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J. Jeffery Auer, Editor

WORLD COMMUNICATION ASSOCIATION
Ronald L. Applbaum, Secretary General
Pan American University, AB320
Edinburg, TX 78539, U.S.A.

TEACHER NONVERBAL IMMEDIACY TRAINING
AND STUDENT AFFECT

VIRGINIA P. RICHMOND, JAMES C. MCCROSKEY,
TIMOTHY G. PLAX, AND PATRICIA KEARNEY

Previous research has indicated a strong association between student perceptions of teacher immediacy and student affect toward instruction. It has also been found that teacher nonverbal behavior in the classroom can be altered by training. The present study investigated the impact of teacher training in nonverbal communication and immediacy on the affective learning of students. Results indicated students of teachers receiving such training perceived their teachers as more immediate and reported higher affect toward instruction than students of teachers not receiving training.

For decades teacher educators have studied the classroom environment to determine why some teachers are consistently more effective at getting students to learn than others. Researchers and practitioners alike have pointed to several factors which impact teacher effectiveness. Rupley and Chevrette (1982) in their review of research in effective classroom instruction conclude that "the results of recent teacher effectiveness research are pointing to the same information time and again" (p. 73). They suggest the organized

Virginia P. Richmond is Associate Professor, James McCroskey is Professor, West Virginia University, Morgantown, WV 26506; Timothy C. Plax is Human Research Adviser, Rockwell International, Sacramento, CA 95864; Patricia Kearney is Associate Professor, California State University, Sacramento CA 95819 USA.

teacher who provides appropriate activities, the teacher who has control over his/her classroom, and the teacher with a definite plan of teaching are seen as effective teachers.

Other educational researchers have suggested that teacher effectiveness may vary from level to level. In other words, what makes one teacher effective at one grade level might make another teacher ineffective at another level. Brophy (1979a,b) suggests types of teacher behaviors that are related positively to learning at all levels. In his lists he includes variables such as: teacher organization; working individually with students; organized calling on students; appropriate waiting time for a student to answer a question; if a student does not answer, probing to see if the student knows the answer but cannot explain it or say it; moderate praise; consistent criticism; and effective classroom management. Besides the above characteristics of teacher behaviors that contribute to the effective teacher he suggests, as do many other teacher educators, that the affective component needs to be explored because of its potential impact on student learning.

In the field of communication many researchers have been studying the impact of teacher effectiveness on student learning and behavior (Andersen, 1979; Kearney & McCroskey, 1980; Norton 1977; Nussbaum & Scott, 1979; Powell & Arthur, 1985; McCroskey & Richmond, 1983; Richmond & McCroskey, 1984; and Wheelless & Hurt, 1979). These researchers have been concerned with communication variables which impact student learning. Most of the focus in the past few years in communication in instruction has been on affective learning. This component is seen as the one that often determines whether or not the student is willing to learn and likes learning. In Krathwohl, Bloom and Masia's (1964) Taxonomy of Educational Objectives: Handbook II: The Affective Domain, the affective domain of learning is defined as "the objectives which emphasize a feeling or tone, an emotion or degree of acceptance or rejection" (p. 7). In the field of communication researchers have viewed variables such as warmth, friendliness, comforting behaviors, proxemic behaviors, solidarity, and immediacy-like behaviors as components of the communicative behavior of effective teachers. From all the variables studied it seems that teacher immediacy behaviors make the strongest impact on student affect (Andersen, 1979; Kearney & McCroskey, 1980; and Richmond, Gorham & McCroskey, 1986).

Andersen (1979) successfully operationalized immediacy and measured student perceptions of the immediate versus non-immediate teacher. She was able to conclude that "immediacy may be a powerful variable in predicting student affect. Teacher-student relationships may be improved by teaching teachers to be more immediate" (p. 557). She further suggests that much more research is needed in the area since her study only examined "correlational relationships" and future research should establish causal frameworks. Based upon the above, it is clear that researchers should study the nonverbal components when training teachers and examine the impact of nonverbal components of teachers on student affect.

RATIONALE

Student-teacher interactions are characterized by both verbal and nonverbal components which can impact student learning. While most related research over the past half-century has been dedicated to examining the impact of teacher verbal communication on student learning, the impact of teacher nonverbal communication on student learning has received markedly increased research attention since the early 1970s. The results of several studies reveal that appropriate nonverbal behaviors of teachers can contribute positively to student learning in both the affective and the cognitive domain (Andersen, 1978, 1979; Andersen, P. & Andersen, J., 1982; Andersen, J., Andersen, P., Murphy, Wendt-Wasco, 1985; Beebe, 1980; Bishop, 1976; Breed, 1971; Gauger, 1962; Grant & Hennings, 1971; Kearney, Plax, Wendt-Wasco, 1985; Richmond, Gorham & McCroskey, 1986; Smith, 1979; Victoria, 1970 and Weineke, 1981).

Much of the research related to nonverbal communication in the classroom has centered on the construct of "nonverbal immediacy." Mehrabian (1971) explained the immediacy principle by noting that, "People are drawn toward persons and things they like, evaluate highly, and prefer; and they avoid or move away from things they dislike, evaluate negatively, or do not prefer". (p. 1). Mehrabian further suggests behaviors which indicate immediacy. These include behaviors such as leaning toward another; assuming a position close to another; touching another; direct body position when talking with another; looking into the eyes of another. Mehrabian (1971) states that "immediacy reveals our feelings about things as well as people" (p. 4). He suggests that "liking encourages greater

immediacy and immediacy produces more liking" (p. 77). It seems reasonable to assume that in the classroom the teacher who is immediate is more likely to achieve a closer relationship with his/her students and higher student affect toward instruction than the teacher who is nonimmediate.

Immediacy is seen as being produced by a group of verbal and nonverbal behaviors of teachers which enhance a feeling of psychological closeness with the teacher on the part of students. The current investigation extends this line of research by focusing on the relationship between student perceptions of teacher nonverbal immediacy and student affect toward instruction. Additionally, the impact of training of teachers in nonverbal communication and immediacy on student perceptions of immediacy and affect toward learning is explored.

TEACHER IMMEDIACY AND LEARNING

Teacher-student interactions are characterized by nonverbal messages that are interpreted in terms of arousal, dominance and liking (Mehrabian, 1981). In other words, a teacher-learner relationship cannot be affect-free. Student responses to teachers in terms of arousal-activity, power-status, and approach-avoidance are based in large part on students' interpretations of teachers' nonverbal cues. As Victoria (1970) puts it, "nonverbal phenomena become qualitatively predominant aspects of interpersonal relationships. These interpersonal relationships are critical aspects of all learning outcomes (p. 3).

That immediacy is related to affective learning is intuitively acceptable. Mehrabian (1981) suggests that "there is a positive correlation between the arousing quality of that object or person and its liking--that is, the more arousing a pleasurable entity is, the more it is liked" (p. 11). People are more likely to approach people and things they like and avoid people and things they dislike. He suggests that likes-dislikes are exhibited in a person's nonverbal behaviors of approaching or avoiding. For example, if a teacher likes a student s/he will stand closer to the student, have more direct body orientation, more eye contact, more face to face contact, and more physical contact. If a teacher dislikes a student, there will be more avoidance or nonimmediate behaviors. In conclusion, the nonverbally immediate teacher is likely to generate more positive affective feelings on the part of the student. Hence, a positive relationship developed

between teachers and students would seem likely to influence the development of favorable attitudes toward the learning situation. Research clearly indicates that teachers' nonverbal immediacy behaviors impact student perceptions of the teacher and the classroom environment (see Andersen P. and Andersen J., 1982, pp. 110-112).

In Andersen's (1978,1979) study of college students enrolled in an introductory interpersonal communication course, teacher immediacy predicted 46% of the variance in student affect toward the course instructor, 20% of the variance in student affect toward the course content, and 18% of the variance in student behavioral commitment. McDowell, E.E., McDowell C.E. and Hyerdahl (1980) replicated Andersen's research in communication courses at the junior and senior high school levels, adding additional exploratory variables to determine whether measures of homophily and/or student attentiveness correlate with immediacy variables. The overall results revealed significant relationship among affect, behavioral commitment, immediacy, homophily, and attentiveness variables. In the junior high group, students who gave the teacher high ratings on Andersen's Behavioral Indicators of Immediacy Scale (BII)--which focuses on teacher use of specific nonverbal immediacy behaviors--reported they enjoyed engaging in recommended communication practices (i.e., demonstrated behavioral commitment) and received higher course grades. At the senior high level, significant positive relationships existed between the BII, engaging in communication practices, homophily, and attentiveness variables.

Nussbaum (1982) after reviewing the literature on teacher behavior, student achievement, and teacher effectiveness concluded that "studies have consistently found that expressive or enthusiastic instructors, when compared to nonexpressive instructors, produce more positive outcomes within the classroom (higher achievement and higher effectiveness ratings)" (pgs. 737-738). In his own study Nussbaum (1982) was able to point to the importance that communication variables, such as instructor style, have on teacher effectiveness. He suggests that "the results of teacher effectiveness studies should begin to aid the practicing classroom teacher" (p. 747).

More recently, Kearney et al. (1985) concluded that "teacher immediacy is critical for particular student affective learning outcomes in both P-type (person oriented) and T-type (task oriented) classes" (pp. 71-72). Richmond et al. (1986) found that

vocal expressiveness, smiling, and a relaxed body position on the part of teachers also appear to be substantially associated with cognitive learning in college students.

TEACHER TRAINING

Positive teacher immediacy behaviors appear to be substantially associated with increased student affect. Additionally, teachers' perceptions of success in teaching have been demonstrated to be largely associated with affective outcomes (Harootunian & Yarger, 1981). Effective teaching behavior (from both the student and the teacher vantage points) thus appears to call for optimal use of nonverbal behaviors which enhance perceived immediacy. The prescriptive usefulness of this knowledge is directly associated with the degree to which nonverbal behaviors can be consciously employed by teachers. It has been demonstrated that teachers' nonverbal behaviors can be modified through awareness and training (Bradley, 1979; Grant & Hennings, 1971; Karr-Kidwell, 1978; Klinzing, 1983, 1984; Nier, 1979; Nussbaum, 1982; Nussbaum, 1974). Whether such training alters students' perceptions of teacher immediacy and/or students' affective learning, however, remains an open question.

Research on verbal communication training suggests the probability of such positive effects from training is high. McCroskey, Richmond, Plax and Kearney (1985) found that training in communication impacted the types of behavior alteration techniques teachers were perceived as using by their students. Students saw untrained teachers as using more Punishment from Teacher, Personal (Student) Responsibility, Punishment from Others, Teacher Modeling, Guilt, Teacher/Student Relationship; Negative, Legitimate-Higher Authority, and Legitimate-Teacher Authority. They saw trained teachers as using more Self-Esteem. In other words, the untrained teachers were seen as communicating in a more negative and less encouraging manner than the trained teachers. These changes were associated with more positive affect on the part of the students taught by the trained teachers.

RESEARCH QUESTIONS

The research seems to demonstrate that there is a difference between teachers who are trained in communication and teachers who are untrained in communication. Research also suggests that those trained in

communication achieve higher student affect toward instruction. If instructional communication researchers are to aid the practicing teacher as Nussbaum and others have suggested, then we must begin taking theory into practice. We must be able to compare teachers in various communication training conditions and determine what is effective training and what is not. Hence, the following research questions were posed for study:

RQ1: Do teachers who are trained in the use of nonverbal immediacy cues generate more positive student affect toward instruction?

RQ2: Can such an effect, if observed, be attributed to changes in nonverbal immediacy behavior of the teacher?

METHOD

PROCEDURES

Teachers were contacted and requested to have their students complete the instruments discussed below. Code numbers were employed to insure anonymity of both teachers and students. All teachers contacted were teaching in grades 7-12, since younger students could not be expected to understand the research instruments.

In order to obtain a sample of teachers with training in nonverbal communication and immediacy, public school teacher who had recently completed a course in nonverbal communication which emphasized immediacy and currently were teaching in grades 7-12 were invited to participate. Although none refused the invitation, some did not teach regular classes (speech pathology, librarians, and so on) and some were unable to obtain permission from their school districts to collect the necessary data from their students. A total of 22 teachers were able to provide complete data from their students.

In order to obtain a sample of teachers with no communication training, the cooperating teachers described above were asked to secure the cooperation of another teacher in their school who was teaching at the same level as they were but had had no communication courses (nonverbal or otherwise) beyond what may have been available in their undergraduate program. In all but two cases, the cooperation of an appropriate

individual was obtained. In those two instances the investigators were informed that all of the teachers in the school had taken graduate courses in communication. Thus, the no training condition included data from the students of 20 teachers.

Each participating teacher was provided with instruments to be given to 15 students. In order to guarantee a cross-sectional sample of students the teachers were instructed to give the instruments to "five of your very best students," "five average students" and five of your very worst students." Thus, data were obtained from 630 students, 330 who were taught by "trained" teachers and 300 who were taught by "untrained" teachers.

MEASUREMENT

STUDENT PERCEPTION OF TEACHER NONVERBAL IMMEDIACY

The students were provided with a definition of immediacy and immediacy behaviors people might exhibit when communicating with others similar to that employed by Andersen (1979). Then they were asked to respond to the following statement, "My teacher's communication with me is very immediate" using five seven-step, bipolar adjectives. The bipolar adjectives were: agree-disagree; false-true; incorrect-correct; wrong-right; and yes-no. The alpha reliability for the measure was .92.

GENERAL AFFECT TOWARD INSTRUCTION.

Student affect toward instruction was measured by summing the scores on attitudes toward the course, its content and the instructor as well as increased likelihood of engaging in behaviors taught in the class and taking additional classes in the subject matter. Attitudes toward the content of the course, behaviors recommended in the course and the instructor were measured by four seven-step bipolar scales: good/bad; worthless/valuable; fair/unfair; and positive/negative. To measure behavioral intention, the subjects were asked to respond to two statements on four bipolar, seven-step scales. The statements were 1) "In real-life situations, your likelihood of actually attempting to engage in the behaviors recommended in the course," and 2) "Your likelihood of actually enrolling in another course of related content if your schedule so permits." The scales were likely/unlikely; impossible/possible; probable/improbable; and would not/would. The indication of general affect toward instruction was generated by adding the scores on the five measure above. Alpha reliability for this measure was .90.

DATA ANALYSIS

In order to avoid inflation of the degrees of freedom for the statistical analyses, the data for the 15 students of each teacher were aggregated by computing mean scores on each variable for each teacher. All subsequent analyses were based on these scores.

In order to generate results related to our first research question, a one-way analysis of variance was employed. Teacher training/non-training in nonverbal immediacy was used as the independent variable and students' scores on general affect toward instruction were used as the dependent variable.

In order to generate results related to our second research question, two analyses were performed. A one-way analysis of variance was employed to determine whether the students perceived any difference between the trained and untrained teachers with regard to immediacy. Secondly, a one-way analysis of covariance was performed on the general affect scores with training condition as the independent variable and perceived immediacy as the covariate. All tests were conducted at the alpha .05 level of significance.

RESULTS

The results of the one-way analysis of variance of the affective learning scores indicated an affirmative answer to research question one. The results indicated an affirmative answer to research question one. The results indicated teachers who were trained in the use of nonverbal immediacy cues generated more positive student affect toward instruction ($F = 5.79, p < .02$). The mean for the trained teachers was 109.8 and the mean for the untrained teachers was 106.0.

The results of the one-way analysis of variance of the immediacy scores suggested an affirmative answer to research question two. The results revealed a significant difference in perceived immediacy between trained versus untrained teachers ($F = 10.25, p < .002$). The mean for the trained teachers was 27.5 and for the untrained teachers 25.8.

In order to confirm that the effect on student affect could be attributable to differences in teacher nonverbal immediacy, an analysis of covariance was performed on the student affect scores with covariate being student perception of teacher immediacy. The analysis of covariance indicated that the immediacy covariate contributed significantly to the student

affect scores ($F = 278.96$, $p < .0001$). In addition, as would be expected if the difference on general student affect previously observed between trained and untrained teachers were a function of the immediacy training, the training effect was non-significant ($F = 0.15$, $p > .05$) after removal of the variance attributable to immediacy. The covariance adjusted mean affect scores for trained and untrained teachers were 108.5 and 107.5 respectively.

DISCUSSION

Our first research question asked whether teachers trained in the use of nonverbal immediacy cues generate more positive student affect toward instruction. The results of this study indicate that they do. Trained teachers were perceived as more immediate by their students and their students reported more positive affect toward instruction when taught by those teachers. In addition, when variance attributable to differences in immediacy were removed, the training effect disappeared. This suggests the differences in immediacy were responsible for the observed differences in student affect. Thus a reasonable interpretation of the results of this investigation is that training in nonverbal immediacy can lead to great teacher immediacy and, as a result, more positive student affect toward instruction.

While the above interpretation is consistent with the intent of the training program in which the teachers participated as well as with the literature cited earlier in this paper, it is only one of the possible explanations for the observed results. The present study involved an "after-only" design and was not a true experiment. The teachers in both training conditions were voluntary participants in the study. Additionally, those in the training condition were self-selected into that condition. It is entirely possible, therefore, that the observed differences in immediacy existed prior to the training. Thus, the conclusion that training in this study produced greater teacher immediacy and student affective learning must be accepted only with caution and with the recognition that it should be subjected to the test of a true experiment before it can be considered confirmed.

The association between perceived teacher immediacy and student affect observed in this study, however, is subject to less question in terms of external validity. The observed association was very strong and is consistent with the results of a number of

previous studies. Clearly, students who perceive their teachers as more immediate also report more positive affect for instruction in those teachers' classes.

While it is tempting to infer causality from these results, as have several previous researchers, we believe such an inference must also be made with caution. As has been noted by McCroskey (1984), the association between student perceived immediacy scores and student affect for instruction scores is so high that one might legitimately consider them to be two measures of the same thing. If indeed immediacy and affect are distinct constructs in the minds of student subjects, immediacy must be the dominant factor in determining student affective learning. However, since we are dealing in the domain of perception, it is very possible that the constructs are not at all distinct and that considerable mutual causality and shared perceptual response are present.

While we do not wish to discount the importance of teacher immediacy, we suggest that future research is needed in which ratings of immediacy of teachers and reports of affect toward instruction from those teachers are completed by different subjects. Preferably, the former should be made by trained, non-student observers and the latter by students. If the association between teacher immediacy and student affect toward instruction is also very high under such research controls, we may be able to make a much stronger claim for the importance of teacher immediacy in instructions.

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