

ED 404 689

CS 509 439

AUTHOR Mottet, Timothy P.; Patterson, Brian R.  
TITLE A Conceptualization and Measure of Teacher Verbal Effectiveness.  
PUB DATE Nov 96  
NOTE 37p.; Paper presented at the Annual Meeting of the Speech Communication Association (82nd, San Diego, CA, November 23-26, 1997).  
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150) -- Tests/Evaluation Instruments (160)  
EDRS PRICE MF01/PC02 Plus Postage.  
DESCRIPTORS \*Classroom Communication; Communication Research; Factor Analysis; Higher Education; \*Nonverbal Communication; Questionnaires; Student Evaluation of Teacher Performance; Student Surveys; \*Teacher Behavior; \*Teacher Effectiveness; Undergraduate Students; \*Verbal Communication  
IDENTIFIERS \*Communication Behavior; \*Teacher Immediacy

## ABSTRACT

A study sought to better understand the construct of teacher verbal effectiveness. Teacher verbal effectiveness was theoretically conceptualized using certain variables: verbal immediacy, language intensity, self-disclosure, communication and accommodation, and humor. A scale was developed and factor analysis yielded a unidimensional teacher verbal effectiveness measure (TVEM) that contains four subscales. Subjects, 341 undergraduate students, were asked to indicate how often their teachers engaged in selected verbal communication behaviors using a 5-point scale; the 38-item measure includes verbal communication behaviors and examples of specific verbal messages that were generated from existing communication variables. The TVEM was found to have internal consistency as well as face and convergent validity. Results indicated that, although not all assessments of validity were obtained, some of the theoretical differences between teachers' verbal and nonverbal communication were revealed. Findings suggest that, contrary to the original suppositions that verbal effectiveness and nonverbal immediacy operate in the same way, they function in different ways. Future research needs to focus on the theoretical differences between nonverbal and verbal communication. (Contains 4 tables of data and 61 references; a sample survey form is appended.) (Author/CR)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

Running head: TEACHER VERBAL EFFECTIVENESS

A Conceptualization and Measure of Teacher Verbal Effectiveness

Timothy P. Mottet

Brian R. Patterson

West Virginia University

130 Armstrong Hall, P. O. Box 6293

Morgantown, WV 26506-6293

304-293-3905

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

☒ This document has been reproduced as  
received from the person or organization  
originating it.

☐ Minor changes have been made to  
improve reproduction quality.

• Points of view or opinions stated in this  
document do not necessarily represent  
official OERI position or policy.

PERMISSION TO REPRODUCE AND  
DISSEMINATE THIS MATERIAL  
HAS BEEN GRANTED BY

T. Mottet

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

## Abstract

This study sought to better understand the construct of teacher verbal effectiveness. Teacher verbal effectiveness was theoretically conceptualized using the following communication variables: verbal immediacy, language intensity, self-disclosure, communication accommodation, and humor. A scale was developed and factor analysis yielded a unidimensional teacher verbal effectiveness measure (TVEM) that contains four subscales. The TVEM was found to have internal consistency as well as face and convergent validity. Although not all assessments of validity were obtained, this study reveals some of the theoretical differences between teachers' verbal and nonverbal communication, and offers direction for future research.

### A Conceptualization and Measure of Teacher Verbal Effectiveness

Since the printing of "Nation at Risk" by the National Commission on Excellence in Education (1983), the talk of educational reform has monopolized much of the conversation among educators. A part of this reform focuses on the profession of teaching. The report specifically recommends that teachers demonstrate an aptitude and competence for teaching before entering the classroom. The function of teachers in educational systems is to create environments that enhance and yield desired learning outcomes. As instructional communication researchers, we are particularly interested in teacher communication behaviors and see improved communication as a possible intervention that will not only meet the suggested recommendation, but also enhance the learning environment.

"Teacher communication behavior" is an umbrella term for research that has received much attention in the instructional communication literature. From influencing student behavior via behavioral alteration techniques (Plax, Kearney, McCroskey, & Richmond, 1986) to gaining affinity for teacher and subject matter (Bell & Daly, 1984), effective teacher communication has been shown to enhance and augment learning. Within the educational setting, nonverbal immediacy research has yielded prescriptive behaviors that have been shown to increase teacher effectiveness (Andersen, 1979; Richmond, Gorham, & McCroskey, 1987). Additionally, certain types of verbal communication behavior have also been shown to increase teacher effectiveness such as teachers' use of humor (Scott, 1976; Linfield, 1977) and self-disclosure (Nussbaum & Scott, 1979). Research also shows award winning teachers using humor, self-disclosure, and narratives to facilitate learning in the classroom (Downs, Javidi, & Nussbaum, 1988).

The objective of this manuscript is to examine the concept of teacher verbal effectiveness. The question to be addressed here is what verbal behaviors can a teacher use or, more specifically, what can a teacher say that will augment, stimulate, and enhance learning. For the purposes of this manuscript, effectiveness will be dealt with in terms of communication's ability to influence learning. What do these behaviors sound like? And how do they influence student learning? In order to address these questions, this manuscript will advance two arguments. The first argument centers on the need for a measure of teacher verbal effectiveness that can be used as a tool for predicting learning outcomes and diagnosing instructors' verbal activities. The second argument focuses on the verbal communication variables that comprise the

proposed measure of teacher verbal effectiveness. These arguments will be explicated in the paragraphs that follow.

### Review of Literature

#### Prescriptive Communication Research

Research in instructional communication has yielded several categories of prescriptive communication behaviors that have not only been integrated into teacher training programs but have also become a permanent part of teachers' communication repertoires. Three programs of research that have yielded these types of prescriptive teacher communication behaviors include behavior alteration techniques, affinity-seeking strategies, and nonverbal immediacy. The following paragraphs briefly introduce each of these programs of research and their contributions to instructional communication.

Behavioral alteration techniques. In 1983, McCroskey and Richmond began a program of research that examined the relationship between teachers' use of power and student behavior and learning. The primary focus of this program of research was on teacher communication, power, and influence. Their research indicated that teachers perceive themselves as using more prosocial verbal behaviors than antisocial. Additional studies in this "Power in the Classroom" program of research (Plax, et al., 1986; Richmond, et al., 1987) indicated that teachers' use of prosocial behavior alteration techniques (BATs) were related to student affective learning with teacher immediacy serving as a mediating factor for learning. Teachers' use of prosocial BATs were also associated positively with cognitive learning, whereas the use of antisocial BATs were negatively related. This research has provided teachers with prescriptive verbal behaviors that gain student compliance. We obviously consider these verbal behaviors to be effective, but instead of the learning outcome being mediated through teacher immediacy, this study is interested in uncovering verbal behaviors that are more directly associated with affective and cognitive learning.

Affinity-seeking strategies. Affinity-seeking research generated communication strategies that cultivated affect and liking (McCroskey & Wheelless, 1976). Bell and Daly (1984) advanced affinity-seeking research by developing a typology of 25 affinity-seeking communication strategies that individuals employ in interpersonal relationships to create positive feelings of liking. This classification of communication behaviors included both verbal and nonverbal communication strategies.

Affinity-seeking research has generated prescriptive communication behaviors that have given teachers more options in how to build and cultivate affect and liking with students. Teachers have learned not only how to enhance their own affect, but also how to turn students on to the course content they teach. And more importantly, this increase in affect has also had a direct influence on student learning. It is likely that teacher verbal effectiveness will complement the affinity-seeking strategies by offering specific verbal behaviors that will arouse and motivate students to learn. Taken together, teacher verbal effectiveness may create "optimal affinity." Teachers' use of affinity-seeking strategies turn students on to learning, and teachers' use of verbal effective behaviors supply the stimulation and motivation for learning.

Nonverbal Immediacy. The immediacy construct was originally developed by Mehrabian (1971) and refers to the degree of perceived physical or psychological distance between people in a relationship. His research suggests that reducing distance, either by a reduction of physical proximity or by a reduction in psychological distance in a communication exchange, will increase affect for the source of communication (Mehrabian, 1971). These communication behaviors reflect liking and are perceived as being warm, active, inviting, approachable, dynamic, and engaging.

Andersen (1978) was the first to apply Mehrabian's immediacy construct to instructional communication. Andersen's seminal work detailed a theoretical explanation for the impact of immediacy on instruction. A part of this research effort was the design of an observable methodology for measuring teacher immediacy. In Andersen's (1978, 1979) studies of college students, teacher immediacy predicted 46% of the variance in students' affect toward the instructor, 20% of the variance in students' affect toward the content of the course, and 18% of the variance in students' behavioral commitment. Richmond, Gorham, and McCroskey (1987) suggest that across typical classrooms on the college level, perceived teacher nonverbal immediacy may account for a quarter to a third of the variance in students' cognitive learning. For a thorough review of the effects of immediacy in the instructional setting, readers are directed to Richmond and McCroskey (1992). An abridged version of this summary suggests that increased teacher immediacy results in increased student affect (affinity) for the teacher, subject matter, cognitive learning, and student motivation. Increased teacher immediacy also results in reduced student resistance to teachers'

influence attempts. Finally, research suggests that teachers can be taught to engage in more immediate communication behaviors (Richmond, et al., 1986).

As previously mentioned, much of the research has taken a holistic (both nonverbal and verbal) approach to the communication variable. In fact, little prescriptive research has been conducted on effective verbal communication. Much of this research has been descriptive in nature and has examined teacher verbal behaviors via a classification of such behaviors rather than predicting teacher-student interactions (Flander, 1973; Ober, Bentley, & Miller, 1971). Communication behaviors that have been shown to influence learning such as affinity-seeking and behavior alteration techniques are either not exclusively verbal as is the case with affinity-seeking, or learning is a byproduct of teacher nonverbal immediacy as is the case with behavior alteration techniques. An obvious question is What if the prescribed communication behavior is not exclusively verbal? We suggest two reasons for bifurcating the communication construct. Research in nonverbal immediacy has clearly demonstrated that low inference nonverbal behaviors such as direct eye contact, forward body leans, and gestures and bodily movement are detected by students. They have been shown to be predictors of student learning. Since nonverbal and verbal communication appear to be related, perhaps the verbal dimension of communication may have some of the same predictive power as the low inference nonverbal behaviors. Our second reason has to do with the current political climate. In an age of political correctness where many teachers and students are highly sensitive to language, perhaps it matters what we say in addition to how we say it? In order to avoid the common political correctness pitfalls, teachers have carefully, and we suggest consciously, modified their language in order to avoid these verbal traps. Perhaps teachers can modify their verbal communication in the same way to include verbal effectiveness strategies that have been shown to influence learning outcomes?

#### Verbal Immediacy Research

Mehrabian defines verbal immediacy as the "degree of directness and intensity of interaction between communicator and referent in a communicator's linguistic message" (1966, p. 28). Gorham (1988) conceptualized verbal immediacy as verbal communication behaviors which could influence perceptions of immediacy in an instructional setting. Her questionnaire for measuring students' perceptions of teacher verbal immediate behavior included: uses personal examples or talks about experiences she/he has had

outside of class, uses humor in class, addresses students by name, asks questions that solicit viewpoints or opinions, etc. Using this questionnaire along with the same affective and cognitive learning measures advanced in the nonverbal immediacy programmatic research, Gorham's measure of verbal immediacy was found to produce results very similar to those involving nonverbal immediacy. Gorham (1988) reported that the verbal immediacy items identified in her study were intuitively compatible with Mehrabian's (1971) approach-avoidance metaphor.

Although the Gorham measure of verbal immediacy was purported to measure verbal behaviors that reduce psychological distance between interactants, the validity of the verbal immediacy scale was challenged by Robinson and Richmond (1995). Their criticism centered on the items that comprised the scale. Students were asked to generate specific behaviors which characterized some of the best teachers they had been exposed to during their years in school. According to Robinson and Richmond, "[t]he product of this item-generation process was items representing verbally effective teacher behaviors, not necessarily verbally immediate behaviors. The face validity of the scale, therefore, is for a scale measuring teacher effectiveness, not a scale measuring teacher immediacy" (p. 81). The authors further recommended that the scale not be used until a stronger case for its validity could be established.

The success of the prescriptive research in instructional communication and its impact on student learning addresses the first argument which asks why a measure of teacher verbal effectiveness is needed. The literature reviews the significance of instructional communication research and its impact on learning outcomes. The review also reveals a paucity of research in teacher verbal effectiveness especially with the validity of the verbal immediacy measure being challenged and considered an invalid diagnostic measure.

#### Conceptualization of Teacher Verbal Effectiveness

The second argument that this manuscript addresses focuses on the verbal communication variables that comprise the various dimensions of the proposed measure. The following dimensions of teacher verbal effectiveness are an extension of existing verbal communication concepts and theories. The following paragraphs will advance an argument which suggests that teacher verbal effectiveness is likely composed of five behavioral categories including: verbal immediacy, language intensity, self-disclosure, communication accommodation, and humor. Each of these verbal communication variables have been



studied and have been shown to have predictive ability, however not all of them have been examined in an instructional context.

Verbal immediacy. Mehrabian and Wiener (1966) and Mehrabian (1967) characterize verbal immediacy as stylistic differences in linguistic expression from which like-dislike is inferred. Their research has generated a typology of stylistic differences including the following eight dimensions: distance, time, order of occurrence, mutuality, implied voluntarism, probability, conditionality, and responsibility. Using these categories of verbal immediacy, Mehrabian and Wiener concluded that when subjects are exposed to contrasting degrees of immediacy in pairs of statements, the more immediate statement of the pair is judged as expressing a greater degree of liking, positive evaluation, closeness, or preference towards the object of communication (Mehrabian, 1967; Mehrabian & Wiener, 1966). These findings suggest that receivers of communication may be able to infer a communicator's "real" or "actual" attitude or feeling via implicit verbal cues.

Assuming that receivers can detect degrees of verbal immediacy in everyday oral communication and Mehrabian supports this assertion (1967), and assuming that it works in a similar manner as nonverbal immediacy, then teachers can reduce psychological distance and/or increase perceptual stimulation among interactants in the classroom through stylistic variations in adjectives and inclusive pronouns.

Language intensity. Along with verbal immediacy, language intensity also appears to be a likely indicant of teacher verbal effectiveness. Although the bulk of this research centers on the effects of intense language on persuasion and attitude change (Bradac, Bowers, & Courtright, 1979; Bowers, 1964) it also has application in the instructional setting. We feel quality teaching is a rhetorical act that sometimes focuses on persuasion and attitude change. According to Bowers (1964), language intensity is defined as "the quality of language which indicates the degree to which the speaker's attitude toward a concept deviates from neutrality" (p. 345). Research suggests that speakers who use language that is considered intense, exhibit more emotion and utilize stronger expressions, opinionated language, vivid adjectives, and more metaphors than speakers whose language is less intense. Bowers (1964) tested a variety of language intense variables and offers the following categories of language intensity: number of syllables, obscurity of terms, presence of qualifiers, and metaphorical quality.

Although never tested in an instructional context, we do know that intense language affects attitude change and persuasion (Bradac, Bowers, & Courtright, 1979). And since teaching centers on the instructor's ability to influence, stimulate, and motivate students, we suggest that instructors who employ intense language in the classroom may be more effective in their teaching.

Self-disclosive statements. Self-disclosure is another communication variable that has a certain intuitive appeal and is likely to be an indicant of teacher verbal effectiveness. Self-disclosure has been conceptualized as any verbal message about the self that a person communicates to another (Cozby, 1973). Pearce and Sharp (1973) suggest that self-disclosure occurs "when one person voluntarily tells another person things about himself which the other person is unlikely to know or discover from another source" (p. 414). Self-disclosure has been reported to be highly related to attraction (Gilbert & Horenstein, 1975), intimacy (Taylor, 1968), trust (Wheless & Grotz, 1977), and interpersonal solidarity (Wheless, 1978).

The research that has been conducted on self-disclosure in the classroom suggests that it may be a valid indicant of teacher verbal effectiveness. Nussbaum and Scott (1979) found that teacher's self-disclosure was positively associated with the affective and behavioral domains of learning but negatively associated with the cognitive domain. Sorensen (1980) made the first attempt to extend the study of immediacy to include teacher self-disclosure. Her data revealed that 28% of the variance in ratings of teacher immediacy can be explained by self-disclosive statements.

The relationship between teacher self-disclosure and affective learning was advanced by Sorensen (1989). This study not only identified disclosive statements that students attributed to effective or ineffective teaching, but also determined whether these verbal statements were related to affective learning. The results indicated that teachers who use positively worded disclosures and sentiments that referred to caring were positively perceived by students. Sorensen's research also suggests that teachers who employ positively worded self-disclosive statements can expect an increase in students' affective learning in addition to increased student perceptions of teacher-student solidarity, and immediacy. Additionally, in Robinson and Richmond's (1995) criticism of Gorham's (1988) measure of verbal immediacy, teachers' self-disclosive statements were one of the few "verbally effective behaviors" to moderately correlate with a

measure of nonverbal immediacy. Gorham (1988) also found this particular behavior to contribute meaningfully to student-reported cognitive and affective learning.

Despite the paucity of research in teacher self-disclosure and its effectiveness, we predict that "appropriate" teacher self-disclosure in the classroom will influence perceptions of closeness, solidarity, and trust between student and teacher. And like verbal immediacy and language intensity, we see self-disclosure's ability to create a certain sense of community within the classroom as being another way of motivating and stimulating students.

Communication accommodation. In addition to verbal immediacy, language intensity, and self-disclosive statements, communication accommodation (specifically communication convergence) is another theoretical position that we argue needs to be included in a conceptualization of a teacher verbal effectiveness measure. This theory asserts that during communication, people try to adjust their style of speech to gain approval, increase communication efficiency, and maintain positive social identity (Giles, Mulac, Bradac, & Johnson, 1987). Although this theory is source centered in that it is the speaker who accommodates the receiver, we suggest that receivers who have been accommodated will in turn be more receptive and responsive to the speaker. In the instructional setting, a teacher who accommodates his or her students by using student language/argot will be perceived as being more audience centered than teachers whose language is perhaps more formal.

According to Giles et al. (1987), "communication convergence is likely to increase a speaker's attractiveness, his or her predictability, intelligibility, and interpersonal involvement in the eyes of the recipient" (p. 17). Speech convergence suggests that people find approval from others satisfying. The greater the need for social approval, the greater the tendency for speech convergence. Giles et al. report that in several instances, communication accommodation may be a scripted behavior. Individuals may "automatically" use a convergence script to make their communication appear more similar to others.

Arguably, speakers who accommodate their audience verbally will be perceived as being more verbally effective than those who diverge on this communication variable. The effectiveness of communication accommodation or convergence in this teacher verbal effectiveness conceptualization is receiver centered in that if an audience has been communicatively accommodated, then we suggest that

BEST COPY AVAILABLE

they will remain more responsive and receptive to the source of the communication. Much of this linguistic accommodation may be in the form of code switching or adapting to the audience's linguistic code. In an instructional setting, this may mean using informal language or argot that is common and familiar among students.

Humor. The final communication variable that we argue should be included as an indicant of teacher verbal effectiveness is humor. Humor tends to have a certain utility. When effectively and appropriately employed, it can accomplish a number of functions including putting others at ease, enhancing self-image, entertaining, and expressing goodwill to name just a few. Although somewhat controversial within the education literature, humor has been shown to have some predictive power. It has been shown to decrease social distance (Cosner, 1959) and to reduce conflict and enhance human relations (Bergler, 1956). Research on humor in the instructional context has also found humor to improve student perceptions of teachers (Scott, 1976), and to facilitate teacher/student rapport (Linfield, 1977). Gorham's (1988) prior immediacy research has indicated that students' perceptions of teachers' use of humor in the classroom is significantly related to students' perceptions of cognitive and affective learning. Gorham and Christophel (1990) examined the relationship of teachers' use of humor in the classroom to immediacy and student learning. Again, their research suggests that teachers' use of humor in the classroom is related to student learning and that the humor effect is mediated by both the quality of humor and overall teacher immediacy behaviors. Gorham and Christophel suggest that low immediate teachers may not benefit from increasing their use of humor and, conversely, high immediate teachers may experience "overkill" if they continue to increase their use of humor. Robinson and Richmond (1995) concur with Gorham (1988) that humor remains an effective verbal strategy and report that it was moderately correlated above .50 with a host of nonverbal immediacy behaviors.

Again we suggest that teachers who can effectively and "appropriately" tap into students' sense of humor while at the same time allowing students insight into their own sense of humor will facilitate teacher/student rapport. Additionally, the research concurs that it has an effect on student learning. For these reasons, we suggest that it be included as an indicant of teacher verbal effectiveness.

Prior research in verbal immediacy, language intensity, self-disclosure, communication convergence, and humor provides the theoretical foundation on which our conceptualization of the teacher verbal effectiveness measure (TVEM) is based. Taken together, these dimensions of teacher verbal effectiveness may allow instructional communication researchers the ability to prescribe verbal communication behaviors that influence student learning. We suggest that teacher verbal effectiveness may complement the existing prescriptive communication behavioral research by enhancing or "optimizing" behavioral alteration techniques, affinity-seeking strategies, and nonverbal immediacy. In other words, teacher verbal effectiveness may serve as a catalyst to augment the effect that these communication techniques and strategies have been shown to produce.

### Research Questions

As previously reported, this study is interested in operationalizing the teacher verbal effectiveness construct. Toward that end, a measure of teacher verbal effectiveness will be developed and validated. Our research questions center on the validity and reliability of the proposed measure. Specifically, our research questions are as follows:

RQ1: To what extent does the proposed teacher verbal effectiveness measure meet face, convergent, discriminant, and predictive assessments of validity?

RQ2: To what extent does the proposed teacher verbal effectiveness measure meet the internal consistency assessment of reliability?

### Method

#### Measure of Teacher Verbal Effectiveness

The measure of teacher verbal effectiveness is an other-report questionnaire that allows students to report teachers' verbal communication behaviors. (See Appendix A.) Using the TVEM, students were asked to indicate how often their teachers engage in selected verbal communication behaviors using a five point scale with 0 = never and 4 = always. The 38-item measure includes verbal communication behaviors and examples of specific verbal messages that were generated from existing communication variables including: verbal immediacy, language intensity, self-disclosive statements, communication accommodation, and humor.

### Assessment of Validity

In order to answer the first research question, four types of validity were assessed including: face, convergent, discriminate, and predictive.

Face validity. Face validity was assessed in the review of literature through a theoretical explanation for each of the communication variables that comprise the dimensions of the teacher verbal effectiveness measure.

Convergent validity. Convergent validity was assessed by correlating the results of the TVEM with Richmond, Gorham, and McCroskey's (1987) Nonverbal Immediacy Behaviors (NIB) instrument and a new scale that measures perceived psychological closeness (PPC). The NIB instrument assesses students' perceptions of a teacher's physical or psychological closeness by identifying such behaviors as eye contact, proximity, gestures, open-body position, and movement. Since many of the teacher verbal effectiveness dimensions appear to reduce psychological distance and some have even been moderately correlated with nonverbal immediacy in other related studies (Robinson & Richmond, 1995), we felt comfortable in assuming that teachers who were perceived to be nonverbally immediate would also be perceived to be more verbally effective. This scale has an estimated reliability ranging from .73 to .89 with the lower estimates reflecting data obtained from teacher self-reports and the higher reliability estimates reflecting students' reports of their teachers' immediacy behaviors.

The Perceived Psychological Closeness (PPC) scale debuted in this study and comprises six, seven-step bipolar scales that measure psychological closeness. This scale is anchored with the following descriptive word pairs; close/distant, near/far, approachable/unapproachable, unavailable/available, together with/separated from, and disconnected/connected. Knowing that the predictive power of the immediacy construct is dependent on its ability to reduce psychological distance between interactants, it was thought that the proposed teacher verbal effectiveness dimensions may interact in a similar way. Therefore, the TVEM should correlate positively with a measure of perceived psychological closeness.

Discriminant validity. In order to assess the discriminant validity of the TVEM, the scale was tested against Infante and Rancer's (1982) measure of verbal aggressiveness. In terms of its face validity, this discriminant measure is antithetical to the proposed measure of teacher verbal effectiveness in that it is

highly unlikely that students will perceive behavior that Infante defines as attacking other's self-concept in order to deliver psychological pain (Infante & Wigley, 1986) as being verbally effective. The original scale was a self-report measure that assessed one's verbal aggressive tendencies. In order to make this measure applicable to this study, the scale was slightly modified by changing pronouns to make it a self-report measure of other's perceived verbal aggressive tendencies. The scale is composed of 20 items which asks survey respondents to indicate how often each statement is true when their teachers try to influence other students. The original scale has a reliability of .86. It should be noted that use of a self-report scale for other-assessment is likely to produce lower correlations due to judgment error. We therefore expected moderate negative correlations.

Predictive validity. To assess the predictive validity of the TVEM, the McCroskey, Richmond, Plax, and Kearney (1985) measure of affective learning, and the Richmond, Gorham, and McCroskey (1987) measure of cognitive learning was used to assess this validity dimension. McCroskey et al's (1985) measure of affective learning comprises six dimensions including attitudes toward the course, its content, and the instructor in addition to three behavioral dimensions which assess respondents' likelihood of engaging in behaviors taught in the class, taking additional classes in the subject matter, and enrolling in another course with the same instructor. The attitude dimensions are measured using four, seven-step bipolar scales; good/bad, worthless/valuable, fair/unfair, and positive/negative. The three behavioral questions are similarly measured using four, seven-step bipolar scales; unlikely/likely, possible/impossible, improbable/probable, and would/would not. Alpha reliabilities for each of the measures is above .90. As an indication of general affect, the scale yields an alpha reliability of .94 when scores on all six dimensions are summed (McCroskey et al., 1985). In order to assess predictive validity regarding affective learning, a moderate to high correlation was expected.

Teacher verbal effectiveness' ability to predict cognitive learning was assessed using student perceptions of their own learning, an approach supported in previous research by Richmond et al. (1987) and Kelley and Gorham (1988). This measure asks respondents to respond to two questions related to learning: "On a scale of 0-9, how much did you learn in the class?" and "How much do you think you could have learned in the class if you had the ideal instructor?" By subtracting the score on the second scale from

the score on the first, a learning loss score is produced. This score adjusts for the type of course in question (i.e., required, elective, etc.) and attempts to separate teacher behavior from perceived value of subject area. We expected a moderate to high inverse relationship between the TVEM and the learning loss measure.

#### Assessment of Reliability

In order to answer the second research question, internal consistency was assessed using Cronbach's Alpha. Future research will assess the TVEM's test-retest reliability by testing a portion of the sample on two separate occasions.

#### Procedures

This study employed a convenience sample comprising 341 undergraduate students from a Mid-Atlantic university currently taking a communication studies course. A two-part questionnaire was group administered to participants in the classroom. Students were asked to answer all questions, which were related to perceptions of teacher verbal communication behaviors, based on the teacher they had in the class immediately preceding the current one. The first part of the questionnaire contained 38 self-report items which comprised the measure of teacher verbal effectiveness. The second part of the instrument contained five additional scales that allowed for an assessment of the various forms of validity including: Richmond, Gorham, and McCroskey's (1987) Nonverbal Immediacy Behaviors (NIB) instrument, Mottet and Patterson's Perceived Psychological Closeness (PPC) scale, Infante and Rancer's (1982) Measure of Verbal Aggressiveness, McCroskey, Richmond, Plax, and Kearney's (1985) measure of affective learning, and Richmond, Gorham, and McCroskey's (1987) measure of cognitive learning.

#### Analysis of the Data

The structure was examined through the use of initial principle components analysis. Item selection criteria included unrotated factor loadings of at least .50. Eigenvalues for all retained factors were greater than 1.00. Subsequent analyses consisted of both oblique and orthogonal rotations with the orthogonal providing an optimum fit based on primary loading criterion of .60 and secondary loadings no greater than .40. Convergent, discriminant, and predictive validity were addressed with Pearson product moment correlations.



## Results

### Pretest

In order to identify any procedural or obvious problems with the scale, a pretest was conducted using a sample of 53 undergraduates enrolled in an introductory communication theory course. The pretest revealed no procedural difficulties and provided a 20 minute maximum participation time. However, two items were found to be problematic with regard to the language intensity construct. The items were intended to act as opposites of intense language. Both were verbally neutral statements consisting of, “During class, how often does your teacher refer to objects, places, or events by saying such things as, ‘I think it's okay,’” and “During class, how often does your teacher refer to objects, places, or events by saying such things as, ‘It was an okay film’ or ‘I consider this piece of writing to be an okay piece of fiction.’” These two items produced moderate inverse correlations with the scale total ( $-.59$  and  $-.50$  respectively). According to previous work with language intensity, intense language consists of any language that deviates from neutrality, regardless of whether that deviation is positive or negative in character. The opposite of intensity then, should be a neutral statement. However, participants in the pilot study apparently did not view these items in the same way as they viewed the other items comprising the scale. As such, the items were deleted from the survey instrument in the main study.

### Assessments of Validity

Instrument structure and face validity. The remaining 38 items were submitted to principle components factor analysis. No rotation techniques were used in the initial examinations. Initial runs eliminated all items that did not load onto any factor at  $.50$  or greater. A total of three runs resulted in the deletion of 20 items. The remaining 18 items produced a four factor, unrotated solution. However, all items loaded most heavily on factor one. Additionally, the examination of the Scree plot showed a strong first factor (eigenvalue= $7.55$ ), followed by a sharp decline for factors two ( $1.78$ ), three ( $1.20$ ), and four ( $1.08$ ). This pattern suggests that the instrument is primarily unidimensional. As a result, the items were forced into a one factor, unrotated solution. All items loaded at  $.50$  or better. The retained items consisted of numbers 10, 11, 12, 14, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 33, 34, 35, and 36. Descriptive statistics can be viewed in Table 1.

-----  
 Insert Table 1 here.  
 -----

Next, the 18 items were rotated orthogonally to identify possible sub-dimensions within the instrument. This produced a four factor solution with eigenvalues of 3.81, 2.91, 2.56, and 2.34 respectively. The 60/40 criterion was then applied to the items. This resulted in the items grouping in the following manner: Factor 1=Items 17, 18, 24, 25, 26, 27, 28; Factor 2=Items 10, 11, 12, 14; Factor 3=Items 33, 34, 35, 36; and Factor 4=Items 19, 20, 21. Although Item 25 technically failed to meet the 60/40 criterion, it was retained after examination of the item in relation to the other items in the sub-dimension. Actual numeric values can be seen in Table 2.

-----  
 Insert Table 2 here.  
 -----

In terms of its structure, the 18 item Teacher Verbal Effectiveness Measure (TVEM) appears to assess a single aspect of teacher verbal behavior. Additionally, the TVEM appears to be represented by four factors. Examination of the items in Factor 1 suggests that they are related to teachers' use of humor. Factor 2 appears to represent teacher self disclosure. Teachers' use of intense language was captured by Factor 3 while Factor 4 was related to students' perceptions of communication accommodation based on popular culture references.

Convergent, discriminant, and predictive validity. Convergent, discriminant, and predictive validity were assessed using Pearson product moment correlations. Descriptive data are provide in Table 3. To assess convergent validity, the total TVEM score was correlated with the Nonverbal Immediacy Behaviors (NIB) instrument in addition to the Perceived Psychological Closeness (PPC) measure. As mentioned above, the PPC measure was designed for this study. It was designed to be unidimensional. A factor analysis was conducted and a single factor was produced from an unrotated matrix with all items loading at .70 or better. The correlation between the TVEM and NIB was .41 while the correlation between the TVEM and the PPC scale was .32. The TVEM was correlated with the Verbal Aggressiveness (VA)

scale in order to establish discriminant validity. The results indicate no relationship between the two measures ( $r=.02$ ). Predictive validity was assessed using two measures: affective and cognitive learning. The affective learning (AL) measure correlated with the TVEM at .17. Similarly, a cognitive learning loss (LL) score was correlated at -.11. Correlations for each of the subscales can be found in Table 4.

-----  
Insert Table 3 here.  
-----

-----  
Insert Table 4 here.  
-----

#### Assessment of Reliability

Internal consistency was assessed using a series of Cronbach's Alpha tests. The reliability for the initial 38 items was .90. After the deletion of the 20 marginal items, internal consistency rose to .92. The Humor subscale achieved internal consistency with seven items of .87. The Self Disclosure subscale yielded a four item reliability of .81. Intensity (4 items) and Accommodation (3 items) produced reliabilities of .81 and .85 respectively. Reliability for the validity assessment scales are as follows: PPC=.93, NIB=.87, VA=.87, and AL=.94. Since the Learning Loss measure consists of only two items, no reliability was computed.

#### Discussion

##### Nature of the Instrument

The purpose of this study was to operationalize teacher verbal effectiveness. What can a teacher say that will motivate and stimulate learning in students, and what do these verbal behaviors sound like have been two underlying questions that have been driving this research study. Due to the paucity of research in teacher verbal effectiveness and the lack of a diagnostic measure, a scale was developed to measure students' perceptions of teacher verbal effectiveness. This scale development is the first step toward what will hopefully become a line of research examining teacher verbal behaviors. The results from this study yielded a unidimensional scale that contains four subscales including humor, self-disclosure,

intensity, and accommodation. The 38-item measure is a self-report of students' perceptions of teachers' verbal effectiveness. When used, the scale can be either totaled for a meaningful aggregate score or can be totaled within the four subscales. With further refinement, this measure will allow instructional communication researchers the ability to advise teachers on global verbal behaviors that have been found to produce learning either directly or indirectly via some secondary agent such as immediacy and/or motivation. This measure contains not only effective verbal behaviors that have been explored in the literature such as humor and self-disclosure, but also some new verbal behaviors such as teachers' use of intense language and references to popular culture which have been explored less often in the instructional communication context. The research questions for this study were aimed at establishing the reliability and validity of the scale. Toward that end, the following paragraphs will address internal reliability, and face, convergent, discriminant, and predictive validity.

#### Assessment of Reliability

Although reliability of a scale is no guarantee of validity, without it a scale has little chance at validity. The data indicate that the TVEM is highly reliable in regards to internal consistency. As previously reported, the TVEM yielded an overall internal consistency of .92 with the four subscales averaging .84. As a function of the smaller number of items, reliability scores for the subscales were obviously somewhat lower than those for the total measure. Test-retest reliability has yet to be measured and will be addressed in future research.

#### Assessments of Validity

Face validity. The first test of the validity of any scale is face validity. Does it appear to measure the construct which it purports to measure? This scale of teacher verbal effectiveness was theoretically driven and was purported to contain five dimensions. These dimensions, as previously discussed in the review of literature, include verbal immediacy, language intensity, self-disclosure, communication accommodation, and humor. Because each of these verbal communication dimensions have a strong theoretical/research base and have been shown to be "effective" in terms of engaging, motivating, arousing, and stimulating receivers, they were included in this measure of teacher verbal effectiveness. When the items were subjected to an unrotated single dimension factor analysis after the initial item screening, the

items loaded onto a single factor revealing a unidimensional structure. In other words, students interpreted the verbal behaviors and statements as a single construct. This unidimensional construct coupled with its theoretical under girding is what we are advancing as an operationalization of teacher verbal effectiveness.

What perhaps is more interesting about the items comprising the scale, are the items that were not retained in the initial screening. All items pertaining to verbal immediacy were problematic. That is, none loaded onto any factor at greater than .50. Although the literature argues a strong case for their inclusion, students did not view such verbal behaviors as salient teacher behaviors. When the items were rotated orthogonally, the four remaining theoretical sub-dimensions emerged. The largest factor is clearly addressing teachers' sense and use of humor. It contains such items as "During class, how often does your teacher tell humorous stories such as 'You won't believe what happened to me this weekend,'" and "...engage in playful bantering with students by saying such things as 'Hey, don't quit your day job' and 'Stay out of jail this weekend.'" It should be noted that three other unexpected items loaded onto this factor. On their face, one can see how students interpreted such items as "...use light profanity such as 'What the hell,' or 'You know this really sucks,'" "...use slang such as 'Come on you guys,' 'Awesome,' 'Yo,' or 'Hey, whazup,'" and "...prefer to use such terms as 'rowdy' instead of 'tumultuous'" as indicators of teachers sense and use of humor. Originally, the former two items were thought to be indicators of communication accommodation and the latter item an indicator of intense language.

A second factor or sub-dimension of the TVEM is teachers' use of self-disclosure. This dimension contained four items including such verbal statements as "During class, how often does your teacher refer to his/her family by saying such things as 'My family is from. . .,' or 'My family is involved with. . .,'" "...refer to friends by saying such things as 'I have a friend who. . .,' or 'my friend and I went. . .,'" and "...refer to his/her leisure activity by saying such things as 'On weekends, I like to. . .,' or 'During summer break, I usually spend time. . .'"

The third factor was classified as language intensity since all four items were verbal statements that contained language that deviates from neutrality. This sub-dimension includes the following items: "During class, how often does your teacher refer to objects, places, or events, by saying such things as 'I love that. . .,' 'I hate that. . .,' 'That was the *best* film I have ever seen,' 'That was the *worst* film I have ever

seen,' 'I consider this piece of writing to be the *best* fiction I have read,' 'I consider this piece of writing to be the *worst* fiction I have read.'"

Accommodating students by referring to popular culture references they are familiar with was the fourth and final sub-dimension of the TVEM. Although the sub-dimension only contains three items, the items loaded uniformly on the factor. This sub-dimension includes the following items: "During class, how often does your teacher make references to popular films by saying such things as 'To illustrate my point, how many of you have seen the movie—Pulp Fiction,'" ". . .make references to popular music by saying such things as 'Nine Inch Nails is an example of what I mean,'" and ". . .make references to popular television programs by saying such things as 'I would like you to focus on the interpersonal relationships in *Melrose Place* for example.'" Each of these items on their face value are measuring what we are considering communication accommodation. In order for these items and many of the other items comprising this measure to remain valid, several of the verbal statements which accompany the verbal behaviors will need to be updated in order for the TVEM to remain current with popular culture as well as student argot, etc.

It should also be noted that all TVEM items had a rather restricted range of mean scores (See Table 3). Apparently teachers do not often engage in the verbal behaviors included in this measure. A possible reason for this may be that some teachers simply do not perceive their disciplines as being able to accommodate the verbal behaviors referred to in this measure, or the subject matter being taught does not allow for humor, self-disclosure, intense language, and communication accommodation. It is our belief that the verbal behaviors identified in this measure have a certain generic utility and are not discipline specific. The prescriptive implications for these verbal behaviors will be addressed in the "Implications for Use" section of this paper.

Convergent validity. Another assessment of validity is whether or not different measures of the same concept are correlated. Since other measures of teacher verbal effectiveness do not exist, convergent validity was measured using the Nonverbal Behaviors Instrument (NIB) which measures students' perceptions of teacher nonverbal immediacy. The TVEM was originally designed to contain verbally immediate behaviors patterned after the research of Mehrabian (1967, 1971) and Mehrabian and Wiener (1966). There has been an ongoing debate among instructional communication researchers as to whether or

not teacher verbal effectiveness and verbal immediacy are the same construct. From the initial factor analysis where all nine of the verbal immediate items failed to load onto a single factor, one can speculate that these two constructs are indeed different. Although the verbal immediate items were discovered to be problematic, it was speculated that the remaining teacher verbal effective behaviors that comprise the measure would influence students' teacher perceptions in a similar manner as nonverbally immediate behaviors. Nonverbal immediacy is grounded in the notion of reducing physical or psychological distance between interactants. As such, it is likely that teachers who appropriately self-disclose to their students and teachers who accommodate their students by referencing aspects of their culture/generation when teaching will be perceived as psychologically closer than teachers who do not engage in these verbal behaviors. Additionally, Robinson and Richmond (1995) found teachers' self-disclosive statements to be moderately correlated with the NIB.

The TVEM was found to be moderately correlated with the NIB instrument suggesting that teacher verbal effectiveness has a similar effect on student perceptions as nonverbal immediacy. Clearly however, they are not the same construct. In addition to the moderate correlation, the TVEM items and the NIB items were subjected to a principle components examination. The unrotated solution produced two clear factors. Factor 1 consisted of the items for the TVEM and Factor 2 was composed of the NIB items. Given this, the moderate correlation is not surprising and has implications for the tests of predictive validity as well. The TVEM also yielded a low correlation with a measure of perceived psychological closeness (PPC). Contrary to our original suppositions, that verbal effectiveness and nonverbal immediacy operate in the same way, it appears that they function in different ways.

Discriminant validity. Achieving discriminant validity is yet another way of evaluating the teacher verbal effectiveness construct. Unlike convergent validity, discriminant validity assesses what appears to be antithetical to the construct being measured. In this particular study, verbal aggressiveness was considered to be antithetical to teacher verbal effectiveness. Ideally, one would want an inverse correlation between the two measures. The correlation in this assessment, however, was nil. As previously indicated in the method section of this study, we were predicting only a low to moderate correlation as a result of a self-report scale being used to measure other-report. Another possible explanation for not obtaining an inverse correlation

may be the appropriateness of the verbal aggressive scale in the classroom context. Several subjects responded to this particular scale by either leaving some or all of the 20 items blank or by indicating "N/A" for each item. Additionally, several respondents made comments in the margins of the scale indicating that the behaviors depicted in the scale did not occur in the classroom. Future assessments of discriminant validity should utilize other antithetical constructs such as teacher misbehaviors (see Dolin, 1995).

Predictive validity. If a measure is to have any prescriptive utility, it should be able to predict future behavior. In order to evaluate this assessment of validity, the TVEM was correlated with both affective and cognitive learning. The correlations were disappointingly low. One explanation for this low correlation may be the result of nonverbal immediacy's potency. Recent studies by McCroskey, Fayer, Richmond, Sallinen, and Barraclough (in press) explore nonverbal immediacy's influence on both affective and cognitive learning in multi-cultural contexts. The data from these studies indicate that nonverbal immediacy continues to be a potent indicator accounting for 6-24% of the variance in affective learning and 13-35% of the variance in cognitive learning. As we suggested in the theoretical rationale for this measure, perhaps the TVEM's utility will not be in predicting learning directly, but may enhance learning via other variables such as student motivation and/or nonverbal immediacy creating an "optimal" immediacy effect. Future assessments of predictive validity should examine the TVEM with a measure of student motivation. Previous research suggests that the verbal dimensions that comprise this scale (Humor, Self-Disclosure, Language Intensity, Communication Accommodation) have all been purported to either stimulate, persuade, arouse, and/or reduce psychological distance with and between interactants. For these reasons, teacher verbal effectiveness may be a predictor of student motivation (see Christophel, 1990). As mentioned above, immediacy and verbal effectiveness while related, do not appear to operate in the same way.

While not damning, the convergent, discriminant, and predictive validity checks are less than conclusive. The assumption that verbal effectiveness and immediacy are part and parcel of the same construct appears to be spurious. In retrospect, our knowledge of the way in which verbal and nonverbal stimuli are cognitively processed, both in terms of outcomes and anatomy, suggests that they may impact



radically different aspects of learning. In order to address these issues, future efforts will have to create a different theoretical model based more exclusively on verbal processing.

#### Implications for Use

Although the TVEM validity assessments need further development, the results from this study offer three recommendations for instructional practices. The first of these suggestions would be for teachers to continue using appropriate humor and self-disclosure in the classroom. The data from this study confirm much of the instructional communication research involving teachers' use of these verbal behaviors. Students seem to be receptive to teachers who poke fun at themselves, engage in playful bantering with the class, and effectively fold into their teaching humorous jokes, narratives, and anecdotes. Students were also receptive to teachers use of argot and "light" profanity. Although teachers use of profanity in the classroom seems extremely antithetical to good teaching, we suggest that "light" profanity, which may be perceived as argot by students, may increase perceptions of homophily, and interpersonal attraction, and reduce psychological distance. Further research is of course needed with this verbal behavior before a sound recommendation can be offered. Additionally, teachers' use of appropriate self-disclosive statements seem to be considered an effective verbal behavior. Students are aware of teacher self-disclosure and seem to welcome this type of verbal behavior.

The second and third suggestions are novel with regard to previous research and include the verbal dimensions of communication accommodation and language intensity. Much of the communication accommodation literature refers to this variable in terms of adapting to others by altering rate, pauses, and utterances, and using certain forms of politeness, tag questions, and verbal intensifiers. In addition to converging and diverging on the vocalics and linguistic nuances in order to accommodate students, this study suggests that teachers can communicatively accommodate students through content. Integrating popular culture such as films, television, and music into class discussion and using popular culture references to illustrate concepts and ideas seemed to resonate with this sample of students.

Teachers' use of intense language was yet another verbal communication dimension that was theorized and supported by the data. To our knowledge, this communication variable has received little attention in the instructional context. Although only one form of language intensity was included in this

measure (qualified language), students in this sample seemed to identify language that deviated from neutrality in both directions (either positive or negative) as being an effective verbal behavior. As mentioned in the review of literature, we argue that intense language will not only stir students' emotions, but will stimulate and motivate students more so than less intense or "numb" verbal communication. This data tends to suggest that teachers need to be less restrained and cautious with their language. Students seem to be receptive to teachers who use language that clearly reflects their perspective or point of view. Because intense language can take on both positive and negative forms, an inconsistency surfaces regarding prior research. Sorensen (1989) examined teacher self-disclosive statements and found a difference between positively and negatively worded self-disclosive statements and sentiments on learning and student perceptions of teacher-student solidarity, and immediacy. We realize that self-disclosure and language intensity are different verbal communication behaviors, however more research is needed in order to clarify this particular dimension of the TVEM that on its face value appears a bit incongruent with effective teaching.

#### Directions for Future Research

The instructional prescriptions that came out of the research in nonverbal immediacy remain the driving force behind the development of this verbal measure. Nonverbal immediacy remains a consistent and potent predictor of learning. Based on the success of this line of research, we assumed that the other dimension of communication—verbal—might have some of the same predictive power. The data from this study suggest otherwise. Future research regarding teacher verbal effectiveness needs to focus on the theoretical differences between nonverbal and verbal communication. Unlike nonverbal communication which has been shown to be particularly effective in communicating affect, verbal communication, on the other hand, is more effective when the goal is to communicate thoughts or cognitions (Infante, Rancer, & Womack, 1993). Because verbal communication requires a higher level of cognitive processing than nonverbal communication, future assessments of validity regarding teacher verbal effectiveness and the TVEM should also consider correlational analysis using scales that measure verbal processing instead of nonverbal processing. Measures of memory, and selectivity including exposure, attention, perception, retention, and recall are possible verbal correlates to teacher verbal effectiveness.

Additionally, future research should examine the relationship between teacher verbal effectiveness and nonverbal immediacy. Perhaps teacher verbal effectiveness will not have the same predictive power as nonverbal immediacy, but will influence learning outcomes indirectly by "optimizing" the immediacy effect. Experimental research manipulating both teacher verbal effectiveness and nonverbal immediacy may uncover this interaction effect. Additional directions for future research other than what has already been offered throughout the discussion of the individual assessments of validity include an assessment of test-retest reliability, and a refinement of the measure by adding additional items to "beef up" some of the verbal dimensions especially those dealing with communication accommodation and language intensity.

The design and development of the Teacher Verbal Effectiveness Measure (TVEM) is a point of departure for better understanding the role of verbal communication in the instructional context. Although not all assessments of validity were met, face and convergent validity assessments were established. Future validity assessments should focus on discriminant and predictive validity using some of the recommendations suggested.

## References

- Amidon, E. J., & Giammateo, M. M. (1965). The verbal behavior of super teachers. Elementary School Journal, 65(5), 283-285.
- Andersen, J. F. (1978). The relationship between teacher immediacy and teaching effectiveness. Unpublished doctoral dissertation, West Virginia University, Morgantown, WV.
- Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. In D. Nimmo (Ed.), Communication Yearbook 3 (p. 543-559). New Brunswick, NJ: Transaction Books.
- Baird, A.C., & Knowler, F.H. (1957). General speech (2nd ed.). New York.
- Bell, R. A., & Daly, J. A. (1984). The affinity-seeking function of communication. Communication Monographs, 51, 91-115.
- Bergler, E. (1956). Laughter and the sense of humor. New York: Intercontinental Medical Books Corp.
- Bochner, A.P. (1982). On the efficacy of openness in close relationships. In M. Burgoon (Ed.), Communication Yearbook 5 (pp. 109-124). New Brunswick, NJ: Transaction Books.
- Bowers, J.W. (1964). Some correlates of language intensity. Quarterly Journal of Speech, 50, 415-420.
- Bradac, J.J., Bowers, J.W., & Courtright, J.A. (1979). Three language variables in communication research: Intensity, immediacy, and diversity. Human Communication Research, 5, 257-269.
- Caporael, L. R., Lukaszewski, M.P., & Culbertson, G. H. (1983). Secondary baby talk: Judgments by institutionalized elderly and their caregivers. Journal of Personality and Social Psychology, 44, 746-754.
- Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. Communication Education, 37, 323-340.
- Cosner, R. L. (1959). Some social functions of laughter: A study of humor in a hospital setting. Human Relations, 12, 171-182.
- Cozby, P. C. (1973). Self-disclosure: A literature review. Psychological Bulletin, 79, 73-91.

Dolin, D. J. (1995). Ain't misbehavin': A study of teacher misbehaviors, related communication behaviors, and student resistance. Unpublished doctoral dissertation, West Virginia University, Morgantown.

Downs, V. C., Javidi, M., & Nussbaum, J. F. (1988). An analysis of teachers' verbal communication within the college classroom: Use of humor, self-disclosure, and narratives. Communication Education, 37, 127-141.

Flanders, N. A. (1973). Basic teaching skills derived from a model of speaking and listening. Journal of Teacher Education, 24, 24-37.

Gilbert, S. J., & Horenstein, D. (1975). The communication of self-disclosure: Level versus valance. Human Communication Research, 1, 316-322.

Giles, H., Mulac, A., Bradac, J. J., & Johnson, P. (1987). Speech accommodation theory: The first decade and beyond. In M. McLaughlin (Ed.), Communication Yearbook 10 (pp. 13-48). Newbury Park, CA: Sage.

Giles, H., & Smith, P. M. (1979). Accommodation theory: Optimal levels of convergence. In H. Giles & R. St. Clair (Eds.), Language and Social Psychology (pp. 45-65). Oxford: Blackwell.

Gorham, J. (1984). The relationship between verbal teacher immediacy behaviors and student learning. Communication Education, 37, 40-53.

Gorham, J. (1988). The relationship between verbal teacher immediacy behavior and student learning. Communication Education, 37, 40-53.

Gorham, J., & Christophel, D.M. (1990). The relationship of teachers' use of humor in the classroom to immediacy and student learning. Communication Education, 39, 46-62.

Gorham, J., Kelley, D. H., & McCroskey, J. C. (1989). The affinity-seeking of classroom teachers: A second perspective. Communication Quarterly, 37, 16-26.

Infante, D., & Rancer, A. (1982). A conceptualization and measure of argumentativeness. Journal of Personality Assessment, 46, 72-78.

Infante, D., Rancer, A., & Womack, D. F. (1993). Building communication theory (2nd ed.). Prospect Heights, IL: Waveland Press, Inc.

- Infante, D., & Wigley, C. (1986). Verbal aggressiveness: An interpersonal model and measure. Communication Monographs, 53, 61-69.
- Kearney, P., Plax, T. G., Richmond, V. P., & McCroskey, J. C. (1985). Power in the classroom III: Teacher communication techniques and messages. Communication Education, 34, 19-28.
- Kelley, D. H., & Gorham, J. (1988). Effects of immediacy on recall of information. Communication Education, 37, 198-207.
- Linfield, E. G. (1977). The functions of humor in the classroom. In A. J. Chapman & H.C. Foot (Eds.), It's a funny thing, humor. Oxford: Pergamon Press.
- McCroskey, J. C., Fayer, J. M., Richmond, V. P., Sallinen, A., & Barraclough, R. A. (in press). A multi-cultural examination of the relationship between nonverbal immediacy and affective learning. Communication Quarterly.
- McCroskey, J. C., & McCroskey, L. L. (1986). The affinity-seeking of classroom teachers. Communication Research Reports, 3, 158-167.
- McCroskey, J. C., Richmond, V. P., Plax, T. G., & Kearney, P. (1985). Power in the classroom V: Behavior alteration techniques, communication training and learning. Communication Education, 34, 214-226.
- McCroskey, J. C., Sallinen, A., Fayer, J. M., Richmond, V. P., & Barraclough, R. A. (in press). Nonverbal immediacy and cognitive learning: A cross-cultural investigation. Communication Education.
- McCroskey, J. C., & Wheelless, L. R. (1976). Introduction to human communication. Boston, MA: Allyn and Bacon.
- Mehrabian, A. (1966). Attitudes in relations to the forms of communicator-object relationship in spoken communication. Journal of Personality, 34, 80-93.
- Mehrabian, A. (1966). Immediacy: A indicator of attitudes in linguistic communication. Journal of Personality, 34, 26-34.
- Mehrabian, A. (1967). Attitudes inferred from neutral verbal communication. Journal of Consulting Psychology, 31 (4), 414-417.

Mehrabian, A. (1968). Relationship of attitude to seated posture, orientation and distance. Journal of Personality and Social Psychology, 10, 26-30.

Mehrabian, A. (1971). Silent messages. Belmont, CA: Wadsworth Publishing Company, Inc.

Mehrabian, A., & Wiener, M. (1966). Non-immediacy between communicator and object of communication in a verbal message: Application to the inference of attitudes. Journal of Consulting Psychology, 30, 420-425.

National Commission on Excellence in Education. (1983). A nation at risk: National commission on excellence in education. Washington, DC: U.S. Government Printing Office.

Nussbaum, J. F. (1992). Effective teacher behaviors. Communication Education, 41, 167-180.

Nussbaum, J., & Scott, M. D. (1979). The relationship among communicator style, perceived self-disclosure, and classroom learning. In D. Nimmo (Ed.), Communication Yearbook 3. New Brunswick, NJ: Transaction-International Communication Association.

Ober, R. L., Bentley, E. L., & Miller, E. (1971). Systematic observation of teaching. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Parks, M. (1982). Ideology in interpersonal communication: Off the couch and into the world. In M. Burgoon (Ed.), Communication Yearbook 5 (pp. 79-103). New Brunswick, NJ: Transaction Books.

Pearce, W. B., & Sharp, S. M. (1973). Self-disclosing communication. Journal of Communication, 23, 409-425.

Plax, T. G., Kearney, P., McCroskey, J. C., & Richmond, V. P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy and affective learning. Communication Education, 35, 43-55.

Richmond, V.P., Gorham, J. S. & McCroskey, J.C. (1987). The relationship between selected immediacy behaviors and cognitive learning. Communication Yearbook, 10, 574-590.

Richmond, V. P., & McCroskey, J. C. (1992). Power in the classroom. Hillsdale, NJ: Lawrence Erlbaum Associates.

Richmond, V. P., McCroskey, J. C., Plax, T. G., & Kearney, P. (1986). Teacher nonverbal immediacy training and student affect. World Communication, 15, 181-194.

Robinson, R. Y., & Richmond, V. P. (1995). Validity of the Verbal Immediacy Scale.

Communication Research Reports, 12 (1), 80-84.

Richmond, V. P., McCroskey, J. C., Kearney, P., & Plax, T. G. (1987). Power in the classroom VII: Linking behavior alteration techniques to cognitive learning. Communication Education, 36, 1-12.

Scott, T. M. (1976). Humor in teaching. Journal of Physical Education and Recreation, 7, 10.

Solmsen, F. (Ed.). (1954). The rhetoric and the poetics of Aristotle. New York: Random House.

Sorensen, G. A. (1980). The relationship between teachers' self-disclosive statements and student learning. Unpublished doctoral dissertation, West Virginia University, Morgantown.

Sorensen, G. A. (1989). The relationships among teachers' self-disclosive statements, students' perceptions, and affective learning. Communication Education, 38, 257-276.

Taylor, D. A. (1968). The development of interpersonal relationships: Social penetration processes. Journal of Social Psychology, 75, 79-90.

Wheless, L. R. (1976). Self-disclosure and interpersonal solidarity: Measurement, validation, and relationships. Human Communication Research, 3, 47-61.

Wheless, L. R. (1978). A follow-up study of the relationships among trust, disclosure, and interpersonal solidarity. Human Communication Research, 4, 143-157.

Wheless, L. R. & Grotz, J. (1977). The measurement of trust and its relationship to self-disclosure. Human Communication Research, 3, 250-257.

Wiener, M. & Mehrabian, A. (1968). Language within language: Immediacy, a channel in verbal communication. New York: Appleton-Century-Crofts.



Table 1: Means, Standard Deviations, and Ranges for TVEM items

<u>Item Number</u>	<u>Mean</u>	<u>SD</u>	<u>Min.</u>	<u>Max.</u>
Item 10	1.78	1.38	0	4
Item 11	1.88	1.37	0	4
Item 12	1.88	1.30	0	4
Item 14	1.48	1.29	0	4
Item 17	0.98	1.21	0	4
Item 18	1.23	1.35	0	4
Item 19	1.36	1.32	0	4
Item 20	0.88	1.18	0	4
Item 21	1.10	1.23	0	4
Item 24	0.96	1.25	0	4
Item 25	1.39	1.36	0	4
Item 26	1.11	1.24	0	4
Item 27	1.01	1.29	0	4
Item 28	1.38	1.30	0	4
Item 33	1.49	1.19	0	4
Item 34	0.97	1.02	0	4
Item 35	1.33	1.23	0	4
Item 36	0.99	1.08	0	4

Table 2: Orthogonal Factor Analysis of Final 18 Items of the Teacher Verbal Effectiveness Measure.

<u>Item Number</u>	<u>Rotated Factor Pattern</u>			
	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>	<u>Factor 4</u>
Item 10	.14	<u>.78</u>	.07	.14
Item 11	.10	<u>.82</u>	.12	.12
Item 12	.07	<u>.73</u>	.16	.11
Item 14	.28	<u>.62</u>	.28	.22
Item 17	<u>.71</u>	-.02	.11	.16
Item 18	<u>.65</u>	-.01	.17	.35
Item 19	.24	.26	.21	<u>.76</u>
Item 20	.28	.13	.21	<u>.80</u>
Item 21	.34	.22	.17	<u>.77</u>
Item 24	<u>.64</u>	.27	.17	.28
Item 25	<u>.63</u>	.42	.24	.10
Item 26	<u>.73</u>	.18	.19	.10
Item 27	<u>.74</u>	.21	.19	.14
Item 28	<u>.62</u>	.11	.23	.23
Item 33	.26	.36	<u>.60</u>	.09
Item 34	.33	.05	<u>.71</u>	.21
Item 35	.14	.27	<u>.77</u>	.15
Item 36	.21	.10	<u>.78</u>	.19

Table 3: Descriptive Statistics for Validity Assessments.

<u>Scale</u>	<u>Mean</u>	<u>SD</u>	<u>Min.</u>	<u>Max.</u>
TVEM	23.18	14.56	0	63
Humor	8.04	6.72	0	28
Self Disclosure	7.02	4.27	0	16
Intensity	4.79	3.61	0	16
Accommodation	3.35	3.28	0	12
PPC	26.94	8.86	6	42
VA	42.91	12.72	20	77
NIB	27.95	8.06	4	40
AL	128.07	27.49	38	162
LL	1.31	1.56	0	8

Table 4: Correlations for TVEM Subscales and Validity Assessment Scales.

	<u>Humor</u>	<u>Self Disclosure</u>	<u>Intensity</u>	<u>Accommodation</u>
<u>PPC</u>	<u>.30</u>	<u>.26</u>	<u>.21</u>	<u>.21</u>
<u>VA</u>	<u>.08</u>	<u>-.02</u>	<u>.02</u>	<u>-.03</u>
<u>NIB</u>	<u>.38</u>	<u>.30</u>	<u>.34</u>	<u>.29</u>
<u>AL</u>	<u>.13</u>	<u>.23</u>	<u>.06</u>	<u>.11</u>
<u>LL</u>	<u>-.11</u>	<u>-.08</u>	<u>-.03</u>	<u>-.08</u>

## Appendix A

**Instructions:** Below is a series of descriptions of things some teachers have been heard saying in some classes. Please respond to the items in terms of the class you take immediately preceding this class. For each item, please indicate on a scale of 0-4 how often your teacher in that class engages in the following verbal behaviors. Use this scale:

**0= never 1=rarely 2=occasionally 3=often 4=very often**

During class, how often does your teacher . . .

- \_\_\_\_\_ 1. refer to your fellow students by their correct name/nickname.
- \_\_\_\_\_ 2. refer to you by your correct name/nickname.
- \_\_\_\_\_ 3. remind you that he/she prefers to be called by his/her title (i.e., Doctor, Professor).
- \_\_\_\_\_ 4. refer to class as "my" class.
- \_\_\_\_\_ 5. refer to class as "our" class.
- \_\_\_\_\_ 6. refer to what "we" are doing.
- \_\_\_\_\_ 7. refer to what "I" am doing.
- \_\_\_\_\_ 8. refer to others as "those" people.
- \_\_\_\_\_ 9. refer to others as "these" people.
- \_\_\_\_\_ 10. refer to his/her family by saying such things as "My family is from. . ." or "My family is involved with. . ."
- \_\_\_\_\_ 11. refer to his/her friends by saying such things as "I have a friend who. . ." or "my friend and I went. . ."
- \_\_\_\_\_ 12. refer to his/her education by saying such things as "When I was in school, I studied. . ."
- \_\_\_\_\_ 13. refer to his/her professional work experience outside of teaching by saying such things as "When I worked for. . ." or "In my role as a manager, I. . ."
- \_\_\_\_\_ 14. refer to his/her leisure activity by saying such things as "On the weekends, I like to . . ." or "During the summer break, I usually spend time. . ."
- \_\_\_\_\_ 15. refer to his/her opinions by saying such things as "In my opinion, I feel. . ."
- \_\_\_\_\_ 16. refer to his/her beliefs by saying such things as "It is my belief that. . ."
- \_\_\_\_\_ 17. use light profanity such as "What the hell," or "You know, this really sucks."
- \_\_\_\_\_ 18. use slang such as "Been there, done that," "Awesome," or "Hey, whazup?"

0= never 1=rarely 2=occasionally 3=often 4=very often

During class, how often does your teacher . . .

- \_\_\_ 19. make references to popular films by saying such things as "To illustrate my point, how many of you have seen the movie—Pulp Fiction?"
- \_\_\_ 20. make references to popular music by saying such things as "Nine Inch Nails is an example of what I mean."
- \_\_\_ 21. make references to popular television programs by saying such things as "I would like you to focus on the interpersonal relationships in Melrose Place for example."
- \_\_\_ 22. tell you how this course will help you by saying such things as "In the future, you will be able to use this information in the following ways. . ."
- \_\_\_ 23. create common ground by saying such things as "You know, we all have a lot in common in that we are all. . ."
- \_\_\_ 24. tell jokes such as "Did you hear the one about. . ."
- \_\_\_ 25. tell humorous stories such as "You won't believe what happened to me the other day."
- \_\_\_ 26. poke fun at himself/herself by saying such things as "You know, I can be such a geek at times."
- \_\_\_ 27. engage in playful bantering with students by saying such things as "Hey, don't quit your day job" or "Stay out of jail this weekend."
- \_\_\_ 28. prefer to use such terms as "rowdy," instead of "tumultuous."
- \_\_\_ 29. prefer to use such terms as "ameliorate" instead of "improve."
- \_\_\_ 30. prefer to use such terms as "panegyric" instead of "tribute."
- \_\_\_ 31. respond to student contributions regarding non-factual information by saying such things as "You are absolutely right," or "That's a great idea."
- \_\_\_ 32. respond to student contributions regarding non-factual information by saying such things as "You're dead wrong about that," or "That's a terrible idea."
- \_\_\_ 33. refer to objects, places, or events by saying such things as "I love that . . ."

0= never 1=rarely 2=occasionally 3=often 4=very often

During class, how often does your teacher . . .

- \_\_\_\_\_ 34. refer to objects, places, or events by saying such things as "I hate that . . ."
- \_\_\_\_\_ 35. refer to objects, places, or events by saying such things as "That was the best film I have seen. . . ." or "I consider this piece of writing to be the best fiction I have read."
- \_\_\_\_\_ 36. refer to objects, places, or events by saying such things as "That was the worst film I have seen. . . ." or "I consider this piece of writing to be the worst fiction I have read."
- \_\_\_\_\_ 37. refer to key scholars in the field of study by saying such things as "pimps," "prostitutes," or "whores."
- \_\_\_\_\_ 38. refer to key scholars in the field of study by saying such things as "deadly," "lethal," or "morbid."



**U.S. Department of Education**  
Office of Educational Research and Improvement (OERI)  
Educational Resources Information Center (ERIC)



## REPRODUCTION RELEASE

(Specific Document)

### I. DOCUMENT IDENTIFICATION:

<b>Title:</b> Paper presented at the Annual Meeting of the Speech Communication Association (1996) <i>"Conceptualization &amp; Measure of Teacher Verbal Effectiveness"</i>	
<b>Author(s):</b> * <i>Timothy P. Motet</i>	
<b>Corporate Source:</b>	<b>Publication Date:</b>

### II. REPRODUCTION RELEASE: \* One author's signature is sufficient.

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic/optical media, and sold through the ERIC Document Reproduction Service (EDRS) or other ERIC vendors. Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following two options and sign at the bottom of the page.



**Check here  
For Level 1 Release:**  
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical) and paper copy.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

The sample sticker shown below will be affixed to all Level 2 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2



**Check here  
For Level 2 Release:**  
Permitting reproduction in microfiche (4" x 6" film) or other ERIC archival media (e.g., electronic or optical), but not in paper copy.

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but neither box is checked, documents will be processed at Level 1.

*"I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic/optical media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries."*

**Sign  
here→  
please**

<b>Signature:</b> <i>Timothy P. Motet</i>	<b>Printed Name/Position/Title:</b> TIMOTHY P. MOTET / DOCTORAL STUDENT	
<b>Organization/Address:</b> West Virginia U. 130 Armstrong Hall Morgantown, WJ 26506	<b>Telephone:</b> 304.296.8452	<b>FAX:</b>
	<b>E-Mail Address:</b> TMOTET@WVU.EDU	<b>Date:</b> 3.21.96

### III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

### IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

### V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:	<i>Acquisitions</i> ERIC/REC 2805 E. Tenth Street Smith Research Center, 150 Indiana University Bloomington, IN 47408
---	--

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

~~ERIC Processing and Reference Facility~~  
~~1100 West Street, 2d Floor~~  
~~Laurel, Maryland 20707-3598~~

~~Telephone: 301-497-4080~~

~~Toll Free: 800-799-3742~~

~~FAX: 301-953-0263~~

~~e-mail: ericfac@inet.ed.gov~~

~~WWW: <http://ericfac.piccard.cso.com>~~