THE RELATIONSHIP BETWEEN TEACHER IMMEDIACY AND STUDENT MOTIVATION

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Abstract

This descriptive correlational study examined the relationships between teacher immediacy and student motivation. Specifically, verbal and nonverbal independent variables were compared with dependent traits of expectancy-value and approach-avoidance motivation. Students self-reported perceived levels of instructor immediacy and self-rated their resulting motivation. The measures of verbal and nonverbal immediacy showed a substantial positive correlation with each other; nonverbal immediacy and expectancy-value evidenced a moderate association. In addition, approach showed a moderate positive correlation with avoidance. Results indicated immediacy does have an association with motivation, specifically nonverbal with expectancy-value. Students also indicated a difference in immediacy between professors and graduate students. These differences yield important insight into ways instructors can analyze and reflect on classroom communication methods. This study provides useful, descriptive data indicating the need and direction for future research.

Introduction

For years, researchers have been wrestling with traits of effective teachers (Brophy, 2004; Rosenshine & Furst, 1973). Often, effective teacher traits are linked with perceivably unchangeable constructs such as personality (Clayson, 1999). In teacher education, it is imperative professors continue to examine ways to identify important teacher traits and effectively prepare future teachers. Are there certain teacher qualities that can be developed through coursework or modeling? Perhaps teacher immediacy, linked directly with student motivation and learning, can provide insight into malleable qualities that positively enhance teacher effectiveness. The theoretical framework of this research will focus on immediacy theory, both verbal and nonverbal, and two elements of motivational theory: expectancy-value and approach-avoidance.

Theoretical Framework

The concept of immediacy is grounded in the Implicit Communication Theory

espoused by Mehrabian (1981). Simply stated, messages are transmitted via two types of communication: explicit and implicit. Explicit messages tend to carry the content; implicit communication conveys emotions and feelings (Butland & Beebe, 1992). Mehrabian (1981) defined implicit communication as the "…aspects of speech [that] are not dictated by correct grammar but are rather expressions of feelings and attitudes above and beyond the contents conveyed by speech" (p. 2). Hence, explicit messages are inherently verbal, while implicit refers to nonverbal communication. Both verbal and nonverbal communication behaviors have been united under the construct of immediacy (Witt, Wheeless, & Allen, 2004).

Originally developed by Albert Mehrabian (1969), immediacy was defined as communication behaviors that "enhance closeness to and nonverbal interaction with another" (p. 203). Immediacy has been linked to the motivational trait of approach-avoidance in that, "people approach what they like and avoid what they don't like" (Mehrabian, 1981, p. 22). Mehrabian (1981) and subsequent researchers (Christophel,

1990; Edwards & Edwards, 2001; Gorham, 1988) typically divide immediacy into two categories of communication: verbal and nonverbal.

In the past, various high-inference variables to teaching effectiveness have been identified (Hines, Cruickshank, & Kennedy, 1985; Rosenshine & Furst, 1973). However, high-inference variables, such as clarity and warmth, are difficult to assess and articulate to prospective teachers in a constructive, practical manner that lends itself to specific training and evaluation (Gorham, 1988). Consequently, immediacy researchers have attempted to develop a set of scales which can directly identify specific low-inference traits such as smiling, vocal expressiveness, and relaxed body position (Gorham). Once identified, specific low-inference immediacy variables can be directly taught to new and pre-service teachers for the purpose of improving the student-teacher relationship, student motivation, and cognitive learning (Christophel, 1990; Gorham).

Nonverbal Immediacy

Nonverbal immediacy is largely a relational language perceived to convey affective feelings of warmth, closeness, and belonging (Richmond, Gorham, & McCroskey, 1987). Nonverbal immediacy has been defined as the implicit use of closeness-inducing behavioral cues (Andersen, 1979). In 1981, Mehrabian stated,

> People rarely transmit implicitly [nonverbally] the kinds of complex information that they can convey with words; rather, implicit communication deals primarily with the transmission of information about feelings and like-dislike or attitudes. The referents of implicit behaviors, in other words, are emotions and attitudes or like-dislike. (p. 3)

The concept of nonverbal immediacy is based on the idea that teacher nonverbal behaviors will promote feelings of arousal, liking, pleasure, and dominance. These feelings are mediated through actions such as eye contact, body position, physical proximity, personal touch, and body movement (Richmond et al., 1987). In 1979, Andersen studied the effects of nonverbal immediacy on affective learning and concluded, "The more immediate a person is, the more likely he/she is to communicate at a close distance, smile, engage in eye contact, use direct body orientation, use overall body movement and gestures, touch others, relax, and be vocally expressive" (p. 548).

Nonverbal immediacy has been shown to increase student cognitive learning and information recall, affective learning, student perceptions of teacher effectiveness (Butland & Beebe, 1992), and when coupled with verbal immediacy, perceptions of teacher clarity (Powell & Harville, 1990).

Verbal Immediacy

Verbal teacher immediacy refers directly to stylistic verbal expressions used by teachers to develop within students a degree of like or dislike towards the teacher. Specific examples include syntactic expressions of present or past tense verbs, probability (will vs. may), ownership statements (my/our class), and inclusive references (we vs. I) (Rubin, Palmgreen, & Sypher, 1994).

Verbal immediacy has been shown to be highly correlated with nonverbal immediacy (Edwards & Edwards, 2001), and was associated with effective teaching (Gorham, 1988). Furthermore, verbal immediacy has shown relationships with student motivation, perceived cognition, and affective learning (Christophel, 1990) as well as increased student willingness to participate in and contribute to class discussions (Christensen, Curley, Marquez, & Menzel, 1995; Menzel & Carrell, 1999). Verbal immediacy, when applied to teaching, appears to increase student cognitive, affective, and behavioral learning (Christophel; Gorham; Gorham & Christophel, 1990; Plax, Kearney, McCroskey, & Richmond, 1987). The immediacy of teachers, combining both verbal and nonverbal constructs, appears to increase student liking for instructors, decrease student apprehension, and increase overall student liking for the course and subject matter (Butland & Beebe, 1992;

Rodriguez, Plax, & Kearney, 1996; Plax et al.).

In terms of teaching, verbal immediacy is most often expressed through the use of praise for student efforts, humor, self-disclosure, willingness to engage students in conversation, and overall openness and willingness to meet and interact with students (Edwards & Edwards, 2001; Gorham, 1988). In addition, verbal and nonverbal immediacy is based on approach-avoidance conflict and has been shown to increase student motivation.

Student motivation has been identified as a critical component to student success (Brophy, 2004; Deci, Vallerand, Pelletier, & Ryan, 1991). To be effective, teachers must understand and recognize their ability to either positively or negatively affect student motivation.

Motivation

At its foundation, teacher immediacy is based on elements of motivational theory (Gorham, 1988). For the purpose of this research, the behavioral approach-avoidance theory and the cognitive expectancy-value theory were considered.

Approach-avoidance, a component of the behavioral drive/reinforcement theory, has been used to describe immediacy as the manner in which students either seek out and feel comfortable interacting with a teacher, or avoid and are apprehensive of the instructor (Richmond et al., 1987; Weiner, 1992). Approach-avoidance occurs when both fear and hope are associated with the same action. For students, this action can take the form of a desire to attend classes for the hope of passing and graduating, yet fear of unknown course variables such as instructor attitudes and mannerisms (Weiner). The effect of such motivational conflict is often displayed in skipped classes and high dropout rates (Brophy, 2004).

Student approach-avoidance can be based on learned drives. As students become comfortable, familiar, and secure in classroom environments, the avoidance tendency of the students will be diminished (Christophel, 1990). It appears to be part of human nature to seek out and approach what is enjoyable, satisfying, and safe, while avoiding pain, discomfort, and threatening

situations (Weiner, 1992). Martin, Myers, and Mottet (1999) discovered that students tend to avoid interacting with instructors they perceived as uninterested or uncaring, particularly after repeated attempts to solicit help had produced disparaging results.

The second motivational theory considered in this research was expectancy-value. Expectancy-value theory is a social cognitive theory of motivation detailing the relationship between expectancies for success and value placed in a goal (Wigfield & Eccles, 2000). The expectancy-value relationship is a multiplicative association where a lack of either expectancy or value results in a product of zero (Hofer, 2006). When both expectancy for success and value are found in activities, the resulting product is effort investment. In a school setting, effort investment can be both intrinsically and socially derived (Brophy, 2004). Consequently, teachers need to develop an understanding of appropriate teacher behaviors which could enhance student motivation (Wigfield & Eccles). Weiner (1992) described goal aspects of expectancy-value as:

> What behavior is undertaken depends on the perceived likelihood that the behavior will lead to the goal and the subjective value of that goal. Hence the greater the belief that the goal will be attained and the higher the incentive value of that goal, the greater the motivational tendency to engage in the appropriate instrumental behavior. (p. 161)

Relating to instruction and teacher behaviors, students constantly weigh the expectancy of success in class with the value they attach to successful course completion. If teacher behaviors lead to decreased student expectancy for success, students will become disenchanted with the course and cognitively disengage. On the other hand, if teachers are able to increase student value in the course, students will be more apt to consciously and consistently work to master course concepts (Hofer, 2006).

Jere Brophy (2004), referring specifically to factors which increase student motivation, stated that teachers need to,

"Learn to use timing, nonverbal expressions and gestures, and cueing and other verbal techniques to project a level of intensity that tells students that material is especially important and deserves close attention" (p. 276). Teacher immediacy and motivation are closely tied constructs worthy of research.

Purpose and Research Questions

The purpose of this study was to examine the relationship between teacher immediacy and student motivation. In addition, individual immediacy differences based on instructor type, either professor or graduate student, were examined. The study was guided by two research questions.

1. What was the relationship between teacher immediacy and student motivation?
2. What was the difference between professor and graduate student verbal and nonverbal immediacy as perceived by students?

Methods

Population and Sample

The target population for this descriptive correlational study consisted of a census taken from a selected class of freshmen/sophomores enrolled in a college of agriculture course ($N = 41$). Therefore, the results are generalizable only to the respondents. This course was a requirement for all college of agricultural undergraduates and enrolled a wide variety of college and university majors.

Instrumentation

Each student was given the opportunity to complete four separate assessment instruments: the Immediacy Behaviors Instrument, both Verbal and Nonverbal, (Gorham, 1988; Richmond et al., 1987), Expectancy-Value Measurement (Tuckman, 2006) and Approach-Avoidance Instrument (Midgley et al., 1998). The Verbal Immediacy Behaviors (VIB) and Nonverbal Immediacy Behaviors (NIB) instrument consisted of 14 and 20 Likert-type questions, respectively, each ranging from 1 (Never) to 5 (Very Often).

In previous studies, the NIB instrument has shown summated reliabilities ranging from .73 to .89 (Christophel, 1990; Richmond et al., 1987). In the present study, the NIB showed a post hoc summated Cronbach's alpha reliability of .84.

The VIB instrument had previously attained alpha and split-half reliabilities ranging from .83 to .94 (Christophel, 1990). A post hoc Cronbach's alpha reliability of .89 was attained from the VIB instrument.

The Expectancy-Value Measurement contained seven Likert-type questions scaled from 1 (Unimportant) to 5 (Very important). The expectancy-value questionnaire contents were created based on Weiner (1992), Brophy (2004), and Hofer's (2006) concepts relating to the social cognitive theory of expectancy-value motivation (Tuckman, 2006). A panel of experts in agricultural education and motivational psychology was used to establish face and content validity of the expectancy-value motivational assessment. Because of the lack of an available pilot group, a post hoc Cronbach's alpha was performed, which yielded an internal reliability of .76.

The Approach-Avoidance Instrument contained five approach questions and six avoidance questions, all similarly scaled from 1 (Not at all true) to 5 (Very true). The approach-avoidance assessment was a pre-established instrument demonstrating existing reliabilities ranging from .62 to .84 (Midgley et al., 1998). A post hoc Cronbach's alpha of the reliabilities of the approach construct was .76, whereas the reliabilities of the avoidance construct was .88.

In addition to the four construct surveys, a demographic questionnaire was administered to determine type of instructor, faculty or graduate student, and participant and instructor gender. Results from this demographic survey were used to address the second research question.

Data Collection

Data was collected from a census of students enrolled in a selected college of agriculture undergraduate statistics course. The immediacy, motivational, and demographic questionnaires were administered during the middle of the

quarter, allowing adequate time for students to gain familiarity with the verbal and nonverbal manner of their instructors. In an effort to collect data from a wide range of classes and instructors, students were asked to complete the survey instruments based on the class they attended *immediately preceding* the class in which collection occurred. This design was chosen to maximize assessment scope and alleviate the instructor discomfort which may occur as a result of direct, individualized instructor assessment.

Data Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS v. 14.0). An alpha level of .05 was set *a priori*. Correlational analysis, using Davis' (1971) strength of association descriptives, was performed on summated means to address the relationship between teacher immediacy and motivation. In addition, based on instructor type, immediacy constructs and individual question means between professors and graduate students were compared and effect sizes measured.

Results/Findings

All major constructs were summated and correlated to determine possible relationships (Table 1). The significant Pearson correlations apparent in this study were between verbal and nonverbal immediacy (substantial $r = .598$, $p < .001$), approach and avoidance (moderate $r = .459$, $p = .003$) and nonverbal immediacy and expectancy-value (moderate $r = .371$, $p = .017$).

Table 1
Correlations Between Summated Constructs (N = 41)

	Nonverbal immediacy	Verbal immediacy	Approach	Avoidance	Expectancy-value
Nonverbal immediacy	-	.598(*)	-.072	-.049	.371(*)
Verbal immediacy		-	-.134	-.135	.227
Approach			-	.459(*)	.213
Avoidance				-	.054
Expectancy-value					-

* $p < 0.05$ (2-tailed).

To address the second research question, Cohen's *d* (1988) was used to compare means between immediacy constructs (verbal and nonverbal) and instructor types (professors and graduate students). The nonverbal mean for professors was 3.11 (*SD* = .67) and graduate instructors was 3.57 (*SD* = .70), yielding a moderate (*d* = .67) effect size. The verbal mean for professors was 2.74 (*SD* = .68) and graduate instructors was 3.54 (*SD* = .56), yielding a strong (*d* = 1.28) effect size.

To further examine the differences between instructor type (professors and graduate students) and verbal and nonverbal immediacy, Cohen's *d* (1988) was also used to measure the effect size of the individual question means. The 14 verbal immediacy statements were examined, and for the purposes of providing descriptive detail, those evidencing a moderate to strong effect size are displayed in Table 2. The 20 different individual nonverbal statement means were also analyzed for effect size. All nonverbal statements failed to demonstrate a strong (.8 and above) effect size. However, six questions yielded a moderate (.5 to .8) effect size. To provide further descriptive information, the questions yielding a moderate effect size are listed in Table 3.

Results/Interpretation

Results regarding the correlation between verbal and nonverbal immediacy were as expected. Previous research has indicated a similar substantial positive relationship and the overall question design supports a positive correlation (Witt et al., 2004). In this study, the association between verbal and nonverbal immediacy (*r* =.598) would fall in the category of a substantial correlation (Davis, 1971).

Research Question 1 addressed the relationship between teacher immediacy (verbal and nonverbal) and student motivation (approach-avoidance and expectancy-value). Results indicate a moderate positive association between approach and avoidance. Though this may seem intuitively perplexing, Weiner (1992) described an unusual relationship between approach and avoidance. As the tendency to

approach increased, the tendency to avoid also increased at an even steeper rate.

Weiner (1992, p. 89) stated, "This means that when one is a great distance from the goal, the dominant motivation often is that of approach and attraction. But as the goal is approached, feelings of fear may come to dominate overt expression." In this case, the measurement was perceived closeness to an instructor and not a specific distance from a set defined goal. Consequently, there may be confounding variables which affected the observed outcome. Weiner goes on to say,

> …in certain situations the gradient of approach may be steeper than that of avoidance. This should occur when the approach drive is learned and aroused by external stimuli, but the avoidance drive is based upon internal stimuli that do not vary as a function of distance from the goal. (p. 89)

The relationship between teacher behaviors and approach-avoidance is not mediated merely by drive. There are certain cognitive, internal elements that affect the student's decision to approach or avoid class. These unseen variables may contribute to the results observed in this study.

The results, when viewed in light of approach-avoidance theory appeared to be tenable. Both approach and avoidance increased at the same time. The measurement in this study did not address the strength (gradient) of increase. As a result, further research is needed to explore the actual rate of increase of approach and avoidance.

The resulting moderate correlation between nonverbal immediacy and expectancy-value indicates teachers' nonverbal communication is associated with student expectancy-value motivation. Teachers constantly communicate to students through body language, glances, gestures, and facial expressions. These communication behaviors, though often overlooked by the instructor, appear to transmit to students a motivational or de-motivational message. Expectancies for success appear to be created and enhanced through consistent, positive, supportive nonverbal communication.

Table 2

Comparison of Verbal Immediacy Mean Scores Between Type of Instructor (Professor or Graduate Student)

Verbal Immediacy Statements	Professor		Graduate		Effect size	
	M	*SD*	*M*	*SD*	Cohen's *d*	Descriptor
Asks questions or encourages students to talk	3.00	1.29	4.40	0.70	1.35	Strong
Is addressed by his/her first name by the students	2.29	1.40	4.00	1.33	1.25	Strong
Asks how students feel about an assignment, due date or discussion topics	2.26	1.37	3.70	1.06	1.18	Strong
Praises students' work, actions or comments	2.19	1.30	3.60	1.26	1.09	Strong
Asks questions that solicit viewpoints or opinions	2.38	1.21	3.70	1.25	1.07	Strong
Refers to class as "our" class or what "we" are doing	2.80	1.45	3.89	0.60	.98	Strong
Addresses students by name	2.45	1.63	3.80	1.23	.94	Strong
Invites students to telephone or meet with him/her outside of class if they have questions or want to discuss something	2.90	1.35	3.90	0.74	.92	Strong
Uses humor in class	2.48	1.12	3.60	1.51	.82	Strong
Provides feedback on my individual work through comments on papers, oral discussions, etc.	2.94	1.59	4.00	1.25	.74	Moderate
Gets into discussions based on something a student brings up even when this doesn't seem to be part of his/her lecture plan	2.48	1.34	3.50	1.43	.74	Moderate
Gets into conversations with individual students before or after class	2.68	1.22	3.40	1.07	.63	Moderate
Addresses me by name	2.32	1.54	3.20	1.48	.58	Moderate
Refers to class as "my" class or what "I" am doing[a]	4.30	0.84	3.89	0.60	.56	Moderate

Note. Item scoring reflected for analysis. Likert-type scale: 1 = never, 2 = rarely, 3 = occasionally, 4 = often, 5 = very often. Questions indicate moderate (.5 to .8) and strong (.8 and above) measures of effect size.

[a] Presumed to be non-immediate.

Table 3

Comparison of Nonverbal Immediacy Mean Scores Between Type of Instructor (professor or graduate student)

	Professor		Graduate		Effect size	
Nonverbal Immediacy Statements	*M*	*SD*	*M*	*SD*	Cohen's *d*	Descriptor
Smiles at the class while talking	3.06	1.29	4.00	1.05	.79	Moderate
Uses monotone/dull voice when talking to the class[a]	2.71	1.62	3.90	1.45	.78	Moderate
Smiles at individual students in the class	2.13	1.17	3.00	1.05	.78	Moderate
Has a very relaxed body position while talking to the class	3.35	1.31	4.10	0.88	.67	Moderate
Uses a variety of vocal expressions when talking to the class	2.61	1.36	3.50	1.35	.66	Moderate
Sits behind desk while teaching[a]	4.39	0.99	4.80	0.63	.50	Moderate

Note. Item scoring reflected for analysis. Likert-type scale: 1 = never, 2 = rarely, 3 = occasionally, 4 = often, 5 = very often. All items listed evidence a moderate (.5 to .8) effect size.
[a] Presumed to be non-immediate.

The significant correlations highlighted in this research are supported by the underlying cognitive theory of expectancy-value. Students estimate task difficulty based on instructor "signals," self-judge their own ability influenced by subtle instructor gestures or expressions, and create a subjective value for the course.

The lack of a significant correlation between verbal immediacy and expectancy-value ($r = .227$, $p = .154$) was surprising. It appears that Albert Mehrabian (1972) may have been correct when he indicated that around 55% of communication is nonverbal. The data in this study support the research of Mehrabian regarding the importance of nonverbal communication.

The second research question sought to examine the student perceived difference between professor and graduate student verbal and nonverbal immediacy. Individual differences appear to exist between instructor type. The data indicate effect size differences between professors and graduate students verbal and nonverbal immediacy. The graduate students in this study displayed greater levels of both verbal and nonverbal immediacy. The data are somewhat perplexing and should give rise to further research. However, it is important to note

the small number of participants ($N = 41$), and give consideration to personological and confounding variables not examined in this study. Many factors such as age, gender, class size, type of class (lecture, lab session), previous interaction with the instructor, and the course subject matter should be considered. Though the scope of this particular research precluded observation of all confounding variables, future research may be able to examine their possible interactions with immediacy and student motivation.

Conclusions

Based on this study, immediacy may not relate as closely as indicated by Mehrabian (1981) to approach-avoidance. Previous research, instead of administering specific approach-avoidance measures, seems to employ a more generic measurement of the general construct of motivation. Perhaps what is needed is an in-depth study to determine the specific association between immediacy and approach-avoidance.

The answer to research question one revealed expectancy-value is associated with instructor nonverbal communication. Therefore, instructors need to exercise care

and consistency in portraying positive, encouraging gestures and expressions. The process of identifying specific nonverbal communication mannerisms may be aided by videotaping selected lectures and reviewing them for possible demotivating nonverbal communication.

One theorist, John Atkinson (1957), actually merged the two constructs of approach-avoidance and expectancy-value, highlighting possible theoretical overlap. Atkinson believed that achievement behavior was the result of the conflict between approach-avoidance. Weiner (1992) described Atkinson's postulation by stating, "The strengths of these [possibility of success or failure] anticipated emotions determine whether an individual will approach or avoid achievement-oriented activities" (p. 181). It is quite possible these two constructs do overlap and thus influence research results. Further research needs to be conducted to more accurately determine the motivational overlap between approach-avoidance and expectancy-value.

The answer to the second research question should prompt instructors, both professors and graduate students, to reflect on their classroom communication. The specific questions and corresponding effect sizes, highlighted in the results, yield important clues as to students perceptions of instructor communication. Students will have a greater likelihood of emotionally and cognitively engaging in a course when the instructor demonstrates verbal and nonverbal immediacy.

Based on this research, it appears that the verbal and nonverbal behaviors of a course instructor may be related to certain aspects of student motivation. Although a multitude of other variables may affect the interactions between students and instructors, insight into simple low inference verbal and nonverbal communication, such as smiling, vocal expressiveness, and relaxed body position, allows instructors to give specific detailed thought to their instruction. Once identified, specific low-inference immediacy variables can be directly taught to new and pre-service teachers for the purpose of improving the student-teacher relationship, student motivation, and cognitive learning

(Christophel, 1990; Gorham, 1988). Teachers constantly communicate to students through body language, glances, gestures and facial expressions; therefore, instructors need to exercise care and consistency in portraying positive, encouraging gestures and expressions. Teacher educators specifically need to be aware of, communicate, and model elements of immediacy to teacher candidates. By praising student efforts, using humor in the classroom, encouraging students to talk, and being open and willing to interact with students outside the class, teacher educators can begin to model behaviors to candidates which will enable them to develop the closeness inducing skills of verbal and nonverbal immediacy.

As education continues to seek ways to motivate students, perhaps teacher preparation faculty should consider the effect of immediacy. All participants in the educational process should be encouraged to evaluate and reflect on their verbal and nonverbal communication methods. If instructors intend to facilitate an optimal classroom environment, they must send supportive, caring communication messages to all students. Further research needs to be conducted to highlight those specific components which contribute the most to immediacy and student motivation. Given enough time and research attention, immediacy behaviors can be identified which cultivate student motivation and positively enhance the learning of all students.

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