An investigation of relationships among instructor immediacy and affective and cognitive learning in the online classroom

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Abstract

A significant body of literature has supported the assertion that communication in the classroom is central to the learning process. Prosocial behaviors, such as nonverbal and verbal immediacy, have been found to promote affective and cognitive learning in traditional instructional settings. This study examined the relationships among instructor verbal immediacy and affective and cognitive learning in the online classroom. One hundred and forty-five online learners evaluated instructor immediacy, affective, and cognitive learning through the use of a Web-based survey instrument. The results of this study found that students who rated their instructors as more verbally immediate expressed greater positive affect and higher perceived cognition than students taught by less immediate instructors. These results are consistent with similar studies in traditional courses and reinforce the influential role of the instructor in creating a conducive online learning environment.

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1. Introduction

In a significant study of distance education in the early 1970s, Moore developed transactional distance theory (Moore & Kearsley, 1996). He postulated that distance was a pedagogical phenomenon and was a function of structure and dialogue. According to Saba (1999), this was a significant shift in the pedagogical perspective toward distance education:

The primary contribution of Moore to the study of distance education is that he moved the discourse on the subject from its Newtonian paradigm and grounded it in a contemporary postmodern science.
According to this dynamics (time-sensitive) and systemic (self-organized) view of mediated communication, what is important is communication and construction of knowledge. (p. 6)

One communication dynamic that has been found to influence learning in the traditional classroom but has received comparably little study in the online classroom is instructor immediacy. Mehrabian (1967) defined immediacy as the extent to which selected communicative behaviors enhance physical or psychological closeness in interpersonal communication. Immediacy-producing behaviors are “those communication behaviors that reduce perceived distance between people” (Thweatt & McCroskey, 1996, p. 198). Smiling, calling people by name, making eye contact, and asking follow-up questions are examples of immediacy-producing behaviors.

Anderson (1979) found that immediacy-producing behaviors by teachers were significant predictors of instructional effectiveness. Numerous follow-up studies have considered the effects of instructor immediacy on various learning environments, from traditional classrooms to distance education environments, and have similarly found that such behaviors significantly influence the learning experience. At the conclusion of their study of immediacy in the distance classroom, Freitas, Myers, and Avtgis (1998) recommended that future researchers would be prudent to “examine the extent to which student perceptions of affective, behavioral, and cognitive learning in the distance learning classroom are related to perceptions of instructor communication behaviors” (p. 371). During the past 30 years, numerous studies have examined immediacy in the face-to-face classroom, a few studies have considered immediacy in the distance classroom, and the significant findings reveal the need to extend the research into the online classroom. Accordingly, this study examined the instructor immediacy dynamics in the online environment in an effort to better understand the relationship among instructor immediacy and affective and cognitive learning in online graduate courses.

One hundred and forty-five students enrolled in online graduate courses at multiple institutions evaluated instructor immediacy, affective, and cognitive learning through the use of a Web-based survey instrument. It was hypothesized that immediacy would be positively correlated with affective and cognitive learning and these data supported this hypothesis. Students who rated their instructors as more verbally immediate expressed greater positive affect and higher perceived cognition than students taught by less immediate instructors. These results are consistent with similar studies in traditional courses and reinforce the influential role of the instructor in establishing a conducive online learning environment.

2. Immediacy

2.1. Theoretical construct

The significance of nonverbal cues in the interpersonal communication process is rarely underestimated. Hall (1966) estimated that 60% of interpersonal communication is nonverbal. In other words, one communicates more through nonverbal cues such as proximity, motion, posture, facial expression, and eye contact than through the actual words spoken. In a similar vein, Mehrabian (1969) developed the concept of immediacy, which he defined as “those communication behaviors that enhance closeness to and nonverbal interaction with another” (p. 203).

Mehrabian (1971) found that such nonverbal behaviors increased sensory stimulation, thus resulting in more intense, affective, and immediate interactions. “People are drawn toward persons and things
they like, evaluate highly, and prefer, and they avoid and move away from things they dislike, evaluate negatively, or do not prefer” (p. 77). Someone who demonstrates high immediacy behaviors such as maintaining eye contact during a conversation is likely to produce a more favorable affect and thus communicate more effectively. Mehrabian summed up this relationship, “Immediacy and liking are two sides of the same coin…liking encourages greater immediacy and immediacy produces more liking” (p. 77).

Although immediacy has often been examined as a nonverbal construct, verbal immediacy has received some consideration. Mehrabian (1967, 1971) described verbal immediacy behaviors as linguistic differences in expression from which feelings of like and dislike are inferred. Similar to nonverbal immediacy, the use of verbal immediacy behaviors such as asking questions, using humor, addressing individuals by name, and initiating discussion increases psychological closeness. Using the nonverbal immediacy measure as a model, Gorham (1988) developed a 20-item verbal immediacy scale. Positive verbal immediacy items on the instrument included “uses personal examples or talks about experiences she/he has had outside of class,” “uses humor in class,” and “addresses students by name,” while nonimmediate items include “refer to class as ‘my’ class or what ‘I’ am doing” and “criticizes or points out faults in students’ work, actions or comments” (p. 44).

2.2. Immediacy in the classroom

Although immediacy was originally developed in the interpersonal communication context, it has been frequently used in instructional communication research. Anderson (1979) studied college students enrolled in an interpersonal communication course and found that instructor immediacy predicted 46% of the variance in student affect toward the instructor, 20% of the variance in student affect toward the course content, and 18% of the variance in student behavior commitment. Commenting on this affective influence, Anderson concluded that instructor immediacy was a “meaningful predictor of teaching effectiveness” (p. 554). Anderson, however, did not find a significant relationship between immediacy and student cognitive learning.

McDowell, McDowell, and Hyerdahl (1980) performed a similar study, modeled on Anderson’s research, using junior and senior high school students. As with Anderson’s study, they found a significant correlation between instructor immediacy and affect and behavior, but not between immediacy and cognitive learning. Anderson, Norton, and Nussbaum (1981) also replicated the original Anderson (1979) study and once again found similar results for both affective and cognitive learning. Anderson et al. concluded, “At this point all we can say is that communication variables have not been shown to relate to cognitive learning in any meaningful or consistently significant way” (p. 391).

Plax, Kearney, McCroskey, and Richmond (1986) considered the role of verbal control strategies, nonverbal immediacy, and affective learning. They examined the relationship between instructor nonverbal immediacy and student affective learning and found a significant positive correlation between them. In a follow-up study, Richmond, McCroskey, Kearney, and Plax (1987) attempted to link behavior alteration techniques to cognitive learning. “While instructional communication researchers continue to argue that positive student affect should, in turn, promote cognitive learning, a number of studies point to inconsistencies in the presumed one-to-one relationship between the two learning variables” (p. 1). They found that certain techniques were more effective than others at promoting cognitive learning. Prosocial behaviors, such as immediate reward and teacher feedback, were found to be more consistently and positively associated with cognitive learning. Since
immediacy is clearly a prosocial behavior, these results raise the possibility that instructor immediacy should positively impact cognitive learning.

Richmond, Gorham, and McCroskey (1987) measured this when they examined the relationship between instructor immediacy and cognitive learning. Unlike previous studies, Richmond, Gorham, et al. did not use course test scores as the measure of cognitive learning. They explained that while tests were available for various subjects, their subject-specific nature made it difficult to conduct research across disciplines. Furthermore, using course grades can be problematic since instructors vary their grading standards. They argued that since college students are adults with significant educational experience, they are in a position to accurately estimate the amount they learn in a given class. “In fact, it is likely that their estimate is at least as good as subjective grades provided by teachers in many classes or by tests administered in classes not based on clear behavioral objectives” (p. 581). As a result, they developed a measure of “learning loss” to measure cognitive learning in college classes:

We asked the subjects to indicate how much they thought they learned in the classes studied. Specifically, the following scale was employed: “On a scale of 0–9, how much did you learn in the class, with 0 meaning you learned nothing and 9 meaning you learned more than in any other class you’ve had.” Subjects were also asked, on the same scale, “How much do you think you could have learned in the class had you had the ideal instructor?” By subtracting the score on the first scale from the score on the second we created a variable labeled “learning loss.” (p. 581)

Using this learning loss measure and a new 14-item nonverbal immediacy instrument, Richmond, Gorham, et al. (1987) found a significant positive correlation between instructor immediacy and student cognitive learning, consistent with earlier studies of immediacy and affective learning. Although not all behaviors were equally significant (e.g., vocal expressiveness, smiling at the class, and having a relaxed body position appeared to be most important), this study produced a consistent linear relationship between immediacy and cognitive learning.

Gorham (1988) built upon this study and examined the relationship between verbal teacher immediacy behaviors and student learning, affective and cognitive, in undergraduate communication courses. In addition to the aforementioned 14-item measure of nonverbal immediacy, Gorham added 20 items that measured verbal immediacy. She also measured affective learning via the measures used by McCroskey, Richmond, Plax, and Kearney (1985) and cognitive learning via the Richmond, Gorham, et al. (1987) learning loss measure. Gorham found significant relationships between instructor immediacy and learning. “Both the total verbal and nonverbal immediacy scores and the overwhelming majority of the individual immediacy items were significantly correlated with both affective learning and perceptions of cognitive learning” (p. 46).

2.3. Immediacy in the distance classroom

Some recent studies have examined the role of instructor immediacy in the distance learning classroom. Specifically, Freitas et al. (1998), Guerrero and Miller (1998), and Hackman and Walker (1990) studied various dynamics within televised and videotaped learning experiences. Hackman and Walker looked at the effects of system design and teacher immediacy on student learning and satisfaction in televised classes offered through the University of Colorado-Colorado Springs CU-Net system. Selected immediacy behaviors were shown to have a positive effect upon perceived learning and
satisfaction. “Off-campus students felt as though they learned more when their instructor provided them with specific feedback on individual work through comments on papers, oral discussion or some other means, solicited phone calls…and used an expressive vocal quality” (p. 202).

Guerrero and Miller (1998) examined nonverbal behavior and impressions of instructor competence and course content in videotaped distance courses. The researchers measured nonverbal behaviors typically included in immediacy studies such as facial expressions, gestures, and voice tone. After studying videotaped instruction from four different distance education courses, 180 undergraduate communication students completed a series of Likert-type surveys in an attempt to correlate such behavior with student perceptions. Guerrero and Miller found that expressiveness/warmth, general involvement, and articulation/clarity were associated with positive impressions of instructor competence and course content. They concluded:

These findings confirm that even in non-interactive environments, the more warm and involved a student perceives an instructor to be, the more likely the student is to perceive the instructor as competent and likeable and to see the course content as valuable and enjoyable. (p. 38)

Freitas et al. (1998) compared student perceptions of instructor immediacy in conventional and distributed classrooms. Using an undergraduate nursing course taught in a traditional classroom and simultaneously broadcast to an interactive computer classroom in another part of the state, the researchers measured the students’ perceptions of instructor immediacy. They found that students in the conventional classroom perceived a higher rate of instructor nonverbal immediacy than the students in the remote classroom. However, they did not find corresponding results for verbal immediacy; students in the conventional and remote classrooms did not significantly differ in their perceptions of verbal immediacy.

3. Methodology

3.1. Participants

The population identified for this study consists of students enrolled in accredited graduate-level asynchronous online distance education courses. Given the vast differences in online learning opportunities, from on-demand corporate training and virtual high schools to synchronous and asynchronous undergraduate and graduate courses, this population is a clearly defined segment of distance learners; however, there was no attempt to limit participants to a particular asynchronous courseware platform (e.g., Blackboard, WebCT). By examining graduate studies from regionally accredited institutions rather than K-12 or professional development courses, there is a common standard of quality by virtue of the institutional accreditation. Furthermore, while there may be diversity among the individual students surveyed, it is expected that most will be working adults earning their graduate degree on a part-time basis.

The sample for this study consisted of 145 students who completed an online Web-based survey. Students were solicited toward the latter part of a semester in order to ensure that they had sufficient time to observe instructor immediacy and determine their affective and cognitive learning throughout the course. Students from multiple institutions were invited to participate in the study through a direct
invitation from their instructor (sent via e-mail or posted to an online classroom Web site), via an open invitation posted to various distance learning Listservs and newsgroups, or from forwarded invitations sent from other distance learners. While such a voluntary invitation approach necessarily involves participant self-selection, student recruitment occurred through a combination of targeted and general invitations. Select instructors in eight online programs sent personal invitations to their students inviting them to participate in the survey. In addition to these targeted invitations, a general announcement and invitation to participate was posted to a number of relevant e-mail lists, newsgroups, and Web sites.

3.2. Instrumentation

Student participants completed an online survey developed from the following instruments: the Gorham (1988) verbal immediacy scale; the McCroskey et al. (1985) affective learning scale; and the Richmond, Gorham, et al. (1987) cognitive learning scale. Students were asked to provide answers based on their experiences in their currently enrolled course. The scales were presented via a Web-based form that students completed and submitted online. Although self-reporting demographic information was collected and participants had the option to submit their e-mail address to receive study results, there was no effort to further identify or track the respondents—all surveys were submitted anonymously.

Although the immediacy construct consists of both verbal and nonverbal components, the lack of consistent nonverbal cues in a textual asynchronous learning environment hinder the traditional measure of nonverbal immediacy. Verbal immediacy measures, however, are not as dependent upon accepted face-to-face nonverbal cues. A typical item in the Gorham (1988) verbal immediacy scale reads, “Uses person examples or talks about experiences she/he has had outside of class” (p. 44). Such items translate well to computer-mediated communication. In addition, the textual nature of computer-mediated communication often results in verbal techniques to be used in lieu of nonverbal cues. For example, casual and overtly friendly language might be used in the body of a message while the same person would simply smile while speaking face to face. Furthermore, since the Gorham scale was developed for classroom use, it was selected as the measure of instructor immediacy for this study.

The verbal immediacy scale (Gorham, 1988) consists of 20 items measuring instructor verbal immediacy behaviors that students rate using a five-point Likert-type scale (0=never to 4=very often). Four of the items are presumed to be nonimmediate and the item score is reversed for overall calculation. The resulting scores were totaled to measure student perception of instructor verbal immediacy. Reliability for the initial development of the verbal immediacy measure was .94. Subsequent studies have found reliability measures ranging from .86 to .94 (e.g., Christensen & Menzel, 1998; Christophel, 1990; Gorham & Christophel, 1990). This instrument, often used in conjunction with the Richmond, Gorham, et al. (1987) nonverbal immediacy measure, appears to be the most common verbal immediacy instrument used in the literature.

McCroskey et al. (1985) used four 7-step bipolar scales—good/bad, worthless/valuable, fair/unfair, positive/negative—to measure student attitudes toward the course content, recommended behaviors, and the instructor. Similarly, they used four 7-step bipolar scales—likely/unlikely, impossible/possible, probable/improbable, would/would not—to measure behavioral intention through inquiries about the likelihood of the student to engage in the behaviors recommended in the course and to enroll in a course of related content. The total affective score was computed by summing the scores on the five scales.
Each of the scales demonstrated a reliability coefficient above .90 and the overall reliability of the measure was .94 (p. 218). Gorham (1988) used these same scales in her study of the relationship between verbal teacher immediacy behaviors and student learning, with one significant distinction. She delineated between the affective and behavioral learning components, thus grouping the three attitude scales as a measure of affective learning and three likelihood scales (the original two plus an inquiry about the likelihood of taking another course with the same teacher) as a measure of behavioral learning. The split-half reliability of the six-item scale was .98. Subsequent researchers (e.g., Christensen & Menzel, 1998; Christophel, 1990; Gorham & Christophel, 1990; McCroskey, Fayer, Richmond, Sallinen, & Barraclough, 1996) have used some or all of these items in their measure of affective learning with reliability scores ranging between .82 and .98. For this study, the broader six-scale measure of affective learning (including the three behavioral learning items) was employed.

The Richmond, Gorham, et al. (1987) cognitive learning scale is predicated upon the assumption that a subjective measure of cognitive learning is as valid as an objective one. They stated that college students are in a position to accurately comment on their cognitive learning, independent of any affect for the course. “Although a student may generate positive or negative affect for a course for many reasons, one very important basis for a student’s affective response is whether or not the student perceives he or she ‘got anything out of the course’” (p. 581). They argued that student perceptions of cognitive learning were at least as valid as the subjective grades provided by instructors or course examinations that lack clear behavioral objectives. Therefore, they developed a measure of “learning loss.” Students were asked to measure, on a scale of 0–9, how much they learned in the class and how much they could have learned with an ideal instructor. The difference between their ideal and actual learning was classified as learning loss, with smaller numbers indicating greater learning. Learning loss is conceptualized such that it can be employed across disciplines and class types and is therefore a good fit for a study such as this.

Since its inception, the learning loss measure of cognitive learning has been used in numerous studies related to instructor immediacy and student motivation (e.g., Christensen & Menzel, 1998; Christophel, 1990; Frymier, 1994; Sanders & Wiseman, 1990). In fact, during the past decade, the learning loss measure has been used almost exclusively in instructional communication research to measure cognitive learning (Chesebro & McCroskey, 2000, p. 297). Recently Chesebro & McCroskey (2000) examined the validity of the learning loss measure, comparing student self-assessment of cognitive learning and a quiz on the lecture material in the class, and found a moderately strong indication of concurrent validity (p. 300).

4. Results

The data analyzed for this study were drawn from 145 uniquely completed surveys submitted online. One hundred and fifty surveys were submitted electronically, but three responses were duplicates and two were empty so they were removed before beginning the analysis. Demographically, the respondents were fairly evenly divided with 52% female and 47% male (1% did not specify gender). Of 16 possible course subjects, nine were selected with education being the most common (32%), followed by other (19%) and business/economics (15%). When asked about this course in comparison to other online courses, 39% indicated that it was more enjoyable than others, 16% said that it was less enjoyable, and 22% indicated that this was their first online course.
4.1. Instrument statistics

The verbal immediacy scale consists of 20 statements about the behavior of the instructor; the student scores each item using a five-point Likert-type scale with scores ranging from 0 to 4. The composite immediacy score was calculated by summing the scores of the 20 items (accounting for the reverse coded scores as appropriate), resulting in verbal immediacy scores from 0 through 80, with 40 being neutral and 60 or higher indicating high instructor immediacy. Since the mean of the composite immediacy score was 52.45 with a slight negative skewness at $-0.75$, this sample demonstrated an asymmetric leaning toward higher immediacy scores. The kurtosis is very low at 0.03, which indicates that the distribution, although positioned above the scale’s midpoint, is acceptably close to normal. Cronbach’s Alpha for the verbal immediacy scale was found to be .90. This is an acceptable level of reliability and compares favorably to prior uses of the instrument that found $z$ ranges from .86 to .94 (e.g., Christensen & Menzel, 1998; Christophel, 1990; Gorham, 1988; Gorham & Christophel, 1990).

The affective learning scale includes six statements, three addressing student attitudes toward the course and three addressing course-related student behavior. Each of these six statements contains four semantic differential pairs, one of which is reverse coded, with seven selections along each continuum. A composite affective learning score is computed by assigning a score of one through seven to each of the pair selections and summing the 24 to produce a single affective learning score that can range from 24 to 168, with 96 bring neutral and 144 and higher indicating high affective learning (the overall affective learning scale can also be subdivided into the affective and behavior constituents). The composite affective learning score used for this study and the two contributing subscales both have means close to the cutoff for high affective learning, indicating moderate affective learning. Specifically, the composite mean was 152.53 and the affective and behavior means were 75.88 and 76.54, respectively. The skewness and kurtosis numbers are higher than the ideal of $\pm 1.0$ but with acceptable limits of $\pm 2.0$. Evidently, the data are distributed flatter than the normal curve and have an asymmetric leaning toward higher affective learning. The split-half reliability of the six-item affective learning scale was .85, which is within the range of previous split-half reliability scores of .82 to .98 (e.g., Christensen & Menzel, 1998; Christophel, 1990; Gorham & Christophel, 1990; McCroskey et al., 1985; McCroskey et al., 1996).

The cognitive learning scale consists of two questions that are designed to produce a measure of learning loss—the difference between what a student believes that he learned in the course in question and how much the same student could learn in the same course with an ideal instructor. As originally constructed, the smaller the learning loss (from the possible range of zero through nine), the closer the class is to the ideal learning experience and therefore the higher the perceived cognitive learning. To avoid confusion with the analysis in this study, the learning loss score was reverse coded so higher scores reflected higher perceived cognitive learning. The mean learning loss score was 8.03 while Cronbach’s Alpha for the cognitive learning scale was .71.

4.2. Data analysis

The relationships under consideration are between instructor immediacy, cognitive learning, and affective learning. Table 1 presents the results of a Pearson correlation analysis on the variables.

Based on the Pearson correlation coefficients, an initial understanding of the relationships between pairs of variables emerges. It was hypothesized that there would be a positive correlation between
instructor immediacy and affective learning. This hypothesis was supported with the results demonstrating a strong correlation at $r=.73$, $P<.01$. It was also hypothesized that there would be a positive correlation between instructor immediacy and cognitive learning. The resulting Pearson coefficient ($r=.54$, $P<.01$) demonstrates a moderate positive correlation.

Since the six-item measure of affective learning can also be divided into two smaller three-item groups indicating affective and behavioral learning, similar correlations were performed on these components with similar results. Table 2 lists these Pearson $r$ coefficients.

Just as instructor immediacy was found to be positively correlated with the overall measure of affective learning, it also was positively correlated with the affective and behavioral components ($r=.76$, $P<.01$ and $r=.63$, $P<.01$, respectively), although the correlation with the affective learning component is stronger than the behavioral component. As expected given the nature of the instrument, there is also a strong positive correlation between the affective and behavior learning components themselves.

### 4.3. Additional observations

A one-way analysis of variance was calculated to see whether any of the variables under consideration differed based on the gender of the student. Instructor immediacy demonstrated $F(2,141)=1.87$, $P=.16$, $\eta^2=.03$, affective learning had $F(2,125)=0.80$, $P=.45$, $\eta^2=.01$, and cognitive learning had $F(2,126)=0.17$, $P=.85$, $\eta^2=.003$. In other words, instructor immediacy, affective learning, and cognitive learning scores in this study did not differ based on gender.

One hundred and thirty-eight of the survey participants completed the optional enjoyment question. Thirty-nine percent responded that this course was more enjoyable than other online courses they had taken, 16% said that it was less enjoyable, and 22% indicated that this was their first online course. One-way analysis of variance was obtained to determine whether immediacy, affective learning, or cognitive learning differed based on student comparative enjoyment of the class. Instructor immediacy demonstrated $F(3,133)=12.69$, $P<.01$, $\eta^2=.22$, affective learning had $F(3,119)=34.77$, $P<.01$, $\eta^2=.05$, and cognitive learning had $F(3,121)=22.19$, $P<.01$, $\eta^2=.35$. Therefore, instructor immediacy, affective learning, and behavioral learning components themselves.

### Table 2

Pearson correlations of instructor immediacy, affective, and behavioral learning

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* Significant at the .01 level.
learning, and cognitive learning scores did differ depending on whether the student enjoyed the class more, less, or the same as other online courses or if this was their first online course.

5. Discussion

A positive relationship between instructor immediacy and affective learning had the strongest potential for support as numerous articles have supported such a hypothesis in the traditional classroom (see, for example, Anderson, 1979; Gorham, 1988; McDowell et al., 1980; Plax et al., 1986). As expected, the data supported this hypothesis with a strong correlation at $r=.73$, $P<.01$. When the component parts of the affective learning scale were considered separately, both the affective and behavioral components demonstrated significant positive correlations with instructor immediacy at $r=.76$, $P<.01$ and $r=.63$, $P<.01$, respectively.

Such results are consistent not only with prior instructor immediacy research but they fit neatly within the theoretical construct of immediacy. Anderson (1979) found that when students perceived their instructor to be immediate, they were more likely to be attracted not only to the instructor but to the course as well. As a result, students would be more likely to have a favorable impression of the course, become engaged with the course content, adopt the behaviors suggested in the course, and enroll in a similar course in the future. This fits into Mehrabian’s (1969) original immediacy concept—communication behaviors that enhance interpersonal closeness. As students feel closer to their instructors, it makes sense that their affect for the instructor would spill over into an affect for the course itself.

The relationship between instructor immediacy and cognitive learning has had a mixed history in the literature. Anderson (1979) did not find any significant correlation between instructor and immediacy and cognitive learning; Richmond, McCroskey, et al. (1987) found that instructor behavior influenced cognitive learning, but with an upper-limit of 17% variance in normal circumstances; while Gorham (1988) found significant relationships between instructor immediacy and cognitive learning. Based on the data in this study, a moderate correlation between immediacy and cognitive learning was found with $r=.54$, $P<.01$. This was actually the weakest of the three significant correlations found in this study (the other two being instructor immediacy—affective learning and affective learning—cognitive learning) but significant nonetheless.

This is a useful although not singularly significant finding. It is consistent with earlier efforts that linked immediacy with cognitive learning, particularly when measured via the learning loss construct, and adds validation to the hypothesis that immediacy influences cognitive learning. Given the limited variance and lingering questions regarding the validity of the learning loss measure, as well the lack of normalcy of the scale results in this study, this finding should not be used in isolation. Rather, the positive correlation between immediacy and cognitive learning should be considered in light of a larger model of online learning dynamics.

The primary implication drawn from the results of this study is that the instructor significantly influences the learning process, even in the online classroom. Although there are those that stereotype online learning as a high-tech correspondence course with little interaction between the instructor and learner, the results of this study can be used to argue that the instructor is important to the effectiveness of the online learning experience. This has value for those instructors teaching online courses since it validates the significance of their role in the online learning process.
Building upon the foundation of previous instructional communication studies, the results of this study can serve as a reminder that instructors should seek ways to exhibit immediacy-producing behaviors. The mediated nature of online courses does not prevent instructors from prosocial communication although such efforts may take longer to produce results than similar face-to-face behaviors. Even so, such efforts may be foreign to many within higher education. After all, there are traditional instructors who show up for class, deliver their lecture to a sea of note-taking students, and then leave. Unlike traditional courses where students often deal with a nonimmediate instructor within a campus environment, online students are often geographically isolated from the academic community. The burden on the instructor to use immediacy behaviors to promote a collegial environment is thus even greater in the online classroom.

There are a variety of pedagogical strategies that instructors can employ to enhance their level of immediacy and foster a socially supportive learning environment. From the very beginning of the online course, the instructor can set the tone by providing a personal biographical sketch along with a recent photograph. The instructor can encourage constructive self-disclosure by presenting such information in a more informal manner rather than merely copying and pasting a paragraph from a recent vita.

To give online students the impression that their instructor is immediately present with them, regular provisions of fresh content to the online course are fundamental. Daily reminders, weekly announcements, periodic commentaries, and frequent updates are ways in which instructors can communicate that they are actively engaged in their students’ learning. Furthermore, it is critical to respond to e-mail or threaded discussion postings in a timely manner. Lengthy delays between student inquiries and faculty responses communicate a sense of social distance to the students, analogous to the failure to return telephone calls or open the office door when knocked upon. Similarly, even if the instructor is just browsing the threaded discussion forum to catch up on the day’s postings, posting a few brief messages to make one’s presence known to the class communicates closeness to the students.

The online instructor can also foster immediacy by using the student’s first name in posted replies, thus promoting a greater degree of interpersonal awareness. Sending personalized e-mail messages to online learners also increases immediacy. Such occasional e-mail messages might be used to highlight a new article of interest, commend a student who made an insightful contribution in one of the required discussion forums, or simply to encourage students as they progress through the course.

Although this study was conducted using asynchronous courses, synchronous tools can be employed toward prosocial ends. The use of chat rooms to hold virtual office hours can increase perceived availability to online learners. Furthermore, instructors can use instant messaging (IM) software to let IM-savvy students know that they are available for quick questions or comments throughout the day. IM can be particularly valuable in promoting immediacy since online learners would know instantly whether their instructor is online and available for a quick conversation. Such use of IM is not unlike making oneself available on-campus outside of scheduled office hours.

Rich media tools can also be used to promote instructor immediacy. An oft-noted limitation of textual communication is the lack of voice tone, and yet with a simple telephone call or audio clip, an instructor can use his or her voice to set the proper mood. Such voice communication becomes a perceptual framework through which subsequent communication (whether textual or otherwise) is filtered. The tone of an audio message sent just before an exam or final paper to another student can increase instructor immediacy and likely help reduce student anxiety. Given the relative ease of voice communication (e.g., the ubiquitous telephone or a microphone and free software download from the Web), there is little reason to avoid its usage in online education.
In addition to these online communication techniques, many of the same dynamics used to developed immediacy in the traditional classroom can effectively serve the same function when teaching at a distance. For example, the use of humor, self-disclosing comments, and inclusive words such as “we” can increase a student’s sense of immediacy. The results of both the quantitative analysis and the open-ended responses indicate that students appreciate those efforts that help to improve the quality and effectiveness of the learning experience. As one of the study participants said, “The professor in this class was flexible, understanding and positive. It was a difficult course but it was bearable since she was positive and offered relevant feedback.”

One significant limitation of the generalizability of these recommendations concerns the course subjects of the survey participants. The majority of the participants were enrolled in social science or humanities courses; none of the participants, for example, classified their courses as life sciences, physical sciences, or engineering. Moore, Masterson, Christophel, and Shea (1996) found that instructor immediacy levels vary by course type, with people-oriented courses such as those in the humanities and social sciences demonstrating higher instructor immediacy than task-oriented classes like math and science.

Perhaps these results mean that students in the physical sciences are less concerned with teacher immediacy than are students in the social sciences, arts and humanities. On the other hand, the results may reflect a difference in teaching styles resulting from the differing content of the two areas. (p. 36)

Since the results from this study largely come from those classes that fit into the Moore et al. (1996) higher-immediacy grouping, it would be unwise to generalize these results to all types of classes without some recognition of the potential differences between online accounting and philosophy courses.

6. Conclusion

This study served to validate and confirm the benefits of prosocial communication patterns in online instruction. This study provided empirical support of the effectiveness of many experientially determined suggestions for effective online learning. In short, the more instructors incorporate relationally supportive language in the online classroom, the more that students will enjoy and benefit from the online learning experience.

References


