understanding about the connection between instructors' immediacy behaviors and students' motivation to learn.

A correlational design has some advantages and disadvantages. One advantage is that it allows researchers to investigate relationships between variables. Thus, researchers better understand the variables of interest and their relationships with other variables. Another advantage with a correlational design is that variables can be investigated as they relate to each other in a natural context as they occur rather than in an experimental setting.

However, correlational designs also have some disadvantages. One disadvantage is that if a correlation is found researchers can not determine exactly why the relationship exists between variables. Researchers cannot determine whether or not it is one of the variables causing another variable to change or if it is due to an outside variable that was not measured or if there was an interaction between or among variables.

Researchers often have to settle for a correlational design rather than a causal design. It is often impossible for researchers to accept one explanation for changes in a variable and reject all other possible explanations, which is needed to state causation (Babbie, 1998). It is not possible for the researcher in this study to construct a causal design because more than explanation is possible for explaining changes in students' motivation to learn. For this study, it is not possible to have instructors' immediacy behaviors as the only independent variables in a controlled setting. The researcher cannot control the environment in which to measure only the variables of interest. Some of the independent variables that can not be isolated and controlled for in a non-experimental setting are prior experiences with the subject, students' expectations of instructors' behaviors, students' previous experiences with the instructors, students' learning styles, and influence of other students in the class. It is not possible for a researcher to state that other variables such as the ones previously described did not cause students' motivation to learn to either increase or decrease and instructor behaviors alone influenced students' motivation to learn. Furthermore, this is not achievable because all possible causes of students' motivation to learn are not known to researchers, and therefore, can not be measured.

Creating a causal design involves isolating the particular variables of interest in order to determine whether one variable influences another variable without any other variables impacting the relationships (Babbie, 1998). For this to occur, the causal variable must precede the variable that it causes to change

(Babbie, 1998). In this study, it is not possible to determine whether instructors' immediacy behaviors occur before students' motivation to learn or after students' motivation to learn. It is possible that instructors use more immediacy behaviors when they perceive their students to be more motivated to learn. The reverse can also be true. Students may become more motivated to learn when their instructors use more immediacy behaviors.

Research Questions

RQ1a: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a major research university?

RQ1b: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a community college?

RQ1c: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a small liberal arts university?

RQ2: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn when data from a major research university, community college, and small liberal arts university are analyzed together?

RQ3: If there is a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn, does the strength of the correlation differ depending on whether the student attends a research university, community college, or a liberal arts university?

Population and Sampling Procedures

This study used a convenience sample. A convenience sample was used because it was more time efficient and cost effective. The researcher contacted six colleagues either by phone or e-mail who taught Communication Studies classes and asked them if they would be willing to have their students participate in the study. They were told that it involved investigating students' motivation to learn. The participants consisted of 240 undergraduate students enrolled in Communication Studies classes at three higher education institutions. The participants included 83 in five class sections from a community college and 80 in three class sections from a major research university located in the Southwestern United States and 77 in four class sections from a small liberal arts university located in the Midwestern United States.

Instrumentation

Three instruments were used to measure the relationships among the variables for this study. The measurement instruments proved to be reliable based upon Chronbach's alpha reliability coefficients that were found in this study and in previous studies. The Chronbach's coefficient alpha measures how

well an instrument produces consistent results by performing a correlational analysis of all of the items for the same instrument (Tabachnick, & Fidell, 2001). Chronbach's coefficient alpha levels are generally thought of as excellent when $\alpha > .9$, good for $\alpha > .8$, acceptable for $\alpha > .7$, questionable for $\alpha > .6$, poor for $\alpha > .5$, unacceptable for $\alpha < .5$ (George & Mallery, 2003). An instrument that measures participants' motivation to learn should have high scores on all items for a participant with high levels of motivation to learn and low scores for all items for a participant with less motivation to learn. Reliability for this study was measured using Chronbach's coefficient alpha levels. The specific reliability coefficients for each instrument used in this study are described in later sections in this chapter.

Validity was also evaluated with regard to these measurement instruments. Validity refers to the ability of the instrument to measure the variable that it purports to measure (Gravetter & Wallnau, 2000). The measurement instruments have face validity for this study because other scholars familiar with the variables reviewed all of the instruments and stated that the measurement instruments measured the variables of interest. The researcher asked three scholars in the discipline of Communication Studies who were familiar with the constructs the instruments were intended to measure to review each of the instruments. Changes would have been considered and made if the researcher deemed comments from the other scholars evaluating the validity of the measurement instrument to warrant a change. However, the measurement instruments were not altered from their original form because the scholars

reviewing the measurement instruments did not indicate that they needed any changes. The researcher in this study did add demographic items for a better understanding of the participants in this study.

Motivation Measurement Instrument

The motivation to learn measurement instrument developed by Christophel (1990) is intended to measure how motivated a student is to learn in a particular class. The measurement instrument consists of a series of bipolar words with each set separated by a Likert scale of 1 to 7. The student circles the number closest to the word that best represents his or her motivation toward the class. Items 1, 2, 3, 6, 10, 11 are reverse scored. Reverse scoring some items encourages the participants to read each item carefully. Participants cannot assume that all items are stated positively or negatively. Hence, participants have to read each item in order to determine how it is phrased about the variable of interest before scoring a particular item.

Christophel (1990) used the same motivation to learn instrument and found it reliable and valid. Christophel (1990) used the 12 items with a reliability coefficient of 0.96 for the twelve item measure. The students' motivation to learn measurement instrument achieved acceptable reliability for students' motivation to learn in this study because the alpha level was 0.92 when a Chronbach's alpha reliability statistical test was performed. The reliability test was performed in SPSS that included all of the data collected in this study. The SPSS reliability test correlated all of the items together for the students' motivation to learn

measurement instrument. The correlation for the items in this instrument was then stated as the Chronbach's alpha level, which was 0.92.

Construct validity was also evaluated for the students' motivation to learn instrument used in this study. Rubin, Palmgreen, and Sypher (1994) are authors of a book who evaluate the reliability and validity of Communication Studies' measurement instruments. They discuss construct validity of the students' motivation to learn measurement instrument used in this study. They evaluated the construct validity of the measurement instrument based upon previous studies using the instrument. They state that the construct validity is based upon these previous studies' results addressing the relationships between the students' motivation to learn measurement instrument and several dependent variables. The results from these studies provide evidence that the variables are related as one would expect for a measurement instrument measuring students' motivation to learn:

Considerable evidence for the construct validity of these scales has been published. Beatty et al. (1986) found that motivation scores interacted with communication apprehension in the prediction of the duration of student speeches; the simple correlation between motivation and speech duration was .54. Other studies indicated that variations of the motivation instrument are associated with teachers' use of power strategies, teacher immediacy, and various dimensions of student learning (cognitive, affective, learning loss, etc.). (Christophel, 1990; Richmond, 1990, p 344)

Nonverbal Immediacy Scale

The nonverbal immediacy measurement instrument is intended to measure student perceptions of their instructor's nonverbal immediacy behaviors.

The nonverbal immediacy measurement instrument has 14 different items that each illustrate a particular nonverbal immediacy behavior that an instructor may exhibit. The student is to indicate from 0-4 (0 = never, 1 = rarely, 2 = occasionally, 3 = often, and 4 = very often) how often they perceive that their instructor exhibits a particular behavior. Items number 1, 3, 6, 9, 10, and 11 are non-immediate and are reverse scored when entering data. The nonverbal immediacy measurement instrument was developed by Richmond, Gorham, and McCroskey (1987) and has proven to be reliable. Rocca (2004) used this nonverbal immediacy measurement instrument for students to measure their perceptions of their instructor's nonverbal immediacy behaviors, and Rocca's use of the scale produced a Chronbach alpha reliability coefficient of 0.86.

A Chronbach's alpha reliability analysis was also performed for the nonverbal immediacy measurement instrument in the present study. Reliability was achieved for nonverbal immediacy in this study with an Chronbach's alpha level of 0.78 when a reliability statistical test was performed. The reliability test was performed in SPSS for the instrument using all of the data collected for this study. The SPSS reliability test correlated all of the items together for the nonverbal immediacy measurement instrument. The correlation for the items in this instrument was then stated as the alpha level, which was 0.78.

The instrument also has been shown to have construct validity (Rubin, Palmgreen & Sypher, 1994). Rubin, Palmgreen, and Sypher (1994) authored a book that investigated reliability and validity of Communication Studies' measurement instruments. They take the position that the nonverbal immediacy

measurement instrument has construct validity based upon correlational relationships found between the nonverbal immediacy measurement instrument and other variables in the expected correlational direction. They state:

Numerous studies support the concurrent validity of the Nonverbal Immediacy Behaviors Instrument. The items on this instrument consistently result in a single-factor solution when analyzed with items from the Verbal Immediacy Scale developed by Gorham (1988). Moreover, the summed scores across both instruments correlated highly and positively. The results have been confirmed over and over again (Christophel, 1990; Gorham, 1988; Gorham & Zakahi, 1990; Richmond et al., 1987). Finally, both teacher self-reports and students' reports of their teachers' level of immediacy correlate at .70. (Gorham & Zakahi, 1990)

In terms of the instrument's construct validity, there is a great deal of evidence to support a moderate to substantial relationship between Nonverbal Immediacy Behaviors and affective and/or cognitive learning. (Christophel, 1990; Gorham, 1988; Gorham & Zakahi, 1990; Richmond et al., 1987; Sanders & Wiseman, 1990, p 238-239)

Verbal Immediacy

The verbal immediacy measurement instrument is intended to measure student perceptions of their instructor's verbal immediacy behaviors. The verbal immediacy measurement instrument has 17 items. Each item presents a particular example of an instructor verbal immediacy behavior and students are asked to indicate how often their instructor displays this behavior on a scale from 0-4 (0 = never, 1 = rarely, 2 = occasionally, 3 = often, and 4 = very often). Item 11 is non-immediate and is reversed scored when summing. The verbal immediacy measurement instrument was developed by Gorham (1988), and has proven to be reliable. Christophel (1990) used the verbal immediacy instrument to measure student perceptions of instructor's verbal immediacy behaviors and reported a

Chronbach's alpha reliability coefficient of 0.80. Gorham and Zakahi (1990) also used this verbal immediacy instrument to measure student perceptions of their instructor's verbal immediacy behaviors and reported a Chronbach's alpha reliability coefficient of 0.92. Gorham and Christophel (1990) used this verbal immediacy instrument for student perceptions of their instructor's verbal immediacy behaviors and reported a Chronbach's alpha reliability coefficient of 0.94.

A Chronbach's alpha reliability analysis was performed for the verbal immediacy measurement instrument in the present study. This study achieved acceptable reliability for verbal immediacy with a Chronbach's alpha level of 0.82 when a reliability statistical test was performed. The reliability test was performed in SPSS using all of the data collected for this study. The SPSS reliability test correlated all of the items together for the verbal immediacy measurement instrument. The correlation for the items in this instrument was then stated as the alpha level, which was 0.82.

Construct validity was also evaluated for the verbal immediacy measurement instrument. The instrument has been shown by previous scholars to have construct validity (Rubin, Palmgreen & Sypher, 1994). Rubin, Palmgreen, and Sypher (1994) authored a book that investigated reliability and validity of Communication Studies' measurement instruments. They take the position that the verbal immediacy measurement instrument has construct validity based upon correlational relationships found between the verbal immediacy measurement instrument and other variables in the expected direction. They state:

Verbal immediacy behaviors have been found to correlate positively and significantly with affective learning (and behavioral commitment) and cognitive learning but negatively with learning loss (Gorham, 1988; Gorham & Zakahi, 1990). These findings hold true for students in the multicultural classroom as well; however, the magnitude of this association varies by ethnic group (Sanders & Wiseman, 1990). Both, students' reports of their teachers' verbal immediacy and teachers' self-reports were also substantially and positively related. Finally, verbal immediacy was correlated with students' motivation or interest in taking the class. (Christophel, 1990, p.394)

Data Collection

This study involved the researcher or an assistant to the researcher entering the undergraduate classes of instructors who agreed to allow the students in their classes to participate in the study. The assistants to the researcher were instructors of the classes that were involved in this study. The researcher or the assistant began by explaining to the students that the purpose of the study was to investigate students' motivation to learn. Furthermore, he or she explained that the completion of the measurement instruments was completely voluntary and that responses would not be identified with a specific student and that only the researcher would see their individual responses. The participants were also told that they could withdraw from participation in the project at any time without penalty. Consistency with informing students about the study was achieved by having all administrators of the measurement instruments read from a script before handing out the instruments (Appendix A). The participants then read over and signed the consent to participate in the study form if they chose to participate (Appendix B). The researcher's contact

information along with his advisor's contact information was provided on the consent form if the participants desired to contact either the researcher or his advisor. After signing the consent form, the participants were given the measurement instruments to complete in the classroom and return to the researcher or assistant after their completion.

Data Analysis

To answer all of the research questions, the researcher entered the mean scores of the participants' responses for each measurement instrument into the Statistical Package for the Social Sciences (SPSS). The mean scores of both forms of immediacy and students' motivation to learn were entered into SPSS because using participants' mean scores allowed the researcher to use measurement instruments that participants may not have fully completed.

RQ1a: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a major research university?

RQ1b: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a community college?

RQ1c: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a small liberal arts university?

These research questions were answered through the use of an Analysis of Covariance (ANCOVA) (Tabachnick & Fidell, 2001). ANCOVA is used in this study as a generalization of linear regression to investigate the relationships between instructors' immediacy behaviors and students' motivation to learn at different Carnegie institutional types. Linear regression is an appropriate statistical procedure to use when predicting the score of one variable from the score of another (Tabachnick & Fidell, 2001) where there exists a linear relationship between the two, or the variables can be transformed so that such a linear relationship exists. Furthermore, a linear regression indicates the degree to which one variable changes as the other changes; that is, the regression coefficient measures the change in the average of the dependent variable per unit change in the independent variable (George & Mallery, 2003).

Linear regression is appropriate to use with two continuous variables. As long as the variables have a sufficient number of unique values, the inferences obtained are valid. Instructors' nonverbal immediacy behaviors scores and instructors' verbal immediacy scores and students' motivation to learn scores can be treated as continuous variables. Linear regression also allows the researcher to determine the amount of variance that the independent variable(s) account for in the dependent variable. This is expressed in the r-square value, which in the case of having a single random independent variable, is simply the square of the Pearson's correlation coefficient. In this case, since ANCOVA is used, measures

of effect size are examined that have the same interpretation as r-square. In particular, the partial- η^2 was used (George & Mallery, 2003).

The ANCOVAs that were used for these research questions control for instructor and section differences. Essentially, each group of students in the same section had a separate regression line fitted to their data. The only difference between these regression lines is that the intercept was different. That is, the slope parameter for the covariates (in this case, the nonverbal and verbal immediacy) remain constant from section to section. The intercept informs the researcher about the value of the dependent variable (students' motivation to learn) when the independent variables (instructors' immediacy behaviors) were equal to zero. The value of the predicted dependent variable when the independent variables were zero indicates the estimated difference between the means of the dependent variables among the various dependent variables.

An advantage of using ANCOVA for this research question was to control for group differences (Tabachnick & Fidell, 2001). More specifically, participants may have differed depending upon the individual instructor and their particular classmates. Controlling for different sections and instructors was a more accurate representation of the data compared to not controlling for these differences (Tabachnick & Fidell, 2001). The researcher was not able to randomly assign students to participate in the study. They were already in particular sections with different instructors. These different compositions of class sections with different instructors may have influenced relationships between instructors' immediacy behaviors and students' motivation to learn. For example,

instructors may differ based upon other factors beyond their use of immediacy behaviors that may impact students' motivation to learn. Different class sections are composed of different students. Controlling for different instructors and class sections is a more flexible analysis of the relationships between instructors' immediacy behaviors and students' motivation to learn (Tabachnick & Fidell, 2001).

ANCOVA models were developed for each institution. The purpose of these ANCOVA models was to discover if relationships existed between instructors' verbal and nonverbal immediacy behaviors and students' motivation to learn. These ANCOVA models allowed the researcher to determine whether significant relationships existed between instructors' immediacy behaviors and students' motivation to learn (Tabachnick & Fidell, 2001). If significant relationships did exist, the researcher could have determined the strength of the relationship that instructors' immediacy behaviors had with students' motivation to learn. This could be determined by the partial eta squared, which indicates the amount of variance of students' motivation to learn that is influenced by instructors' immediacy behaviors. The partial eta squared can be determined from an ANCOVA model (Tabachnick & Fidell, 2001).

Models were constructed that included both immediacy scores as covariates as well as the instructor and section factors. Note that the small liberal arts university only had one instructor, so it was removed as a factor for all of the models. It was not necessary to control for instructor differences for the data for the small liberal arts university. Furthermore, models including instructors'

nonverbal immediacy behaviors were investigated in the absence of instructors' verbal immediacy behaviors in order to explore the relationship between instructors' nonverbal immediacy behaviors and students' motivation to learn without the influence of instructors' verbal immediacy behaviors. The reverse was also performed.

To summarize, ANCOVA models were constructed to include both the nonverbal immediacy and verbal immediacy scores as covariates as well as the instructor and section factors. This was done separately for each institution. Then two "reduced" models were constructed, one of which only included the nonverbal immediacy as the covariate while the other only included the verbal immediacy as the covariate. Different instructors and sections were controlled for a more accurate interpretation of the results.

The significance values of the ANCOVA tests were evaluated. The p values of the results of the ANCOVA tests were examined to determine whether the amount of variance accounted for in students' motivation to learn were attributable to the relationship with instructors' immediacy behaviors were statistically significant. The p value was part of the output from the ANCOVA and tested the null hypothesis $H_0: B_1 = 0$, where B_1 is the slope coefficient associated with instructors' nonverbal immediacy behaviors and also for instructors' verbal immediacy behaviors. The B_1 indicated the partial relationship between either the instructors' nonverbal immediacy behaviors or instructors' verbal immediacy behaviors and students' motivation to learn while including other variables from the model into the equation. A p -value less than .05 indicates that B_1 was not

equal to 0, and the researcher can conclude that a relationship existed between the variables.

Another correlational test was used for this research question. A correlation between instructors' verbal immediacy behaviors and instructors' nonverbal immediacy behaviors was also computed. This correlation was computed in order to investigate the collinearity relationship between the variables.

RQ2: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn when data from a major research university, community college, and small liberal arts university are analyzed together?

This research question was answered through the use of ANCOVA models (Tabachnick & Fidell, 2001) similar to those used to answer research question one. Three different ANCOVA models were performed to investigate relationships between instructors' immediacy behaviors and students' motivation to learn using all of the data from each institution. One ANCOVA model included both forms of immediacy with students' motivation to learn. Another ANCOVA model included only verbal immediacy with students' motivation to learn. The third ANCOVA model included only nonverbal immediacy with students' motivation to learn.

For this research question institutional type was also included as a factor. Having institutional type as an additional factor assisted with controlling for those differences attributed between participants such as the institution, instructor, and class section. The different institutions, instructors, and class sections used in this study may influence the relationships between instructors' immediacy behaviors and students' motivation to learn.

Another procedure used when striving for an accurate representation of the data in this study was to test for homogeneity of the slopes. It is assumed in ANCOVA that the co-variates are accurately measured (Tabachnick & Fidell, 2001). Therefore, it is also assumed that the slope of each different group (institution) within the study is an estimate of the same population regression coefficient (Tabachnick & Fidell, 2001).

If homogeneity of the slopes is not found, then the difference between the predicted and obtain values of students' motivation would be large. This difference would decrease the value of the results used in this study because the predicted values of the dependent variable do not accurately portray the measured values of the dependent variable. The residuals can help with this determination. The residuals from the analysis give insight into the differences between the hypothesized and actual relationships between the independent variables and the dependent variable. Residuals are observable estimates of unobservable errors. They give some indication as to the level of error of prediction (Tabachnick & Fidell, 2001). The residuals allow for comparing the predicted with the obtained student motivation score. This comparison can be

done after the data is collected. The researcher will have the values for the coefficients. Then, the researcher can attempt to predict the value of the dependent variable based upon the values of the coefficients for each student. A comparison can then be made between what the researcher thinks the value of the mean of the dependent variable is for each student with the actual value.

The purpose of these models was to investigate students' motivation to learn among the major research university, community college, and small liberal arts university together. This section was necessary to investigate the prevalence of the relationships between instructors' immediacy behaviors and students' motivation to learn in higher education when data from a community college, major research university, and small liberal arts university were analyzed together. This section portrays a bigger picture of the relationships between instructors' immediacy behaviors and students' motivation to learn than do the results of the major research university, community college, and small liberal arts university analyzed separately. For example, the major research university's results may have significant correlational relationships between instructors' immediacy behaviors and students' motivation to learn. On the other hand, the community college's results may not indicate any significant correlational relationships. It would then be unknown to the researcher whether or not significant relationships exist when analyzing data from different institutions together. This gives a better understanding of the prevalence of the relationships between instructors' immediacy behaviors and students' motivation to learn regardless of institutional type.

Another correlational test was used for this research question. A correlation between instructors' verbal immediacy behaviors and instructors' nonverbal immediacy behaviors was also computed. This correlation was computed in order to investigate the collinearity relationship between the variables.

RQ3: If there is a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn, does the strength of the correlation differ depending on whether the student attends a research university, community college, or a liberal arts university?

Research question three asks if correlational relationships between instructors' immediacy behaviors and students' motivation to learn differ for students at a major research university, community college, and small liberal arts university. Twelve assumption tests were conducted. This research question was answered by comparing the slope parameters for each of the institutions used in this study. The estimated slope parameter estimates the degree of the correlational relationships between independent and dependent variables and are compared across institution types to determine if there are differences in the sizes of the relationships (Tabachnick & Fidell, 2001). The slope parameters computed for each Institution in the independently conducted analyses previously described for research question one were compared using z-tests conducted using the estimated slopes and their estimated standard errors.

In this study the relationship between either instructor nonverbal immediacy or verbal immediacy and students' motivation to learn was compared between a major research university, community college, and small liberal arts university. This comparison was important to understand because it gives insight into whether differences in the relationships between the variables exist between different Carnegie types of higher education institutions. If differences were found between institutions, then the results give some indication that the relationships between instructors' immediacy behaviors and students' motivation to learn may differ between different types of higher education institutions.

IRB Approval/Confidentiality

The researcher received Institutional Review Board approval from Texas Tech University for this study prior to collecting the data (Appendix D). The students were asked to sign a consent form (Appendix B). The consent form described the purpose of the study, ensured the participants anonymity, informed the participants that they could withdraw their participation at any time without penalty, and gave the researcher's contact information in case the participants had any questions or comments.

Chapter Summary

This chapter addressed the research methods that were utilized to conduct this study. The chapter covered the research design, which was a descriptive correlational design. Measurement instruments in this particular study

allowed the researcher to get a better understanding about the correlational relationships that the variables of interest had with each other. The sample consisted of students in undergraduate Communication Studies classes at a major research university, a small liberal arts university, and a community college. The instrumentation materials such as the measurement instruments that were used were described and their reliability and validity were addressed. The research questions were restated. The procedures for data collection were covered in terms of gathering data from the participants in their classes. The statistical procedures that were used to analyze the data were described. The IRB approval and confidentiality of the participants were addressed so that no one participant can be identified by their specific responses.

CHAPTER IV

RESULTS

This chapter presents the findings from the statistical tests measuring the relationships between instructors' nonverbal and verbal immediacy behaviors and student motivation to learn.

Demographics of Participants

This study was conducted at a community college and major research university located in the Southwest and a small liberal arts university located in the Midwest. The participants included 240 undergraduate students enrolled in communication courses (see table 4.1). The participants consisted of 83 from the community college, 80 from the major research university, and 77 from the small liberal arts university. The sample included 97 males and 139 females (four persons did not indicate their gender), with a mean age of 22. The gender of participants for the major research university consisted of 37 males and 43 females. The gender of the participants for the community college consisted of 36 males and 44 females and the small liberal arts university had 24 males and 52 females. The mean age for the major research university was 21.6, community college 22.4, and small liberal arts university 21.9. There were some differences with regard to class year between the institutions. When all of the data were included there were 34 freshmen, 54 sophomores, 60 juniors, and 65 seniors (27 did not report their classification). The major research university had

4 freshmen, 9 sophomores, 24 juniors, and 43 seniors. The community college had 30 freshmen, 19 sophomores, 6 juniors, and 1 senior. The measurement instruments did not ask why the community college students were taking the class. One may speculate that the 6 juniors and 1 senior were enrolled in a four year institution and taking the communication studies class to transfer for credit toward their four year degree. The small liberal arts university had 34 freshmen, 54 sophomores, 60 juniors, and 65 seniors. When all of the data were included for ethnicity there were 160 Caucasians, 19 Afro-Americans, 26 Hispanics, 10 Asian-Americans, and 2 listed as 'other' (23 did not report ethnicity). The major research university had 60 Caucasians, 3 Afro-Americans, and 7 Hispanics. The community college had 33 Caucasians, 15 Afro-Americans, 19 Hispanics, 6 Asian-Americans, and 1 listed as other. The small liberal arts university had 67 Caucasians, 1 Afro-American, and 4 Asian-Americans.

Table 4.1: Comparing Summary of Demographic Results of All Institutional Data.

	R.U.	C.C.	L.A.U.	Overall
Participants	80	83	77	240
Age	21.7	22.5	21.9	22.0
Gender				
Males	37 (46.3%)	36 (43.4%)	24 (31.2%)	97 (40.4%)
Females	43 (53.8%)	44 (53.0%)	52 (67.5%)	139(57.9%)
Class Year				
Freshmen	4 (5.0%)	30 (36.1%)	0	34(14.2%)
Sophomores	9 (11.3%)	19 (22.9%)	26 (33.8%)	54(22.5%)
Juniors	24 (30.0%)	6 (7.2%)	30 (39.0%)	60(25.0%)
Seniors	43 (53.8%)	1 (1.2%)	21 (27.3%)	65(27.1%)
Ethnicity				
Caucasian	60 (75.0%)	33 (39.8%)	67 (87.0%)	160(66.7%)
Afro-American	3 (3.8%)	15 (18.1%)	1 (1.3%)	19(7.9%)
Hispanic	7 (8.8%)	19 (22.9%)	0	26(10.8%)
Asian-American	0	6 (7.2%)	4 (5.2%)	10(4.2%)
Other	1 (1.3%)	1 (1.2%)	0	2(0.8%)

(R.U. = Major Research University, C.C. = Community College, L.A.U. = Small Liberal Arts University).

Collinearity

Collinearity should be taken into account when interpreting the results.

Collinearity refers to the high correlation of two independent variables within the linear model (Tabachnick & Fidell, 2001). The results from the ANCOVA models that included both forms of immediacy were impacted by collinearity. In the models that included both forms of immediacy, nonverbal immediacy was highly correlated with verbal immediacy. This high correlation makes it difficult to

interpret the unique contribution of each individual form of immediacy to the model.

RQ1a: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a major research university?

Major Research University

For the major research institution, two ANCOVA models were performed while controlling for different instructors and class sections. One ANCOVA model accounted for instructor nonverbal immediacy and students' motivation to learn in the model. The other accounted for instructor verbal immediacy and students' motivation to learn in the model. The results indicated that instructors' nonverbal immediacy behaviors did have a significant relationship with students' motivation to learn accounting for 12.6% of the variance for students' motivation to learn when instructors' verbal immediacy behaviors are taken out of the model (eta squared = .126, $p = .002$). Instructors' verbal immediacy behaviors were also significant and accounted for 16.5% of the variance for students' motivation to learn when instructors' nonverbal immediacy behaviors were taken out of the model for the major research university (eta squared = .165, $p = .000$).

Another ANCOVA model controlling for different instructors and class sections was also used to account for both forms of immediacy and students'

motivation to learn. When the model was changed to include both immediacy scores, a positive relationship between instructors' verbal immediacy behaviors and students' motivation to learn was observed and accounted for 7.4% of the variance for students' motivation to learn (eta squared = .074, $p = .017$). However, instructors' nonverbal immediacy behaviors did not produce a significant relationship with students' motivation to learn when instructors' verbal immediacy behaviors were accounted for in the model (eta squared = .031, $p = .126$). Table 4.2 indicates that there was a significant relationship between instructors' verbal immediacy behaviors and students' motivation to learn above and beyond that which can be explained by instructors' nonverbal immediacy behaviors. On the other hand, Table 4.2 shows that a relationship between instructors' nonverbal immediacy and students' motivation to learn was only found for the ANCOVA model that excluded verbal immediacy, and no conclusion one way or another can be drawn regarding it.

Table 4.2: Variance and Significant Values of Major Research University Data of Immediacy Relationships with Students' Motivation to Learn

	Partial eta squared	Significance Value
Nonverbal Immediacy	.031	.126
Marginal Relationship	.126	.002*
Verbal Immediacy	.074	.017*
Marginal Relationship	.165	.000*

*Significant at .05

A significant correlation between instructors' verbal and nonverbal immediacy behaviors was found for the major research university ($r = .560$, $p < .05$). This indicates a collinear relationship between the two covariates in the model and makes it difficult to determine verbal immediacy's unique contribution to students' motivation to learn. The difficulty occurs due to the strong correlation of verbal immediacy with nonverbal immediacy. Verbal immediacy and nonverbal immediacy are not exclusive variables. Both forms of immediacy work together and influence understanding relationships between instructors' immediacy behaviors and students' motivation to learn.

RQ1b: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a community college?

Community College

When the community college's data were analyzed independently in the ANCOVA model that controlled for different class sections and instructors, the results were different from the major research university. Instructors' nonverbal and verbal immediacy behaviors were not significantly related to students' motivation to learn. For the community college, instructors' nonverbal immediacy behaviors were not significantly related to students' motivation to learn when verbal immediacy was removed from the ANCOVA model ($\eta^2 = .003$, $p = .647$). Instructors' verbal immediacy behaviors also did not have a relationship

with students' motivation to learn when instructors' nonverbal immediacy behaviors were removed from the model (eta squared = .000, $p = .903$).

An ANCOVA model that included both verbal immediacy and nonverbal immediacy and controlled for different class sections and instructors was performed. The results of this analysis did not find statistical significance for a relationship between nonverbal immediacy and students' motivation to learn (eta squared = .003, $p = .615$). Instructors' verbal immediacy behaviors did not approach a significant result when testing for a relationship with students' motivation to learn (eta squared = .001, $p = .805$). Table 4.3 shows that no statistically significant correlational relationship was found for the community college participants between instructor immediacy and students' motivation to learn.

Table 4.3: Variance and Significant Values of Community College Data of Immediacy Relationships with Students' Motivation to Learn

	Partial eta squared	Significance Value
Nonverbal Immediacy	.003	.615
Marginal Relationship	.003	.647
Verbal Immediacy	.001	.805
Marginal Relationship	.000	.903

*Significant at .05

A statistically significant relationship was found between instructors' nonverbal immediacy behaviors and instructors' verbal immediacy behaviors at the community college ($r = .282$, $p < .05$). This indicates a collinear relationship between the two covariates in the model. However, no analyses results from the

ANCOVA models described above had significant relationships between the variables and students' motivation to learn. Therefore this finding is of little interest and no further conclusions can be made with regard to the collinear relationship between the variables and interpreting the results.

RQ1c: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a small liberal arts university?

Small Liberal Arts University

The ANCOVA results of the relationships between instructors' immediacy behaviors and students' motivation to learn differed between the major research university and small liberal arts university. Two separate ANCOVA models, one for each independent variable, were performed with students' motivation to learn that controlled for participants' having different instructors and being enrolled in different class sections. Instructors' nonverbal immediacy behaviors did not have a statistically significant relationship with students' motivation to learn when instructor verbal immediacy behaviors were taken out of the ANCOVA model ($\eta^2 = .015$, $p = .304$). Instructors' verbal immediacy behaviors were found to have a statistically significant relationship with students' motivation to learn when instructors' nonverbal immediacy behaviors were taken out of the model that

accounted for 5.3% of the variance for students' motivation to learn (eta squared = .053, $p = .048$).

An ANCOVA model that included both forms of immediacy while controlling for different class sections and instructors for the small liberal arts university was also performed. The results did not indicate a statistically significant relationship between instructors' nonverbal immediacy behaviors and students' motivation to learn (eta squared = .000, $p = .956$). A statistically significant relationship was not found between instructors' verbal immediacy behaviors and students' motivation to learn for the small liberal arts university (eta squared = .039, $p = .094$). Table 4.4 displays the results for all of the models for the small liberal arts university.

Table 4.4: Variance and Significant Values of Small Liberal Arts University Data of Immediacy Relationships with Students' Motivation to Learn

	Partial eta squared	Significance Value
Nonverbal Immediacy	.000	.956
Marginal Relationship	.015	.304
Verbal Immediacy	.039	.094
Marginal Relationship	.053	.048*

*Significant at .05

Verbal immediacy and nonverbal immediacy were statistically significantly correlated with each other for the small liberal arts university ($r = .450$, $p < .05$). Therefore, it becomes difficult to interpret the relationship between instructors' verbal immediacy behaviors and students' motivation to learn because of the collinear relationship. The collinear relationship makes it difficult to understand

the unique contribution of instructors' verbal immediacy to students' motivation to learn because of its similarities shared with nonverbal immediacy.

RQ2: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn when data from a major research university, community college, and small liberal arts university are analyzed together?

All Institutions

Research question two addresses whether or not a linear relationship exists between instructors' verbal and nonverbal immediacy behaviors and students' motivation to learn when data from a major research university, community college, and small liberal arts university are analyzed together. In the following section, ANCOVA models similar to those used for the individual institutional analyses are applied to all of the data. However, now institutional type was also included as a factor, controlling for those differences between participants such as the school, instructor, and class section. These models can detect shifts in the intercept that are due to differences among and between institutions. The results indicate no statistically significant difference due to the institution factor ($\eta^2 = 0.966$, $p = 0.165$). This finding indicates that the predicted values of the dependent variable, students' motivation to learn, closely resemble the obtained values of the dependent variable, students' motivation to learn. Hence, the predicted and obtained values of students' motivation to learn

do not statistically significantly differ due to differences between the three institutions studied.

It should be noted that Levene's test for equality of error variances was rejected ($p = 0.007$), so these results should be viewed with some skepticism. Levene's test for equality of error variances tests the assumption that the variances are equal among all groups (Tabachnick & Fidell, 2001). In this case, the results of Levene's test was significant, and therefore, indicated that this assumption was violated. The variances are not the same for each type of institution and this should be kept in mind when interpreting the results. The variability of students' motivation to learn is assumed to be equal or at least relatively small differences between the major research university, community college, and small liberal arts university. The likelihood of a type I error increases as a result. It should be noted, however, that the ANCOVA still captures the essence of the relationships between the independent and dependent variables but the predictability is weakened. This is important to note because the findings are not invalidated but may be weakened (Tabachnick & Fidell, 2001). Nonparametric tests also have the assumption of equality of error variances. Using a nonparametric test would not improve the results in this section (Tabachnick & Fidell, 2001).

The results of the ANCOVA models should be interpreted cautiously. An ANCOVA model that only had nonverbal immediacy and students' motivation to learn in the model indicated instructors' nonverbal immediacy behaviors were not statistically significantly related to students' motivation to learn (eta squared =

.014, $p = .076$). Instructors' verbal immediacy behaviors were found to have a statistically significant relationship with students' motivation to learn that accounted for 4.5% of the variance for students' motivation to learn when instructors' nonverbal immediacy behaviors were taken out of the model ($\eta^2 = .045$, $p = .001$).

For the ANCOVA model that included both forms of immediacy, instructors' verbal immediacy behaviors were statistically significantly associated with students' motivation to learn and accounted for 3.3% of the variance of students' motivation to learn ($\eta^2 = .033$, $p = .006$). However, instructors' nonverbal immediacy was not statistically significantly related to students' motivation to learn in the model that included instructors' verbal immediacy behaviors ($\eta^2 = .001$, $p = .574$). Table 4.5 displays the statistically significant correlational relationships for verbal immediacy while indicating that no statistically significant correlational relationships were found for instructor nonverbal immediacy and students' motivation to learn.

Table 4.5: Variance and Significant Values of All Institutional Data of Immediacy Relationships with Students' Motivation to Learn

	Partial eta squared	Significance Value
Nonverbal Immediacy	.001	.574
Marginal Relationship	.014	.076
Verbal Immediacy	.033	.006*
Marginal Relationship	.045	.001*

*Significant at .05

Once again, instructors' verbal immediacy behaviors and instructors' nonverbal immediacy behaviors were found to be statistically significantly correlated with each other ($r = .640$, $p < .05$). This strong collinear relationship between nonverbal and verbal immediacy behaviors helps to explain why the relationships in the ANCOVA models with one form of immediacy and students' motivation to learn were stronger than those with the model that included all of the data and both forms of immediacy behaviors. In this model both forms of immediacy contribute together to the amount of variance explained for students' motivation to learn. In other words, it becomes more difficult to determine a precise relationship that each type of immediacy has with students' motivation to learn.

Institution to Institution Relationship Differences

RQ3: If there is a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn, does the strength of the correlation differ depending on whether the student attends a research university, community college, or a liberal arts university?

Research question three asks if correlational relationships between instructors' immediacy behaviors and students' motivation to learn differ for students at a major research university, community college, and small liberal arts university. This research question is answered by comparing the slope parameters for all of the institutions. The correlational relationships between

instructors' immediacy behaviors and students' motivation to learn for each institution were compared with the correlational relationships of the other two institutions.

Institution-to-institution differences were investigated by examining the relationships between the two immediacy scores and students' motivation to learn. This was done by obtaining each institution's independent estimated slope parameters along with their standard errors from each of the above models. These were then compared using z-tests. The only significant slope differences found were in the models of slopes that only included one form of immediacy and differences were only found between the major research university and the community college. As a result, the estimated slope parameters for the small liberal arts university are not discussed in this section. The estimated slope for nonverbal immediacy for the community college was -0.147 (s.e. = 0.320), while the estimated slope for verbal immediacy was 0.035 (s.e. = 0.282). It was then concluded that neither of these were significantly different from zero. Hence, neither form of immediacy was statistically significant. This conclusion was made for nonverbal immediacy of the community college because the approximate 95% confidence interval for true slopes $-.147 + \text{or} - .64$ contains 0. Verbal immediacy also contains 0 with $.035 + \text{or} - .56$. For the major research institution, the estimated slope for nonverbal immediacy is 1.277 (s.e. = 0.388), while the estimated slope for verbal immediacy is 0.924 (s.e. = 0.241). These results indicated that both of these are significantly different from zero. Thus, both forms of immediacy were significant for the major research university. This was

concluded because $1.277 \pm .776$ did not contain 0 and $.924 \pm .482$ did not contain 0. When the slope for nonverbal immediacy for the community college was compared to the slope for nonverbal immediacy for the major research institution using a z-test, it can be seen that they are statistically significantly different ($z = -2.83, p = 0.005$). Similarly, when the slopes for verbal immediacy scores were compared, it can be seen that they were also statistically significantly different ($z = -2.40, p = 0.017$). These findings comparing the estimated slope parameters of verbal and nonverbal immediacy and students' motivation to learn between the major research university and community college suggest that differences may exist between the two types of institutions.

As previously stated in the above paragraph, statistically significant slope differences between institutions were found through the use of z-tests. However, a Bonferoni correction was made and caution should be taken when interpreting the results. A Bonferoni correction is a procedure used to decrease the probability of committing one or more type I errors in a set of hypotheses tests. This test is done by dividing the desired level of significance by the number of tests performed (Tabachnick & Fidell, 2001). In this study, a Bonferoni correction was used to decrease the probability of stating that slope differences exist between institutions when they do not. For this study there were 12 hypotheses tested. The Bonferoni test would divide the significance value of .05 by 12 since there were 12 tests made. The results would reduce the significance value to .0042. The significance values of the slope differences between the community college and major research university would then need to be equal to or less than

.0042 to be considered statistically significant. Since the significance values of the slope differences were all above .0042, there were no statistically significant slope differences between the major research university and community college. The significance value for the slope differences between the community college and major research university for nonverbal immediacy approached significance at .005.

A Bonferoni can not indicate if a type I error occurred but only decreases the chance of committing a type I error. Decreasing the chances of a type I error by using a Bonferoni has some disadvantages. A Bonferoni correction is a conservative test and can increase a type II error. It increases the chances of not finding a statistically significant result when one exists. In this study, using the significant values of a Bonferoni increases the probability of indicating that institutional slope differences do not exist when they do. Conclusions drawn from comparing the slope differences between the three different institutions is limited because none of the slope differences were significant after performing a Bonferoni correction.

Differences and similarities between the major research university, community college, and small liberal arts university with regard to immediacy and students' motivation to learn relationships are represented in Table 4.6. It provides the variance and significant values for both forms of immediacy and students' motivation to learn. The table presents the results of the model that included all of the data first for each form of immediacy and then the relationship for the model that included only one form of immediacy.

Table 4.6: Comparing Summary Results of All Institutional Data Variance and Significant Values of Relationships of Immediacy with Students' Motivation to Learn.

	R.U.	C.C.	L.A.U.
Verbal Immediacy Partial eta squared	.074	.001	.039
Significance	.017*	.805	.094
Marginal Relationships Partial eta squared	.165	.000	.053
Significance	.000*	.903	.048*
Nonverbal Immediacy Partial eta squared	.031	.003	.000
Significance	.126	.615	.956
Marginal Relationships Partial eta squared	.126	.003	.015
Significance	.002*	.647	.304

(R.U. = Major Research University, C.C. = Community College, L.A.U. = Small Liberal Arts University).

*Significant at .05

Chapter Summary

The statistical tests used and results of these tests were presented in this chapter. The major research university's results indicated a relationship between instructors' verbal immediacy behaviors and students' motivation to learn that accounted for 7.4% of the variance for students' motivation to learn. The major research university's findings indicated a significant relationship between instructors' nonverbal immediacy behaviors and students' motivation to learn for the model that only had nonverbal immediacy and students' motivation to learn

and accounted for 12.6% of the variance for students' motivation to learn. The results from the community college did not indicate a relationship between instructors' verbal or nonverbal immediacy behaviors and students' motivation to learn. The small liberal arts university's results only indicated a relationship between instructors' verbal immediacy behaviors and students' motivation to learn for the model that included only instructors' verbal immediacy and students' motivation to learn and accounted for 5.3% of the variance for students' motivation to learn.

Instructors' verbal immediacy behaviors were correlated with students' motivation to learn for the model that included data from all of the institutions. Instructors' verbal immediacy behaviors accounted for 3.3% of the variance in students' motivation to learn. Instructors' nonverbal immediacy behaviors were not related to students' motivation to learn for either the model including both forms of immediacy or the model that only had one form of immediacy when all the institutions' data were included in the model. However, caution should be taken when interpreting these results because the assumption of the equality of error variances was violated.

The estimated slope parameters were also investigated between each of the three institutions. The results indicated that the major research university and community college did differ between each other with regard to estimated slope parameters for the models that only included one form of instructors' immediacy behaviors with students' motivation to learn. Caution should be taken when

interpreting these results because there were no statistically significant slope differences after a Bonferoni correction was performed.

CHAPTER V

DISCUSSION

Chapter five is intended to offer conclusions, suggest implications for instructors and administrators, and make recommendations for future research.

Discussions about the findings and applications of the results have been organized into the following sections:

1. Restatement of purpose of the study
2. Research delimitations
3. Research limitations
4. Summary of the findings
5. Discussion and conclusions
6. Implications for practice
7. Recommendations for future research
8. Final summary

Purpose of the Study

The primary purpose of this study was to investigate the relationships between instructors' nonverbal and verbal immediacy behaviors and students' motivation to learn. A secondary interest of the study was to investigate instructors' immediacy behaviors and students' motivation to learn at three different types of higher education institutions that included a major research university, a small liberal arts university, and a community college.

Delimitations

- This study used a convenience sample. The sample consisted of undergraduate students enrolled in communication classes. The

classes that participated in the study were taught by colleagues of the researcher.

- Each institution was located in a particular region of the United States. The major research university and community college were located in the Southwestern part of the United States and the small liberal arts university was located in the Midwestern part of the United States.
- Only students enrolled in Communication Studies classes participated.

Limitations

- Measuring instructors' immediacy behaviors is dependent upon student perceptions.
- The vocabulary used on the measurement instruments may be interpreted differently by participants. The researcher did not test the reading level of the instruments. The vocabulary of the instruments may be interpreted differently by students at the major research university from those at the community college based upon their vocabulary level.
- The measurement instruments may have build in biases. The measurement instruments may have phrases and words that are unique to the discipline of Communication Studies because scholars from that discipline created the instruments. Participants

who are Communication Studies majors may interpret the measurement instruments differently from those students who are not Communication Studies majors.

Summary of the Research Findings

There were three research questions for this study.

RQ1a: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a major research university?

RQ1b: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a community college?

RQ1c: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn at a small liberal arts university?

RQ2: Is there a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn when data from a major research university, community college, and small liberal arts university are analyzed together?

RQ3: If there is a correlation between instructors' nonverbal and verbal immediacy behaviors with students' motivation to learn, does the strength of the

correlation differ depending on whether the student attends a research university, community college, or a liberal arts university?

Major Research University's Results

The results are mixed. Research question one asked if correlational relationships existed between instructors' verbal and nonverbal immediacy behaviors and students' motivation to learn at a major research university, community college, and small liberal arts university. The results from the major research university indicated the presence of a significant relationship between instructors' verbal immediacy behaviors and students' motivation to learn when both forms of immediacy were entered into the equation accounting for 7.4% of the variance of students' motivation to learn. Furthermore the major research university's results indicated a significant relationship between instructors' nonverbal immediacy behaviors and students' motivation to learn accounting for 12.6% of the variance when verbal immediacy was removed from the ANCOVA model.

These findings add to previous research addressing instructor immediacy behaviors and student motivation to learn. They add to previous research because this study and previous studies have found a positive relationship between both forms of instructor immediacy behaviors and student motivation to learn at major research universities (Christophel & Gorham, 1995; Christensen & Menzel, 1998; Elliot & Knight, 2005; Ellis, 2004; Glynn, Aultman & Owens, 2005; Jaasma & Koper, 1999; Seifert, 2004). Therefore, more credibility is given to the

findings of previous research addressing immediacy and motivation to learn at major research universities because the findings can be replicated to some extent. Researchers can have more confidence that instructor immediacy behaviors help with understanding student motivation to learn at major research universities.

The nonverbal immediacy's finding for the major research institution gives some indication that the three types of higher education institutions used in this study have different relationships between instructor nonverbal immediacy and student motivation to learn because the major research university's results indicated to some extent a relationship between instructor nonverbal immediacy and student motivation to learn while the results of the other two institutions did not. Therefore, the community college's data and small liberal arts university's data decreased the strength of the relationship between instructor nonverbal immediacy and student motivation to learn for the ANCOVA models with data from all of the institutions.

Community College's Results

The results for community college did not indicate any significant relationships between either form of immediacy and students' motivation to learn.

Small Liberal Arts University's Results

The results for the small liberal arts university indicated a positive relationship between instructors' verbal immediacy behaviors and students'

motivation to learn and accounting for 5.3% of the variance when nonverbal immediacy was removed from the ANCOVA model.

These findings of the small liberal arts university appear to have commonalities with the results of the major research university that found more significant relationships and the community college which did not find any significant relationships between the variables. One can argue that these results from the small liberal arts university are expected. The small liberal arts university has undergraduate classes ranging from freshman through senior level which is similar to that of a major research university. In addition, the faculty members are focused more on teaching than research, which is similar to that of a community college. Therefore, the small liberal arts university seems to have characteristics that are similar to both a major research university and a community college but do not exactly resemble either type of higher education institution (Donelan, 2004; Ovington, Diamantes, Roby, & Ryan, 2003; U.S. Department of Education, 1999). One would then might expect results to resemble both the major research university and community college but not exclusively either one.

Data Results Including All Institutions

Research question two asked whether correlational relationships existed between both forms of immediacy and students' motivation to learn when data from all of the institutions used in this study were analyzed together. The assumption of the equality of error variances was violated for research question

two. This violation should be taken into consideration when interpreting the results for research question two. The practical implications for the results of research question two are invalidated because the assumption of the equality of error variances was violated.

With the violation of the assumption of error variances kept in mind, the results of research question two are discussed here. When the data from the model that included all three institutions were analyzed together, a positive relationship between instructors' use of verbal immediacy behaviors and students' motivation to learn explained 3.3% of the variance for students' motivation to learn. In addition, the use of verbal immediacy behaviors by the instructor explained 4.5% of the variance in students' motivation to learn when nonverbal immediacy was removed from the ANCOVA model. There were no significant relationships between the instructor's use of nonverbal immediacy behaviors and students' motivation to learn in the model that included data from all of the institutions.

These findings of relationships between verbal immediacy and students' motivation to learn may appear small but are important because student motivation to learn is often difficult to understand. This is often the case because there are many different factors that may or may not influence student motivation to learn. All of the variables that impact student motivation to learn are unknown to researchers. This finding indicates that researchers need to look at other variables other than instructors' verbal immediacy behaviors to explain more of the variance of student motivation to learn. Furthermore, they may be able to

explain more of the variance of student motivation to learn using other measurement instruments and having different participants than were used in this study. Verbal immediacy may explain more of the variance of student motivation to learn with these changes.

Collinearity Results

All of the models in this study found a positive relationship between verbal immediacy and nonverbal immediacy. These relationships indicate a collinear relationship between the two types of immediacy which presents a difficulty when interpreting the results that will be addressed in the major section of this chapter. Collinear relationships between two independent variables can cause a problem in a study because it makes it more difficult to interpret the unique contribution that each independent variable has with the dependent variable. It is possible that only one form of immediacy influences students' motivation to learn but both show correlations between immediacy and motivation to learn due to the correlations between the two forms of immediacy.

Comparing Slopes Between Institutions

Research question three asked if the correlational relationships between both forms of instructors' immediacy behaviors and students' motivation to learn differed between the three different types of higher education institutions. There were no significant slope differences between the institutions after a Bonferoni correction was performed. A Bonferoni correction is used to reduce a possible

inflated significance value. Several z-tests were used to test the differences between the correlational relationships of immediacy and students' motivation to learn between the different institutional types. Each of these tests used a significance value of .05. Therefore, the overall significance value for all of the z-tests is not .05 when the significance values compile after each z-test. The Bonferoni correction reduces this chance of error by dividing the original significance value of .05 by the number of z-tests performed. This number is then the new significance value for all of the z-tests performed. Before performing a Bonferoni correction, the results of comparing the estimated slope parameters between the different types of higher education institutions indicated that there were marginal slope differences between the major research university and the community college. Slope differences refer to the relationships between both forms of immediacy and students' motivation to learn and comparing these relationships between the different types of institutions. The marginal slope differences refer to comparing the relationships of only one form of immediacy and students' motivation to learn between institutions. There were differences in the relationships of verbal immediacy and students' motivation to learn between the community college and major research university. There were also differences in the relationships of nonverbal immediacy and students' motivation to learn between the community college and major research university.

Discussion and Conclusions

Different Institutions

A secondary interest of this study was to investigate the data that were collected at the three different Carnegie classifications. The results from these separate analyses should be taken with caution because they are based upon data collected from only three higher education institutions. However, the findings from this study indicate that future researchers should explore the relationships between immediacy and motivation in different Carnegie classification types of institutions. Research question one asked if correlational relationships exist between instructors' verbal and nonverbal immediacy behaviors and students' motivation to learn at different types of Carnegie classification institutions.

Major Research University

The data for the major research university did indicate a significant relationship between instructors' verbal immediacy behaviors and students' motivation to learn and accounted for 7.4% of the variance for students' motivation to learn when both types of immediacy were included in the ANCOVA model. However, no significant relationships were found for nonverbal immediacy behaviors and students' motivation to learn in this model. Furthermore, a significant relationship was found between instructors' nonverbal immediacy behaviors and students' motivation to learn accounting for 12.6 of the variance when instructors' verbal immediacy behaviors were excluded from the model.

These findings agree with previous studies that found a positive relationship between both forms of instructor immediacy behaviors and students' motivation to learn at major research universities (Christensen & Menzel, 1998; Christophel & Gorham, 1995; Elliot & Knight, 2005; Ellis, 2004; Glynn, Aultman & Owens, 2005; Jaasma & Koper, 1999; Seifert, 2004).

It is possible that the results of the major research university occurred due to student characteristics. The major research university in this study probably has students with similar demographics and characteristics as students at institutions from which previous researchers collected data. However, many of the previous studies investigating instructor immediacy behaviors and student motivation to learn do not report extensive accounts of the demographic composition of their participants. They only report the gender of the participants if they report any demographic information at all (Christophel, 1990; Christophel & Gorham, 1995; Frymier, 1994). Therefore, it is difficult to compare demographics from this study with previous studies involving instructor immediacy behaviors and student motivation to learn.

Community College

The results from the community college's data indicated no significant relationships between instructors' nonverbal and verbal immediacy behaviors and students' motivation to learn. This finding differs from earlier research studies investigating the relationships between these variables exclusively conducted at major research universities (Christensen & Menzel, 1998;

Christophel & Gorham, 1995; Elliot & Knight, 2005; Ellis, 2004; Glynn, Aultman, & Owens, 2005; Jaasma & Koper, 1999; Seifert, 2004). This finding is of interest because previous research has not addressed the relationships between instructors' immediacy behaviors and students' motivation to learn at community colleges.

The differences in student demographics between major research universities and community colleges may help to explain why the community college's results differed from previous research. In this study, the community college had many more lower-classmen than did the major research university. The reverse was also true. The major research university had more upper-classmen participants than did the community college. The different student classifications may have some relation with their educational goals. The students at the major research university may place a higher priority on their educational experiences than community college students because they are fulltime students. Furthermore, they may have a higher educational end goal of a bachelor's degree compared to those who take only one class at a community college for their professional career (Townsend, 1999).

Ethnicity differences also differed for the participants between the major research university and community college. The community college participants consisted of more minority students. Perhaps cultural differences between the minority and non-minority students impacted how the students perceived and reacted to instructors' immediacy behaviors. The researcher in this study did not anticipate these differences when conducting the study and therefore did not

measure ethnic differences as a factor with the results. Thus, caution should be taken when attributing ethnicity as an influential factor with instructor immediacy behaviors and student motivation to learn relationships.

Instructor roles and characteristics may also share some similarities and have differences. Community college instructors usually have smaller classes, which allow them to give more individual attention to their students. Furthermore, they have more time to concentrate on their teaching and give to their students because they have little to no research requirements (Dickson, 1999). In turn, students at community colleges may have an expectation for their instructors to display immediacy behaviors. Therefore, when instructors do display immediacy behaviors, students are less impacted because they were expected. On the other hand, students at major research universities may not expect their instructors to display immediacy behaviors due to fewer opportunities. Hence, students may be impressed when their instructors do display immediacy behaviors because the behaviors exceed their expectations. Thus, student motivation to learn increases.

A last difference to be mentioned between these institutions is the qualifications and experiences of the faculty members. Major research universities have more faculty members with a Ph.D. than do small liberal arts universities and small liberal arts universities have more faculty with a Ph.D. than do community colleges (U.S. Department of Education, 1999). This indicates a difference in training and a difference in instruction with regard to instructor verbal immediacy behaviors, nonverbal immediacy behaviors, and student motivation to learn may differ as well. However, one can only speculate because

previous research has not explored institutional type differences with relation to these variables.

Small Liberal Arts University

The data for the small liberal arts university did not indicate any significant relationships between instructors' verbal and nonverbal immediacy behaviors and students' motivation to learn when both forms of immediacy were included in the ANCOVA model. There was a positive relationship between instructor verbal immediacy behaviors and students' motivation to learn when instructor nonverbal immediacy behaviors were taken out of the model that accounted for 5.3% of the variance. One can argue that these results from the small liberal arts university might be expected. The small liberal arts university has undergraduate classes ranging from freshman through senior level which is similar to that of a major research university. In addition, the faculty members are focused more on teaching than research, which is similar to that of a community college. Therefore, the small liberal arts university seems to have characteristics that are similar to both a major research university and a community college but do not exactly resemble either type of higher education institution (Donelan, 2004; Ovington, Diamantes, Roby & Ryan, 2003; U.S. Department of Education, 1999).

All Institutional Data Together

Research question two asks if correlational relationships exist between instructors' verbal and nonverbal immediacy behaviors and students' motivation

to learn in undergraduate communication studies classes. The model to answer this research question included data from all three institutions together. As stated previously in this chapter, assumption of the equality of error variances was violated. Therefore, these findings should be viewed with some skepticism. The findings indicated a positive relationship between instructors' verbal immediacy behaviors and students' motivation to learn when the data from all three institutions were considered together in an ANCOVA model that included both forms of immediacy. Instructors' verbal immediacy explained 3.3% of the variance for students' motivation to learn, which is consistent with previous research finding a relationship between instructors' verbal immediacy behaviors and students' motivation to learn (Frymier, 1994; Jaasma & Koper, 1999).

The finding from the present study indicates that researchers need to look at variables other than instructors' verbal immediacy behaviors to better explain students' motivation to learn. The amount variance that verbal immediacy did not account for with students' motivation to learn is about 96.7%. Thus, one can conclude that variables other than verbal immediacy account for a large amount of the variance for students' motivation to learn and researchers need to identify these variables.

This study did not find instructors' nonverbal immediacy behaviors significantly related to students' motivation to learn when all three institutions were included in the analysis. This finding is contrary to previous research findings (Christensen & Menzel, 1998; Christophel & Gorham, 1995). However, this finding differs from the major research university's results found in this study.

The major research university's results indicated a positive relationship between instructors' nonverbal immediacy and students' motivation to learn. Nonverbal immediacy accounted for 12.6% of the variance for students' motivation to learn when verbal immediacy was removed from the ANCOVA model. This finding for the major research university is consistent with previous research findings (Christensen & Menzel, 1998; Christophel & Gorham, 1995). The small liberal arts university and community college did not have significant results for the relationships between instructors' nonverbal immediacy behaviors and students' motivation to learn.

These findings give some indication that the three higher education institutions used in this study differed with regard to the relationships between instructors' nonverbal immediacy behaviors and students' motivation to learn. The major research university's results indicated a statistically significant relationship between instructor nonverbal immediacy and students' motivation to learn while the results at the other two institutions did not indicate a significant relationship between instructor nonverbal immediacy and students' motivation to learn. Therefore, the community college's data and small liberal arts university's data appear to have decreased the strength of the relationship between instructor nonverbal immediacy and students' motivation to learn when all three institutions are considered together. Based upon the results found in this study it can be concluded that the relationship between instructor nonverbal immediacy and students' motivation to learn may differ between different types of higher education institutions.

Collinear Relationships of Immediacy

In this study high correlational relationships were found between instructor nonverbal immediacy and instructor verbal immediacy. This relationship is important to understand because a collinear relationship can influence the interpretation of results. For instance, because a collinear relationship was found between nonverbal immediacy and verbal immediacy it becomes more difficult to interpret the unique contribution to the ANCOVA model each specific form of immediacy had on students' motivation to learn. Furthermore, the results did not explicitly reveal the specific form of immediacy that is related to students' motivation to learn. In addition, it is possible for students' motivation to learn to have a causal relationship with only one form of immediacy but a correlational relationship with both. For example, it is possible for a causal relationship between verbal immediacy and students' motivation to learn to exist. Verbal immediacy may also be positively related to nonverbal immediacy, while nonverbal immediacy may not be causally related to students' motivation to learn. However, nonverbal immediacy may indicate a positive relationship with students' motivation to learn because it will resemble the causal relationship between verbal immediacy and students' motivation to learn based upon the collinear relationship between both forms of immediacy. Thus, it becomes difficult to determine the specific contribution to students' motivation to learn for either form of instructors' immediacy behaviors. This example is used to illustrate the influence of collinearity in the ANCOVA models and is not intended to infer causal relationships between any variables.

The correlational relationships between instructors' immediacy behaviors and students' motivation to learn differed between ANCOVA models that had both forms of immediacy in the model from those with only one form of immediacy in the model. The ANCOVA model that included data from all of the participants indicated a correlational relationship between instructor's verbal immediacy and students' motivation to learn accounting for 3.3% of the variance when both forms of immediacy are present in the ANCOVA model. However, verbal immediacy accounts for 4.5% of the variance in students' motivation to learn when nonverbal immediacy is removed from the ANCOVA model. Results for the major research university indicated that 7.4% of students' motivation to learn is associated with instructor verbal immediacy when both forms of immediacy are present in the model. However, verbal immediacy accounts for 16.5% of students' motivation to learn when nonverbal immediacy is removed from the ANCOVA model. The small liberal arts university's results indicated that verbal immediacy accounted for 5.3% of the variance for students' motivation to learn when nonverbal immediacy was removed from the ANCOVA model. However, there were no statistically significant relationships between instructor verbal immediacy and students' motivation to learn when nonverbal immediacy was in the ANCOVA model. The major research university's results also indicated that instructor nonverbal immediacy accounted for 12.6% of the variance in students' motivation to learn when verbal immediacy was removed from the ANCOVA model. However, the results for the major research university did not indicate any significant relationships between nonverbal immediacy and

students' motivation to learn when verbal immediacy was present in the ANCOVA model. These differences between the two different models may be partially explained by a collinear relationship between instructor verbal immediacy behaviors and instructors' nonverbal immediacy behaviors for all of the data making it more difficult to understand the unique contribution of each variable to students' motivation to learn.

The model that included data from all of the participants from all three institutions had a correlational relationship between verbal immediacy and nonverbal immediacy ($r = .640, p < .05$). The major research university's data indicated a correlational relationship between verbal immediacy and nonverbal immediacy ($r = .560, p < .05$). The community college's data also indicated a collinear relationship between nonverbal immediacy and verbal immediacy ($r = .282, p < .05$). The small liberal arts university's data indicated a collinear relationship between nonverbal immediacy and verbal immediacy ($r = .450, p < .05$).

The significant findings from this study are important even though collinearity between verbal and nonverbal immediacy was found. The significant findings indicate that instructors' immediacy behaviors account for some amount of the variance for students' motivation to learn. This explained variance helps understand students' motivation to learn. If the variance is large then that form of immediacy helps scholars understand students' motivation to learn by indicating that a form of immediacy is associated with students' motivation to learn. On the other hand, if the variance is small then it indicates that other variables should be

explored to better understand students' motivation to learn. However, collinearity makes it difficult to precisely understand the amount of variance that is explained. Furthermore, the amounts of variances explained for students' motivation to learn may appear small but play an important role in understanding students' motivation to learn. Students' motivation to learn is difficult to understand and predict because there are many different variables that may influence it. This study and others that are similar in their approaches are the best means that we have today to understand students' motivation to learn, which involves exploring it piece by piece. Furthermore, the small amounts of variance explained for students' motivation to learn by particular variables can indicate to future researchers that other more promising variables should be studied.

Comparing Slopes Between Institutions

Research question three asks if correlational relationships between instructors' verbal and nonverbal immediacy behaviors and students' motivation to learn differed between the participants at the three different types of institutions. To answer this research question the slope differences between the different types of institutions were explored. These findings should be viewed with some skepticism. There were some significant slope differences between the major research university and community college before a Bonferoni correction was performed. However, there were no significant slope differences between any of the institutions after a Bonferoni correction was made.

The findings from this study indicated that there were slope differences between the major research university and community college for both forms of instructor immediacy behaviors with student motivation to learn when only one form of immediacy was in the model. However, there were no slope differences for the small liberal arts university with either institution in any model. These findings give some support to the inference that differences may exist between community colleges and major research universities with regard to immediacy and students' motivation to learn relationships.

As discussed above, previous research studies addressing the relationships between instructor immediacy behaviors and students' motivation to learn have been conducted exclusively at major research universities. Therefore, the marginal slope differences between institutions are important to notice. These findings indicate that current researchers do not fully understand the relationships between instructor immediacy behaviors and students' motivation to learn at all higher education institutions.

Implications for Practice

Instructors at major research universities and small liberal arts universities who use more verbal immediacy behaviors are more likely to increase their students' motivation to learn. Instructors can use verbal immediacy behaviors such as using personal examples, humor, engaging in conversations with students before, after, or outside of class, encouraging students to talk, referring to the class as "we," or "our," asking for students' input, teacher's self-disclosure,

addressing students by name, praising students' work, addressing the instructor by his or her first name, and being available for students outside of class if they have any questions (Gorham, 1988). Instructors may want to consider using nonverbal immediacy behaviors in hopes of having a positive relationship with students but should understand that only a little change in students' motivation to learn may occur. This study did find a relationship between instructor nonverbal immediacy behaviors and students' motivation to learn for students at a major research university. Instructors may want to consider using nonverbal immediacy behaviors such as having eye-contact, using physical gestures, having a relaxed body posture, directing body position toward students, smiling, using vocal expressiveness, movement, and proximity (Andersen, 1979).

Future Research

Scholars who are interested in instructor immediacy behaviors should further explore these variables at different Carnegie classifications of higher education institutions. This study did find some differences in the relationships between the variables from data collected at the different Carnegie classifications of higher education institutions, but students at only one institution in each of the three Carnegie classifications were studied. Researchers should include a larger sample of different Carnegie classification institutions to investigate whether the assumption of the equality of error variances is violated when data from all of the institutions are analyzed in the same ANCOVA model. More practical implications can be made in this area of research if this assumption is met.

Furthermore, future researchers should explore whether slope differences exist between these additional institutions after a Bonferoni corrections is made. If significance does exist after the correction, then much progress can be made in this area of study. Researchers would then have further indication that differences may exist between institutional types with regard to the relationships between immediacy and motivation to learn and thus further explore these variables in hopes of explaining why differences exist.

Future researchers should explore public and private institutions. Researchers currently do not know if the relationships between instructors' immediacy behaviors and students' motivation to learn differ between students in private and public institutions. Future studies should also include institutions with different enrollment sizes. It may be easier for faculty members to use immediacy behaviors at smaller institutions with smaller classes.

Future researchers should also explore these variables in other disciplines. Only Communication Studies classes were used for this study. Other disciplines may produce different results.

Future studies should also use a variety of methodological approaches. Qualitative studies may explain why different types of institutions may differ with respect to the relationships between instructor immediacy behaviors and students' motivation to learn.

Future researchers should also explore student ethnicity as an influence with student reactions to instructor immediacy behaviors. Future studies can

explore whether different ethnic groups respond to instructor immediacy behaviors differently.

Other variables should be measured with instructor immediacy behaviors. This study only measured students' motivation to learn. Future researchers should also study the relationships with other variables such as instructor credibility, student commitment to the class, grades, student commitment to the institution, and willingness to take future classes from the same instructor.

Final Summary

This study addressed the relationships between instructor immediacy behaviors and students' motivation to learn. This chapter covers the results from this study and their relevance to past and future research. Implications for practice are discussed stemming from the results from this study. The findings from this study serve as a springboard for future research to investigate institutional type with regard to the relationships between instructor verbal and nonverbal immediacy behaviors and students' motivation to learn. Previous studies investigating instructor immediacy behaviors have not addressed institutional type as a possible factor influencing the impact of instructor immediacy behaviors with students' motivation to learn. However, the findings from this study can not definitively indicate institutional type as an influence with the relationship between instructors' nonverbal and verbal immediacy behaviors and students' motivation to learn, but it can spark the interest of future researchers to further explore these issues.

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APPENDIX A

DIRECTIONS FOR THE MEASUREMENT INSTRUMENTS

Directions prior to passing out surveys

This study investigates instructor behaviors that may be related to student motivation. Please first read over the consent to participate form, sign, and then date it. The consent form informs you about the purpose of the study, the confidentiality of the study results, and that there are no known risks from participating in this study. After agreeing to participate by signing the consent form, you will complete three different surveys. All of your responses will be confidential. You are asked to put the last four numbers of your phone number and two random numbers that you choose on each instrument. This is necessary for the researcher to check the accuracy of his data entry and you can not be able to be identified by this number. Two of the surveys will ask you about the behaviors of the instructor for this class. The third survey will ask you about your motivation towards this class. Please read the directions for each survey carefully. Thanks for your participation in this study.

APPENDIX B
CONSENT FORM

Consent Form

I hereby give my consent for my participation in the project entitled: An Exploration of the Relationships Among Verbal and Nonverbal Instructor Immediacy Behaviors and Student Motivation. I understand that the person responsible for this project is: Stephen Furlich e-mail: sfurlich@yahoo.com under the supervision of Dr. Rick Wagoner telephone number (806) 742-1997 ext. 266. He has explained that these studies are part of a project that has the following objectives: The objectives of this study are to further understand the relation between instructor nonverbal immediacy, instructor verbal immediacy, and student motivation. Participation in this study is completely voluntary and participants may withdraw their participation in the project at anytime without penalty. The completion of the surveys should take about 10 minutes. Only Stephen Furlich will see your answers. Individual's responses will not be able to be identified because the surveys will not contain any information that can be used to identify particular students. Furthermore, all of the data will be summarized when analyzed so that individual responses will not be identified. Stephen Furlich or Dr. Wagoner has agreed to answer any inquiries participants may have concerning the procedures and has informed me that I may contact the Texas Tech University Institutional Review Board for the Protection of Human Subjects by writing to them in care of the Office of Research Services, Texas Tech University, Lubbock, Texas 79409, or by calling (806) 742-3884. I understand that there are no monetary gain for participating in this study. There are no known risks associated with participating in this study.

Signature of participant

_____ Date _____

APPENDIX C
INSTRUMENTS FOR THE STUDY

Last four numbers of phone number and two random numbers _____

Age _____; Classification _____; is this class part of your major (y/n);

Ethnicity _____ Gender _____

Student Motivation Scale

Please circle the number toward either word which best represents your feelings towards this class. Please pay special attention to reading each item carefully because some of the items are phrased in the positive, while other items are phrased in the negative. Please put the last four digits of your phone number in the upper right hand corner.

- | | | |
|------------------------|---------------|---------------|
| 1. Motivated | 1 2 3 4 5 6 7 | Unmotivated |
| 2. Interested | 1 2 3 4 5 6 7 | Uninterested |
| 3. Involved | 1 2 3 4 5 6 7 | Uninvolved |
| 4. Not stimulated | 1 2 3 4 5 6 7 | Stimulated |
| 5. Don't want to study | 1 2 3 4 5 6 7 | Want to study |
| 6. Inspired | 1 2 3 4 5 6 7 | Uninspired |
| 7. Unchallenged | 1 2 3 4 5 6 7 | Challenged |
| 8. Uninvigorated | 1 2 3 4 5 6 7 | Invigorated |
| 9. Unenthused | 1 2 3 4 5 6 7 | Enthused |
| 10. Excited | 1 2 3 4 5 6 7 | Not excited |
| 11. Aroused | 1 2 3 4 5 6 7 | Not aroused |
| 12. Not fascinated | 1 2 3 4 5 6 7 | Fascinated |

Last four numbers of phone number and two random numbers _____

Nonverbal Immediacy Scale

Below is a series of descriptions of things some teachers have been observed doing in some classes. Please respond to the items *in terms of the class you are taking now*. For each item, please indicate on a scale of 0-4 how often your teacher in this class engages in those behaviors. Please pay special attention to reading each item carefully because some of the items are phrased in the positive, while other items are phrased in the negative. Use this scale: never = 0, rarely = 1, occasionally = 2, often = 3, and very often = 4.

1. Sits behind desk while teaching. _____
2. Gestures while talking to the class. _____
3. Uses monotone/dull voice when talking to the class. _____
4. Looks at the class while talking. _____
5. Smiles at the class while talking. _____
6. Has a very tense body position while talking to the class. _____
7. Touches students in the class. _____
8. Moves around the room while teaching. _____
9. Sits on a desk or in a chair while teaching. _____
10. Looks at board or notes while talking to the class. _____
11. Stands behind podium or desk while teaching. _____
12. Has a very relaxed body position while talking to the class. _____
13. Smiles at individual students in the class. _____
14. Uses a variety of vocal expressions when talking to the class. _____

Last four numbers of phone number and two random numbers _____

Verbal Immediacy Scale

Below is a series of descriptions of things some teachers have been observed doing in some classes. Please respond to the items *in terms of the class you are taking now*. For each item, please indicate on a scale of 0-4 how often your teacher in that class engages in those behaviors. Please pay special attention to reading each item carefully because some of the items are phrased in the positive, while other items are phrased in the negative. Use this scale: never = 0, rarely = 1, occasionally = 2, often = 3, and very often = 4.

1. Uses personal examples or talks about experiences he/she has had outside of class. _____
2. Asks questions or encourages students to talk. _____
3. Gets into discussions based upon something a student brings up even when this doesn't seem to be part of his/her lecture plan. _____
4. Uses humor in the 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 class as “our” class or what “we” are doing. _____
10. Provides feedback on my individual work through comments on papers, oral discussions, etc. _____
11. Calls on students to answer questions even if they have not indicated that they want to talk. _____
12. Asks how students feel about an assignment, due date or discussion topic. _____
13. Invites students to telephone or meet with him/her outside of class if they have questions or want to discuss something. _____
14. Asks questions that solicit viewpoints or opinions. _____
15. Praises students’ work, actions or comments. _____
16. Will have discussions about things unrelated to class with individual students or with the class as a whole. _____
17. Is addressed by his/her first name by the students. _____

APPENDIX D
HUMAN SUBJECTS COMMITTEE LETTER

**Texas Tech University
Institutional Review Board for the Protection of Human Subjects
Office of Research Services
203 Holden Hall/MS 1035
742-3884**

Richard P. McGlynn, Chair
Protection of Human Subjects Committee

February 9, 2006

Dr. Richard Wagoner
Ed Psychology & Leadership
Mail Stop: 1071

Regarding: 500295 An Exploration of the Relation Among Instructor Immediacy Behaviors and Student Motivation within Higher Education.

Dr. Richard Wagoner:

The Texas Tech University Protection of Human Subjects Committee approved your claim for an exemption for the proposal referenced above on January 31, 2006.

Exempt research is not subject to continuing review, but any modifications that (a) change the research in a substantial way, (b) might change the basis for exemption, or (c) might introduce any additional risk to subjects should be reported to the IRB, before they are implemented, in the form of a new claim for exemption or a proposal for expedited or full board review.

Extension of exempt status for exempt projects that have not changed is automatic. You should inform the Secretary of the Committee when the exempt research is completed (at least via response to yearly reminders) so that the file can be archived.

Best of luck on your project.

Richard P. McGlynn,
Chair Protection of Human Subjects Committee