A STUDY OF THE RELATIONSHIPS AMONG STUDENT EXPECTATIONS ABOUT TEACHER NONVERBAL IMMEDIACY, STUDENT PERCEPTIONS OF TEACHER NONVERBAL IMMEDIACY, AND AFFECTIVE LEARNING IN DISTANCE LEARNING AND THE ON-SITE CLASSROOM

THESIS

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements For the Degree of

MASTER OF ARTS

By

Paul L. Witt, B.Mus., M.M.
Denton, Texas
August, 1997
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This thesis explored the relationships among three communication variables in college-level instruction: students' expectancy about teachers' nonverbal immediacy, students' actual perceptions of teachers' nonverbal immediacy, and students' affective learning. Community college students (N = 182) enrolled in either distance learning or a traditional classroom course completed pre-course and mid-course questionnaires to indicate their expectations and observations of the nonverbal immediacy behaviors of their teachers. Analysis showed that students expected and perceived less nonverbal immediacy from telecourse teachers than from on-site teachers, but that perceptions significantly exceeded expectations. Research findings indicated that students' expectancies about teachers' nonverbal immediacy may influence the measurement of affective learning.
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CHAPTER 1

RESEARCH PROBLEM

Introduction

This chapter introduces the purpose of the study and defines the terms involved in the research. The theoretical base and significance of the study are also presented in this chapter.

Purpose of the Study

This study examined the relationship among student expectancies of teacher nonverbal immediacy, student perceptions of teacher nonverbal immediacy, and student affective learning in the college telecourse and on-site classroom. The purpose of the investigation was to further the understanding of the relationship between nonverbal teacher immediacy and student affective learning in distance learning, particularly in view of student expectancies of teacher nonverbal immediacy.

It is well established that teacher communication behaviors play a strategic role in learning outcomes. When classroom teachers engage in nonverbally immediate behaviors, students report that they like the teacher better, enjoy the class more, and learn more from the course.
(Andersen, 1979; Christophel & Gorham, 1995; Hackman & Walker, 1990; Plax, Kearney, McCroskey, & Richmond, 1986). Because these teachers are generally perceived as rewarding individuals, their immediate expressions of approach and liking for students reinforce the students' positive affect for teacher and course (Berscheid and Walster, 1978; Mehrabian, 1981). Immediate behaviors such as eye gaze, smiles, nods, relaxed body posture, movement, and gestures have the effect of reducing physical and/or psychological distance between teacher and students, and ultimately increasing affective, behavioral, and cognitive learning (e.g., Richmond, Gorham, & McCroskey, 1987). Moreover, when classroom teachers (rewarding interactants) are more immediate than students expect them to be (positive expectancy violations), learning outcomes are further enhanced (Seiffert, 1990).

If reducing distance (approach) between teacher and learner is of importance in traditional classrooms, it may be even more so in distance learning (Comeaux, 1995). It has been demonstrated that nonverbally immediate behaviors can be transmitted through distance learning media (Walker & Hackman, 1991), and that immediacy contributes to learning outcomes across a range of differing delivery systems (Hackman & Walker, 1990; Walker & Hackman, 1991). New communication technologies enable some distant teachers to
engage in frequent interaction with students, which contributes to a sense of social presence that may potentially replicate that of the traditional classroom (Murphy & Farr, 1993; Schlosser & Anderson, 1994).

Definition of Terms

**Nonverbal immediacy**

The construct of nonverbal immediacy describes behaviors which reduce physical or psychological distance between people (Andersen, 1979). Early researchers conceptualized immediacy as those behaviors which "enhance closeness to and nonverbal interaction with another" (Mehrabian, 1969, p. 203). In the instructional context, nonverbally immediate teachers reduce physical or psychological distance when they approach their students in order to communicate at close distances, smile, engage in eye contact, use direct body orientations, use overall body movement and gestures, touch students, assume a relaxed posture and communicating style, and are vocally expressive (Andersen, 1979).

**Nonverbal expectancy**

People expect others to communicate in certain ways, according to social norms and/or past experiences. Deviation from those expectancies may alter communication outcomes (Burgoon, 1978). Individuals' expectations for interpersonal interactions may affect their perceptions of others'
communication behaviors and the outcomes of specific communication acts. For example, first-time and repeating distant students enroll for college telecourses with certain expectations of the nonverbal immediacy behaviors their telecourse teachers will exhibit. Violations of these expectations may carry a positive or negative valence, depending on the degree and direction of the violation, and the student's perception of the teacher as a rewarding or punishing individual (Burgoon, 1978).

Affective learning

In his taxonomy of learning, Bloom (1956) identified affective learning as one of three dimensions of human learning. Affective learning refers to "an increasing internalization of positive attitudes toward the content or subject matter" (Kearney, 1994a, p. 81). Communication researchers often operationalize affective learning as students' attitudes toward the course, subject matter, and teacher.

Theoretical Considerations

Approach-avoidance theory suggests that "people approach what they like and avoid what they don't like" (Mehrabian, 1981, p. 22). A person's affinity for or liking for another person may provide motivation to approach the other, to reduce the physical or psychological distance between them (Mehrabian, 1969). An important aspect of
interpersonal attraction is the principle of reinforcement, which suggests that "we like people who reward us and we dislike people who punish us" (Berscheid & Walster, 1978, p.23). In anticipation of physical or psychological reward, then, one may employ immediate behaviors in order to approach another individual. Because classroom teachers are among those whose role and status in relation to students carry potential reward value (French & Raven, 1960), students may perceive the nonverbal immediacy behaviors of their teachers as positive and potentially rewarding. Likewise, nonimmediate teachers may not be perceived as rewarding and may even be considered as punishing. If their teachers engage in more immediate behavior than students anticipate, an expectancy violation occurs. According to Burgoon's (1978) nonverbal expectancy violations model, such violations have positive or negative effects on communication outcomes, depending upon the degree and direction of the violation and the reward value associated with the violator.

Significance of the Study

In distance learning, as in the traditional classroom, nonverbal teacher immediacy is generally associated with positive learning outcomes. Walker and Hackman (1991) observed that "immediate nonverbal behaviors are communicated across television," and that "these behaviors
function much as they would in face-to-face interactions" to impact student affect for the instructor (p. 10). While Hackman and Walker's program of research broke new ground in distance learning research, these researchers utilized single items to measure student satisfaction with teacher and course. The present study sought to gather more comprehensive data on student affective learning through the use of recognized measurement instruments.

Moreover, researchers have not yet examined the role of student expectancies of teacher nonverbal immediacy in the college telecourse. Such expectancies have been shown to affect learning outcomes in the traditional classroom (Seiffert, 1990), but it is not yet clear whether student expectancies have similar impact in distance learning. The present study sought to examine the nonverbal expectancies of first-time and repeating distant students, their perceptions of the nonverbal immediacy behaviors of their telecourse instructors, and student affective learning.

Important questions remain to be answered regarding the relationship among student expectancies, teacher nonverbal immediacy, and student learning outcomes in distance learning. How immediate do distant students expect their teachers to be? Do they expect spontaneous interaction and congenial social presence, evidenced by steady eye gaze, smiles and nods, and relaxed body posture? If so, then the
absence of these behaviors may negatively affect learning outcomes, according to the nonverbal expectancy violations model. If data is found to support this assertion, then distance educators should be diligent to employ immediate behaviors and effectively transmit them to distant learners. On the other hand, if distant learners have relatively low expectancies of teacher immediacy, then teachers who intentionally engage in even moderately immediate behaviors may be perceived to commit positive violations of student expectancies, and learning outcomes may be enhanced. If data is found to support this assertion, then distance educators might adopt the strategy of providing students the "pleasant surprise" of a distance learning experience in which psychological distance is effectively reduced through teacher immediacy behaviors.

Summary

This chapter introduced the purpose of the study, defined the terms involved in the research, and examined the theoretical base and significance of the study. The next chapter presents a review of the literature relating to nonverbal immediacy in the traditional classroom and in distance learning, as well as the research surrounding the nonverbal expectancy violation model.
CHAPTER 2

REVIEW OF LITERATURE

Introduction

This chapter contains a review of the literature pertaining to teacher nonverbal immediacy behaviors in the traditional classroom and in distance learning. The chapter continues with an examination of distance learning delivery systems, followed by a discussion of the theoretical basis for teacher immediacy. The chapter concludes with hypotheses and research questions that will guide this investigation.

Teacher Immediacy in the Traditional Classroom

A primary concern of instructional communication research is the effect of teacher communication behaviors on student learning in the classroom. One of the most important constructs that has emerged from these studies is teacher immediacy, a construct that describes behaviors which reduce physical and/or psychological distance between individuals (Andersen, 1979). Extensive findings from immediacy research support a positive relationship between teacher nonverbal immediacy and affective, behavioral, and cognitive student learning (Andersen, 1978, 1979; Christophel & Gorham, 1995; Gorham, 1988; Hackman & Walker, 1990; Kelley & Gorham, 1988;
Early researchers conceptualized immediacy as those behaviors which "enhance closeness to and nonverbal interaction with another" (Mehrabian, 1969, p. 203). When such behaviors grow out of a person's liking or affinity for another, they demonstrate the approach-avoidance principle that "people approach what they like and avoid what they don't like" (Mehrabian, 1981, p. 22). Studies of nonverbal immediacy suggest that social affinity or liking is expressed through such immediate behaviors as physical proximity (Argyle & Dean, 1965; Mehrabian, 1971), direct eye contact (Argyle & Dean, 1965; Kendon, 1967), touching (Bassett & Smythe, 1979; Hurt, Scott, & McCroskey, 1978), symmetrical and shared body positioning (LaFrance, 1972), and vocal expressiveness (Davitz, 1964; Mehrabian, 1971).

Nonverbal immediacy behaviors have been identified in the traditional classroom, the setting in which a teacher faces a group of students and engages them in a learning experience. Nonverbally immediate teachers reduce physical or psychological distance when they approach their students in order to communicate at close distances, smile, engage in eye contact, use direct body orientations, use overall body movement and gestures, touch students, assume a relaxed posture and communicating style, and are vocally expressive
(Andersen, 1979). Apparently, students perceive these teacher communication behaviors and interpret them as expressions of personal warmth and affinity toward the students (Ryans, 1964), which in turn enhances student affinity for the teacher, course, and subject matter (Andersen, 1979). Andersen’s (1979) study was the first to document a significant relationship between student perceptions of teacher nonverbal immediacy and learning outcomes (i.e., affective and behavioral learning). Sorenson & Christophel (1992) noted that "this seminal work inspired an entire genre of research that continues investigating the relationship of communication constructs to affective learning in the classroom" (p. 40).

Andersen’s (1979) examination of nonverbal immediacy behaviors in the classroom revealed a significant relationship between students’ perceptions of teacher immediacy and learning outcomes. In her initial study of 238 communication students evaluating 13 instructors, nonverbal immediacy predicted learning on measures developed by Scott and Wheeless (1975). Perceived nonverbal immediacy behaviors predicted 46% of the variance in affect toward the teacher, 20% of the variance in affect toward the course content, and 18% of the variance in student behavioral intent (likelihood of using behaviors recommended in the class). Data from Andersen’s initial study did not support a significant
correlation between immediacy and cognitive learning, as operationalized by grades on a single test given early in the semester. However, several later studies demonstrated the likelihood that such a relationship does indeed exist (e.g., Richmond, Gorham, & McCroskey, 1993; Sanders & Wiseman, 1990).

Andersen (1979) utilized the Generalized Immediacy (GI) scale and the Behavioral Indicants of Immediacy (BII) scale. The validity and reliability of these measures have been subsequently well-documented (Kearney, Plax, & Wendt-Wasco, 1985; Plax, Kearney, McCroskey, & Richmond, 1986). The GI scale presents students with two general questions about their instructor's communicating style and a Likert-type scale for multiple responses. In commenting on the effectiveness of the GI scale, Kearney (1994b) observed that it is a highly inferential instrument which "measures a general or gestalt impression of an individual's overall level of immediacy" (p. 169). Andersen utilized the GI Scale along with a lower inference instrument, the Behavioral Indicants of Immediacy scale. The BII scale consists of 15 items depicting specific teacher nonverbal behaviors, which students evaluate using a Likert-type scale. Included are such behaviors as eye contact, body position, movement, gestures, and smiling. Both instruments utilized by Andersen
are reliable and valid data collection instruments that are still in use today.

McDowell, McDowell, and Hyerdahl (1980) replicated Andersen's study among secondary students and found a significant correlation between students' perceptions of teacher nonverbal immediacy and affect for the teacher and course. Furthermore, a moderate relationship was found to exist between immediacy and final course grades, the first indication that immediacy might also affect cognitive learning.

Other studies have found that teacher nonverbal immediacy enhances student affect for both teacher and subject matter. Hypothesizing that teacher communication styles affect learning outcomes in the college classroom, Kearney (Kearney Knutson, 1979; Kearney & McCroskey, 1980) measured a variable called "teacher responsiveness," which she conceptualized as being closely associated with nonverbal immediacy behaviors. Data indicated a correlation between teacher responsiveness and student affect and behavioral commitment. Another interesting result was that responsive teachers apparently enhance student participation by reducing communication apprehension, which in turn correlates positively with student learning outcomes. The significance of Kearney's research, then, is that teachers who are perceived to employ a responsive (immediate) style
enhance student affective learning and behavioral commitment.

Conducting studies of several hundred secondary and college students, Plax, Kearney, McCroskey, and Richmond (1986) found further support for the relationship of nonverbal immediacy to affective and behavioral learning. Although the primary focus of their research was teachers' choice of verbal control strategies, results indicated that nonverbal immediacy behaviors may influence students' perceptions of teachers' use of compliance strategies. Reflecting on these findings, researchers concluded that perceived "nonverbal behavior of teachers served as mediators for teachers' verbal behaviors" (McCroskey & Richmond, 1992). In related research, Kearney, Plax, Smith, and Sorenson (1988) found students to be less likely to resist efforts to gain student compliance from teachers perceived as immediate. Findings indicated that students are most likely to comply with teachers who are perceived to utilize both nonverbal immediacy and pro-social behavior alteration techniques (positive, rewarding statements). Evaluating the importance of these findings, Seiffert (1990) observed, "These results have significant meaning when considered in terms of the ability of the instructor to keep students on task and to encourage varying types of learning" (p. 11).
Although research has revealed much about affective and behavioral learning in the classroom, early skepticism was voiced concerning the effects of nonverbal immediacy on cognitive learning. Andersen's (1979) initial study of teacher nonverbal immediacy failed to find a significant correlation with cognitive learning, but more recent research has begun to fill the gap. In an innovative study utilizing students' self-reports of cognitive learning, Richmond, Gorham, and McCroskey (1987) found that nonverbal immediacy did, in fact, correlate significantly and positively with their measure of cognitive learning. In order to measure perceived cognitive learning, students were asked two questions: "On a scale of 0-9, how much did you learn in this class, with 0 meaning you learned nothing and 9 meaning you learned more than in any other class you've had?" and "How much do you think you could have learned in the class had you had the ideal instructor?" The variable "learning loss" was generated by subtracting the score of the first question from the score of the second. Students' perceptions of teacher nonverbal immediacy were measured using the Nonverbal Immediacy Behaviors Instrument, a modified version of Andersen's (1979) Behavioral Indicants of Immediacy (BII). Two studies were conducted: the first evaluated students' best or worst teacher ever, and the second evaluated an instructor from the previous semester.
Results from both studies showed that students' perceptions of teacher nonverbal immediacy were positively correlated with the raw learning score (.71 and .69, respectively) and negatively correlated with the learning loss score (.51 and .60, respectively). These results suggest that students felt they had learned significantly more from teachers who employed nonverbally immediate behaviors.

Another important study examined the relationship between nonverbal immediacy and a specific cognitive task, short-term recall. Kelley and Gorham (1988) designed a lab experiment to test the effects of "physical immediacy" (i.e., proximity, open posture, head nods) and eye contact on students' ability to store and recall word and number sequences. Physical immediacy and eye contact were manipulated in each of four conditions (high immediacy/eye contact, high immediacy/no eye contact, low immediacy/eye contact, and low immediacy/no eye contact). Physical immediacy accounted for 11.4% of the variance on recall, while eye contact accounted for 6.9% of the variance. These researchers concluded that students' recall was significantly enhanced when teachers utilized nonverbally immediate behaviors to accompany information transfer. It is important to note that Kelley and Gorham manipulated specific immediacy behaviors in a controlled setting, rather than merely surveying students about their perceptions of
teacher immediacy. Therefore, this study made an important contribution to the growing body of evidence that supports the existence of a meaningful relationship between nonverbal immediacy and cognitive learning.

Most immediacy researchers include vocal expressiveness or paralinguistics as part of the nonverbal immediacy construct examined in their studies. Vocal variables such as tone, pace, intensity, variety, pause, and articulation contribute to nonverbal immediacy (Andersen, 1978; Jordan, 1989; Mehrabian, 1968, 1981). Jordan (1989) tested students' perceptions of teachers' verbal and paralinguistic immediacy, achieving results which indicate that student learning is affected both by the words teachers say and the manner in which they say them.

In addition to such paralinguistic elements, the general immediacy construct may be said to encompass verbal immediacy behaviors. Although verbal immediacy is not a variable in this study, it is important to acknowledge that psychological distance may be reduced through such verbal behaviors as inclusive references, self-disclosure, and present verb tense (Gorham, 1988; Jordan, 1989; Mehrabian, 1968, 1981; Weiner & Mehrabian, 1968). Like nonverbal immediacy behaviors, verbally immediate communication conveys like-dislike and approach-avoidance expressions.

"Teachers who feel close to their students will use
immediate pronouns like 'our,' 'we,' and 'us.' In this way teachers verbally show that they feel a part of their students and imply that they are working together toward a common goal" (Jordan, 1989, p. 1). Another characteristic of verbally immediate behavior is the use of self-disclosure (Mehrabian, 1968). Sorenson (1980) manipulated teacher self-disclosure statements in a lab experiment designed to study students' perceptions of teacher immediacy. Results indicated that teacher self-disclosure accounted for 28% of the variance in students' perceptions of teacher immediacy.

Nonverbal immediacy researchers continue to explore the immediacy construct by examining the interaction of teacher nonverbal immediacy with various other classroom variables such as teacher clarity (Powell & Harville, 1990), student motivation (Christophel, 1990; Christophel & Gorham, 1995), solidarity (Andriate, 1982; Stewart & Wheeless, 1986), teacher use of humor (Gorham & Christophel, 1990), and student nonverbal expectancies (Seiffert, 1990). Findings from these and numerous other studies suggest that students of nonverbally immediate teachers "believe they learn more and like what they're learning" (McCroskey & Richmond, 1992, p. 82). Teacher nonverbal immediacy research has been conducted in classrooms of almost every educational level, from elementary through high school, college, and adult learning in the business context. Diverse student
populations have been studied, including those in multi-
cultural classrooms (e.g., Sanders and Wiseman, 1990) and
classrooms in different countries (e.g., McCroskey,
Richmond, Sallinen, Fayer, & Barraclough, 1995). While
persons of different cultures have differing perceptions and
expectancies of teacher communication behaviors, nonverbal
immediacy behaviors are broadly considered as positive and
desirable teacher behaviors that enhance student learning in
the traditional classroom. Christophel and Gorham (1995)
recently stated that, "given the cumulative evidence
provided by research to date, it might be concluded with
certainty that teacher immediacy is a good thing" (p. 292).

Teacher Immediacy in Distance Learning

Distance learning is not a recent phenomenon;
correspondence study began in Europe over 150 years ago
(Schlosser & Anderson, 1994). As communication technology
evolves, however, the term "distance learning" takes on new
and diverse meanings. One general definition offered by
Moore (as cited in Keegan, 1988) suggests that in distance
education "teaching behaviors are executed apart from
learning behaviors...so that communication between the
teacher and learner must be facilitated..." (p. 6). New
communication technologies and changing social patterns
combine to make distance learning increasingly attractive in

American higher education today. Lipsky (1984) predicted that by the year 2000, 80% of all off-campus instruction will be transmitted by way of new communication technologies. Identifying the effects of emerging technology on theories of distance learning, Schlosser and Anderson (1994) observed, "At the root of distance education theory is the belief that distance education is fundamentally different from traditional, face-to-face instruction.... However, especially in the United States, technological advances and new philosophies of distance education have resulted in a new paradigm of distance education, its goal to offer to the distance student an experience as much like that of traditional, face-to-face instruction as possible" (p. 14). Advanced technology such as two-way audio, two-way video transmission creates a virtual classroom that enhances the distance learning experience as one closely resembling the face-to-face classroom experience.

Numerous studies have compared the effects of instruction to distant and proximate students, with the frequent conclusion that there is little or no significant difference in learning between modalities. Whittington (1987) studied over a hundred distance education lessons transmitted through a variety of media and found no significant difference in the final course grades of distant and proximate students. Silvernail and Johnson (1992) found
that student evaluations of teacher effectiveness were similar from distant and proximate learners. The effectiveness of distance education as a means of learning is no longer in question, for "hundreds of media comparison studies [have] indicated, unequivocally, that there is no inherent significant difference in the educational effectiveness of media" (Schlosser & Anderson, 1994, p. 23). These findings appear unequivocal in educational research literature; nevertheless, some communication scholars remain convinced that instructional communication behaviors operate differently across divergent delivery systems. Hackman and Walker (1990) assert, "Although student outcomes may be similar, we believe that there are some fundamental differences in face-to-face and televised instruction" (p. 197). Citing research in the social psychology of telecommunications, Walker and Hackman (1991, p. 2) attest to "dramatic differences" between traditional instruction and telecourses, and remain convinced that "certain technologies and techniques are more effective in extending information than others" (p. 11).

Apart from Hackman and Walker's ongoing program of research, relatively few instructional communication scholars have examined human communication processes in the distance learning environment. Which instructional design factors and teacher behaviors are predictors of student
learning and satisfaction in distance education? Do teacher behaviors employed in the traditional classroom have the same effect on distant learners as on proximate students? Specifically, do nonverbal immediacy behaviors function to enhance cognitive and affective learning in the distance setting, just as they do in the traditional classroom?

Education researchers have long held that interaction between teacher and student is a major component in classroom instruction. Main and Riise (1995) suggest that "increased participation and ensuring interactivity are key elements of a successful distance learning program" (p. v). For the distance learner, interaction must be intentionally cultivated in order to overcome the feeling of psychological distance. Social presence, or "the ability to approximate the characteristics of face-to-face interaction" (Murphy & Farr, 1993, p.2) is said to be realized when learners interact with the teacher. Thus, interactivity and social presence are key strategies for overcoming distance in distance learning.

A new degree of interactivity in distance learning is now possible through the technology of interactive video. However, Maine and Riise (1995) issue a caution against overdependence on technology alone to provide interaction and social presence: "The technology for fully active distance learning is not the hurdle. The problem is how to
elicit active participation by the learner” (pp. 12-13). The responsibility for creating social presence through interaction with the students rests squarely with the teacher. Simply stated, “although it is the technology that removes barriers and expands opportunities for learning, it is the teacher who teaches” (U.S. Congress, 1989, p. 11).

Some delivery systems depend upon asynchronous (delayed) interchanges between teacher and students, while other systems engender synchronous (real-time) verbal and nonverbal interaction (see Table 1). In traditional correspondence courses, recorded audio and video courses, and recorded computer-mediated instruction, messages and responses are asynchronous (separated by time). In these delivery systems, synchronous interaction is not possible, and guided didactic conversation (Holmberg, 1986) becomes an important means of instruction. With the advent of advanced communication technology, however, live visual images and/or synchronous interaction facilitate verbal and nonverbal communication that more nearly replicates that of the traditional classroom experience. In an attempt to increase interaction and social presence in distance learning, educators are increasingly adopting these interactive delivery systems and transmitting both verbal and nonverbal actions and interactions.
In delivery systems which involve visual images, teacher nonverbal communication behaviors may contribute positively to a sense of social presence for distant students. Walker and Hackman (1991) have observed that "one set of behaviors which convey social presence in the televised classroom are immediacy behaviors of the instructor" (p. 5). Other researchers agree that immediacy is important in distance learning, suggesting that "it is
particularly important for distance instructors to incorporate behaviors in their teaching that will reduce the learners' sense of physical and psychological distance. One way to reduce this sense of distance is for the instructors to use immediacy behaviors" (Murphy & Farr, 1993, p.2). Immediacy can be increased through the infrastructure of the instructional design and through the exploitation of communication technology, resulting in increased interaction among participants (Murphy & Farr, 1993). Instructional designers and distance teachers should work together to achieve maximum social presence in the learning event. In the absence of such collaboration, sophisticated delivery systems may be installed and utilized at great expense, yet fail to reduce psychological distance to any significant degree. Jointly, system design and teacher behaviors can potentially affect students' interactions and their perception of the teacher's social presence.

Teacher immediacy in distance learning is the focus of a program of research currently under way at the University of Colorado. Hackman and Walker (1990) initially studied 102 students engaged in 35 courses via one-way video, two-way audio transmission. System design factors such as audio/video quality and ease of interaction were evaluated, and social presence was measured through the Nonverbal Immediacy Behaviors instrument (Richmond, Gorham, &
McCroskey, 1987) and the Verbal Immediacy Behaviors instrument (Gorham, 1988). Findings indicated that both conveyance system design and social presence (teacher immediacy) strongly impacted perceived student learning and student satisfaction with the distance education experience. Furthermore, Hackman and Walker (1990) observed that "instructors who engage in behaviors which minimize the psychological distance between themselves and their distant students are rated as most fair and effective" (p. 205). These results resemble data collected in studies of interaction and teacher immediacy in the traditional classroom, where student perceptions of learning and teacher effectiveness show a positive correlation with teacher nonverbal immediacy (e.g., McCroskey et al., 1995).

A further study (Walker & Hackman, 1991) of 164 students in 40 courses identified three variables that predicted student learning and satisfaction with the course: information transfer (course content), instructor nonverbal behaviors, and audio/video transmission. Together, these factors contributed 53% of the variance in perceived learning, and nonverbal immediacy was the greatest predictor of students' desire to take another course from the same instructor. Of significance is the observation that "immediate nonverbal behaviors are communicated across television," and that "these behaviors function much as they
would in face-to-face interactions" to impact student affect for the instructor (p. 10).

These studies demonstrate that system design and communication technology can, to a satisfactory degree, set the stage for interactivity and social presence. Furthermore, distance instructors may employ nonverbally immediate behaviors with the assurance that those behaviors can be effectively transmitted to distant learners. In a study of 206 proximate and 73 distant students, Hackman & Walker (1994) found that "perceptions of learning, satisfaction, information transfer and immediate and present instructor behavior are not different in the two modalities" (p. 8). The researchers' conclusion to this study summarizes what is known to date regarding teacher immediacy in distance learning: "When the system of conveyance allows interactivity and control, and when instructors are immediate and present, students learn more and are more satisfied with the experience regardless of the modality" (p. 9).

Hackman and Walker's research broke new ground in the study of instructional communication in distance learning. However, follow-up studies could be more thorough in the measurement of learning outcomes. Rather than single items to measure student satisfaction with teacher and course (Hackman & Walker, 1990), future research should make use of
recognized instruments to gather more comprehensive data on affective learning. Communication researchers often operationalize affective learning as students' attitudes toward the course, subject matter, and teacher, as measured by the student’s willingness to take other courses from the same teacher or in the same subject area (Kearney, 1994a, p. 81). Such data probably provides a more accurate indication of affective learning than that obtained by single items measuring student satisfaction only.

Interpersonal Attraction and Immediacy Behaviors

Individuals who engage in immediacy behaviors reduce physical or psychological distance between themselves and another person (Mehrabian, 1969). A desire to approach another may emanate from a feeling of approval or liking for that individual (Mehrabian, 1981). Simply stated, "people approach what they like and avoid what they don’t like; that is, there is a positive correlation between various approach behaviors and level of liking" (Mehrabian, 1981, p. 22). One’s liking for another may be accompanied by a desire to become physically or psychologically closer to the other person, prompting the use of immediacy behaviors which reduce interpersonal distance. For example, research has indicated that individuals assume closer positions and engage in more eye contact with people whom they like (Mehrabian, 1981).
When an individual approaches another out of liking or affinity, one ordinarily expects a pleasant, rewarding experience. Berscheid and Walster (1978) observe that "rewarding stimuli arouse positive feelings while punishing stimuli arouse negative feelings" (p. 23), and further that "we like people who reward us and we dislike people who punish us" (p. 23). While immediate behaviors may bring reward, it follows that nonimmediacy may not be rewarding at all, and may even be perceived as punishing.

Regardless of whether one's expectancy of a positive reward is realized, reinforcement still occurs. Berscheid and Walster (1978) emphasize that "the general psychological principle which threads throughout virtually all theories of interpersonal attraction is the principle of reinforcement: we like those who reward us; we dislike those who punish us" (p. 22). Therefore, out of liking for another, one may reduce distance (approach the other) and fulfill the expectancy of a rewarding interaction. Moreover, when reward does indeed occur, expectancies may be reinforced, increasing the likelihood of sustained or repeated approach. These reinforced expectancies may then become the basis of new expectancies for future interactions. By contrast, the absence of immediacy or the presence of clearly nonimmediate behaviors may be perceived as punishing. Thus, immediacy behaviors may be understood as rewarding actions that
express or engender interpersonal attraction, while nonimmediate behaviors may be perceived as punishing.

**Nonverbal Expectancy Violations Theory**

Individuals' expectations for interpersonal interactions may affect their perceptions of others' communication behaviors and the outcomes of specific communication acts (Burgoon, 1978). A considerable body of research has tested the interpersonal communication model built on Nonverbal Expectancy Violations theory (Burgoon, 1978, 1983; Burgoon, Coker, & Coker, 1986; Burgoon & Hale, 1988; Burgoon & Jones, 1976). In short, this theory assumes that people expect others to communicate in certain ways, and that deviation from those expectancies alters communication outcomes. Whether expectancy violations affect outcomes positively or negatively depends upon (1) one's perception of the initiator, (2) the degree of the violation, and (3) the direction of the violation (Burgoon, 1978, 1983).

The nonverbal expectancy violations model posits that perceptions of the initiator "define the interpersonal encounter as rewarding or nonrewarding" and "determine whether a violation will have positive or negative consequences" (Burgoon, 1983, p. 104). Characteristics contributing to the reward value of an individual include perceived status, physical attractiveness, and various
nonverbal immediacy behaviors such as smiling, nodding, and giving positive feedback. Initiators with these characteristics are considered rewarding interactants and may actually enhance outcomes when they engage in positive violations, rather than conforming to normative behaviors (Burgoon & Aho, 1982; Burgoon, Stacks, & Woodall, 1979). Thus, "there are circumstances under which violations of social norms and expectations may be a superior strategy to conformity" (Burgoon & Hale, 1988, p. 58). Some teachers employ this strategy to approach students through the use of more immediate behaviors than expected. In contrast, violations initiated by nonrewarding individuals are most often interpreted negatively, and these interactants achieve better outcomes when they conform to expected communication behaviors (Burgoon, 1978, 1983). This would apply to teachers who do not engage in immediate behaviors and are perceived by students as nonimmediate or punishing.

Nonverbal expectancy research has been conducted in highly controlled lab settings as well as in field experiments. Many of the research designs have made use of conversational dyads, where violations of the following expected nonverbal behaviors have been shown to contribute to altered communication outcomes: interpersonal distance (Burgoon, 1978; Burgoon & Aho, 1982; Burgoon, Stacks, & Woodall, 1979), eye gaze (Burgoon, Coker, & Coker, 1986),
reticence (Burgoon & Koper, 1984), and vocalics and nonverbal immediacy (Buller & Burgoon, 1986; Burgoon & Hale, 1988). Other studies have broadened expectancy research into areas beyond conversational dyads, and there is some support for the application of the nonverbal expectancy violations model in contexts such as public address (Burgoon, Birk, & Pfau, 1990; Burgoon & Chase, 1973; Burgoon & Miller, 1971) and the traditional classroom (Seiffert, 1990).

Teacher Immediacy and Student Expectancies

The nonverbal expectancy violations model has direct application to the instructional setting, where both students and teachers bring their own sets of expectations based on past classroom experiences. The well-known pygmalion effect occurs when teachers' expectations of certain students significantly affect both their perceptions of the student's performance and the student's actual achievement (Baker & Crist, 1971; Hurt, Scott, & McCroskey, 1978; Rosenthal & Rubin, 1971). Similarly, "student expectations about what awaits them in the classroom" have been shown to affect their perception of teacher behaviors and learning outcomes (Seiffert, 1990, pp. 1-2). In a study of 305 students enrolled in college classes across a variety of disciplines, Seiffert (1990) found that students began the semester with prior expectations of the nonverbal immediacy behaviors their teacher would employ. As the
semester continued, students perceived teacher behaviors which deviated from student expectations, and their interpretation and evaluation of the violations were generated according to Burgoon’s model. Data collected later in the semester indicated that "the degree of violation of nonverbal immediacy expectancies was positively related to student affective, behavioral, and cognitive learning" (Seiffert, 1990, pp. 88-89). One may conclude that the students generally viewed their teachers as rewarding individuals whose unexpected expressions of immediacy communicated an interpersonal attraction. Finding the teacher’s immediacy behaviors to be rewarding, students responded with increased affect for the teacher and course. Such interactions generate reinforcement when expectancies are altered based upon repeated positive reward.

One of the most consistent findings of expectancy research is that violations initiated by rewarding interactants often carry a positive valence and favorably impact communication outcomes (Burgoon & Aho, 1982; Burgoon & Hale, 1988; Burgoon, Stacks, & Woodall, 1979). Classroom teachers are among those whose role and status in relation to students carry inherent reward value (French & Raven, 1960). Thus, students generally view interactions with teachers as rewarding. Furthermore, nonverbal immediacy behaviors themselves are inherently rewarding (Mehrabian,
Therefore, when teachers engage in more nonverbally immediate behaviors than students expected, students interpret the violations as positive deviations from the norm, and learning outcomes are sometimes enhanced (Seiffert, 1990). While data are not conclusive as to the full effects of expectancy violations of teacher nonverbal immediacy in the classroom, findings are sufficient to warrant the assumption that learning is enhanced when teachers communicate greater nonverbal immediacy than students expect.

Rationale

Numerous studies point to a relationship between teacher nonverbal immediacy and student affective learning in the traditional classroom (e.g., Andersen, 1979; Kelley & Gorham, 1988; Richmond, Gorham, & McCroskey, 1987). When students perceive that their teachers engage in eye contact, smiles, nods, relaxed body posture, movement, gestures, and vocal expressiveness, they report that they like the teacher better, enjoy the class more, and learn more from the course (Andersen, 1979; Christophel & Gorham, 1995; Plax, Kearney, McCroskey, & Richmond, 1986). A few studies have produced similar findings in the distance learning environment (Hackman & Walker, 1990, 1994; Walker & Hackman, 1991). Although student nonverbal expectancies have been shown to influence affective learning in the traditional classroom
(Seiffert, 1990), researchers have not yet examined whether distant students' expectancies affect the relationship between teacher nonverbal immediacy and student affective learning in distance learning. This study sought to fill the gap in existing research by examining the relationship among student expectancies of teacher nonverbal immediacy, perceived teacher nonverbal immediacy, and student affective learning in the college telecourse.

Students who enroll for college telecourses represent a diverse population with differing experiences, learning styles, and motivation (Coldeway, 1991). These differences among distant students contribute to diverse expectations of the telecourse experience, just as differences among traditional students contribute to diverse expectations of the classroom learning experience (Seiffert, 1990). For example, students may expect similar nonverbal immediacy from their telecourse instructors as from their traditional classroom instructors, or they may anticipate differing levels of immediacy in the distance learning setting. Students who enroll in their first telecourse may bring different expectations of nonverbal immediacy than students who have prior telecourse experience. Students may also approach a pre-recorded telecourse and a live broadcast telecourse with different expectations of teacher nonverbal immediacy. It stands to reason, then, that different types
of students bring differing nonverbal expectations to various types of telecourses, and that students may have different expectancies of nonverbal immediacy from telecourse teachers than from traditional classroom teachers.

Recall that nonverbal immediacy involves reducing physical and psychological distance. The customary classroom environment engenders physical and psychological proximity, and classroom teachers' nonverbal immediacy is usually perceived as rewarding and reinforcing (Berscheid & Walster, 1978; Richmond, Gorham, & McCroskey, 1987). Students whose educational experiences are limited to traditional classroom settings are accustomed to a learning environment in which most of the five senses are engaged. By contrast, the college telecourse requires only the use of hearing and sight. The distance teacher is, indeed, physically distant, and the telecourse is probably perceived by distant students as offering a more distant, nonimmediate learning environment. As students enroll in their first distance learning course, they probably have low expectancies of nonverbal immediacy from the telecourse teacher. First-time distant students may anticipate a detached, impersonal learning experience that is simply a convenient means of acquiring information (course content). The first hypothesis predicted a difference between the nonverbal expectancies
of students in distance learning versus students in traditional classroom courses:

\[ H_0: \text{Expectancies of teacher nonverbal immediacy are lower among students enrolled in distance learning courses than among students in traditional classroom courses.} \]

Although first-time distant students may bring low nonverbal expectancies to their first telecourse experience, professional distance educators have sought to reduce psychological distance by producing learning programs that employ interactive communication technology, participative instructional design, and highly immediate teacher communication behaviors (Murphy & Farr, 1993). As a result, many students find their first telecourse to be more captivating and dynamic than expected. Students may then adjust expectancies of future telecourses based on their first-time experience, and subsequent distance learning courses may more nearly conform to students' expectations. A research question addressed possible differences between the nonverbal expectancies of first-time and repeating distant students:

\[ RQ_1: \text{Do expectancies of teacher nonverbal immediacy vary between first-time distant students and repeating distant students?} \]
A second research question investigated students' actual perceptions of teacher nonverbal immediacy behaviors, in both distance learning courses and on-site classroom courses.

RQ2: Do students' perceptions of teacher nonverbal immediacy vary according to telecourse or on-site classroom course?

This study sought to lend further support to previous reports of a correlation between teacher nonverbal immediacy and student affective learning in distance education. Initial research conducted in the classroom indicated that high levels of nonverbal teacher immediacy produce greater student affect for the teacher and course, reflecting rewarding behavior. Meanwhile, low levels of immediacy reduce affect and are probably non-rewarding or even punishing (Andersen, 1979; Richmond, Gorham, & McCroskey, 1987). A few studies have suggested a similar relationship in the distance learning environment (Hackman & Walker, 1990, 1994; Walker & Hackman, 1991). Although Hackman and Walker (1994) concluded that teacher nonverbal immediacy correlates with student satisfaction in distance learning, their data collection did not include a thorough measurement of student affective and behavioral learning. By collecting more comprehensive data, the present study sought to strengthen support for the relationship between teacher
nonverbal immediacy and distant student affect for the teacher and telecourse.

$H_2$: When distant students perceive a higher level of nonverbal immediacy from their college telecourse teachers, affective learning is greater than when such students perceive a lower level of nonverbal teacher immediacy.

Numerous distance learning studies have compared student outcomes across delivery systems, with the frequent conclusion that learning does not differ significantly from one system to another (e.g., Beare, 1989; Whittington, 1987). Other research suggests that system factors do, indeed, affect learning outcomes (e.g., Walker & Hackman, 1991). If distant students' perceptions of teacher nonverbal immediacy should differ from on-site students' perceptions of teacher nonverbal immediacy ($RQ_2$), then one may expect to find corresponding differences in these students' affective learning.

$RQ_3$: Does student affective learning differ in telecourse and on-site classroom instruction?

In the absence of any meaningful difference in learning outcomes as measured in $RQ_3$, one might join those who postulate that distant or proximate delivery systems do not significantly affect student outcomes. However, the conclusion would be premature before considering the role of
student expectancies of teacher nonverbal immediacy and the reinforcement or violation of those expectancies by the telecourse teacher. Reinforcement theory (Berschied & Walster, 1978; Mehrabian, 1969) may help to explain affective learning outcomes for repeating distant students, whose expectancies of teacher nonverbal immediacy are founded in part upon their previous experiences in distance learning. Meanwhile, nonverbal expectancy violations theory (Burgoon, 1978) may help to explain affective learning outcomes for first-time distance students. This theory assumes that people expect others to communicate in certain ways, and that deviation from those expectancies alters communication outcomes (Burgoon, 1978). Whether expectancy violations affect learning outcomes positively or negatively depends upon the student's perception of the teacher, the degree of the violation, and the direction of the violation (Burgoon, 1978, 1983). Since teachers are often viewed as rewarding persons (French & Raven, 1960), teacher behaviors perceived as more immediate than expected generally carry a positive valence (reward) and presumably increase affective learning (Seiffert, 1990). When students perceive less nonverbal immediacy than expected from teachers, the violation may be perceived as negative (punishing) and affective learning may decrease.
A considerable body of previous research has found learning outcomes to be similar in distant and on-site instruction (e.g., Whittington, 1987). Many distance education researchers have interpreted similar learning outcomes to mean that "there is no inherent significant difference in the educational effectiveness of media" (Schlosser & Anderson, 1994, p. 23). In contrast, current communication research posits that "although student outcomes may be similar, we believe that there are some fundamental differences in face-to-face and televised instruction" (Hackman & Walker, 1990, p. 197).

A major research focus of the current study was to probe the issue of obtaining similar outcomes from dissimilar communication environments. The final hypothesis was formulated to test a paradigm that might explain why affective learning outcomes are similar, despite the very different communication environments of distant and on-site instruction.

H₃: When expectancies of teacher nonverbal immediacy are covaried, affective learning differs in telecourse and on-site classroom instruction. Support for this hypothesis would advance the theory that students expect less teacher nonverbal immediacy from telecourse teachers (H₄), but they perceive their telecourse instructors as more immediate than expected. This violation
of nonverbal expectancies carries positive valence, given the general rewarding nature of the teacher-student relationship, and contributes to positive affect for the telecourse instructor and entire distance learning experience. Support for this hypothesis would challenge Schlosser and Anderson's (1994) statement that "there is no inherent significant difference in the education effectiveness of media" (p. 23), and support Walker and Hackman (1991) in their position that "certain technologies and techniques are more effective in extending information than others" (p. 11). In the traditional classroom, Seiffert (1990) found that "the degree of violation of nonverbal immediacy expectancies was positively related to student affective, behavioral, and cognitive learning" (pp. 88-89), and this study searched for corresponding relationships in distance learning. If nonverbal expectancies can be shown to explain the measurement of affective learning in this study, then student learning outcomes as measured in previous studies could be better understood. This analysis might reveal a previously unrecognized contingency in student affective learning across delivery systems.

This study, then, probed farther than previous research into the relationships of teacher nonverbal immediacy, student expectancies, and affective learning. Guiding the research was the belief that the results would be of
strategic importance to instructional designers and distance educators who seek to reduce psychological distance in distance learning.

Summary

This chapter presented a review of literature relating to nonverbal teacher immediacy in the traditional classroom and in distance learning. The nonverbal expectancy violations model was discussed in the context of student expectancies of teacher nonverbal immediacy. Finally, hypotheses and research questions were identified. Chapter 3 will describe the procedures employed to obtain the sample, the measurements utilized to gather data, and the methods used to perform statistical analysis required to test each hypothesis and research question.
CHAPTER 3

METHODOLOGY

Introduction

The previous chapter provided a review of the literature relating to nonverbal teacher immediacy in the traditional classroom and in distance learning. Nonverbal expectancy violations theory was also discussed, and hypotheses and research questions were presented. This chapter will discuss the procedure used to obtain the sample, the measurements used to collect the necessary data, and the statistical methods employed in analyzing the data and testing hypotheses.

Sample and Procedure

A total of 260 undergraduate students enrolled in the Dallas County Community College District were surveyed for this study. The sample included 148 students enrolled in distance learning courses (live instruction via one-way video/two-way audio transmission) and 112 students enrolled in classroom courses held on the campuses of the DCCCD colleges. Participants were enrolled in one of nine courses across a variety of subjects, including mathematics, reading, medical technology, speech communication, daycare
certification, philosophy, anthropology, and history. Of the nine courses, five were taught both as distance learning and as on-site classroom courses. The courses included in this study were taught by 8 different instructors, 2 males and 6 females. Four of the instructors taught the same course in both distance learning and the on-site classroom.

The researcher first obtained research approval from the distance learning administration of the Dallas County Community College District (see Appendix A) and approval for the use of human subjects from the University of North Texas Institutional Review Board (see Appendix B).

Data collection involved the distribution of a survey packet containing a pre-course questionnaire (to be completed by students immediately upon receipt) and a mid-course questionnaire (to be retained by students for later use). Both questionnaires in the packet contained the same individual survey code number, so that the two questionnaires could later be paired by the researcher for analysis. Survey packets were distributed to distant students as they entered a required pre-course orientation held at the DCCCD distance learning center one week before the courses began. Distance instructors were present and were introduced to the students. The distance learning administrator conducting the orientation read the survey instructions and asked students to hand in the pre-course
questionnaire that evening or mail it within a few days. From the 148 survey packets distributed to distant students during the pre-course orientation, 119 pre-course questionnaires (80%) were handed in immediately or received later by mail. Of the 119 pre-course questionnaires received from distant students, 21 (18%) were incomplete and contained insufficient data for analysis, leaving 98 useable pre-course questionnaires from distant students. Most of the incomplete questionnaires contained considerable missing data, resulting from students' marking only one answer per factor instead of marking responses on each of the multiple scales as requested. Finally, participants were instructed to copy their survey code onto the front of their syllabus, as a backup in case they lost the mid-course questionnaire, and to keep the mid-course questionnaire with their course materials until later in the semester, when it would be called for by the instructor. Table 2 contains demographic data on the distant students who complete pre-course questionnaires.

Distribution of survey packets for on-site classes was conducted in the same manner by individual course instructors. At the beginning of the first class session, instructors handed out survey packets and read the same instructions. Because of the high incidence of missing data
Table 2
Age and Sex of Student Sample

<table>
<thead>
<tr>
<th>Sample</th>
<th>Distant</th>
<th>On-Site</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Course Sample (N = 182)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>18-66</td>
<td>18-66</td>
<td>18-66</td>
</tr>
<tr>
<td>Mean</td>
<td>29.0</td>
<td>22.6</td>
<td>26.1</td>
</tr>
<tr>
<td>Not Indicated n</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male n</td>
<td>25</td>
<td>37</td>
<td>62</td>
</tr>
<tr>
<td>Female n</td>
<td>71</td>
<td>46</td>
<td>117</td>
</tr>
<tr>
<td>Not Indicated n</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Mid-Course Sample (N = 64)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>18-66</td>
<td>18-47</td>
<td>18-66</td>
</tr>
<tr>
<td>Mean</td>
<td>32.5</td>
<td>23.1</td>
<td>26.8</td>
</tr>
<tr>
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<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male n</td>
<td>6</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Female n</td>
<td>18</td>
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<td>39</td>
</tr>
<tr>
<td>Not Indicated n</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

in pre-course questionnaires of distant students, the following statement was added to instructions: "Be sure to answer each and every question, even if items seem unnecessary or repetitious." Of the 112 packets distributed to classroom students, 99 pre-course questionnaires (88%) were returned to the instructors that day or within a week. Of the 99 pre-course questionnaires received from classroom students, 15 (15%) were incomplete and contained insufficient data for analysis, leaving 84 usable surveys from classroom students. Participants were instructed to
keep the mid-course questionnaire with their syllabus until later in the semester, when it would be called for by the instructor. Table 2 contains demographic data on the classroom students who completed pre-course questionnaires.

**Pre-Course Questionnaires**

Although pre-course questionnaires were quite similar for both distance learning and classroom courses, distant students received yellow pre-course questionnaires (see Appendix C) and classroom students received gold pre-course questionnaires (see Appendix D). This color coding system was devised to facilitate sorting and matching questionnaires for data analysis.

Each pre-course questionnaire was divided into three sections. The first section asked for demographic information, including the age and sex of the participant, course number and title, and the number of courses students had already taken in each mode (i.e., classroom courses and distance courses with and without interaction). The second section of the pre-course questionnaire concerned the general expectations students had for the nonverbal immediacy of the instruction they were about to receive in the course. Expectations of nonverbal teacher immediacy were operationalized using the Generalized Immediacy Scale (Andersen, 1979), a 9-item semantic differential measure. Andersen’s measure is usually preceded by a brief paragraph
describing teacher behaviors typically associated with immediacy. For this study, the language used in the introductory paragraph was simplified to ensure comprehension by all respondents. In addition, the words "teaching style of your instructor" were changed to "teaching style in this course", in order to accommodate the diverse instructional media and methods sometimes utilized in distance learning. Verb tenses for the items on the GI Scale were stated in future tense, to measure what students expected the instruction would be like.

The third section of the pre-course questionnaire concerned students' expectations of nonverbal teacher immediacy if hypothetically they were to take the same course in the other instructional setting (i.e., distance learning or on-site classroom). Thus, distant students completed the 9-item GI scale a second time to indicate their expectations of nonverbal teacher immediacy "if you took this same course in a traditional college setting, in which teacher and students are present in the same classroom." On-site classroom students completed the GI scale a second time to indicate their expectations of nonverbal teacher immediacy "if you took this same course as a televised distance learning course, in which teacher and students are separated geographically and interact through audio or video systems."
Mid-Course Questionnaires

At mid-semester, both distance and classroom instructors called for participating students to complete the mid-course questionnaires, which students should have keeping with course materials since the course began. In three consecutive televised class sessions during weeks 8 and 9 of the semester, distance instructors reminded students to deliver the completed mid-course questionnaires, using channels established for turning in other course work (i.e., fax, mail, or hand delivery). Classroom instructors were asked to collect the completed mid-course questionnaires during a class period in week 9 of the semester. Communication between the researcher and participating teachers was both spoken and written. Three weeks before mid-semester, telephone calls were made to teachers' offices and written instructions were placed in teacher mailboxes, detailing the importance of every detail of administration. Each teacher was given a schedule of dates and times when mid-course questionnaires should be called for in their specific classes, and a one-paragraph script was provided to ensure clear, concise instructions. In addition, the distance learning administrator reiterated the importance of these details in face-to-face interactions with participating teachers...
Although mid-course questionnaires were quite similar for both distance learning and classroom courses, distant students received green mid-course questionnaires (see Appendix E) and classroom students received blue pre-course questionnaires (see Appendix F). Each mid-course questionnaire was divided into four sections. The first section asked for demographic data, including course number and title, sex of the teacher, and grades received on the last major test and overall for the course.

The second section of the mid-course questionnaire concerned students' general perceptions of the nonverbal immediacy of the instruction they had received so far during the course. General perceptions of nonverbal immediacy were operationalized using the Generalized Immediacy scale (Andersen, 1979), the 9-item measure included on the pre-course questionnaire. While modifications in wording remained the same as in the pre-course questionnaire, this time all verb tenses were changed from future (expectancy) to present (perception). For example, "The teaching style in this course you are now taking is very immediate."

While the GI scale would provide data for measuring an overall perception of nonverbal teacher immediacy, data were primarily sought regarding specific nonverbal immediacy behaviors perceived by students during the course. Thus, the third section of the mid-course questionnaire consisted of
the Nonverbal Immediacy Behaviors Instrument (Andersen, 1979; Richmond, Gorham, & McCroskey, 1987). Using a Likert-type scale of 0 (Never) to 4 (Always), students responded to 14 items describing specific teacher behaviors such as gestures, smiles, body position, movement, and variety of vocal expression. The NIB item regarding teachers' use of touch ("Touches students in the class") was reworded in an attempt to accommodate the distance learning environment: "Uses touch appropriately for this type of class."

The fourth and last section of the mid-course questionnaire concerned student affective learning outcomes, operationalized through the use of the Affective Learning instrument (Andersen, 1979; Scott and Wheeless, 1975). Items on this 7-step semantic differential scale asked students to indicate their affect toward course content (two factors), behaviors recommended in the course (two factors), and affect toward the teacher (one factor). The Affective Learning scale was modified for this study in two ways. A new factor measuring affect for the teacher was added for this study, intended to measure whether respondents were likely to enroll for another course taught by the same teacher. In addition, the term "behaviors" was explained as "actions, practices, procedures, operations, methods, etc." in order to ensure comprehension by respondents.
Distant students sent in 26 mid-course questionnaires, of which 25 (96%) contained sufficient data and were paired with pre-course questionnaires bearing the same survey code number. Classroom students turned in 39 mid-course questionnaires, all of which were useable and paired with pre-course questionnaires for analysis. Table 2 contains demographic data for both distant and classroom students who complete mid-course questionnaires.

Compared with the useable pre-course questionnaires, only 26% of participating distant students and 46% of participating classroom students returned completed mid-course questionnaires. Several factors contributed to the reduced participation at mid-semester. First, two of the nine courses (history and anthropology) had been canceled due to low enrollment. Second, high student attrition reduced the number of responses in the two developmental courses (reading and math). Third, one of the classroom teachers failed to distribute the survey packets as instructed, causing confusion over survey code numbers and making it impossible to include 19 mid-course questionnaires from her classroom students. Fourth, distance educators often feel that they have very little administrative control over their students, given the geographic separation and autonomous nature of telecourse students. Finally, two of the (part-time) distance learning instructors were simply
not diligent in administering the study or persistent in calling for mid-course questionnaires, resulting in only one useable mid-course questionnaire from each of those two classes. All these factors contributed to a mid-course sample of 64 students, compared with 182 students in the pre-course sample.

Measurements

Nonverbal Immediacy

Student expectations (pre-course) and student perceptions (mid-course) of teacher nonverbal immediacy were first measured using Andersen's (1979) Generalized Immediacy Scale. This inferential measure elicits a gestalt response to the overall level of nonverbal teacher immediacy. Students responded to nine items, organized in two sets of semantic differential scales that called for responses of 1 through 7. Reliability of the GI Scale has been quite high in previous studies, ranging from .84 to .97 (Andersen, 1979; Kearney, Plax, and Wendt-Wasco, 1985; Plax, Kearney, McCroskey, & Richmond, 1986). As shown in Table 3, alpha reliabilities (Cronbach, 1951) obtained in this study were .93 for expectancies of teacher nonverbal immediacy in the current course, .94 for expectancies of teacher nonverbal immediacy if the course were presented in the other mode (distance or classroom), and .95 for generalized perceptions of teacher nonverbal immediacy in the current course.
Table 3
Alpha Reliabilities of Measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>Generalized</th>
<th>Scale (G.I.)</th>
<th>N</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students' Expectancy for Teacher Nonverbal Immediacy in Current Course</td>
<td>Generalized Immediacy Scale (G.I.)</td>
<td>182</td>
<td>.93</td>
<td></td>
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<tr>
<td>Students' Expectancy for Teacher Nonverbal Immediacy in Hypothetical Course</td>
<td>Generalized Immediacy Scale (G.I.)</td>
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<td>.94</td>
<td></td>
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<tr>
<td>Students' General Perceptions of Teachers' Nonverbal Immediacy</td>
<td>Generalized Immediacy Scale (G.I.)</td>
<td>58</td>
<td>.95</td>
<td></td>
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<tr>
<td>Students' Behavioral Perceptions of Teachers' Nonverbal Immediacy (14 Factors)</td>
<td>Nonverbal Immediacy Behaviors (N.I.B.)</td>
<td>64</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>Students' Behavioral Perceptions of Teachers' Nonverbal Immediacy (13 Factors)</td>
<td>Nonverbal Immediacy Behaviors (N.I.B.)</td>
<td>64</td>
<td>.76</td>
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</tbody>
</table>

A second, lower-inference instrument was also used to measure student perceptions of teacher nonverbal immediacy. Richmond, Gorham, and McCroskey's (1987) Nonverbal Immediacy Behaviors Instrument, a modification of Andersen's (1979) Behavioral Indicants of Immediacy Scale, elicits responses to 14 nonverbal behaviors that teachers might use when
delivering instruction. Students respond on a Likert-type scale ranging from 0 (Never) to 4 (Very often). Reliability of the NIB Instrument has been reported from .73 to .89 (Christophel, 1990; Gorham, 1988; Gorham & Zakahi, 1990; Richmond, Gorham, & McCroskey, 1987). As shown in Table 3, a Cronbach's alpha (1951) of .74 was obtained for the NIB in this study. In an attempt to increase reliability, item 11 was removed from the analysis ("Stands behind podium or desk while teaching"). The required stationary position of telecourse teachers during video broadcast may have caused this item to correlate less highly than the other 13 items. Reliability of the NIB instrument increased to .76 when item 11 was removed. In a further attempt to increase reliability, item 7 was also removed from the analysis ("Uses touch appropriately for this type of class"). With both items 7 and 11 removed, reliability of the NIB instrument dropped to .75. Therefore, item 7 was retained and only item 11 was removed. Students' perceptions of specific teacher nonverbal immediacy behaviors were operationalized in this study using the remaining 13 items of the Nonverbal Immediacy Behaviors Instrument.

**Affective learning**

Affective learning was measured in this study through the use of the semantic differential scale Affective Learning developed by Andersen (1979) from Scott and
Wheeless's (1975) earlier measure. This instrument consists of five factors, each followed by four semantic differential scales that call for responses of 1 through 7. The Affective Learning scale elicits students' responses to their affect for course content (two factors), behaviors recommended in the course (two factors), and affect for the teacher (one factor). For this study, the factor "course instructor" was modified to state "the teaching you have received in this course." In addition, the following 4-item factor was added: "Your likelihood of actually enrolling in another course taught by the same teacher(s) as this course you are currently taking, if your schedule so permits." Factors measuring behavioral intent were worded so as to explain the term "behaviors" as "actions, practices, procedures, operations, methods, etc." Reliability of the Affective Learning measure has been reported across a range of .86 to .98 (Gorham, 1988; Kearney & McCroskey, 1980; Kearney, Plax, & Wendt-Wasco, 1985; Plax, Kearney, McCroskey, & Richmond, 1985). As shown in Table 4, alpha reliability obtained in this study for the original 20-item Affective Learning scale was .94 across a sum of all items. Reliabilities for the five subfactors were .89 for affect for course content, .83 for affect for the teacher, .97 for likelihood of enrolling in another course of the same subject, .93 for affect for
Table 4

Alpha Reliabilities for Affective Learning Scale

<table>
<thead>
<tr>
<th>Individual Learning Factors</th>
<th>N</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total of 5 Factors</td>
<td>59</td>
<td>.94</td>
</tr>
<tr>
<td>Total of 6 Factors*</td>
<td>59</td>
<td>.95</td>
</tr>
<tr>
<td>Affect for Course Content</td>
<td>59</td>
<td>.89</td>
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<tr>
<td>Affect for Teacher</td>
<td>59</td>
<td>.83</td>
</tr>
<tr>
<td>Take Another Course, Same Subject</td>
<td>59</td>
<td>.98</td>
</tr>
<tr>
<td>Take Another Course, Same Teacher*</td>
<td>59</td>
<td>.97</td>
</tr>
<tr>
<td>Affect for Recommended Behaviors</td>
<td>59</td>
<td>.93</td>
</tr>
<tr>
<td>Likelihood of Using Recommended Behaviors</td>
<td>59</td>
<td>.93</td>
</tr>
</tbody>
</table>

*New factor added for this study

behaviors recommended, and .93 for likelihood of using recommended behaviors. Reliability for the expanded, 6-factor version of the scale was .95 across a sum of all items, and .98 for the new item, likelihood of enrolling in another course taught by the same teacher. Affective learning was operationalized in this study, then, using the expanded 6-factor version of the scale.

Design and Statistical Tests

The first hypothesis was tested using a 1-tailed t-test to measure differences between distant students and
classroom students on mean expectancies about teacher nonverbal immediacy.

The first research question was examined using a 2-tailed $t$-test to measure differences between first-time and repeating distant students on mean expectancies about teacher nonverbal immediacy.

The second research question was examined using a 2-tailed $t$-test to measure differences between distant students and classroom students on mean perceptions of teacher nonverbal immediacy.

The second hypothesis was tested using a 1-tailed $t$-test to measure differences between affective learning of distant students who perceive a high level of teacher nonverbal immediacy and distant students who perceive a low level of teacher nonverbal immediacy. Mean scores for perception of immediacy were first calculated for all distant students in the sample ($N = 23$). Students who perceived higher teacher nonverbal immediacy than the mean ($N = 9$) were then grouped in the category "perception of higher level of teacher nonverbal immediacy." Students who perceived lower teacher nonverbal immediacy than the mean ($N = 14$) were then grouped in the category "perception of lower level of teacher nonverbal immediacy."

The third research question was examined using a 2-tailed $t$-test to measure differences between distant
students and classroom students on means of affective learning.

The third hypothesis was tested using analysis of covariance (ANCOVA) to control for "expectancy of teacher nonverbal immediacy" (covariate) and test for differences in the means of affective learning between distant students and classroom students.

The .05 level of significance was required as appropriate for 1-tailed and 2-tailed statistical tests.

Summary

This chapter has described the sample and the procedure used to obtain the data for the study. The measurements employed and the method of analysis were also explained. The next chapter will report the results obtained from the analysis of each hypothesis and each research question.
CHAPTER 4

RESULTS

Introduction

The previous chapter described the sample and the procedure used to obtain the data for the study. The measurements employed and the methods of analysis were also explained. This chapter will report the results obtained from the analysis of each hypothesis and research question.

Results for First Hypothesis

The first hypothesis, which predicted lower expectancies of teacher nonverbal immediacy (GI Scale) among distant students than among traditional classroom students, was supported. As shown in Table 5, the 1-tailed t-test used to test the hypothesis was significant ($t (180) = -4.63$, $p = .0001$). The expectancies of teacher nonverbal immediacy were lower among students enrolled in distance learning ($M = 41.77$, $N = 98$) than among students enrolled in traditional classroom courses ($M = 49.68$, $N = 84$). The difference in site (telecourse or on-site classroom) accounted for 10.6% of the variance in expectancies of teacher nonverbal immediacy.
<table>
<thead>
<tr>
<th>Measured Variable</th>
<th>t</th>
<th>d.f.</th>
<th>P</th>
<th>Group Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₁: Expectancy for Teacher Nonverbal Immediacy</td>
<td>4.63</td>
<td>180</td>
<td>.0001</td>
<td>Distant: 41.77 (n = 98)</td>
</tr>
<tr>
<td>RQ₁: Expectancy for Teacher Nonverbal Immediacy</td>
<td>-0.06</td>
<td>96</td>
<td>.5368</td>
<td>First-Time: 41.19 (n = 63)</td>
</tr>
<tr>
<td>RQ₂: Expectancy for Teacher Nonverbal Immediacy</td>
<td>-2.35</td>
<td>180</td>
<td>.0200</td>
<td>Not Experienced: 35.48 (n = 141)</td>
</tr>
<tr>
<td>RQ₂: Perceptions of Teacher Nonverbal Immediacy</td>
<td>-4.98</td>
<td>62</td>
<td>.0001</td>
<td>Distant: 32.68 (n = 25)</td>
</tr>
<tr>
<td>H₂: Affective Learning</td>
<td>-1.02</td>
<td>21</td>
<td>.3184</td>
<td>Higher Immediacy: 142.00 (n = 9)</td>
</tr>
<tr>
<td>RQ₃: Affective Learning</td>
<td>-0.41</td>
<td>57</td>
<td>.6814</td>
<td>Distant: 135.13 (n = 23)</td>
</tr>
</tbody>
</table>
Results for First Research Question

The first research question explored possible differences between expectancies of teacher nonverbal immediacy among first-time distant students and repeating distant students (i.e., those who had already completed at least one distance learning course in college). This research question was first examined by a 2-tailed t-test comparing expectancies of 98 distant students. Results of this analysis were not significant ($t(96) = -0.62, p = .5368$). In this first analysis, no significant differences were observed in expectancies of teacher nonverbal immediacy between first-time and repeating distant students.

The first research question was also examined by a 2-tailed t-test comparing the expectancies of teacher nonverbal immediacy for all students in the sample ($N=182$), those who had never enrolled in distance learning with those who had completed at least one distance learning course. In the demographic section of the pre-course questionnaire, respondents indicated the number of distance learning courses they had already completed (0 for none). This analysis compared means on expectancies for all students who had indicated 0 experience in distance learning and means on expectancies for all students who had completed at least one distance learning course (whether or not they were currently enrolled in distance learning). Results of the analysis were
significant ($t(180) = -2.35, p = .0200$). The expectancies of teacher nonverbal immediacy were lower among students who had never enrolled in distance learning ($M = 35.48, n = 141$) than among those who had completed at least one distance learning course ($M = 40.95, n = 41$). The difference in distance learning experience accounted for $3.0\%$ of the variance in expectancies of teacher nonverbal immediacy.

Results for Second Research Question

The second research question explored possible differences in actual observations of teacher nonverbal immediacy (NIB Scale) between telecourse students and on-site students. As shown in Table 5, the 2-tailed $t$-test used to examine this question was significant ($t(62) = -4.98, p = .0001$). In this sample, perceptions of teacher nonverbal immediacy were lower among students enrolled in distance learning ($M = 32.68, n = 25$) than among students enrolled in traditional classroom courses ($M = 40.93, n = 39$). The mode of instruction (distance or on-site classroom) accounted for $28.6\%$ of the variance in students' perceptions of teacher nonverbal immediacy.

Results for Second Hypothesis

The second hypothesis, which predicted greater affective learning between distant students who perceive a higher level of teacher nonverbal immediacy and distant students who perceive a lower level of teacher nonverbal
immediacy, was not supported. As shown in Table 5, the 1-tailed $t$-test used to test the hypothesis was not significant ($t(21) = -1.02, p = .3184$). Although the affective learning means were in the direction hypothesized as greater for more immediate teachers ($M = 142.00, n = 9$) than less immediate teachers ($M = 130.71, n = 14$), power was insufficient to detect a statistically significant difference. Therefore, no significant differences were observed between the affective learning of distant students who perceived higher levels of teacher nonverbal immediacy and those who perceived lower levels of teacher nonverbal immediacy.

Results for Third Research Question

The third research question explored possible differences in affective learning between distance learning students and on-site classroom students. As shown in Table 5, the 2-tailed $t$-test used to examine this question was not significant ($t(57) = -0.41, p = .6814$). There were no significant differences observed between affective learning of distance learning students and on-site classroom students.

Results for Third Hypothesis

The third hypothesis, which predicted differences in overall affective learning between distance students and on-site classroom students when expectancy of teacher nonverbal
immediacy was covaried, was not supported. As shown in Table 6, the analysis of covariance used to test the hypothesis was not significant. Although the covariate was significant ($F(1, 50) = 6.93, p = .0112$), accounting for 12.2% shared variance with affective learning, no statistical effect was observed for distant versus on-site instruction ($F(1, 50) = 1.52, p = .2236$). Therefore, no significant differences were observed in affective learning between distant students and on-site classroom students, when expectancy of teacher nonverbal immediacy was covaried.

Analysis of covariance was also run for each of the six subfactors in the extended Affective Learning scale (see Table 6). For the variable measuring affect for course content, the covariate was significant ($F(1, 50) = 5.01, p = .0297$), accounting for 8.9% shared variance with affective learning. However, no statistical effect was observed for distant versus on-site instruction ($F(1, 50) = .06, p = .8056$). For the variable measuring affect for the teacher, the covariate was significant ($F(1, 50) = 7.43, p = .0088$), accounting for 12.8% shared variance with affective learning. However, no statistical effect was observed for distant versus on-site instruction ($F(1, 50) = .69, p = .4102$). For the variable assessing whether respondents would take another course in the same subject, the covariate was significant ($F(1, 50) = 4.65, p = .0359$), accounting for
### Table 6

**Analyses of Covariance**

<table>
<thead>
<tr>
<th>Individual Learning Factors</th>
<th>Covariate</th>
<th>Shared Variance</th>
<th>Group</th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>F(1,50)</td>
<td>p</td>
<td>Var</td>
<td>F(1,50)</td>
<td>p</td>
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<tr>
<td>Total of 6 Factors</td>
<td>53</td>
<td>6.93</td>
<td>.0112</td>
<td>12.2%</td>
<td>1.52</td>
<td>.2236</td>
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<tr>
<td>Affect for Course Content</td>
<td>53</td>
<td>5.01</td>
<td>.0297</td>
<td>8.9%</td>
<td>0.06</td>
<td>.8056</td>
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<tr>
<td>Affect for Teacher</td>
<td>53</td>
<td>7.43</td>
<td>.0088</td>
<td>12.8%</td>
<td>0.69</td>
<td>.4102</td>
</tr>
<tr>
<td>Take Another Course, Same Subject</td>
<td>53</td>
<td>4.65</td>
<td>.0359</td>
<td>8.5%</td>
<td>0.72</td>
<td>.4004</td>
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<tr>
<td>Take Another Course, Same Teacher</td>
<td>53</td>
<td>6.05</td>
<td>.0174</td>
<td>10.5%</td>
<td>5.78</td>
<td>.0199</td>
</tr>
<tr>
<td>Affect for Recommended Behaviors</td>
<td>53</td>
<td>2.16</td>
<td>.1483</td>
<td></td>
<td>0.48</td>
<td>.4908</td>
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<tr>
<td>Likelihood of Using Recommended Behaviors</td>
<td>53</td>
<td>0.82</td>
<td>.3689</td>
<td></td>
<td>0.04</td>
<td>.8495</td>
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</table>
8.5% shared variance with affective learning. However, no statistical effect was observed for distant versus on-site instruction ($F(1, 50) = .72, p = .4004$). For the variable measuring affect for behaviors recommended, the covariate was not significant ($F(1, 50) = 2.16, p = .1483$). In addition, no statistical effect was observed for distant versus on-site instruction ($F(1, 50) = .48, p = .4908$). For the variable measuring the likelihood of respondents' using the behaviors recommended in the course, the covariate was not significant ($F(1, 50) = .82, p = .3689$). In addition, no statistical effect was observed for distant versus on-site instruction ($F(1, 50) = .04, p = .8495$).

The only significant result in analysis of affective learning variables occurred with the new factor used for this study. This factor measured respondents' likelihood of enrolling in another course taught by the same teacher. For this variable, the covariate (students' expectancy about teachers' nonverbal immediacy) was significant ($F(1, 50) = 6.05, p = .0174$), accounting for 10.5% shared variance with affective learning. A significant statistical effect was observed for distant versus on-site instruction ($F(1, 50) = 5.78, p = .0199$). Distant versus on-site instruction accounted for 10.0% of variance in affective learning when students' expectancy for teachers' nonverbal immediacy was covaried.
Correlations among the variables in the study may be found in Table 7.

Summary

This chapter reported the results obtained from the data analysis examining each of the hypotheses and research questions. The next chapter will summarize and further interpret these findings.
<table>
<thead>
<tr>
<th></th>
<th>Actual Expectancy</th>
<th>Hypothetical Expectancy</th>
<th>General Perception</th>
<th>Behavioral Perception</th>
<th>Affective Learning</th>
<th>Affect Course</th>
<th>Affect Teacher</th>
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<th>Use Behavior</th>
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<td>.49</td>
<td>.38</td>
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</tr>
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</table>

Table 7
Correlations Among Variables
CHAPTER 5

DISCUSSION

Introduction

The previous chapter reported the results of the testing of hypotheses and the examination of research questions. This chapter provides a summary of the entire study, including a summary of the research findings. This chapter also interprets the results of the study, discusses limitations of the study, and addresses implications for future research.

Summary of the Study

This research explored the relationship among three variables in college-level instruction: students' expectations for teacher nonverbal immediacy, students' actual observations of teacher nonverbal immediacy, and students' affective learning outcomes. The study examined the relationship of these variables in both the traditional on-site classroom and the college telecourse. The study was guided by three hypotheses and three research questions. Specific predictions were made which hypothesized that students' expectations and perceptions of teacher nonverbal immediacy would be lower in the college telecourse than in
the on-site classroom. First-time and repeating distant students' expectations for teacher nonverbal immediacy were also compared. It was predicted that affective learning would be higher for telecourse students who perceived a higher level of teacher nonverbal immediacy than for distant students who perceived a lower level of teacher nonverbal immediacy. Affective learning outcomes of distant and on-site students were also compared. Finally, differences in affective learning between distant and on-site students were predicted when expectancies of teacher nonverbal immediacy were covaried. This view suggested that expectancies and expectancy violations account for some degree of affective learning variance between distant and on-site students.

To collect data for the study, survey packets were distributed to 260 undergraduate students in the Dallas County Community College District, including 148 distance students and 112 on-site classroom students. Participants were enrolled in one of nine courses across a variety of subjects taught by eight different teachers. Five of the courses were taught both as distance learning and as on-site classroom courses. Distance learning students received instruction via one-way video, two-way audio transmission.

Two questionnaires were included in the survey packets and coded for later matching. A pre-course questionnaire was completed just prior to the beginning of the course. On this
questionnaire, students were asked to indicate previous college experience in on-site and distance learning courses. Then, using the 9-item Generalized Immediacy (GI) Scale (Andersen, 1979), students responded to questions about the nonverbal immediacy behaviors they expected their teachers to employ during the course they were about to begin. Finally, students completed the GI Scale again to indicate the teacher nonverbal immediacy they would expect if hypothetically they were to take the same course in the other mode (i.e., distance or on-site). Respondents were then asked to retain the second questionnaire until mid-semester, when they would be asked some questions about the instruction they were receiving in the course.

The second questionnaire was completed nine weeks into the semester. To indicate their actual perceptions of teacher nonverbal immediacy, students first completed the 9-item GI Scale concerning overall immediacy levels. The next part of the mid-course questionnaire included the 14-item Nonverbal Immediacy Behaviors (NIB) instrument (Andersen, 1979; Richmond, Gorham, & McCroskey, 1987), on which students indicated their perceptions of specific nonverbal behaviors employed by their teachers. The second questionnaire concluded with an extended (6-factor) version of the Affective Learning measure (Andersen, 1979; Scott & Wheeless, 1975), on which students indicated their affect
for the teacher (two factors), course content (two factors), and behaviors recommended in the course (two factors).

From the 260 surveyed students, responses to the pre-course questionnaires provided a sample of 182 respondents (overall response rate 70%), including 98 distant students and 84 on-site students. Using data obtained from this sample, various statistical analyses were performed to test the hypotheses and research questions related to student expectancies for teacher nonverbal immediacy. From this sample of 182 respondents, mid-course questionnaires were later received from 64 students (response rate 33%), including 25 distant students and 39 on-site students. Using data obtained from this sample, various statistical analyses were performed to test the hypotheses and research questions related to perceptions of teacher nonverbal immediacy and student affective learning.

Summary of Research Findings

The first hypothesis predicted that distant students would expect less nonverbal immediacy from their telecourse teachers than on-site students would expect from their classroom teachers. This hypothesis was supported. The means for expectancy of teacher nonverbal immediacy were significantly lower for distant students than for on-site students.
The first research question explored possible differences between expectancies about teachers' nonverbal immediacy among first-time distant students and repeating distant students (i.e., those who had already completed at least one distance learning course in college). Among the students in this sample who were currently enrolled in a college telecourse, no significant difference was found in the means for first-time and repeating distant students' expectations for teacher nonverbal immediacy.

However, a second analysis compared the expectancies of students who had taken previous distance courses and those who had not. Recall that some distant students had never taken a telecourse before, and that others had completed one or more telecourses prior to this study. Among classroom students in the survey, some students had taken distance courses before and some had not. The first research question explored whether students' expectancies changed after telecourse experience, so a second analysis was performed using two groups of students--those who had taken a telecourse before and those who had not--regardless of the type of course they were enrolled in for the current semester. Students' expectancy for nonverbal immediacy from telecourse teachers was compared, then, between students with any previous distance learning experience and students with no previous distance learning experience. In this
second analysis, a significant difference was found between experienced distant students and those who had never taken a distance course, on mean expectancy of teachers' nonverbal immediacy. The expectancies of teacher nonverbal immediacy were significantly lower for students who had never enrolled in distance learning than for those who had completed at least one college telecourse.

The second research question explored possible differences in actual observations of teacher nonverbal immediacy for telecourse students and on-site students. In this sample, distant students perceived significantly lower teacher nonverbal immediacy from their telecourse teachers than on-site students perceived from their classroom teachers.

The second hypothesis predicted greater affective learning between distant students who perceived a higher level of teacher nonverbal immediacy and distant students who perceived a lower level of teacher nonverbal immediacy. This hypothesis was not supported. Means for affective learning were not significantly different for distant students who perceived a higher level of teacher nonverbal immediacy than for distant students who perceived a lower level of teacher nonverbal immediacy.

The third research question explored possible differences in affective learning between distant students
and on-site students. In this sample, no significant
differences were observed in the affective learning means of
distant students versus on-site students.

The third hypothesis predicted differences in affective
learning between distant students and on-site students when
expectancy of teacher nonverbal immediacy was covaried. When
affective learning was measured across the summed six-factor
Affective Learning scale, this hypothesis was not supported.

In initial testing, no significant differences were observed
in the adjusted affective learning means of distant students
and on-site students, when expectancy of teacher nonverbal
immediacy was covaried. However, the hypothesis was also
tested on each of the six factors of the Affective Learning
scale. On the new affective learning factor added for this
study ("Your likelihood of taking another course taught by
the same teacher"), a significant difference was detected
between distant and on-site students. When students'
expectancy about teachers' nonverbal immediacy was covaried,
the adjusted means of distant students on this affective
learning factor were significantly lower than the adjusted
means of on-site students. Significant differences in
adjusted affective learning means were not found on any of
the other five factors in the Affective Learning scale.
Limitations of the Study

Several limitations of the study should be acknowledged. Perhaps the greatest limitation concerned the small sample obtained by the mid-course questionnaire. Various factors contributed to high attrition between the first sample ($N = 182$) and the followup sample ($N = 64$). In the nine weeks between pre-course and mid-course data collection, two of the surveyed courses were canceled due to low enrollment. High student attrition was also noticeable among participants enrolled in the two developmental courses. Three of the eight participating teachers made errors in administering the questionnaires or showed lack of commitment to the study. These administrative complications occurred despite repeated conversations with the researcher, explicit written instructions, and frequent reminders of upcoming dates and deadlines. Consequently, only 64 respondents completed both the pre-course and mid-course questionnaires. This sample of 64 students represents only 25% of the original 260 students surveyed, and only 35% of respondents who completed pre-course questionnaires. Sample bias cannot be ruled out and was likely. The small sample might include the best students or those who liked the teacher best. Most (97%) of the 64 responses came from students in only three courses taught by three instructors, which might include only the most cooperative teachers or
those most sympathetic to the study. Systematic bias may have resulted from the unequal sample sizes derived from the first and second questionnaires. If the study were repeated using a larger and more representative sample, it is possible that the results would be different. For example, using this limited sample, the means of affective learning observed in the analysis of the third hypothesis were found to be notably different and in the direction predicted; however, the small sample did not produce sufficient power to detect statistical significance. With a greater number of students in each of the cells, perhaps significant differences might have been demonstrated.

Another limitation probably resulted from students' lack of cooperation or lack of understanding the reasons for some of the instructions. Some students surveyed apparently felt that it was unnecessary to give responses on each individual item of the GI Scale, and their questionnaires contained considerable missing data. Data collection improved when additional instructions were given: "Be sure to answer each and every question, even if items seem unnecessary or repetitious." The community college students surveyed for this study may not have had much experience completing semantic differential-type scales before, for their responses were more complete and consistent in the Likert-type scales of the NIB Instrument.
The use of self-reports from students may limit the generalizability of data collected. When students report their perceptions of teacher behaviors, for example, their responses might be influenced by personal bias, faulty memory, or other confounding factors. In future investigations, the use of student reports might be strengthened with the observation and coding of teacher behaviors by independent raters. Student perceptions, likewise, could be restricted to a specific class period.

**Interpretation of Results**

**Expectancies for Teacher Nonverbal Immediacy**

The support received for the first hypothesis indicates that students in this study probably did not enroll for distance learning courses expecting the same level of closeness and social presence which they associated with traditional classroom instruction. These students reported that they have one level of expectations for classroom instruction and another for telecourse instruction: lower levels of nonverbal immediacy are expected from telecourse teachers than from on-site classroom teachers. In this study, 10.5% of the variance in students' expectancies of teachers' nonverbal immediacy was accounted for by the site of instruction, i.e. telecourse or on-site classroom. These findings were fairly consistent across the entire sampling of respondents. Distant students reported significantly
lower expectancy for teacher nonverbal immediacy in the current telecourse than they would expect from the same course hypothetically taught in an on-site classroom. On-site classroom students reported significantly higher expectancy for teacher nonverbal immediacy in the current classroom course than they would expect from the same course hypothetically taught as a telecourse.

One aspect of expectancies explored by this study was whether distant students changed their expectations for the nonverbal immediacy of telecourse teachers once they had experienced an actual distance learning course. In other words, if a student has reduced expectancy for nonverbal immediacy in distance learning (H₁), but then experiences a captivating and immediate distance course, do the student's expectancies increase for subsequent telecourse instruction? Data collected in this study provided inconclusive answers to this question. First, the expectancies of 63 first-time distant students surveyed in the study were not significantly different from the expectancies of the 35 repeating distant students. However, the expectancies of 41 students in the study with some telecourse experience (not necessarily currently enrolled in distance learning) were significantly higher than the expectancies of 141 students who had never taken a telecourse before. Therefore, once students experience a distance learning course, it is
possible that their expectations of future distance instruction are modified by the experience. More thorough data collection and analysis are needed to clarify this important research question. Various factors may affect the expectancies of first-time distant students, including reports from their friends who have distance learning experience, and the general reputation of the distance learning program. No data were collected to ascertain whether the first telecourse experiences were positive or highly immediate, so conclusions cannot be drawn as to the degree or direction of altered expectations.

**Students' Perceptions of Teachers' Nonverbal Immediacy**

As expected, nine weeks into the course, distant students in this study perceived significantly less teacher nonverbal immediacy from their telecourse instructors than on-site students perceived from their classroom instructors. In this study, student perceptions of teacher nonverbal immediacy were significantly different for distant and on-site instruction, accounting for 28.6% of the variance in perceived immediacy behaviors. These observations appeared to coincide with the expectations students had before the course began. Despite the efforts of educators, curriculum developers, and communication technologists to produce a virtual classroom which simulates on-site instruction, the geographical and psychological distance was not completely
spanned. For the students in this study, telecourse instruction was perceived as less nonverbally immediate than classroom instruction.

**Affective Learning and Students' Perceptions of Teachers' Nonverbal Immediacy**

This study predicted a relationship between students' affective learning and perceived teacher nonverbal immediacy in distance learning. Previous research has shown that such a relationship exists in the on-site classroom (Andersen, 1979; McCroskey & Richmond, 1992; Plax et al., 1986), and a few studies have found similar results in telecourse instruction (Hackman & Walker, 1990; Murphy & Farr, 1993; Walker & Hackman, 1991). However, the results obtained from this sample do not support previous research findings. Means on affective learning for distant students who perceived a higher level of teacher nonverbal immediacy ($\bar{M} = 142.0$, $n = 9$) were somewhat higher than distant students who perceived a lower level of teacher nonverbal immediacy ($\bar{M} = 130.7$, $n = 14$), but statistical significance was not obtained and the hypothesis was not supported. The small number of subjects per cell failed to generate sufficient statistical power to show a significant difference. The collective findings of previous research indicate that, indeed, higher levels of teacher nonverbal immediacy are associated with higher affective learning in distance learning as in the classroom.
The findings of this study are inconclusive, probably due to the limitations of a small sample.

**Affective Learning Across Delivery Systems**

The final research question and hypothesis were formulated to explore the relationship of affective learning and student expectancy for teacher nonverbal immediacy in both distance and on-site instruction. A considerable number of studies have found that student learning outcomes are quite similar between distance and on-site delivery systems (e.g., Whittington, 1987; Silvernail & Johnson, 1992). Findings from this study are consistent with previous research. As expected, distant student reports of affective learning ($M = 137.9, n = 36$) were not significantly different from classroom student reports ($M = 135.1, n = 23$).

Many distance education researchers have interpreted similar learning outcomes to mean that "there is no inherent significant difference in the educational effectiveness of media" (Schlosser & Anderson, 1994, p. 23). In contrast, current communication research posits that "although student outcomes may be similar, we believe that there are some fundamental differences in face-to-face and televised instruction" (Hackman & Walker, 1990, p. 197). A major research focus of the current study was to probe the issue of obtaining similar outcomes from dissimilar communication environments. The final hypothesis was formulated to test a
paradigm that might explain why affective learning outcomes are similar, despite the very different communication environments of distant and on-site instruction.

The third hypothesis asserted that, while learning outcomes appear to be similar in distance and on-site instruction, when student expectancies for teacher nonverbal immediacy are covaried, affective learning differences will be observed in distant and on-site instruction. The prediction tests the paradigm that students expect less teacher nonverbal immediacy from telecourse teachers ($H_1$), yet they perceive their telecourse instructors as more immediate than expected. Due to the rewarding nature of the teacher-student relationship, this violation of nonverbal expectancies carries positive valence and contributes to positive affect for the telecourse instructor. Support for the third hypothesis strengthens Walker and Hackman's (1991) position that "certain technologies and techniques are more effective in extending information than others" (p. 11) and challenges Schlosser and Anderson's (1994) statement that "there is no inherent significant difference in the education effectiveness of media" (p. 23). If expectancy violations can be shown to explain the measurement of affective learning in this study, then the student learning reported in previous studies might be better understood. In the traditional classroom, Seiffert (1990) found that "the
degree of violation of nonverbal immediacy expectancies was positively related to student affective, behavioral, and cognitive learning" (pp. 88-89), and this study searched for corresponding relationships in distance learning.

When analysis of covariance was performed to test this hypothesis, expectancy for teacher nonverbal immediacy (the covariate) was found to be significant, accounting for 12.2% shared variance with affective learning. However, no residual statistical difference was observed between affective learning of distant students and on-site classroom students, when affective learning was measured using the summed 24-item Affective Learning scale. When expectancy for teacher nonverbal immediacy was covaried and each of the six affective learning subfactors was examined, significant differences were observed in the new subfactor added for this study (likelihood of taking another course taught by the same teacher). On this factor measuring affect for the teacher, distant students and proximate students appeared to have similar learning outcomes, until analysis of covariance controlled the covariate. When students' expectancies for teacher nonverbal immediacy were controlled, the distant students were more likely to take another course from the same teacher than were the proximate students. This statistically significant result may point to previously undetected differences in the learning outcomes of distant
and on-site students. The results of this analysis of covariance indicate that previous measurement of affective learning outcomes for distant students may have been affected by students' expectancies, and that controlling for those expectancies may reveal an increased level of educational effectiveness of distance learning instruction. The relatively low expectancy for teacher nonverbal immediacy held by the distant students in this study were at first masking or minimizing their affective learning scores on the factor of taking another course from the same teacher. If this relationship between expectancies and affective learning is found to be present in other student samples, distance learning professionals may be encouraged to find that certain affective learning outcomes of their students may be greater than previously thought.

Findings on this one factor may not be generalizable, and it is possible that this significant result was obtained due to sample bias, given the unusually small sample size and the lack of significance on the other five affective learning factors. If there had been a larger number of subjects per cell, results might have been different. Nevertheless, there appears to be some support for the hypothesis that, when students' expectancy for teacher nonverbal immediacy are covaried, affective learning
outcomes are observed to be different between distant and on-site students.

Implications

The underlying goal of this study was to better understand student learning outcomes in distance learning and in the on-site classroom. Many education researchers believe there is no inherent difference in distant and on-site instruction (Schlosser & Anderson, 1994). By contrast, this researcher joins with others in the communication discipline to declare that "although student outcomes may be similar, we believe there are some fundamental differences in face-to-face and televised instruction" (Hackman & Walker, 1990, p. 197). This study explored one aspect of teacher-student communication in the college telecourse, how students' expectations and teachers' nonverbal communication behaviors influence affective learning outcomes. Through the testing of three hypotheses and the investigation of three research questions, conclusions were reached that have relevance for educators in both distant and on-site instruction.

Students do not expect the same nonverbal immediacy from telecourse teachers as from on-site classroom teachers.

The results obtained in this study clearly indicated that respondents expected less nonverbal immediacy from telecourse teachers than from on-site classroom teachers.
These students apparently assumed that the geographical distance which separates them from the telecourse instructor cannot be sufficiently overcome, even through the use of advanced communication technologies. Seeing an image and hearing the voice of the instructor, even in live transmission, may not be the same as being present in the room with the instructor and other students. Those students who enroll for distance learning, then, may do so with the presumption that they are sacrificing the closeness of immediate interaction and social presence for other benefits inherent in distance education. These benefits might include the comfort of study at home, the avoidance of a commute to campus, or the convenience of the hour of instruction. If these benefits are judged to outweigh the loss of immediacy and social presence, then students who choose to enroll in a telecourse can be quite satisfied with the learning experience, despite reduced immediacy.

Nonverbal immediacy can reduce psychological distance in televised instruction.

Results obtained in this study confirmed that both distant and on-site students liked the course better and said they learned more when they observed their teachers smiling, leaning forward, maintaining relaxed body position and eye contact, and using variety in vocal expression. The most skilled and most popular classroom teachers engage in
these behaviors, and many distance educators work very hard to convey a sense of social presence through the same immediacy behaviors. These efforts are worthwhile, in both distant and on-site instruction. In a study of teacher immediacy in telecourse instruction, Murphy and Farr (1993) concluded that "it is particularly important for distance instructors to incorporate behaviors in their teaching that will reduce the learners' sense of physical and psychological distance. One way to reduce this sense of distance is for the instructors to use immediacy behaviors" (p. 2). Walker and Hackman (1991) observed that "immediate nonverbal behaviors are communicated across television," and that "these behaviors function much as they would in face-to-face interactions" to impact student affect for the instructor (p. 10). In other words, many distance educators believe that it can be done, that it is possible to reduce the distance in distance learning. If nonverbal immediacy behaviors of telecourse teachers can be effectively transmitted to distant students, reducing the distance in distance learning is a worthwhile goal that will continue to challenge educators, curriculum designers, and communication specialists for years to come.

When affective learning outcomes appear to be similar across delivery systems, nonverbal expectancy violations may be involved.
Although the small sample size in this study prohibited the full exploration of this hypothesis, statistical significance was obtained to lend some support to the theory. Distant students' relatively lower expectations for teacher nonverbal immediacy are sometimes exceeded by captivating and dynamic telecourse instructors. When students receive the pleasant surprise of more highly immediate instruction than they anticipated, they may report that they like the course better and would willingly take another course from the same teacher. Affective learning outcomes are enhanced, then, by the unexpected immediacy observed by the distant student. The relationship of students' expectancy and perception of teacher nonverbal immediacy, and their relationship with student affective learning, are not yet clear. This initial exploration has raised questions that deserve thorough investigation.

**Does the first telecourse experience result in altered expectations for subsequent telecourses?**

Once students experience a distance learning course, it is possible that their expectations of future distance instruction are modified by the experience. More thorough data collection and analysis are needed to clarify this important research question. No data were collected to ascertain whether the first telecourse experiences were
positive or highly immediate, so conclusions cannot be drawn as to the degree or direction of altered expectations.

Do students' expectations for teacher nonverbal immediacy influence their actual perceptions of teacher immediacy behaviors?

The effects of self-fulfilling prophecy are well-documented in communication and education literature (Baker & Christ, 1971; Hurt, Scott, & McCroskey, 1978; Rosenthal & Rubin, 1971). Do student expectancies about teacher nonverbal immediacy function as self-fulfilling prophecies that influence or predefine their actual observations of teacher immediacy behaviors? A post hoc analysis was run to explore possible differences between students' expectancies about teachers' nonverbal immediacy with their later perceptions of general teacher immediacy (GI scale). The 2-tailed t-test used to examine this question was significant (t(51) = 2.75, p = .0082). Students' expectancies about teacher nonverbal immediacy were significantly lower (M = 46.6, n = 53) than the same students' general perceptions of teacher nonverbal immediacy (M = 52.3, n = 53). The measured difference in expectancy and perception accounted for 12.9% of the variance. The correlations between expectancy (M = 46.6, n = 53) and perception (M = 52.3, n = 53) accounted for 4.0% of the variance. Two conclusions may be drawn from these findings. First, these students' expectancies for
teacher nonverbal immediacy correlated with their perceptions of teacher nonverbal immediacy (4.0%), indicating either the accuracy of their expectations or the influence of self-fulfilling prophecy. Second, and perhaps more noteworthy, the nonverbal expectancy violation (indicated by the difference between expectancies and perceptions) contributes in greater proportion to students' perceptions of teacher nonverbal immediacy (12.9%).

Regarding teacher nonverbal immediacy in this study, then, it would appear that students' perceptions exceeded expectancies to a greater extent than expectancies shaped perceptions.

**Should telecourse teachers increase their use of nonverbal immediacy behaviors?**

The collective findings of education and communication research indicate that when teachers use nonverbal immediacy behaviors, students' affective learning is enhanced. This relationship has been observed in distance learning as well as the on-site classroom. It seems plausible, then, that telecourse teachers should employ a highly immediate style of delivery. Given the effect of positive violations of nonverbal expectancies, this strategy would likely increase students' perceptions of teacher nonverbal immediacy and thereby enhance affective learning outcomes. In fact, the impact of nonverbal immediacy behaviors may be greater when
employed by a telecourse instructor than by an on-site classroom instructor, when expectancies are taken into account. Further research is needed to clarify the effects of more highly immediate instruction in distance learning. When expectancy for teacher nonverbal immediacy is covaried, is there a difference in affective learning across delivery systems?

The findings of this initial investigation may indicate some previously unrecognized differences in distant and on-site learning outcomes. However, the small sample in the current study prevented thorough exploration of the relationship of these learning variables. If such a relationship is observed in a larger, more representative student sample, then communication and education professionals will better understand how and why distance learning appears to work so well. This program of research must be continued, for the teaching-learning principles that are being examined here are highly relevant to the learning environment of the twenty-first century.

Subsequent studies in this program of research should make every effort to collect data from large, representative student samples. It may help to revise the coding system that pairs pre-course and mid-course questionnaires. This may allow mid-course questionnaires to be delivered to students clipped to a worksheet, test, or other assignment,
perhaps correcting the problem of low mid-course participation. Surveying a wider and more diverse student population, beyond a single community college district, would increase generalizability of results obtained. Improving communication with participating instructors would likely increase student participation.

There are many questions yet to be pursued in this program of distance learning research. Exactly what expectations do students have about teacher behaviors and the entire distance learning experience? What do students anticipate? What have they heard about distance learning? What assumptions do they hold? Do their expectations influence their perceptions (self-fulfilling prophecy). How do their expectations change after the first course? Are their expectations altered through publicity or advertising campaigns? What expectancy factors motivate students to enroll for their first distance learning course? These and many other questions are yet to be investigated, as we delve further into the relationship among students' expectancies for teacher nonverbal immediacy, students' observations of teacher nonverbal immediacy, and students' affective learning outcomes in distance education.

Summary

This chapter presented a summary of the entire research study and of the results obtained from the testing of
hypotheses and research questions. Limitations of the study were presented, along with interpretations of results and implications of the research findings.
APPENDIX A
December 16, 1996

Institutional Review Board
University of North Texas
Denton, TX 76203

Dear Review Board Members:

After reviewing his research proposal and questionnaires, we have given permission for Paul Witt to collect data from students enrolled in the following DCCCD courses during the Spring semester 1997:

MEDT 1470, ANTH 1370, ECCD 2377, DMAT 0091, DMAT 0093, SPCH 1311, MATH 1314, PHIL 2306, and DREA 0091.

I understand that the purpose of this study is to compare students' expectations of teacher communication behavior in distance learning and traditional classroom settings. The findings of this research will be of interest to students, faculty, and administrators of distance learning in the DCCCD.

Sincerely yours,

Susan McArthur
Telecommunications Program Coordinator
R. Jan LeCroy Center

Dallas County Community College District
R. Jan LeCroy Center for Educational Telecommunications

9596 Walnut Street
Dallas, Texas
75243-2112

Administration
(972) 669-6650

Business Services
(972) 669-6670

Dallas Telecourses
(972) 669-6650

Instructional Services
(972) 669-6400

Production Services
(972) 669-6510

Satellite Services
and STARLINK
(972) 669-6505

Fax (972) 669-6499

Home Page Address
http://www.lecroy.dcccd.edu/
Sponsored Projects Administration

February 7, 1997

Mr. Paul Witt
745 Monique Ct.
Cedar Hill, TX 75104

Re: Human Subjects Application No. 96-278

Dear Mr. Witt:

As permitted by federal law and regulations governing the use of human subjects in research projects (45 CFR 46), I have conducted an expedited review of your proposed project titled “The Relationships Among Teacher Nonverbal Immediacy, Student Expectations About Teacher Nonverbal Immediacy, and Affective Learning in Distance Learning and in the On-Site Classroom.” The risks inherent in this research are minimal, and the potential benefits to the subjects outweigh those risks. The submitted protocol and informed consent form are hereby approved for the use of human subjects on this project.

The UNT IRB must re-review this project prior to any modifications you make in the approved project. Please contact me if you wish to make such changes or need additional information.

If you have questions, please contact me.

Sincerely,

[Signature]

Mark Elder
Chairman
Institutional Review Board

cc: IRB Members
Dear Possible Participant:

We are collecting data for research conducted by a graduate student. We are asking your permission to include your responses in this study. Your participation is completely voluntary, and your responses will be completely anonymous. The data will be analyzed in terms of means, correlations, etc. Because you cannot be identified in any way, your responses will be confidential. You may withdraw at any time without penalty or any effect whatsoever on your grade for the course.

This is a study about the expectations students have when they take college courses in either distance learning or a traditional classroom setting. You will be asked questions relating to your expectations for the course, observations of instructional techniques utilized during the semester, and your grades in the course. There will be two questionnaires, one before the course begins and another several weeks into the course. It will take about 5-10 minutes to complete each questionnaire.

If you choose not to participate, simply return the questionnaire to your instructor. If you have questions concerning the study, call Paul Witt at 214-946-8106.

THANK YOU.

This project has been reviewed and approved by the UNT Committee for the Protection of Human Subjects 817-565-3340.
DISTANCE LEARNING - PRE-COURSE QUESTIONNAIRE

Before you begin this questionnaire, copy your survey code on the front page of your textbook or syllabus. You may need this survey code later. YOUR SURVEY CODE IS __________. Copy this number now.

Write in your age: __________

Indicate your sex (circle one): M F

Write in the course prefix and number of the distance learning course you are about to begin (for example, ENGL 1301): __________

Write in the title of the distance learning course you are about to begin (for example, Composition I): __________

Write in the number of LIVE TV courses you have already completed, in which students interact with the teacher by telephone or microphone. If none, enter 0. __________

Write in the number of TELECOURSES you have already completed, in which students watch pre-recorded video instruction and do not interact during class. If none, enter 0. __________

Write in the number of traditional college courses you have already completed, with teacher and students actually present in the same classroom. If none, enter 0. __________

NOTE: We are interested in your ideas about the teaching you expect to receive in the distance learning course you are about to begin. Please read this paragraph carefully and answer the questions that follow:

Sometimes teachers communicate in certain ways in order to reduce the distance between themselves and their students. These behaviors are called immediate behaviors. For example, immediate teachers are likely to communicate at close distances, smile, engage in eye contact, use direct body orientations, use overall body movement and gestures, touch others, relax, and be vocally expressive. In other words, we might say that an immediate teacher is perceived as overtly friendly and warm.

INSTRUCTIONS: On the scales that follow, please indicate your reaction to each statement by circling one number on each of the scales that follow the statement. Circle a number in the direction of the word that best describes your response. If you are not sure about an item, circle “4”. Mark only one number for each scale. And please complete all the scales.

In your opinion, the teaching style in the distance learning course you are about to begin will probably be very immediate:

Agree 1 2 3 4 5 6 7 Disagree
False 1 2 3 4 5 6 7 True
Incorrect 1 2 3 4 5 6 7 Correct
Wrong 1 2 3 4 5 6 7 Right
Yes 1 2 3 4 5 6 7 No

TURN THE PAGE OVER AND CONTINUE ...
Please circle the number that corresponds to the word that best describes the teaching style you expect in the distance learning course you are about to begin.

Immediate 1 2 3 4 5 6 7 Not immediate
Cold 1 2 3 4 5 6 7 Warm
Unfriendly 1 2 3 4 5 6 7 Friendly
Close 1 2 3 4 5 6 7 Distant

NOTE: We are also interested in your ideas about the teaching you would receive if you took this same course in a traditional college setting, in which teacher and students are present in the same classroom.

INSTRUCTIONS: On the scales that follow, please indicate your reaction to each statement by circling one number on each of the scales that follow the statement. Circle a number in the direction of the word that best describes your response. If you are not sure about an item, circle "4". Mark only one number for each scale, and please complete all the scales.

You indicated above that you are about to begin a distance learning course. If you took this same course in a traditional college setting, in which teacher and students are present in the same classroom, the teaching style in the classroom would probably be very immediate.

Agree 1 2 3 4 5 6 7 Disagree
False 1 2 3 4 5 6 7 True
Incorrect 1 2 3 4 5 6 7 Correct
Wrong 1 2 3 4 5 6 7 Right
Yes 1 2 3 4 5 6 7 No

If you took this same course in a traditional college setting, in which teacher and students are present in the same classroom, circle the number that corresponds to the word that best describes the teaching style you would expect in the classroom.

Immediate 1 2 3 4 5 6 7 Not immediate
Cold 1 2 3 4 5 6 7 Warm
Unfriendly 1 2 3 4 5 6 7 Friendly
Close 1 2 3 4 5 6 7 Distant
APPENDIX D
Dear Possible Participant:

We are collecting data for research conducted by a graduate student. We are asking your permission to include your responses in this study. Your participation is completely voluntary, and your responses will be completely anonymous. The data will be analyzed in terms of means, correlations, etc. Because you cannot be identified in any way, your responses will be confidential. You may withdraw at any time without penalty or any effect whatsoever on your grade for the course.

This is a study about the expectations students have when they take college courses in either distance learning or a traditional classroom setting. You will be asked questions relating to your expectations for the course, observations of instructional techniques utilized during the semester, and your grades in the course. There will be two questionnaires, one before the course begins and another several weeks into the course. It will take about 5-10 minutes to complete each questionnaire.

If you choose not to participate, simply return the questionnaire to your instructor. If you have questions concerning the study, call Paul Witt at 214-946-8106.

THANK YOU.

This project has been reviewed and approved by the UNT Committee for the Protection of Human Subjects #17-865-3940.
PRE-COURSE QUESTIONNAIRE

Before you begin this questionnaire, copy your survey code on the front page of your textbook or syllabus. You may need this survey code later. YOUR SURVEY CODE IS _________. Copy this number now.

Write in your age: _________.

Indicate your sex (circle one): M  F

Write in the course prefix and number of the course you are about to begin (for example, ENGL 1301):

__________________________

Write in the title of the course you are about to begin (for example, Composition I):

__________________________

Write in the number of LIVE TV courses you have already completed, in which students interact with the teacher by telephone or microphone. If none, enter 0. ______

Write in the number of TELECOURSES you have already completed, in which students watch pre-recorded video instruction and do not interact during class. If none, enter 0. ______

Write in the number of traditional college courses you have already completed, with teacher and students actually present in the same classroom. If none, enter 0. ______

NOTE: We are interested in your ideas about the teaching you expect to receive in the course you are about to begin. Please read this paragraph carefully and answer the questions that follow:

Sometimes teachers communicate in certain ways in order to reduce the distance between themselves and their students. These behaviors are called immediate behaviors. For example, immediate teachers are likely to communicate at close distances, smile, engage in eye contact, use direct body orientations, use overall body movement and gestures, touch others, relax, and be vocally expressive. In other words, we might say that an immediate teacher is perceived as overtly friendly and warm.

INSTRUCTIONS: On the scales that follow, please indicate your reaction to each statement by circling one number on each of the scales that follow the statement. Circle a number in the direction of the word that best describes your response. If you are not sure about an item, circle "4". Mark only one number for each scale, and please complete all the scales.

In your opinion, the teaching style in the course you are about to begin will probably be very immediate.

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TURN THE PAGE OVER AND CONTINUE ...
Please circle the number that corresponds to the word that best describes the teaching style you expect in the course you are about to begin.

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</tbody>
</table>

NOTE: We are also interested in your ideas about the teaching you would receive if you took this same course as a televised distance learning course, in which teacher and students are separated geographically and interact through audio or video systems.

INSTRUCTIONS: On the scales that follow, please indicate your reaction to each statement by circling one number on each of the scales that follow the statement. Circle a number in the direction of the word that best describes your response. If you are not sure about an item, circle "4". Mark only one number for each scale, and please complete all the scales.

You indicated above that you are about to begin a classroom course. If you took this same course as a televised distance learning course, in which teacher and students are separated geographically and interact through audio or video systems, the teaching style in the distance learning course would probably be very immediate.

<table>
<thead>
<tr>
<th>Agree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>False</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>True</td>
</tr>
<tr>
<td>Incorrect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Correct</td>
</tr>
<tr>
<td>Wrong</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Right</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>No</td>
</tr>
</tbody>
</table>

If you took this same course as a televised distance learning course, in which teacher and students are separated geographically and interact through audio or video systems, circle the number that corresponds to the word that best describes the teaching style you would expect in the distance learning course.

<table>
<thead>
<tr>
<th>Immediate</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Not Immediate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Warm</td>
</tr>
<tr>
<td>Unfriendly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Friendly</td>
</tr>
<tr>
<td>Close</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Distant</td>
</tr>
</tbody>
</table>
DISTANCE LEARNING – MID-COURSE QUESTIONNAIRE

This is your Survey Code: ___________. If no code appears in this blank, write in the survey code from your pre-course questionnaire, which you copied onto the front page of your textbook or syllabus.

Write in the course prefix and number of the distance learning course you are currently taking (for example, ENGL 1301): ________________________________

Write in the title of the distance learning course you are currently taking (for example, Composition I):

Indicate the sex of the teacher of this distance learning course you are currently taking (circle one): M  F

Circle the number that best represents the overall course grade you have in this course at this time:

None yet F-  F  F+  D-  D  D+  C-  C  C+  B-  B  B+  A-  A  A+
0 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15

Circle the number that best represents the grade you received on your last major test in this class:

None yet F-  F  F+  D-  D  D+  C-  C  C+  B-  B  B+  A-  A  A+
0 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15

NOTE: We are interested in your ideas about the teaching you are receiving in the distance learning course you are currently taking. Please read this paragraph carefully and answer the questions that follow:

Sometimes teachers communicate in certain ways in order to reduce the distance between themselves and their students. These behaviors are called immediate behaviors. For example, immediate teachers are likely to communicate at close distances, smile, engage in eye contact, use direct body orientations, use overall body movement and gestures, touch others, relax, and be vocally expressive. In other words, we might say that an immediate teacher is perceived as overtly friendly and warm.

INSTRUCTIONS: On the scales that follow, please indicate your reaction to each statement by circling one number on each of the scales that follow the statement. Circle a number in the direction of the word that best describes your response. If you are not sure about an item, circle "4". Mark only one number for each scale, and please complete all the scales.

In your opinion, the teaching style in the distance learning course you are currently taking is very immediate.

<table>
<thead>
<tr>
<th>Agree</th>
<th>False</th>
<th>Incorrect</th>
<th>Wrong</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

Disagree  True  Correct  Right  No

Please circle the number that corresponds to the word that best describes the teaching style in the distance learning course you are currently taking.

<table>
<thead>
<tr>
<th>Immediate</th>
<th>Cold</th>
<th>Unfriendly</th>
<th>Close</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

Not immediate  Warm  Friendly  Distant
INSTRUCTIONS: Below is a series of things some teachers have been observed doing in some classes. Please respond to the items in terms of the distance learning course you are currently taking. For each item, circle the number that corresponds to how often these behaviors are being used in the teaching of the distance learning course you are currently taking. If more than one person teaches the course, indicate your overall impression of all the teaching. Mark only one number for each scale, and please complete all the scales.

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sits behind desk while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Gestures while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Uses monotone/dull voice when talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Looks at the class while talking.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Smiles at the class while talking.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Has a very tense body position while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Uses touch appropriately for this type of class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Moves around the classroom while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sits on a desk or in a chair while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Looks at board or notes while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Stands behind podium or desk while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Has a very relaxed body position while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Smiles at individual students in the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Uses a variety of vocal expressions when talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

INSTRUCTIONS: Following are some typical student reactions to courses they have taken. We are interested in your reaction to the distance learning course you are currently taking. Circle a number toward the end of the scale that best describes your judgment or evaluation of the distance learning course you are currently taking. If you are not sure about an item, circle "4". Mark only one number for each scale, and please complete all the scales.

Content/subject matter of this distance learning course:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>
| Bad        |   |   |   |   |   |   |   | Good
| Valuable   |   |   |   |   |   |   |   | Worthless
| Unfair     |   |   |   |   |   |   |   | Fair
| Negative   |   |   |   |   |   |   |   | Positive

The teaching you have received in this distance learning course:

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>
| Good       |   |   |   |   |   |   |   | Bad
| Worthless  |   |   |   |   |   |   |   | Valuable
| Fair       |   |   |   |   |   |   |   | Unfair
| Positive   |   |   |   |   |   |   |   | Negative

TURN THE PAGE OVER AND CONTINUE ...
Your likelihood of actually enrolling in another course taught by the same teacher(s) as this course you are currently taking, if your schedule so permits:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improbable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Likely

Your likelihood of actually enrolling in another course in the same subject as this course you are currently taking, if your schedule so permits:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improbable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Possible

Your likelihood of actually enrolling in another distance learning course, if your schedule so permits:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlikely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improbable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Likely

Behaviors (actions, practices, procedures, operations, methods, etc.) recommended in the distance learning course you are currently taking:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worthless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bad

In "real life" situations, your likelihood of actually using the behaviors (actions, practices, procedures, operations, methods, etc.) recommended in this distance learning course:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impossible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would Not</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unlikely

Possible

Probable

Would
APPENDIX F
This is your Survey Code: ________. If no code appears in this blank, write in the survey code from your pre-course questionnaire, which you copied onto the front page of your textbook or syllabus.

Write in the course prefix and number of the course you are currently taking (for example, ENGL 1301):

Write in the title of the course you are currently taking (for example, Composition I):

Indicate the sex of the teacher of this course you are currently taking (circle one): M  F

Circle the letter that best represents the overall course grade you have in this course at this time:

None yet  F-  F  F+  D-  D  D+  C-  C  C+  B-  B  B+  A-  A  A+

Circle the letter that best represents the grade you received on your last major test in this class:

None yet  F-  F  F+  D-  D  D+  C-  C  C+  B-  B  B+  A-  A  A+

NOTE: We are interested in your ideas about the teaching you are receiving in the course you are currently taking. Please read this paragraph carefully and answer the questions that follow:

Sometimes teachers communicate in certain ways in order to reduce the distance between themselves and their students. These behaviors are called immediate behaviors. For example, immediate teachers are likely to communicate at close distances, smile, engage in eye contact, use direct body orientations, use overall body movement and gestures, touch others, relax, and be vocally expressive. In other words, we might say that an immediate teacher is perceived as overtly friendly and warm.

INSTRUCTIONS: On the scales that follow, please indicate your reaction to each statement by circling one number on each of the scales that follow the statement. Circle a number in the direction of the word that best describes your response. If you are not sure about an item, circle "4." Mark only one number for each scale, and please complete all the scales.

In your opinion, the teaching style in the course you are currently taking is very immediate.

Agree  1  2  3  4  5  6  7  Disagree
False  1  2  3  4  5  6  7  True
Incorrect  1  2  3  4  5  6  7  Correct
Wrong  1  2  3  4  5  6  7  Right
Yes  1  2  3  4  5  6  7  No

Please circle the number that corresponds to the word that best describes the teaching style in the course you are currently taking:

Immediate  1  2  3  4  5  6  7  Not immediate
Cold  1  2  3  4  5  6  7  Warm
Unfriendly  1  2  3  4  5  6  7  Friendly
Close  1  2  3  4  5  6  7  Distant
INSTRUCTIONS: Below is a series of things some teachers have been observed doing in some classes. Please respond to the items in terms of the course you are currently taking. For each item, circle the number that corresponds to how often these behaviors are being used in the teaching of the course you are currently taking. If more than one person teaches the course, indicate your overall impression of all the teaching. Mark only one number for each scale, and please complete all the scales.

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sits behind desk while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Gestures while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Uses monotonous/hurt voice when talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Looks at the class while talking.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Smiles at the class while talking.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Has a very tense body position while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Uses touch appropriately for this type of class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Moves around the classroom while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sits on a desk or in a chair while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Looks at board or notes while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Stands behind podium or desk while teaching.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Has a very relaxed body position while talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Smiles at individual students in the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Uses a variety of vocal expressions when talking to the class.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

INSTRUCTIONS: Following are some typical student reactions to courses they have taken. We are interested in your reaction to the course you are currently taking. Circle a number toward the end of the scale that best describes your judgment or evaluation of the course you are currently taking. If you are not sure about an item, circle "4". Mark only one number for each scale, and please complete all the scales.

**Content/Subject matter of this course:**
- Bad: 1, 2, 3, 4, 5, 6, 7 → Good
- Valuable: 1, 2, 3, 4, 5, 6, 7 → Worthless
- Unfair: 1, 2, 3, 4, 5, 6, 7 → Fair
- Negative: 1, 2, 3, 4, 5, 6, 7 → Positive

**The teaching you have received in this course:**
- Good: 1, 2, 3, 4, 5, 6, 7 → Bad
- Worthless: 1, 2, 3, 4, 5, 6, 7 → Valuable
- Fair: 1, 2, 3, 4, 5, 6, 7 → Unfair
- Positive: 1, 2, 3, 4, 5, 6, 7 → Negative

TURN THE PAGE OVER AND CONTINUE ...
Your likelihood of actually enrolling in another course taught by the same teacher(s) as this course you are currently taking, if your schedule so permits:

<table>
<thead>
<tr>
<th>Unlikely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Impossible</td>
</tr>
<tr>
<td>Improbable</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
<td>7</td>
<td>Probable</td>
</tr>
<tr>
<td>Would</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>Would Not</td>
</tr>
</tbody>
</table>

Your likelihood of actually enrolling in another course in the same subject as this course you are currently taking, if your schedule so permits:

<table>
<thead>
<tr>
<th>Unlikely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<td>7</td>
<td>Would Not</td>
</tr>
</tbody>
</table>

Behaviors (actions, practices, procedures, operations, methods, etc.) recommended in the course you are currently taking:

| Good | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Bad |
| Worthless | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Valuable |
| Fair | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Unfair |
| Positive | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Negative |

In "real life" situations, your likelihood of actually using the behaviors (actions, practices, procedures, operations, methods, etc.) recommended in this course:

| Likely | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Unlikely |
| Impossible | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Possible |
| Probable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Improbable |
| Would Not | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Would |
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