

FACEBOOK IN THE CLASSROOM: THE EFFECTS OF IMMEDIACY  
ON STUDENTS' PERCEPTIONS OF INSTRUCTOR  
CREDIBILITY, REFERENT POWER, AND LIKABILITY

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A Thesis

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California State University, Chico

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In Partial Fulfillment

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Master of Arts

in

Communication Studies

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by

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Angela Ohland

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## DEDICATION

*For my parents, making you proud has  
always been my goal.*

## ACKNOWLEDGMENTS

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## ABSTRACT

### FACEBOOK IN THE CLASSROOM: THE EFFECTS OF IMMEDIACY ON STUDENTS' PERCEPTIONS OF INSTRUCTOR CREDIBILITY, REFERENT POWER, AND LIKABILITY

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Instructor immediacy has a direct positive association with students' perceptions of instructor credibility, referent power, and likability in the classroom. These same variables are associated with increased affective learning. In addition, students prefer technology-enhanced communication. Based on this information, this study tested the hypothesis that different levels of computer-mediated immediacy (i.e., high, low, and none) would be associated with differences in perceived instructor credibility, perceived instructor referent power, and perceived instructor likability. Participants (N = 144) were drawn from three discussion sections of a lower division public speaking course from a university located in the Western United States. Data were collected over the course of one fall and one spring semester, consecutively. Teacher immediacy on Facebook was manipulated in two experimental groups, high immediacy and low immediacy, with a

third group serving as a control. One-month after exposure to the Facebook pages, students in all three groups completed a questionnaire containing several self-report measures. Results indicate that contrary to what was predicted, different levels of immediacy communicated through Facebook had no impact on students' perceptions of instructor immediacy, nor did it impact perceptions of instructor credibility, referent power, or likability. The results of this study suggest that instructors should maintain their focus on demonstrating immediacy in the classroom because in this study, adding Facebook to the face-to-face classroom environment to increase perceptions of instructor immediacy had no significant impact. Students across the three groups perceived the instructor as highly immediate, suggesting that the communication of immediacy that occurs in the classroom environment might wash out any potential benefits of immediacy communicated via social media.

*Keywords:* instructional communication, immediacy, credibility, referent power, likability, social networking

## CHAPTER I

### INTRODUCTION

Evidence exists suggesting that instructor immediacy is advantageous in strengthening an instructor's referent power, credibility, and likability in the classroom (Pogue & Ahyun, 2006). These same variables have been found to increase instructor effectiveness and student-learning outcomes, predominantly affectively (Fassett & Warren, 2010). Whereas increases in cognitive learning deal with knowledge acquisition and analytical skills, increases in affective learning are concerned with the creation of positive feelings between the instructor and student that lead to student confidence and motivation (Andersen, 1982).

Although there has been extensive research examining the effects of immediacy in face-to-face classroom contexts, scholars have not yet examined instructor computer-mediated immediacy facilitated via a social networking site. This phenomenon warrants further analysis because today's young adults are constantly online and commonly deemed "digital natives and millennial learners," preferring technology enhanced communication channels (Lenhart, Arafeh, Smith, & McGill, 2008, p. 1130). Specifically, 85 percent of U.S. college students ages 18-24 have a Facebook account and log onto it daily, with 48 percent checking Facebook when they wake up, and 28% of this group doing so before even getting out of bed (Trimpe, 2011). Statistics suggest that this trend will continue since this demographic is the fastest growing user group, with a 74

percent increase in 18-24 year old users each year (Trimpe, 2011).

Prior research suggests that many scholars believe Facebook has the potential to replace traditional commercially owned learning managements systems (LMSs) such as Blackboard (Wang, Woo, Quek, Yang & Liu, 2012). Due to the expense of LMSs, academic institutions have posited that social networking sites can be used as an alternative because they have the ability to build stronger interpersonal relationships, engage student learning, and motivate students at a cheaper cost (Meishar-Tal, Kurtz, & Piertese, 2012).

This study examines the impact that social networking has on students perceptions of their instructor. Since immediacy has been found to positively affect perceptions of teacher effectiveness, and young adults prefer technology enhanced communication in day-to-day life, the present study examines the impact of instructor computer-mediated immediacy via Facebook on students' perceptions of teacher credibility, referent power, and likability. The utility of this study is to provide a contribution to instructional communication research by investigating if a social networking site incorporated into the course may serve an effective purpose. This study can supplement existing instructional communication literature that refers to the implications of using technology to expand access to learning.

## CHAPTER II

### REVIEW OF LITERATURE

#### Instructional Communication

Instructional communication, which was recognized as a legitimate area of scholarship in 1972, is now a distinctive area of study ingrained in educational psychology, pedagogy, and communication studies (McCroskey & McCroskey, 2006; Mottet & Beebe, 2006). This field of study places its focus on instructors and their ability to strategically provide effective instruction, the learner and how they learn, and the meaning that is exchanged between the two via communication (Myers, 2010). Therefore, by definition, instructional communication is the study of the communicative factors in the learning process that occurs across all subject matter (Friedrich, 1989). More specifically, it is the particular communicative behaviors used by an instructor that lead to a more positive learning environment increasing students' affective or cognitive learning (Nussbaum, 1992). Since early 2000, instructional communication research has become increasingly popular, focusing predominantly on variables such as instructor immediacy, credibility, power, and likability (McCroskey, Valencic, & Richmond, 2004).

#### Instructor Immediacy

Immediacy is one of the most extensively researched variables in instructional communication (McCroskey, 1998). Many researchers have examined the effects of instructor immediacy and concluded that it “has nearly universal classroom appeal and

that it elicits positive responses from students around the world” (Witt & Schrodt, 2006, p. 201). Immediacy was first conceptualized as any communicative behavior that augments closeness with another (Mehrabian, 1969). It encompasses both the verbal and nonverbal behaviors that contribute to decreasing the physical and psychological distance between two people (Mehrabian, 1969). In the classroom setting, immediacy is viewed by the student as any expression of liking demonstrated by the instructor, which as a result, enhances the student-teacher interpersonal relationship (Mehrabian, 1969). Nonverbal immediacy can be expressed by both the instructor and the student through actions such as eye gazes, smiles, and appropriate touches (Witt & Schrodt, 2006). Verbal immediacy by the instructor is demonstrated by encouraging student input, disclosing personal information, and using humor to reduce distance in the classroom (Witt, Schrodt, & Turman, 2010).

More than 200 studies have been conducted that report positive associations between an instructor’s immediacy behavior and a student’s overall learning (Witt, 2008). Instructors who demonstrate immediacy are perceived by students as being more competent, credible, and more effective in terms of power (Witt, 2008). This behavior also generates a greater liking for the instructor, with a greater likelihood that students will engage in classroom activities because of increased motivation (McCroskey, 1998). Additionally, instructor immediacy contributes to lower levels of student communication apprehension (McCroskey, 1998). Of all instructional communication variables, immediacy has demonstrated the most widespread impact on classroom outcomes (Witt & Schrodt, 2006).

Given that one proven strategy teachers can use to increase learning is immediacy (Witt & Schrodt, 2006), scholars have begun to examine immediacy in the computer-mediated realm (O'Sullivan, Hunt, & Lippert, 2004). Mediated immediacy is defined as “the communicative cues in mediated channels that can shape perceptions of psychological closeness between interactants” (O'Sullivan, Hunt, & Lippert, 2004, p. 471). One particular strategy that teachers can use to increase both computer-mediated immediacy and immediacy in the classroom is self-disclosure (Witt & Schrodt, 2006; O'Sullivan, Hunt, & Lippert, 2004). Self-disclosure “is any personal message that is communicated about the self to another person” (Wheless & Grotz, 1976, p. 251). Those teachers who demonstrate higher levels of self-disclosure in the classroom are often perceived to be more credible and more immediate by their students (McBride & Wahl, 2005).

### Instructor Credibility

Instructor credibility is defined as “the attitude of a receiver which references the degree to which a source is seen to be believable” (McCroskey, 1998, p. 80). This believability is gauged across three dimensions in the classroom, including: “(1) competence, the extent to which an instructor is considered to be an expert on the subject matter; (2) character, the extent to which an instructor is viewed as honest and trustworthy; and (3) caring, the extent to which an instructor is perceived to be concerned about the welfare of students” (McCroskey, 1998, p. 80). Perceived instructor credibility is the most influential factor in the formulation of student-teacher relationships (Mazer, Murphy, & Simonds, 2009; Myers, 2010). Students are more motivated to participate in

class with an instructor who they perceive is highly credible as well as one who is highly immediate (Pogue & Ahyun, 2006). Additionally, instructors who are perceived as credible relate better to their students and create a more comfortable environment for asking questions (Teven & Hanson, 2004). Therefore, effective teaching is a function of both immediate and credible behavior, which leads to an increase in student's affective learning (Pogue & Ahyun, 2006).

### Instructor Power

Another communicative factor that influences student-teacher relationships and affects student motivation and affective learning is the instructor's use of power (McCroskey & Richmond, 1983). Power in the classroom is the verbal and nonverbal message strategies and behaviors used by an instructor to successfully persuade students (McCroskey, 1998). All instructional communication research on power is defined "from the perspective of the receiver; targets of the influence attempt (i.e., students) must perceive that the source (i.e., the instructor) 'has' power" (Chory & Goodboy, 2010, p.182). The overarching definition of power in the classroom environment is the degree to which a student believes their instructor has the ability to influence them (Hurt, Scott, & McCroskey, 1978). An instructor's referent power (French & Raven, 1959) stems from the personal attraction and affinity a student feels towards an instructor and the desire to be more like them, and to also be liked by them. When an instructor exerts referent power, the student is more likely to identify with that instructor and view him or her as a role model (Chory & Goodboy, 2010). As a result, students perform to the best of their ability in order to please an instructor they perceive possesses referent power

(McCroskey & Richmond, 1983).

Several studies have investigated the relationship between perceptions of instructor power and instructional outcomes (Chory & Goodboy, 2010; Teven & Herring, 2005; McCroskey & Richmond, 1983). Students' perceptions of their instructors' use of referent power is related positively to students' affective learning, cognitive learning, state motivation, and learner empowerment (Chory & Goodboy, 2010; Richmond, 1990). Referent power is also associated with instructor credibility, and the more immediate a teacher is with his/her students, the more referent power that instructor is perceived to have (McCroskey & Richmond, 1983; Richmond, 1990; Teven & Herring, 2005).

#### Instructor Likability

In the classroom setting, students tend to like their instructors when they find them to be either physically attractive, kind, intelligent, honest, or empathetic (Eagly, Ashmore, Makhijani, & Longo, 1991). Instructors can demonstrate likable behavior by listening to students, laughing more, acting smart, being honest and positive, and demonstrating friendly, real, and empathetic behaviors (Wu, 2012). Evidence exists suggesting that when students like their instructor they want to be more like that instructor which results in positive effects on student learning (Uranowitz & Doyle, 1978). Specifically, task performance and affective learning are increased by the presence of a liked person because this person energizes and motivates their students (Uranowitz & Doyle, 1978).

#### Technology in Education

Many aspects of society, including higher education, have been profoundly affected by the prevalence of technology. Blackboard Inc., the leading company in the

U.S. for e-learning tools, now boasts upwards of 15 million active users with approximately 850 institutions utilizing its services (“Blackboard,” 2012). Blackboard is a web-based learning management system (LMS) that enables educators to create portals that feature tools to post announcements and important course materials such as quizzes and grades (“Blackboard,” 2012).

Collectively, research suggests that the use of LMSs, such as Blackboard, can result in positive outcomes. These outcomes include “increased access to resources, and increased learning” (Witt & Schrodt, 2006, p.4), as well as the ability to create a motivating and constantly available collaborative learning environment (Chen, 2003). LMSs enable instructors to move the focus from “content based learning to process-based learning” which helps learners transition from “passive to active learning” (Herse & Lee, 2005, p. 51). LMSs allow students the opportunity to reflect on their learning strategies with a network that facilitates a constantly available environment outside of the traditional classroom (Chen, 2003). What learning management systems lack, however, is the inherent focus on reciprocal communication and user-generated content that defines social networking (Rios-Aguilar, González, Deil-Amen, & Davis, 2012). Therefore, although there appear to be benefits that come from LMSs, due to the introduction of social networking sites, many educators now believe that commercially owned LMSs such as Blackboard have a host of constraints that may make using social networking as an LMS a good choice (Sanchez-Franco, 2010).

Among the constraints of LMSs, the biggest issue is that many universities cannot afford such expensive systems such as Blackboard (Wang et. al., 2011, p. 429). Another

concern is that trainee instructors or TA's "cannot access certain features such as creating a course, enrolling students, and setting up student groups, because these functions are usually open to instructors and administrators only" (Wang et. al., 2012, p. 429).

Additionally, many instructors fail to take full advantage of LMSs, because there are an abundance of features that many instructors are unaware of. Therefore, an exploration of the potential of social networking sites remains necessary.

### Social Networking in Education

Recent research has suggested that the use of Facebook as a learning management system "has certain pedagogical, social and technological affordances" (Wang, et. al., 2011, p. 428). Similar to LMSs, social networking provides a constantly accessible medium for communication and notification (Mazer, Murphy, & Simonds, 2009). In contrast to LMSs, social networking sites are far more prevalent in young adults' lives. This prevalence has led some instructors to the assumption that Facebook offers the capacity to change education, pushing learners towards more active engagement in and outside of the classroom (Ziegler, 2007). Responding directly to the aforementioned constraints of traditional LMSs, Facebook is free and accessible to all public users. Additionally, Facebook allows anyone to create and manage new groups or courses regardless of their status as an instructor, administrator, or TA (Wang et. al., 2012).

Research suggests that not only does Facebook have the potential to engage student learning, it can also build stronger student-teacher relationships (Wang et. al., 2012). When an instructor provides virtual office hours through Facebook, students

express higher satisfaction with their teacher-student communication (Li & Pitts, 2009). Facebook gives students a place to voice concerns about the course, and serves “as a useful platform for sharing information and resources” (Wang et. al., 2012, p.433). What remains to be explored though is if computer-mediated immediacy on Facebook has impact on students’ perceptions of instructor credibility, referent power, and likability.

### Present Study

Immediacy in the classroom has the potential to strengthen student’s perceptions of a teacher’s credibility, referent power, and likability (Witt & Schrodt, 2006; Pogue & Ahyun, 2006; Uranowitz & Doyle, 1978). Specifically, teachers who are more immediate and who personalize their teaching through self-disclosure, using tactics like personal stories, humor, and enthusiasm, are perceived to be more credible, likable, and exert more referent power, which as a result, increases student affective learning (Witt & Schrodt, 2006). In addition, technology embedded in education is advantageous because of its ability to create a constantly available learning environment (Teven & Hanson, 2004). Students are “digital natives” who prefer technology-enhanced communication and are constantly online, predominantly using Facebook. Therefore, the purpose of this investigation was to examine students’ perceptions of their instructor as a result of computer-mediated immediacy via a course Facebook page. Specifically, the impact that computer-mediated immediacy on Facebook had on students’ perceptions of instructor credibility, referent power, and likability was explored. Based on the literature, this study tested the following hypothesis:

H1: Different levels of computer-mediated immediacy demonstrated on Facebook will be

associated with differences in (a) perceived instructor credibility (b) perceived instructor referent power and (c) perceived instructor likability.

## CHAPTER III

### METHOD

#### Participants

This study was conducted using a convenience sample of students from three discussion sections of a lower division public speaking course at a university located in the Western United States. The course is a general education class, so participants represented various academic majors. Data were collected during both fall and spring semesters. The final sample consisted of 80 males and 64 females ( $N = 144$ ). Participants ranged in age from 18 to 23 years old, with a mean age of 19 ( $SD = 1.07$ ). Twenty six percent of participants reported being first-year students, 50% second-year, 17% third-year, and 7% fourth-year.

#### Design

A static-group comparison was used to assess the effect that manipulating immediacy on Facebook had on participants' scores on the three dependent variables: perceived instructor credibility, referent power, and likability. Teacher immediacy on Facebook was manipulated in two experimental groups, high immediacy and low immediacy, with a third group serving as a control. Immediacy was manipulated through the use of self-disclosure in the form of personal information, photographs, and posts on the instructors 'Wall' in the two experimental groups (high and low immediacy). Photographs in the high immediacy condition showed the instructor with family and

friends in identifiable public locations. In this condition, personal information was provided. This information included disclosures such as favorite quotes, movies, television shows, books, and music interests. In addition, relationship status and position at the university were provided. In the high immediacy condition, personal information and photos were added to the 'Wall' four times a week, with a heavier display of information front loaded at the introduction of the Facebook page. Other graduate students were also asked to post fictitious invites to social get-togethers on this high immediacy page twice during the one-month exposure. In the low immediacy condition, the photographs were limited to a portrait of the instructor and a few less intimate photos with family. Only favorite books, quotes, and position within the university were disclosed. This personal information was more gradual, and was shared only once a week. Students in the control group did not have access to an instructor Facebook page. One-month after exposure to the Facebook pages, students in all three groups completed a questionnaire containing several self-report measures described below.

#### Procedure

Data were collected over the course of one fall and one spring semester, consecutively. At the beginning of each semester, after human subjects' approval had been granted by the institutional review board, a 'friend request' was extended via Facebook to students in the two experimental conditions. In class, students were asked to accept the request. The low immediacy experimental group was sent an invitation to the low immediacy profile of the instructor, and the high immediacy experimental group was sent an invitation to the high immediacy profile of the instructor. None of the classes had

access to the other classes' Facebook pages. After all students accepted the invitation, they were asked to remain 'friends' for one month. Participants were then offered extra credit for completing the questionnaire in class.

### Measures

Credibility. Credibility was assessed using Teven and McCroskey's (1999) Source Credibility measure. It is an 18-item bi-polar adjective measure composed of three subscales. Each subscale includes six items; items are measured on a 7-point scale. The three dimensions of credibility include competence (e.g., "competent, incompetent"), trustworthiness (e.g., "phony/genuine") and caring (e.g., "has my interests at heart/does not have my interests at heart"). Students were asked to indicate their perception of their instructor by circling their selected number between the pairs of bipolar adjectives on the 7-point scale. Higher scores indicated higher perceptions of teacher credibility. Cronbach's  $\alpha$  for this scale was .84.

Referent Power. Referent power was assessed using the referent power subscale of Schrodtt, Witt, and Turman's (2007) 30-item Teacher Power Use scale (TPUS). The referent power subscale consists of six items, measured on a 7-point Likert-type scale (1 = *completely disagree*; 7 = *completely agree*). Sample items include "My teacher demonstrates commitment to the class by being authentic and genuine when interacting with students" and "My teacher builds rapport with the class by relating to students in an open and approachable manner." Higher scores represented higher levels of referent power. The reliability for this scale was  $\alpha = .84$ .

Likability. Likability was measured using the Reysen (2005) Likability scale,

which measures the perceived likability of a target individual, and allows participants to rate to what degree they view an individual as likable. The Reysen Likability scale contains 11 items; items are measured on a 7-point Likert-type scale (1 = *strongly disagree*; 7 = *strongly agree*). Sample items include “This person is friendly,” and “I would ask this person for advice.” Higher scores reflected higher levels of likability. Cronbach’s  $\alpha$  for this scale was .89.

Immediacy. A manipulation check was used to assess whether participants perceived differences in instructor immediacy across the three groups. Gorham’s (1988) 17-item Verbal Immediacy scale served as the manipulation check. Items are measured on a 7-point Likert-type scale (1 = *strongly disagree*; 7 = *strongly agree*) with higher scores reflecting higher levels of immediacy. Sample items include “The instructor uses personal examples or talks about experiences she had outside of class” and “The instructor uses humor effectively.” The reliability for this scale was  $\alpha = .81$ .

## CHAPTER IV

### RESULTS

#### Data Equivalency

Twelve independent-samples *t* tests were conducted to determine whether data collected during fall and spring semesters could be combined. In these analyses, experimental condition fall and spring was treated as the independent variable, and credibility, referent power, likability, and immediacy were treated as dependent variables. Equal variances could not be assumed for four of the tests. The Levene's test for equality of variance for credibility in the high immediacy conditions (fall and spring) was significant ( $F = 9.74, p < .01$ ),  $t(34) = 1.54, ns$ . Homogeneity of variance could also not be assumed ( $F = 9.40, p < .01$ ) for referent power in both the fall and spring high immediacy conditions  $t(39) = -.835, ns$  or for likability in the fall and spring high immediacy conditions ( $F = 4.84, p = .03$ ),  $t(37) = -1.49, ns$ . Finally, homogeneity of variance could not be assumed for referent power in fall and spring low immediacy conditions ( $F = 4.89, p = .03$ ),  $t(38) = -.78, ns$ . For the remaining eight tests, equality of variance could be assumed. None of the 12 tests reached statistical significance, suggesting that data from fall and spring semesters was equivalent and could be combined. Table 1 contains the results of the *t* tests. Table 2 contains means, standard deviations, scale ranges, and correlations for all of the study variables. Note that the correlations between the four study variables are all significant, ranging from .47 to .68.

Table 1

*Independent Samples t Test*

<i>Grouping Variables</i>	<i>Credibility</i>	<i>Referent Power</i>	<i>Likability</i>	<i>Immediacy</i>
High Immediacy Experimental Group	$t(34) = 1.54,$ <i>ns</i>	$t(39) = -.835,$ <i>ns</i>	$t(37) = -1.49,$ <i>ns</i>	$t(46) = -.73,$ <i>ns</i>
Low Immediacy Experimental Group	$t(46) = -1.46,$ <i>ns</i>	$t(38) = -.78,$ <i>ns</i>	$t(46) = -.43,$ <i>ns</i>	$t(46) = -1.01,$ <i>ns</i>
Control Group	$t(46) = .75,$ <i>ns</i>	$t(46) = .71,$ <i>ns</i>	$t(44) = -.02,$ <i>ns</i>	$t(46) = -1.59,$ <i>ns</i>

Table 2

*Means, Standard Deviations, Scale Ranges, and Correlations for all Study Variables*

<i>Variables</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1 Credibility	6.26	0.53	(1 – 7)	--			
2 Referent Power	5.98	0.82	(1 – 7)	.68**	--		
3 Likability	6.20	0.71	(1 – 7)	.65**	.67**	--	
4 Immediacy	2.93	0.46	(0 – 4)	.51**	.49**	.47**	--

\*\* $p < .01$ .

### Manipulation Check

Prior to testing the study's hypothesis, a one-way analysis of variance (ANOVA) was conducted as a manipulation check to determine if students in the three groups perceived differences in the instructor's immediacy. The groups served as the independent variable (high, low, and control) and immediacy served as the dependent variable. The overall model was significant:  $F(2,141) = 3.04, p = .05$ , indicating that there were differences between the three groups in terms of perceived instructor immediacy. Table 3 presents the means and standard deviations for each group. As a follow up analysis, planned comparisons were conducted using Tukey HSD. None of these analyses reached statistical significance. Examination of the individual means reveals that student's perceptions of the instructor's immediacy in the high immediacy condition ( $M = 3.06, SD = .46$ ) was higher than in the low immediacy condition ( $M = 2.85, SD = .45$ ) and the control group ( $M = 2.89, SD = .45$ ). Although the overall model was significant, the more stringent post-hoc comparisons revealed no significant differences between groups on perceptions of instructor immediacy.

Table 3

*Manipulation Check Means and Standard Deviations*

<i>Experimental Condition</i>	<i>M</i>	<i>SD</i>
1 High Immediacy	3.06	.46
2 Low Immediacy	2.85	.45
3 Control	2.89	.45

### Hypothesis Test

The study's hypothesis predicted that different levels of computer-mediated immediacy demonstrated on Facebook would be associated with differences in perceived instructor credibility, perceived instructor referent power, and perceived instructor likability. To determine if the three groups' means differed on the three dependent variables, three one-way ANOVAs were conducted. The three groups were treated as the independent variable (high, low, and control) and instructor credibility, referent power, and likability were treated as the dependent variables. Table 4 presents the means and standard deviations for each group. The first one-way ANOVA tested credibility as the dependent variable and revealed no significant differences across the three groups,  $F(2,141) = .93, ns$ . There was no significant difference between student's perceptions of the instructor's credibility in the high immediacy condition ( $M = 6.33, SD = .54$ ), the low immediacy condition ( $M = 6.27, SD = .54$ ), or the control group ( $M = 6.18, SD = .52$ ). The second one-way ANOVA treated referent power as the dependent variable and revealed no significant differences across the three groups,  $F(2,141) = .72, ns$ . There was no significant difference revealed between student's perceptions of the instructor's referent power in the high immediacy condition ( $M = 6.10, SD = .75$ ), the low immediacy condition ( $M = 5.92, SD = .92$ ), or the control group ( $M = 5.92, SD = .77$ ). The third one-way ANOVA treated likability as the dependent variable and revealed no significant differences across the three groups  $F(2,141) = .22, ns$ . There was no significant difference between student's perceptions of the instructor's likability in the

high immediacy condition ( $M = 6.25$ ,  $SD = .76$ ), the low immediacy condition ( $M = 6.15$ ,  $SD = .73$ ), or the control group ( $M = 6.20$ ,  $SD = .64$ ).

Table 4

*Means and Standard Deviations for Dependent Variables by Experimental Condition*

	High Immediacy Experimental Group	Low Immediacy Experimental Group	Control Group
Credibility	$M = 6.33$ $SD = .54$	$M = 6.27$ $SD = .54$	$M = 6.18$ $SD = .52$
Referent Power	$M = 6.10$ $SD = .75$	$M = 5.92$ $SD = .92$	$M = 5.92$ $SD = .77$
Likability	$M = 6.25$ $SD = .76$	$M = 6.15$ $SD = .73$	$M = 6.20$ $SD = .64$

## CHAPTER V

### DISCUSSION

The purpose of this study was to examine the impact of computer-mediated immediacy on students' perceptions of their instructor. Specifically, the hypothesis predicted that different levels of computer-mediated immediacy, communicated through Facebook, would be associated with differences in perceived instructor immediacy, leading to differences in perceived instructor credibility, referent power, and likability. The findings suggest that computer-mediated immediacy, as operationalized in the present study, had no impact on students' perceptions of their instructor's credibility, referent power, or likability. The results, however, may provide important information for communication scholars and instructors.

Before testing the study's hypothesis, the manipulation check was assessed, to determine if students in the three groups perceived differences in the instructor's immediacy. Although the overall model suggested significant differences, the more stringent post hoc comparisons revealed no significant differences between the three groups. Although not significantly different than the other two groups, the high immediacy group reported the highest mean scores on their perceptions of the instructor's immediacy. This may suggest that to the extent an instructor reveals personal information through the use of photographs, and posts on their 'Wall', expressing immediacy on Facebook may be achievable. It also may suggest that communicating immediacy

effectively through this platform requires an instructor to provide a lot of personal information.

Although the high immediacy group reported the highest mean scores on perceptions of instructor immediacy, the study's hypothesis, that different levels of computer-mediated immediacy demonstrated on Facebook would be associated with differences in perceived instructor credibility, referent power, and likability, was not supported. The three groups did not differ on the three dependent variables. Contrary to what was predicted, different levels of immediacy communicated through Facebook had no impact on students' perceptions of instructor immediacy, nor did it impact perceptions of instructor credibility, referent power, or likability. Instructor immediacy is one of the most widely researched variables in instructional communication, with a host of literature suggesting that it not only increases students perceptions of an instructor's credibility, referent power, and likability, but that it elicits positive responses from students around the world (Witt, 2008; Witt & Schrodt, 2006). More importantly, instructor immediacy is generally associated with enhanced student learning outcomes (Witt, 2008). The results of this study suggest that instructors should maintain their focus on demonstrating immediacy in the classroom. In this study, adding Facebook to the face-to-face classroom environment to increase perceptions of instructor immediacy had no significant impact. Students across the three groups perceived the instructor as highly immediate, suggesting that the communication of immediacy that occurs in the classroom environment might wash out any potential benefits of immediacy communicated via social media.

Instructor immediacy in the classroom can increase instructor effectiveness,

enhance the student-teacher interpersonal relationship, and lead to greater student learning outcomes, predominantly affective learning, which results in student confidence and motivation (Fassett & Warren, 2010; Andersen & Andersen, 1982). The results of this study suggest that focusing on communicating immediacy in the classroom is a better investment of time than spending time outside of the classroom to administer a Facebook page in an attempt to connect with students. In the context of a relatively small, face-to-face classroom environment, Facebook does not seem to enhance the communication of immediacy, and as such, may not be a worthwhile investment of time. These results suggest that instructors would be better off investing time making face-to-face connections in the classroom and meeting with students one-on-one.

The findings of this study call into question prior research suggesting that Facebook has many advantages over traditional LMSs, such as the ability to build stronger interpersonal relationships, engage student learning, and motivate students (Meishar-Tal, Kurtz, & Piertese, 2012). Although this study did not test Facebook as an LMS, the results suggest that communicating with students via Facebook does not significantly impact students' perceptions of instructors over and above what happens in the classroom. In this study, students in all three groups perceived the instructor as highly immediate, and more, as highly credible, as having a high degree of referent power, and as being highly likable, all of which are associated with engaging student learning and increasing student motivation.

Although there was no gain from computer-mediated immediacy in this study, future research should examine whether computer-mediated immediacy benefits

instructors who teach in online and large lecture environments that lack the intimacy of smaller classes that meet face-to-face. These contexts may inhibit the ability of an instructor to demonstrate immediacy because they are not physically accessible, as in online classes, or because the student to teacher ratio is too large to focus on individual interpersonal relationships, as in large lecture classes. Facebook allows instructors to post personal pictures, disclose information, and connect with students in an environment away from school, giving students the opportunity to recognize similarities between the instructor and themselves. It would be interesting to determine if the addition of Facebook in an online or large lecture context would increase students' perceptions of the instructor's immediacy, and as such, enhance student-learning outcomes.

#### Limitations

There are several limitations to this investigation that must be considered when interpreting the results. First, this was not a high control experiment, so the immediacy conveyed through Facebook could not be isolated from what was demonstrated in the classroom. Additionally, the sample size was small, and did not constitute a random sample. The small sample size of the first semester alone rendered it difficult to find significant relationships from the data. As the sample grew larger with the addition of the second semester's data, statistical power to detect differences increased. It may be that a larger sample size would have led to different results. A final limitation has to do with the self-report nature of this investigation; participants may have been motivated by social desirability, feeling the need to give socially appropriate answers while completing the questionnaire.

## Conclusion

Collectively, these results suggest that instructor manipulation of immediacy on Facebook does not significantly impact students' perceptions of the instructor's immediacy, and as such, has no impact on perceptions of instructor credibility, referent power, or likability. As a result, in this investigation of Facebook in the classroom, it can be inferred that in this context, a relatively small face-to-face traditional classroom environment, there is no added value to maintaining a Facebook page as a way to communicate immediacy, as in the end, the effects of online immediacy are washed out by the immediacy conveyed face-to-face. Ultimately, this is important information for instructors because it may not be worthwhile to spend the extra time to maintain a Facebook page when what happens face-to-face in the classroom has a greater impact than what can be conveyed via social media.

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## APPENDIX A

## QUESTIONNAIRE

This survey contains questions that ask you about your course instructor. Please read all of the instructions and questions carefully and try to answer each to the best of your ability. There are no right or wrong answers. Your name will not be connected to the answers you choose. Please answer all of the questions as honestly as possible, and complete the survey independently, without consulting or discussing your responses with others. When you have finished your questionnaire, please double check to make sure that you have answered all of the questions, and that you have **not** written your name anywhere. Thank you very much for participating in this study.

**Instructions:** On the scales below, indicate your feelings about your instructor.

	Very Strong Feeling	Strong Feeling	Fairly Weak Feeling	Undecided	Fairly Weak Feeling	Strong Feeling	Very Strong Feeling	
1. Intelligent	1	2	3	4	5	6	7	Unintelligent
2. Untrained	1	2	3	4	5	6	7	Trained
3. Cares about me	1	2	3	4	5	6	7	Doesn't care about me
4. Honest	1	2	3	4	5	6	7	Dishonest
5. Has my interests at heart	1	2	3	4	5	6	7	Doesn't have my interests at heart
6. Untrustworthy	1	2	3	4	5	6	7	Trustworthy
7. Inexpert	1	2	3	4	5	6	7	Expert
8. Self-centered	1	2	3	4	5	6	7	Not self-centered
9. Concerned with me	1	2	3	4	5	6	7	Not concerned with me
10. Honorable	1	2	3	4	5	6	7	Dishonorable
11. Informed	1	2	3	4	5	6	7	Uninformed
12. Moral	1	2	3	4	5	6	7	Immoral
13. Incompetent	1	2	3	4	5	6	7	Competent
14. Unethical	1	2	3	4	5	6	7	Ethical
15. Insensitive	1	2	3	4	5	6	7	Sensitive
16. Bright	1	2	3	4	5	6	7	Stupid
17. Phony	1	2	3	4	5	6	7	Genuine
18. Not understanding	1	2	3	4	5	6	7	Understanding

**Instructions:** For each of the following statements, circle the number on the 7-point scale that best describes how that statement applies to your teacher's behavior.

1	2	3	4	5	6	7
<b>Completely Disagree</b>	<b>Somewhat Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Somewhat agree</b>	<b>Completely Agree</b>

1. My teacher demonstrates commitment to the class by being authentic and genuine when interacting with students.      1    2    3    4    5    6    7
  
2. I find myself identifying with my teacher because we have a lot in common.      1    2    3    4    5    6    7
  
3. My teacher builds rapport with the class by relating to students in an open and approachable manner.      1    2    3    4    5    6    7
  
4. I feel that my teacher and I are "on the same page."      1    2    3    4    5    6    7
  
5. I see things from my teacher's perspective.      1    2    3    4    5    6    7
  
6. I feel that I can relate to my teacher as a person because of the personal stories and illustrations she shares with the class.      1    2    3    4    5    6    7



**Instructions:** Below are a series of descriptions of things teachers have been observed saying or doing . Please respond to the question in terms of the way you perceive your instructor acts. For each item write the number 0-4 which indicates the behavior of your teacher

0	1	2	3	4
Never	Rarely	Occasionally	Often	Very Often

36.	Uses personal examples or talks about experiences she has had outside of class	0	1	2	3	4
37.	Ask questions or posts announcements encouraging students to engage	0	1	2	3	4
38.	Gets into discussions based on something a student brings up even when this doesn't seem to be part of her lecture plan	0	1	2	3	4
39.	Uses humor effectively	0	1	2	3	4
40.	Addresses students by name	0	1	2	3	4
41.	Addresses me by name	0	1	2	3	4
42.	Gets into conversations with individual students away from class time or online	0	1	2	3	4
43.	Has initiated conversations with me before, after, or outside of class	0	1	2	3	4
44.	Refers to class as "my" class or what "I" I am doing	0	1	2	3	4
45.	Refers to class as "our" class or what "we" are doing	0	1	2	3	4

0	1	2	3	4
Never	Rarely	Occasionally	Often	Very Often

36.	Provides feedback on my individual work through comments on papers, oral discussions, etc.	0	1	2	3	4
37.	Asks how students feel about an assignment, due date, or discussion topic	0	1	2	3	4
38.	Invites students to meet with her outside of class if they have questions or want to discuss something	0	1	2	3	4
39.	Asks questions that solicit viewpoints or opinions	0	1	2	3	4
40.	Praises students' work, actions or comments	0	1	2	3	4
41.	Will have discussions about things unrelated to class with individual students or with the class as a whole	0	1	2	3	4
42.	Is addressed by her first name by the students	0	1	2	3	4

**Instructions: The following are demographic questions. Please respond to each with the choices provided.**

What is your sex? \_\_\_ male \_\_\_ female

What is your age? \_\_\_ years

What year in college are you? (check one)

\_\_\_ Freshman

\_\_\_ Sophomore

\_\_\_ Junior

\_\_\_ Senior and above