

## Comparison of Student and Instructor Perceptions of Social Presence

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### Abstract

As enrollment in online courses continues to grow and online education is increasingly recognized as an established instructional mode, the unique challenges posed by this learning environment should be addressed. A primary challenge for virtual educators is developing social presence such that participants feel a sense of human connection with each other. Accomplishing this within learning management systems (LMS) that are often restrictive can be difficult. Prior research has established a relationship between student perceptions of social presence and satisfaction, but little research has included perceptions of instructors. This study compares student and instructor perceptions of social presence and the importance placed on social connections. While students and instructors reported high levels of social presence, students reported significantly lower levels than instructors. In particular, students found the LMS more impersonal than instructors and were less comfortable participating in LMS activities than instructors. Students had less desire for social connections with other students and instructors, and reported having less time available for such connections. Strategies to facilitate social presence, including offering social networking opportunities outside the LMS, are discussed in light of these differences in perceptions between students and instructors.

**Keywords:** Social Presence, Community of Inquiry, Social Media, Social Networking, Student Perceptions, Instructor Perceptions

## INTRODUCTION

In academia, online education is now a mainstay and carries little stigma of inferior instruction (Allen & Seaman, 2010) or awarded degrees (Allen & Seaman, 2011). Among the general public, while there is an appreciation for the flexibility and affordability of online education, doubts remain about quality, rigor, and acceptance by employers (Saad, Busteed, & Ogisi, 2013). There are certainly challenges to establishing a successful and well respected online teaching and learning environment. Those challenges are different, not better or worse, than face-to-face classroom obstacles.

One unique challenge for online educators is fostering effective communication in a setting where paralinguistic cues such as facial expression and voice intonation are often absent (Ice, Curtis, Phillips, & Wells, 2007; Liu, Lee, Bonk, Su, & Magjuka, 2005). In particular, it is difficult to establish the social and psychological dimensions of communication in an online environment (Kreijns, Kirschner, & Jochems, 2003). Social communication is the underpinning of social presence, an integral part of Garrison, Anderson, and Archer's (2000) Community of Inquiry (CoI) framework developed to enhance successful online teaching and learning (Garrison, Anderson, & Archer, 2000, Garrison, Anderson, & Archer, 2010). This model includes a three-part structure which, in addition to social presence, is comprised of cognitive and teaching presences. It proposes with varying degrees of validation (Annand, 2011; Rourke & Kanuka, 2009) that academic success is interdependent on these three components. While research has demonstrated that students value social presence in the learning environment (Akyol & Garrison, 2008; Caspi & Blau, 2008; Richardson & Swan, 2003; Gunawardena & Zittle, 1997), research has yet to assess instructor perceptions of social presence. The current study

addresses this gap in the literature by examining the similarities and differences between online instructor and student perceptions of social presence.

Social presence, with its core elements of affective communication, interaction, and cohesion, is recognized as the “human” third of the CoI equation. Social presence focuses on communication not directly tied to the sharing of academic content. The affective element of social presence embodies the use of humor, emotions, and self-disclosure. The interactive element includes acknowledgement, appreciation, and return of communication. Cohesion addresses the encouragement of collaboration and community building through the personalization of messages by, for example, the use of names or casual greetings and closings (Garrison, Cleveland-Innes, & Fung, 2010; Rourke, Anderson, Garrison, & Archer, 2001).

Closely tied to the CoI model, and particularly to social presence, is the concept of instructor immediacy (Schutt, Allen, & Laumakis, 2009; Sung & Mayer, 2012). Instructor immediacy, which applies to both face-to-face and online facilitation, is generally defined as verbal and non-verbal behaviors that reduce psychological and physical distance (Baker, 2004). In an online education environment, immediacy behaviors can help bridge what Moore terms the “transactional distance,” which is the “psychological and communications space” between instructor and learner (Moore, 1993, p. 22). As a rule, instructor immediacy has more to do with how, when, and how often a facilitator communicates with students as opposed to the content of the message (Arbaugh, 2001, Baker, 2010).

Student attitudes toward social presence are well documented. Studies indicate that higher levels of social presence are related, both directly and indirectly, to student satisfaction (Akyol & Garrison, 2008; Arbaugh, 2008; Caspi & Blau, 2008; Gunawardena & Zittle, 1997; Leong, 2011; Mykota & Duncan, 2007; Richardson & Swan, 2003). While higher social presence does not directly correlate with increased levels of cognition or academic success, it does affect other important academic outcomes like course attrition and program retention (Caspi & Blau, 2008; Richardson & Swan, 2003; Wanstreet & Stein, 2011). Further, Kumar, Dawson, Black, Cavanaugh, and Sessums (2011) found that while students perceived social presence to be an important online learning feature they were dissatisfied with the ability of a learning management system (LMS) to sufficiently provide it.

Given its primary function as a text-based “repository of learning content” (Richards, Rasli, Ahmad, & Churchill, 2010, p. 1364), the LMS offers limited opportunity for social presence (Brazington, 2012), leading academics to look outside this platform to assure its inclusion. A seemingly natural solution is a social media tool, which is easily accessible, widely used, and affordable (Wodzicki, Schwämmlein, & Moskaliuk, 2012; Woodley & Meredith, 2012). However, the use, value, and appropriateness of employing a social media tool outside of an LMS are at the center of ongoing debate and little agreement. Some studies have found that students and instructors are amenable to and even anxious to incorporate a social media tool into the online learning environment as a method of increasing social presence and instructor immediacy (DuVall et al., 2007; Jeong, 2007). Other studies (Githens, 2007; Hewitt & Forte, 2006; Ouzts, 2006; Schrum, English, & Galizio, 2012; Shin, 2002) have found students opposed to the addition of a social media tool to their learning environment. The two most common

reasons cited for this opposition were overburden from having to check an additional venue for school-related information and intrusion from the sense of invasion of personal privacy (Hewitt & Forte, 2006; Rath, 2011). In addition, potential legal issues should be considered for all stakeholders associated with the incorporation of a social media tool into the learning environment. The legal system is flooded with cases questioning the legality of teacher sanctions, including suspensions and firings based on social media postings, appropriateness of communications with and among students, and requirements surrounding the legitimacy of personal profiles, to name just a few (Papandrea, 2012). Even though more academic institutions have established social networking policies, the durability of those policies has yet to be tested (Magna, 2011).

Online learning is now a standard method for educational delivery, and the LMS is often used for this delivery. Though excellent in many ways, this system does not facilitate adequate inclusion of social communication which is critical to a successful teaching and learning outcomes. Furthermore, while previous research has described student perceptions of social presence, community, and collaboration (Annand, 2011; Caspi & Blau, 2008; Richardson & Swan, 2003; Sahin, 2007), instructor perceptions of social presence have not been well researched. Thus, the purpose of this study was to examine and compare student and instructor perceptions of social presence, the importance placed on social communication, and the willingness to use a social media tool outside of the LMS.

## **METHODS**

### **Participants**

Students and instructors were recruited via e-mail from a health sciences university comprised of two osteopathic medical schools, two dental schools, a school of health management, and a school of health sciences. The student population is diverse, representing entry-level, post-professional, residential, and distance students ranging in age from the early 20s to over 65 years. The university offers eight exclusively online degree programs and two primarily online degree programs. This study was approved by the university's institutional review board.

For this study, all current students (N=2,715) and instructors (N=172) in exclusively or primarily online programs were invited to participate in an anonymous, cross-sectional survey administered via SurveyMonkey.com. Prior to survey distribution, the study was approved by each online program and the local institutional review board. The link to the survey instrument was delivered to students and instructors via an e-mail forwarded by each program director in September 2012. Follow-up reminders were sent, at each program director's discretion, within one month after the initial e-mail. The survey instrument was closed after six weeks and data were downloaded for analysis.

### **Survey Instrument**

The survey instrument included demographic characteristics, such as age, sex, family status, race/ethnicity, and hours worked per week. To be as comprehensive as possible, items from two previously validated instruments were included to measure perceptions of social presence in the LMS: the social presence scale developed by Gunawardena and Zittle (1997) and the social presence section of the CoI measure developed by Arbaugh and colleagues (Arbaugh et al.,

2008). Respondents were also asked about the frequency of their social communication with other students and with instructors (very often, often, sometimes, rarely, never). Finally, respondents were asked if they would be to use a social media tool if one was offered outside the LMS (strongly agree, agree, uncertain, disagree, strongly disagree). The entire survey instrument was reviewed for face and content validity by four doctoral-level distance education professors.

### **Data Analysis**

Data were downloaded into IBM SPSS Statistics version 21.0 for analysis. Frequencies, percentages, means, and standard deviations were calculated on all variables as appropriate. An overall measure of social presence was calculated by averaging the social presence items for each participant. Cronbach alpha for the 15 social presence items was .88 for instructors and .87 for students, demonstrating internal consistency (Bland & Altman, 1997). Social presence scores were not normally distributed, so medians and interquartile ranges (IQR) were used to summarize perceptions of social presence. A Mann-Whitney U test was used to compare social presence perceptions between students and instructors. Chi-square tests were used to compare student and instructor frequency of social communication with other course participants. All tests were two-tailed; alpha was set at .05.

### **Results**

A total of 282 students and 92 instructors completed the survey instrument, representing a 10% and 54% response rate. Characteristics of student and instructor respondents are summarized in Table 1. There was diversity in age, sex, family status, and race/ethnicity. The median hours worked per week among students was 40 hours, reflecting the full-time employment most students maintain during their studies.

Table 1

*Participant Characteristics*

Characteristic	Students (N=282)	Instructors (N=92)
Age, years		
21-30	65 (23.0)	5 (5.4)
31-40	75 (26.6)	22 (23.9)
41-50	86 (30.5)	27 (29.3)
51+	56 (19.9)	38 (41.3)
Missing	0	0
Sex		
Female	208 (73.8)	56 (60.9)
Male	72 (25.5)	36 (39.1)
Missing	2 (0.7)	0
Family status		
Live alone	54 (19.1)	10 (10.9)
Live with partner	73 (25.9)	38 (41.3)
Live with partner and child(ren)	112 (39.7)	36 (39.1)
Live with child(ren)	15 (5.3)	4 (4.3)
Other	28 (9.9)	4 (4.3)
Missing	0	0
Race/ethnicity		
White	181 (64.2)	75 (81.5)
African American	29 (10.3)	8 (8.7)
Hispanic	17 (6.0)	4 (4.3)
Asian/Native Hawaiian/Pacific Islander	33 (11.7)	4 (4.3)
American Indian/Alaskan Native	2 (0.7)	0
Other	18 (6.4)	1 (1.1)
Missing	2 (0.7)	0
Median hours worked per week (minimum-maximum)	40 (0 – 80.0)	50 (6.0 - 90.0)

Note. All values reported as n (%) unless otherwise noted.

### **Perceptions of social presence.**

Students and instructors perceived high levels of social presence in the LMS (median=3.60, IQR=3.07). For example, 86% of respondents felt comfortable interacting with other course participants in the LMS, 77% agreed that instructors moderate the discussions in the LMS, and 83% felt that their point of view is acknowledged by other course participants in the LMS.



However, only 38% felt that communication through the LMS was an excellent medium for social interaction and 65% felt that discussions in the LMS were more impersonal than face-to-face discussions.

While overall perceptions of social presence were high, students' perceptions were significantly lower (median 3.53) than instructors' perceptions (median 3.70,  $p=.001$ ). Further, there were significant differences between students and instructors on six specific social presence items (Table 2). Compared with instructors, students felt less comfortable interacting with and disagreeing with other course participants, conversing through the text-based medium of the LMS, and participating in discussions on the LMS. Students also perceived messages in the LMS to be more impersonal than instructors, and they reported being less able to form distinct individual impressions of other course participants than instructors. Over one-third of students and instructors felt comfortable using social media, which may have implications for efforts to increase social presence as described below.

Table 2

*Perceptions of Social Presence*

Question	<u>N (%) Agree or Strongly Agree</u>		<i>p</i>
	Students	Instructors	
In Blackboard, I feel comfortable disagreeing with other course participants while still maintaining a sense of trust.	187 (66.8)	76 (83.5)	.002
Messages on Blackboard are impersonal.	107 (38.2)	20 (22.0)	.005
I feel comfortable interacting with other course participants in Blackboard.	235 (84.2)	85 (94.4)	.013

I feel comfortable conversing through Blackboard's text-based medium.	185 (66.1)	73 (79.3)	.017
I feel comfortable participating in Blackboard discussions.	240 (85.1)	86 (93.5)	.037
I am able to form distinct individual impressions of other participants using Blackboard.	171 (60.9)	66 (72.5)	.044
I am very comfortable utilizing social media.	208 (74.0)	62 (67.4)	.217
Communication through Blackboard is an excellent medium for social interaction.	104 (37.0)	38 (41.3)	.462
The introductions, in Blackboard, enable me to form a sense of online community.	183 (65.1)	57 (62.0)	.582
The instructors create a feeling of an online community within Blackboard.*	196 (69.8)	68 (75.6)	.290
The instructors moderate the discussions in Blackboard.*	214 (76.2)	74 (82.2)	.229
Discussions using the medium of Blackboard tend to be more impersonal than face-to-face discussions.	189 (67.5)	54 (60.0)	.192
Blackboard discussions tend to be more impersonal than teleconference discussions.	133 (48.0)	39 (43.8)	.490
I feel that my point of view is acknowledged by other participants in Blackboard.	230 (81.9)	79 (86.8)	.273
Online discussions in Blackboard help me to develop a sense of collaboration.	188 (67.1)	69 (75.8)	.119

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*Note.* Valid percentages are presented. *P* values are based on Pearson chi-square.

\* "The instructors" replaced by "I" on the instructor survey.

### Social communication and connections.

Patterns of social communication were different between students and instructors (Figures 1 and 2). Two-thirds of instructors had social communication with students often or very often. In comparison, only one quarter of students often or very often engaged in social communication with other students. This pattern was true for social communication with instructors as well; 34% of instructors often or very often engaged in social communication with other instructors compared with 18% of students.

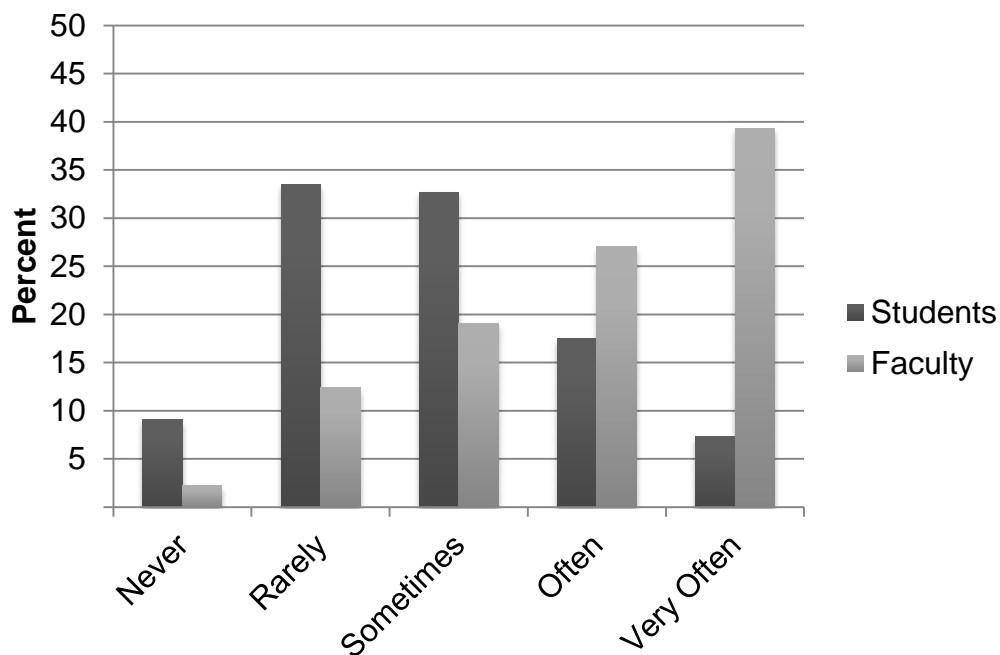


Figure 1. Student or instructor communication with students ( $p < .001$ ).

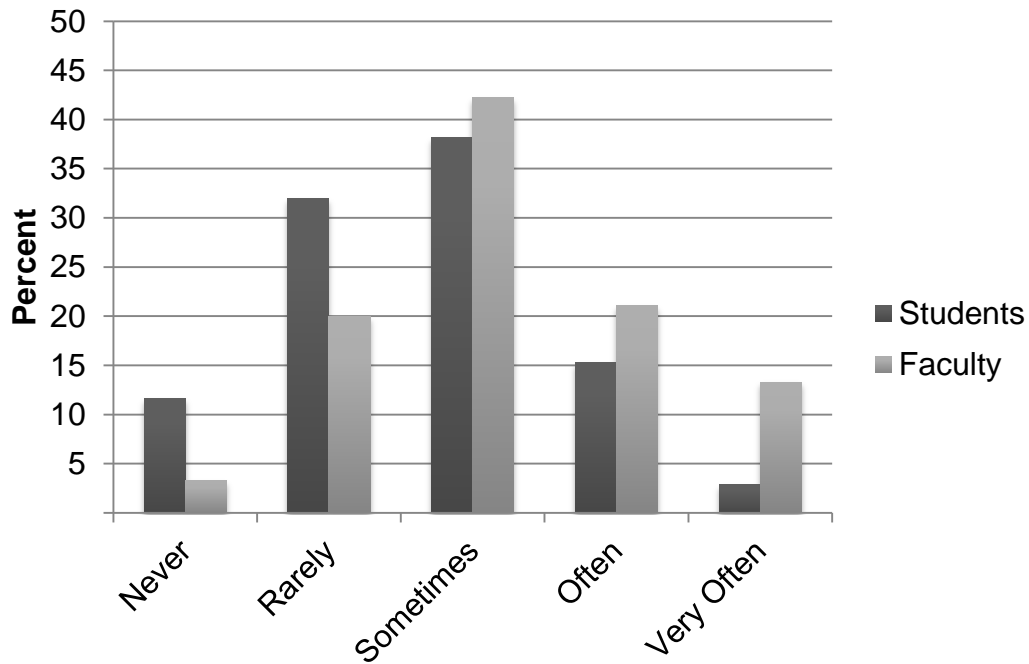


Figure 2. Student or instructor communication with instructors ( $p < .001$ ).

Students reported having less time available on a daily basis for social connections with other students and instructors ( $p = .009$ , Figure 3). Specifically, only 1% of instructors reported having no time available compared with 7% of students. Conversely, one-fourth of instructors reported having an hour or more daily for social connections, compared with 11% of students. Despite these differences, over 90% of both groups reported having some time available on a daily basis for social interactions with students and instructors.

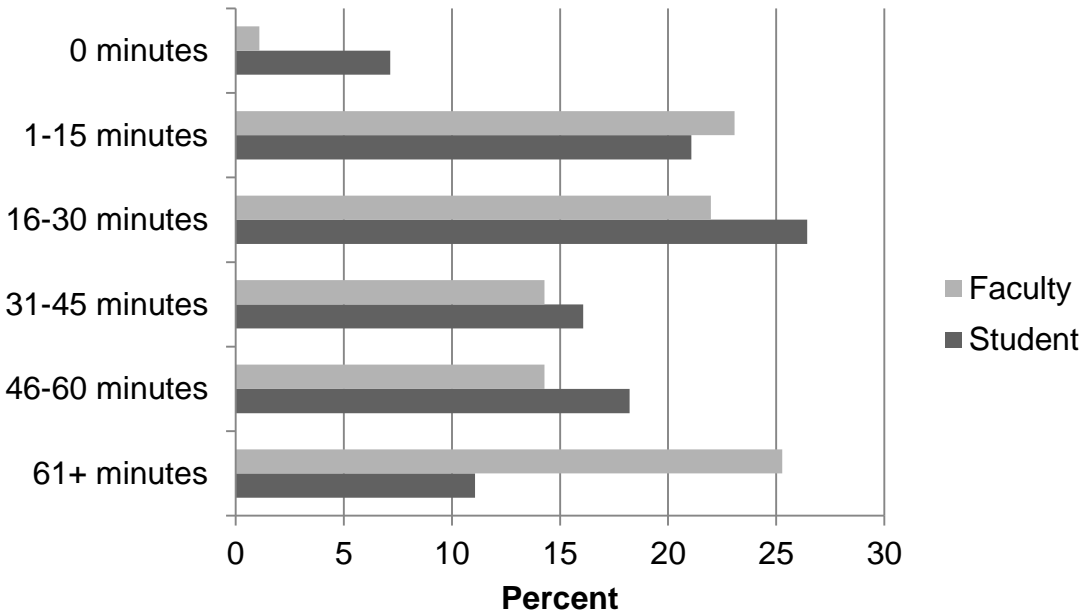


Figure 3. Time available on a daily basis for social connections with other students and instructors.  $\chi^2(5, N = 371) = 15.37, p = .009$ .

#### Attitudes about social media tools.

Some literature has suggested that the use of a social media tool outside the LMS can foster social presence in the online learning environment (Mazer, Murphy, & Simonds, 2007; Roblyer, McDaniel, Webb, Herman, & Witty, 2010). In the current study, student and instructor willingness to use a social media tool outside the LMS were very similar (Figure 4). Thirty-nine percent of students and 34% of instructors agreed or strongly agreed that they were willing to try such a tool. Less than 25% of students and instructors were unwilling to use such a tool. Over one-third of both groups felt uncertain about their willingness to use such a tool, suggesting that more information about the type of tool, ease of accessibility, and perceived value is needed.

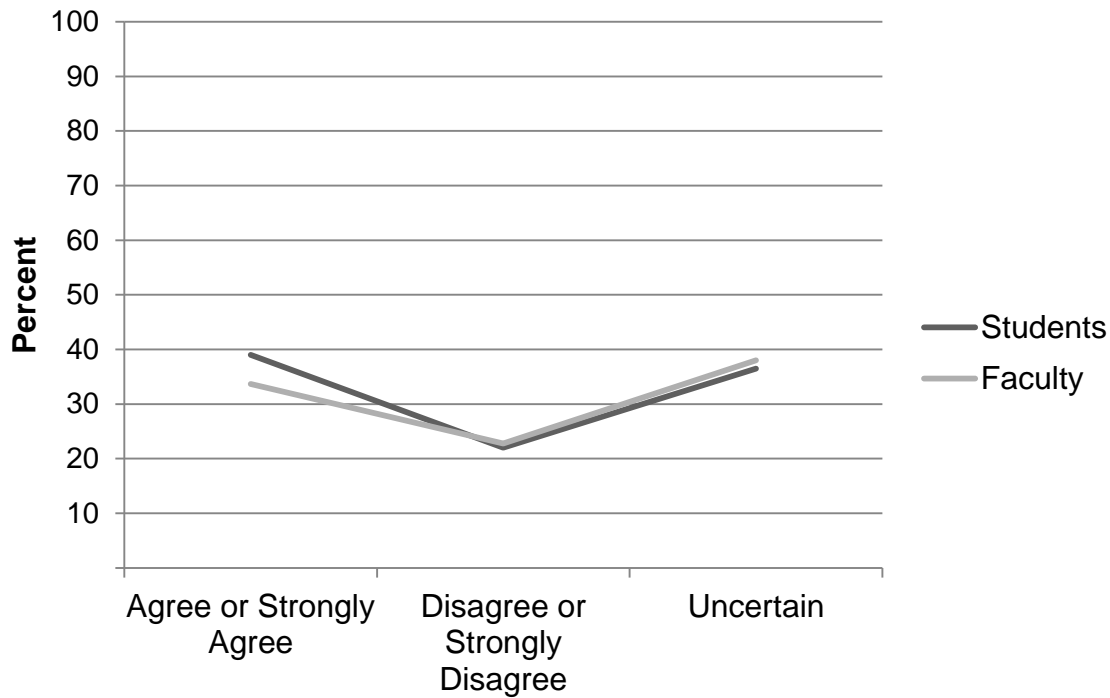


Figure 4. Willingness to use social media tool outside the learning management system.

### Discussion

Good communication is essential for a successful learning environment (Baker, 2004; Peck, 2012). While communication can easily be fostered verbally and non-verbally in a face-to-face setting, in online settings supported by an LMS, communication occurs primarily through text. Therefore, encouraging communication in an online setting can be more difficult than in face-to-face environments. The primary challenges for online educators are to inspire social interaction and to support not only the cognitive dimension, but social and psychological dimensions of communication as well (Kreijns, Kirschner, & Jochems, 2003, Yuen, Yaoyuneyong & Yuen, 2011). Prior research has used the concept social presence to characterize this central dimension of the learning environment (Arbaugh et al., 2008; Garrison et al., 2000, Young & Bruce, 2011). The current study expands on prior literature by investigating instructor perceptions as well as student perceptions. Specifically, this study compared student and instructor perceptions of

social presence in the LMS, perceived importance placed on social communications and connections, and willingness to use a social media tool outside of the LMS. The differences between students and instructors have implications for online programs and instructors wishing to enhance social presence.

Results of the current study indicated that both student and instructor perceptions of social presence were high and consistent with student levels reported in previously published studies (Gunawardena & Zittle, 1997; Tu & McIsaac, 2002, Crawford-Ferre & Wiest, 2012). However, students in the current study reported significantly lower levels of social presence than instructors, reflecting an important inconsistency of perceptions among key stakeholders in the learning environment. Furthermore, there were specific areas in which students expressed less satisfaction than instructors. In particular, students did not feel as comfortable interacting in the LMS or participating in discussions. The structured and often impersonal nature of the LMS (Demski, 2012) may contribute to the students' lack of comfort in these areas. Instructors, as course managers, facilitators, and graders, enjoy a position of control in the LMS that students do not, which may explain their increased comfort interacting and participating in this setting. As Steinman (2007) notes, establishing an open atmosphere in which all participants are equal is essential for enhancing the online educational experience. Establishing such a setting requires instructors to consider characteristics of learners and to make careful decisions about course design and delivery (Tu & McIsaac, 2002; Johnson, 2011).

In addition to reporting lower levels of comfort interacting and participating in the LMS, students in this study also reported the LMS as more impersonal and less conducive to forming

distinct impressions of participants than instructors. These differences may be explained by the findings of Vesely, Bloom, and Sherlock (2007) that suggest students prioritize instructor modeling over interaction and dialogue. The authors found the reverse is true for instructors. A learning context that is personal, in which participants are able to form distinct impressions of others, is necessary for the establishment and maintenance of student engagement (Borup, West, & Graham, 2012; Garrison et al., 2000; Garrison, Anderson, & Archer, 2010). In turn, student engagement is crucial to course satisfaction and may lessen high attrition rates that many online programs face (Angelino, Williams, & Natvig, 2007, Brunet, 2011). Thus, online programs should create a personal learning context in which participants can form distinct impressions of other course participants to encourage feelings of connectedness and a sense of belonging (Boston, Ice, & Gibson, 2011; Frankola, 2001; Herbert, 2006). One approach for achieving this is through instructor immediacy, a well-established method of improving students' perceptions of social presence and overall experiences in online courses by reducing what Moore calls transactional distance, the "psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner" (1993, p. 22).

While immediacy can be more challenging to achieve in an online learning environment, numerous strategies can be successful. Examples include establishing a social communication section on the discussion board, using asynchronous videos (Griffiths & Graham, 2010) and providing feedback with media-rich formats, such as audio (Ice et al., 2007) or audiovisual (Mathieson, 2012). Use of social media tools outside the LMS are another recent method that has been explored for increasing immediacy and fostering social presence (Mazer et al., 2007;



Roblyer et al., 2010). Our findings reveal that over one-third of students and instructors were willing to use a social media tool outside the LMS; less than one-quarter were unwilling. Given the widespread use of social media tools and their easy accessibility with myriad mobile technology tools, offering social networking via a social media tool outside the LMS may address the ambivalence of students about their social interactions with instructors and peers and may increase social presence. While our findings indicate similar willingness to use a social media tool among students and instructors, past research found that instructors are more skeptical than students about the value of social networking (Roblyer et al., 2010). In addition, student characteristics, such as age and experience with technology, must be taken into account because these characteristics may affect the success of social networking implementation (Leafman, Mathieson, & Ewing, 2012; Poelhuber & Anderson, 2011). Finally, while social media tools provide a promising avenue for increasing social presence, significant privacy, ethical, and legal implications must be considered and addressed (Bugeja, 2006; Magna, 2011).

Another potential barrier to the success of social media implementation is the degree to which students and instructors *want* social interaction. Students in this study were more conflicted than instructors about the degree of social interaction they desired. For example, our results showed that students engaged in social communication less frequently and had less time available for social connections than instructors. Therefore, the decision to offer a social media tool outside the LMS to increase social presence must be preceded by a careful assessment of students' desire and time availability. Ignoring these factors will likely lead to failure of such an initiative.

While students and instructors perceived social presence in the LMS, there were important differences between students and instructors. First, student perceptions of social presence were lower than instructor perceptions. Second, students were less comfortable participating in the LMS than instructors. Third, students found the LMS more impersonal than instructors. Finally, students have less time available and less desire for social connections with instructors and other students. To be successful, efforts to improve the quality of communication and overall learning experience in online courses must be guided by student and instructor perceptions and expectations.

## **CONCLUSION**

While online education is now a mainstay in the educational arena, the degree of social communication and appropriate place for social communications, identified as crucial to academic success, remain in question. Results of this study indicated that students and instructors engaged in courses in an LMS recognized its social connection limitations. Both groups also agreed, though to differing degrees, that they would be open to adding a social media tool outside the LMS. However, issues of selection, privacy, and security were raised. As this new frontier in educational delivery systems evolves, academic vision, critical professional thought, and perhaps, legal counsel are needed to sort through the maze of intellectual and personal property rights while redefining what can or cannot be shared within the LMS or a social media tool associated with it. Students and instructors too often learn these hard lessons through example, when it's too late or when their professional or public persona has been jeopardized. Questions of how much social information to share and with whom and where to share create a serious conundrum for all online education stakeholders.

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