REVISITING THE IMPACT OF INSTRUCTIONAL IMMEDIACY
A Differentiation Between Military and Civilians

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Members of the U.S. military are trained to be self-motivated leaders. This training influences the life of all military personnel, including their learning experiences. The purpose of this study was to evaluate the relationships between known cues of computer mediated instructional immediacy and military motivation to learn as compared to civilian motivation to learn. Because the military favor enrollment in online classes due to accessibility, students (N = 497) enrolled in online courses at 3 universities with a high military enrollment were invited to attend. The findings of this study imply that the military perceive similar computer-mediated instructional communication cues to those perceived by civilian students.

For more than 30 years, instructional communication scholars have insisted that educators are not prepared to manage a classroom of their own until they have studied communication within the classroom as thoroughly as they have studied traditional pedagogical strategies (Nyquist & Booth, 1977). Typically, the goal of every effective educator is to motivate students to learn (Brophy, 2004); the goal of instructional communication is to identify messages and message framings that are conducive to student learning. At the heart of the instructional literature is the notion of immediacy. Immediacy was first conceptualized by Mehrabian (1967) as any communicative behavior that makes a message receiver feel physically or psychologically closer to the message sender. As such, instructional immediacy is any communicative behavior that makes students feel physically or psychologically closer to the instructor.

Members of the United States military typically receive specialized training and education from the military before beginning higher education (Go Army, 2010). The U.S. Army, in particular, expects soliders to exemplify the standards of loyalty, duty, respect, selfless service, honor, integrity, and personal courage

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in every aspect of their life. This standard of *duty* calls for every soldier to be self-motivated and to accomplish every task. It is the responsibility of science to better describe natural phenomenon (Kerlinger & Lee, 2004) such as the influence of military training on military learning. The anytime, anywhere accessibility of the Internet (Li, Leh, Fu, & Zhao, 2009; Pastore & Carr-Chellman, 2009) allows the military to dominate a large portion of the population of online learners (Fletcher, Tobias, & Wisher, 2007). As such, scholars have an obligation to better understand how instructional immediacy affects the military student population, especially if the effect is unique to that of civilian learners or if military students perceive different cues to be immediate than those cues have been identified as immediate by civilian students. For example, rather than friendly, encouraging correspondence (Kelly, Kotowski, & Fall, 2010), perhaps military students prefer more formal communication.

The primary purpose of this study is to determine how known indicators of instructional immediacy relate to motivation and learning among military and civilian students in online classrooms. If a significant difference exists, then there will be reason to believe that instructional cues perceived to be immediate in the online classroom differ between military and civilian learners. The secondary purpose of this study is to assess whether there is indeed a positive relationship between computer-mediated instructional immediacy and student motivation to learn among both military and civilian students. Although previous research in instructional communication makes the existence of a positive relationship between these variables among both groups intuitively likely, this study seeks to provide empirical evidence.

INSTRUCTIONAL IMMEDIACY

Students learn best from instructors they perceive to be competent, who they can trust to be knowledgeable about the class content; but equally as influential to students' learning is their perception of whether the instructor cares if they learn (Finn et al., 2009). The best predictor of students' perceiving that an instructor cares about whether they learn is the presence of instructional immediacy (Teven, 2001). Instructor assertiveness and responsiveness have also been identified to positively relate to students' perceptions of a caring instructor. Teven (2001) speculates that perceptions of a caring instructor influences student learning due to the norm of reciprocity. More specifically, if students perceive that the instructor cares about whether they learn, then the students will believe that they should also care; therefore, the students become motivated to learn.

Aside from investigating displays of instructional immediacy, research has also identified a nonimmediate behavior that has often been displayed by instructors, which can counteract the positive effects of instructional immediacy: verbal aggression. Immediate communicative behaviors will only enhance the communication atmosphere (Mehrabian, 1967). Therefore, if immediate instructional communicative behaviors are very low or absent, these behaviors will not have a negative impact on communication; rather, they will have no effect. Thus, presence of instructional immediacy can enhance students' learning experiences from the baseline in which the experience would be without the presence of immediate instructional cues. Low displays of instructional immediacy differ from displays of nonimmediate instructional communication in that while low displays will not affect students, nonimmediate displays have a negative effect. A negative relationship has been identified between the presence of verbal aggression and students' perceptions of whether an instructor cares about whether they learn (Teven, 2001), student attendance (Rocca, 2004), overt information seeking, and out-of-class communication (Myers, Edwards, Wahl & Martin, 2007).

Motivation and Immediacy

Motivation, the force that prompts an individual to perform a particular act, can be broken into state or trait motivation (Brophy, 1983). State motivation is prompted by a particular catalyst in a particular situation, whereas trait motivation is an enduring component of an individual's personality. Instructional communication has been identified as related to students' classroom state motivation in two ways. First, a positive relationship has been identified between displays of instructional immediacy and students' motivation to attend class (Rocca, 2004). Second, a robust history of literature has consistently identified a positive relationship between instructional immediacy and student motivation to learn, as is presented in Allen, Witt, and Wheeless' meta-analysis (2006).

Instructional Immediacy and Learning

Bloom (1956) identified three domains of learning: affective (attitudinal), cognitive (knowledge), and psychomotor (skills). Throughout the history of instructional communication research, scholars have consistently identified positive relationships between instructional immediacy and students' affective and cognitive learning (Andersen, 1979; Burroughs, 2007; Christophel, 1990; Gorham & Christophel, 1990; Kearney, Plax, & Wendt-Wasco, 1985; Kelley & Gorham, 1988; Powell & Harville, 1990; Richmond, 1990). "No other teacher communication variable has been so consistently associated with increases in both students' affective and cognitive learning" (Rodriguez, Plax, & Kearney, 1996, p. 293). Allen et al. (2006), through a meta-analysis, identified a potential direct causal relationship between instructional immediacy and affective learning as well as a direct causal relationship between affective learning and cognitive learning. Thus, displays of instructional immediacy potentially have a direct impact on students' affective learning and an indirect impact of students' cognitive learning.

Another standard for assessing classroom learning is evaluating how satisfied students are with the amount they have learned compared to how much they anticipate learning. Students are more likely to be satisfied with their learning experience if instructors use "skillful facework" during feedback (Kerssen-Griep, 2001; Kerssen-Griep, Trees, & Hess, 2008). Skillful facework involves making eye contact with students and using facial expressions that are perceived to be more positive (i.e., smiling). These displays of skillful facework have consistently been identified as cues of nonverbal instructional immediacy (Richmond, Gorham, & McCroskey, 1987; Richmond, McCroskey, & Johnson, 2003; Smythe & Hess, 2005).

RATIONALE

Previous studies looking at immediacy in the online classroom have reported positive relationships between instructional immediacy and both student motivation and learning in the online classroom (Arbaugh, 2001; Baker, 2004 Easton, 2003; Rovai & Barnum, 2003; Woods, 2002). However, these studies have two shortcomings. First, the studies used items from the verbal immediacy scale (Gorham, 1988) to measure instructional immediacy rather than a valid measure (Robinson & Richmond, 1995) composed of items specific to instructional immediacy displayed through computer-mediated communication. Second, these studies did not differentiate between military and civilian learners. Instructional immediacy is particularly important in online courses because computer mediated instructional immediacy has been consistently reported to correlate highly with students' perceptions of an instructor's social presence (Bolliger, 2009; Lim, Dannels, & Watkins, 2008; Yen & Tu, 2008).

As any display of immediacy will have a positive impact on the message receiver, it is assumed that computer mediated instructional immediacy will have a positive impact on both military and civilian student learning and moti-

vation. However, the cues of computer mediated instructional immediacy may differentiate between military and civilian students. Therefore, the following hypotheses will be addressed:

Hypothesis 1: A positive relationship exists between extrinsic goal orientation motivation and known indicators of computer-mediated instructional immediacy among military students.

Hypothesis 2: A positive relationship exists between intrinsic goal orientation motivation and known indicators of computer-mediated instructional immediacy among military students.

Hypothesis 3: A positive relationship exists between task orientation motivation and known indicators of computer-mediated instructional immediacy among military students.

Hypothesis 4: A positive relationship exists between self-efficacy motivation and known indicators of computer-mediated instructional immediacy among military students.

Hypothesis 5: A negative relationship exists between learning loss and known indicators of computer-mediated instructional immediacy among military students.

Hypothesis 6: A positive relationship exists between extrinsic goal orientation motivation and known indicators of computer-mediated instructional immediacy among civilian students.

Hypothesis 7: A positive relationship exists between intrinsic goal orientation motivation and known indicators of computer-mediated instructional immediacy among civilian students.

Hypothesis 8: A positive relationship exists between task orientation motivation and known indicators of computer-mediated instructional immediacy among civilian students.

Hypothesis 9: A positive relationship exists between self-efficacy motivation and known indicators of computer-mediated instructional immediacy among civilian students.

Hypothesis 10: A negative relationship exists between learning loss and known indicators of computer-mediated instructional immediacy among civilian students.

To better understand the differences in the way that computer-mediated instructional immediacy relates to military and civilian student motivation and learning, particularly with the cues identified to be immediate within the online classroom, the following research question is also proposed:

Research Question: How do the correlation scores with computer mediated instructional immediacy among military students compare to the correlation scores with computer-mediated instructional immediacy among civilian students?

METHOD

Participants

Participants were recruited from three large regionally accredited not-for-profit universities that have both brick-and-mortar and online campuses. The universities sent a link to students enrolled in their online education programs. The response rate was approximately 12%, yielding 497 responses. Participants were only recruited from online programs because distance education is preferred by the military due to the anytime, anywhere accessibility of the classes.

Procedures

All students enrolled in online education at the three universities were invited to participate. All participants received a hyperlink from their university for an online survey. The link took each participant to a welcome screen, which contained the informed consent, describing the study as an attempt to understand how students learn in the online classroom environment. Participants were informed that by clicking *next* that they were indicating

their consent to participate. Participants spent approximately 15 minutes completing the survey.

Instrumentation

Computer-mediated instructional immediacy was measured through the computer mediated instructional immediacy measure (α = .84; Fall et al., 2010; Kelly, Kotowski, & Fall, 2010). Motivation was measured using subscales derived from the Motivated Strategies for Learning Questionnaire; Pintrich, Smith, Garcia, & McKeachie, 1993). The following are the reliability scores measured via Cronbach's alpha: intrinsic goal orientation motivation (α = .78), extrinsic goal orientation motivation (α = .67), self-efficacy motivation (α = .90), and task value (α = .91). Learning loss was measured through an adaptation of Gorham's (1988) original measure by calculating the difference in what students perceived they could have learned in an ideal class format versus what they perceived that they actually learned in their present course. The original scale differentiated based on perceptions of the ideal and actual teacher rather than class format.

RESULTS

The sample consisted of 254 current and former military personnel and 243 civilians. Male students made up 70% of the sample with the other 30% consisting of female students. The average age of participants was 39.

Pearson correlations were run between computer-mediated instructional immediacy and each type of state motivation and learning loss for both the military and civilian subsamples among the participants. The results among military participants for the correlations between computer-mediated instructional immediacy and each of the other variables were as follows: intrinsic goal orientation motivation yielded $r = 0.29$ ($p < 0.01$; $0.17 < \rho < 0.40$), extrinsic goal orientation motivation yielded $r = 0.11$ ($p > 0.05$), task value motivation yielded $r = 0.37$ ($p < 0.01$; $0.26 < \rho < 0.47$), self-efficacy motivation yielded $r = 0.40$ ($p < 0.01$; $0.29 < \rho < 0.49$), and learning loss yielded $r = –0.417$ ($p < 0.01$; $–0.51 < p < –0.31$). Thus, Hypotheses 2, 3, 4, and 5 were supported. However the null hypothesis corresponding with H1, which predicted a positive relationship between military extrinsic goal orientation motivation and computer-mediated instructional immediacy, cannot be rejected due to a lack of statistical significance among the results. These results are summarized in Table 1.

The results among civilian participants for the correlation between computer-mediated instructional immediacy and each of the other variables were as follows: intrinsic goal orientation motivation yielded $r = 0.24$ ($p < 0.01$; $0.17 < \rho < 0.35$), extrinsic goal orientation motivation yielded $r = 0.11$ ($p > 0.05$), task value motivation yielded $r = 0.35$ ($p < 0.01$; $0.22 < \rho < 0.44$), self efficacy motivation yielded $r =$

TABLE 1
Pearson Correlation Comparisons

	Military	*Civilian*
Extrinsic goal orientation	.13	.11
Intrinsic goal orientation	.29*	.24*
Task value	.37*	.34*
Self-efficacy	.40*	.32*
Learning loss	–.42*	-.45*

Note: *$p < .001$.

0.32 ($p < 0.01$; $0.20 < \rho < 0.43$), and learning loss yielded $r = –0.45$ ($p < 0.01$; $–0.54 < \rho < –0.34$). Thus, Hypotheses 7, 8, 9, and 10 were supported. However, the null hypothesis corresponding with Hypothesis 6, which predicted a positive relationship between civilian extrinsic goal orientation motivation and computer-mediated instructional immediacy, cannot be rejected due to a lack of statistical significance among the results. These results are also summarized in Table 1.

The research question called for a comparison between the military and civilian groups regarding the strength of the correlations between each variable and computer-mediated instructional immediacy. The correlation between computer-mediated instructional immediacy and extrinsic goal orientation motivation were not statistically significant for either group. Therefore, a comparison cannot be made. Comparisons can be made regarding the correlations between computer-mediated instructional immediacy and intrinsic goal orientation motivation, task value motivation, self-efficacy motivation, and learning loss by comparing the confidence intervals. The results indicate no significant difference between groups as demonstrated by overlapping of corresponding confidence intervals.

DISCUSSION

The results of this study imply that, not only are the indicators of computer-mediated instructional immediacy similarly recognized among civilian and military students, but that the relationship between computer-mediated instructional immediacy and motivation to learn is of similar strength across both groups. This was unexpected, considering the self-motivated nature of the military. However, these findings are useful to online educators who find themselves at an institute with a high military enrollment. This study did not support the notion that online instructors need to communicate differently between military and civilian students.

This study was limited in its use of the learning loss scale (Gorham, 1988). Although this measure was designed specifically for the college student population, it yields a score by calculating the difference in two items. Thus, it is a very weak measurement instrument (Davis, 1993). The learning loss scale was used because data were collected at midsemester when students would have a thorough assessment of how well the class suited their learning needs, but perhaps not have an idea of what their final grade would be. Future studies should look to obtaining a better evaluation of student learning, perhaps through a final course grade.

Implications for Online Educators

However, these results speak to the power of instructional immediacy. Enrollment in online classes currently outnumbers enrollment in traditional classes on brick-and-mortar campuses (Artino & Stephens, 2009; Larreamendy-Joerns & Leinhardt, 2006). Educators have relied upon a set of nonverbal cues to express instructional immediacy within the classroom for several decades (Richmond et al., 1987; Richmond et al., 2003; Smythe & Hess, 2005). Therefore, in light of the evolution of the classroom into the digital platform, educators must be persistent in their dedication to identify immediate cues that translate well through computer-mediated communication to ensure a quality education for online students.

REFERENCES

Allen, M., Witt, P. L., & Wheeless, L. R. (2006). The role of teacher immediacy as a motivational factor in student learning: Using meta-analysis to test a causal model. *Communication Education, 55,* 21-31.

Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. *Communication Yearbook, 3,* 543-559.

Arbaugh, J. B. (2001). How instructor immediacy behaviors affect student satisfaction and learning

in web-based courses. *Business Communication Quarterly, 64*, 42-54.

Artino, A. R., Jr., & Stephens, J. M. (2009). Academic motivation and self-regulation: A comparative analysis of undergraduate and graduate students learning online. *Internet and Higher Education.* doi: 0.1016/j.iheduc.2009.02.001

Baker, J. D. (2004). An investigation of relationships among instructor immediacy and affective and cognitive learning in the online classroom. *Internet and Higher Education, 7,* 1-13.

Bloom, B. S. (1956). *Taxonomy of educational objectives, Handbook I: The cognitive domain.* New York, NY: David McKay.

Bolliger, D. U. (2009). Use patterns of visual cues in computer-mediated communication. *Quarterly Review of Distance Education*, *10*, 95-108.

Brophy, J. (1983). Conceptualizing student motivation. *Educational Psychologist, 18,* 200-215.

Brophy, J. (2004). *Motivating students to learn* (2nd ed.). Mahwah, NJ: Erlbaum.

Burroughs, N. F. (2007). A reinvestigation of the relationship of teacher nonverbal immediacy and student compliance-resistance with learning. *Communication Education, 56,* 453-475.

Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education, 39,* 323-340.

Davis, W. R. (1993). The FC1 rule of identification for confirmatory factor analysis: A general sufficient condition. *Sociological Methods & Research, 21*, 403-437.

Easton, S. S. (2003). Clarifying the instructor's role in online distance learning. *Communication Education, 52,* 87-105.

Fall, L.T., Kelly, S., & Angle, M. (2010, October) *To infinity and beyond: An empirical analysis of communication immediacy among online learners*. Paper presented at Bollinger-Rosado Symposium on Teaching & Learning Effectiveness during Embry-Riddle Aeronautical University Worldwide Online Conference, Orlando, FL.

Finn, A. N., Schrodt, P., Witt, P. L., Elledge, N., Jernberg, K. A., & Larson, L. M. (2009). A meta-analytical review of teacher credibility and its associations with teacher behaviors and student outcomes. *Communication Education, 58,* 516-537.

Fletcher, J. D., Tobias, S., & Wisher, R. A. (2007). Learning anytime, anywhere: Advanced distributed learning and the changing face of education. *Educational Researcher, 36,*96-102.

Go Army. (2010). *Soldier Life.* Retrieved from the U.S. Army Recruitment website: goarmy.com

Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors 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.

Kearney, P., Plax, T. G., & Wendt-Wasco, N. J. (1985). Teacher immediacy for affective learning in divergent college classes. *Communication Quarterly, 33*, 61-74.

Kelley, D. H., & Gorham, J. (1988). Effects of immediacy on recall of information. *Communication Education, 37,* 198-207.

Kelly, S., Kotowski, M., & Fall, L. (2010, November). *An examination of computer mediated instructional immediacy: Scale development and validation.* Paper presented at the annual meeting of the National Communication Association, San Francisco, CA.

Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Belmont, CA: Wadsworth Thomson.

Kerssen-Griep, J. (2001). Teacher communication activities relevant to student motivation: Classroom facework and instructional communication competence. *Communication Education, 50,* 256-273.

Kerssen-Griep, J., Trees, A. R., & Hess, J. A. (2008). Attentive facework during instructional feedback: Key to perceiving mentorship and an optimal learning environment. *Communication Education, 57*, 312-332.

Larreamendy-Joerns, J., & Leinhardt, F. (2006). Going the distance with online education. *Review of Educational Research, 76,* 567-605.

Li, S., Leh, A., Fu, Y., & Zhao, X. (2009). Learners' preferences in using online learning. *Quarterly Review of Distance Education*, *10*, 299-303.

Lim, J. H., Dannels, S. A., & Watkins, R. (2008). Qualitative investigation of doctoral students' learning experiences in online research methods courses. *Quarterly Review of Distance Education*, *9*, 223-236.

Mehrabian, A. (1967). Attitudes inferred from nonimmediacy of verbal communications. *Journal of Verbal Learning and Verbal Behavior, 6,* 294-295.

Myers, S. A., Edwards, C., Wahl, S. T., & Martin, M. M. (2007). The relationship between perceived instructor aggressive communication and

college student involvement. *Communication Education, 56,* 495-508.

Nyquist, J. L., & Booth, J. L. (1977). Instructional communication: A basic course for teachers. *Communication Education, 26*, 13-26.

Pastore, R., & Carr-Chellman, A. (2009). Motivations for residential students to participate in online courses. *Quarterly Review of Distance Education*, *10*, 263-277.

Pintrich, P. R., Smith, D. A. F., Garcia, T., & McKeachie, W. J. (1993). Reliability and predictive validity of the motivated strategies for learning questionnaire (MSLQ). *Educational Psychological Measurement, 53,* 801-813.

Powell, R. G., & Harville, B. (1990). The effects of teacher immediacy and clarity on instructional outcomes. *Communication Education, 39,* 369-379.

Richmond, V. P. (1990). Communication in the classroom: Power and motivation. *Communication Education, 39,*181-195.

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., & Johnson, A. D. (2003). Development of the nonverbal immediacy scale (NIS): Measures of self- and other-perceived nonverbal immediacy. *Communication Quarterly, 51,* 504-517.

Robinson, R., & Richmond, V. (1995). Validity of the verbal immediacy scale. *Communication Research Reports*, *12*, 80-84.

Rocca, K. A. (2004). College student attendance: Impact of instructor immediacy and verbal aggression. *Communication Education, 53,* 185-195.

Rodríguez, J. I., Plax, T. G., & Kearney, P. (1996). Clarifying the relationship between teacher nonverbal immediacy and student cognitive learning: Affective learning as the central causal mediator. *Communication Education, 45,* 293-305.

Rovai, A. P., & Barnum, K. T. (2003). On-line course effectiveness: An analysis of student interactions and perceptions of learning. *Journal of Distance Education, 18*(1)*,* 57-73.

Smythe, M. J., & Hess, J. A. (2005). Are student self-reports a valid method for measuring teacher nonverbal immediacy? *Communication Education, 54,* 170-179.

Teven, J. J. (2001). The relationship among teacher characteristics and perceived caring. *Communication Education, 50,* 159-169.

Woods, R. H. (2002). How much communication is enough in online courses? Exploring the relationship between frequency of instructor initiated personal email and learners' perceptions of and participation in online learning. *International Journal of Instructional Media, 29,* 377-394.

Yen, C-J., & Tu, C. -H. (2008). Online social presence: A study of score validity of the Computer-Mediated Communication Questionnaire. *Quarterly Review of Distance Education*, *9*, 297-310.