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Computer Mediated Communication and Adult Learners: A Case Study of Messages using the Hyperpersonal Framework

Linda B. Dickmeyer
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Abstract

There is an increasing amount of research examining the role of computer-mediated communication (CMC) in a variety of educational settings. Online courses are of particular interest to adult learners. In addition, we notice that communication research rarely studies adult learners, who provide increasing numbers in our face-to-face and computer-mediated classrooms. The purpose of this research is to investigate the interaction that occurs between adult learners in an online course. Specifically, the hyperpersonal framework is used as a lens to examine how participants communicate with one another. The hyperpersonal framework components (receiver, sender, channel, and feedback) were evident through a qualitative analysis of postings. Implications reveal instructors would be well served to understand the interpersonal and hyperpersonal interactions that occur online. In both CMC and traditional classroom settings, adult learners are rarely studied, creating a rich research opportunity for instructional communication scholars.

Introduction

Communication research provides ample opportunity to examine the implications of computer-mediated communication (CMC), particularly in the classroom. Online courses are changing the way instructors and students interact with each other. Technology in the classroom may range from teacher/student email to electronic chat rooms to distance learning. Instructional communication research that addresses technology in the classroom has focused on teacher-student interaction (Roach, 2002), teacher behavior (Mottet & Stewart, 2001; LaRose & Whitten, 2000), and benefits of CMC, including increased perceptions of learning and participation (Althaus, 1997). There are also recommendations for the uncertainty and skepticism that accompany pedagogical concerns with CMC (White & Weight, 2000; Wittmer, 1998). Understanding how CMC enhances learning becomes increasingly important as technology becomes more prevalent in instruction.

Although an increasing amount of research has examined the role of CMC in a variety of educational settings, there remain many unanswered questions. The past decade has provided important research in instructional communication, focusing primarily on student-teacher interactions and constructs. Waldeck, Speaker and Gavel, Vol 41 (2004) www.dsr-tka.org/

Kearney and Plax (2000) suggest several areas that need more research in the area of instructional communication. They note "...very little communication research has examined student-to-student interaction or collaborative learning" (p. 224). With the increase in computer-mediated instruction, they also suggest that more substantive research is needed to help scholars and teachers understand the impact of CMC.

Instructional communication research rarely studies adult learners, who provide increasing numbers in face-to-face and computer-mediated classrooms. Online courses are of particular interest to adult learners. Adult education occurs in far greater numbers than other learning institutions, and with the availability of technology, occurs in the home, workplace and community agencies (Merriam & Caffarella, 1999).

The purpose of this research is to investigate the interaction that occurs between adult learners in an online course by examining messages using the hyperpersonal framework. In addition to responding to the call for more substantive research in computer-mediated classrooms, this research is unique due to its special focus on the adult learner. The impact of technology will be understood through the voices of the adult learners as demonstrated in their postings online.

Review of Literature

Theoretical and practical implications are important when researching computer-mediated instruction. Courses taught online provide unique challenges to both teachers and students. The literature reviewed for this research includes pedagogical issues and CMC, a framework that is relevant from a communication perspective, and research on characteristics of adult learners.

Pedagogy and CMC

Computer-mediated instruction is rapidly becoming a mainstay in post-secondary education. Examples of research conducted in the mid to late 90s include the use of technology in group communication, using online information to facilitate learning, and utilizing email for relationship building (Shelton, Lane, & Waldhart, 1999). Flanagan (1999) reports that in some cases, online courses are more satisfying and contribute to increased mastery of material in comparison to traditional classroom environments. Other advantages include increased group cohesion among students, student interaction that extends beyond classroom time, and enhanced learning (Wittmer, 1998).

CMC in classrooms is not without challenges for both students and teachers. For students, unfamiliarity with computer technology may provide a barrier to learning (Brandon & Hollingshead, 1999; Wittmer, 1998). Uncertainty in the medium itself may lead students to question relevance of course material, affect motivation, and engage in resistance behaviors. Teachers may also resist using computer-mediated instruction due to rapid changes in technology and comfort with the methods they have already established. In many cases, teachers are not prepared to teach in the online environment, and mistakenly transfer what they know about traditional pedagogy and experience to this very different medium (Bailey & Cotlar, 1994; Flanagan, 1999; Wittmer, 1998). Lane and Shelton

(2001) note that most CMC research has focused on its positive outcomes. They argue that communication educators "are latching onto the most recent wave of technological advance without fully considering fundamental practical and evaluative pedagogical issues" (Lane & Shelton, 2001, p. 241).

Effective communication and pedagogical decisions are crucial for a successful online course. Reed et. al (2002) researched computer-mediated class discussions for eight years and found an underlying theme that "language is crucial to learning" (p. 8). Participation is more democratic in computer-mediated communication rather than in oral discussions. Three conclusions Reed et. al (2002) draw are: 1) that with proper direction, students can experience coherence in the CMC world, 2) topic construction is critical in shaping group understanding, and 3) online discussions result in different interactions than those found in face-to-face communication. If presented effectively, computer-mediated instruction is not only successful, but also appropriate for the changing face of education.

Berge (1999) contends that education is more inquiry-based than in the past. As a result, students are becoming more self-directed and taking responsibility for their own learning. In other words, pedagogical decisions should move away from the expert teacher to the life-long learner. The online environment seems appropriate for inquiry-based learning and relates to Berge's earlier work on online teaching. Berge (1997) found that online teachers preferred the constructivist approach—learners are involved, show self-direction, and construct their own meaning and knowledge. From a social construction perspective, CMC offers a new environment for discussion. In a face-to-face classroom, conversation flow can determine if students are able to voice their thoughts. For example, conversations may move in a different direction, students may get lost in the conversation and forget what they were going to say, or students may not think what they have to say is relevant. In contrast, online courses allow students to speak at the same time, with more opportunity to talk than in a traditional classroom (Reed et. al, 2002).

Both computer technology and collaborative learning are identified as trends in communication instruction (Shelton, Lane, & Waldhart, 1999). The combination of collaborative learning theories and CMC has resulted in research known as CSCL, or computer-supported collaborative learning (Brandon & Hollingshead, 1999). The CSCL perspective helps explain how technology can help or hinder collaborative learning.

Brandon and Hollingshead (1999) identify collaboration, communication, and social context as crucial to understanding the CSCL perspective: "The social creation of knowledge, when discussed at the level of small groups, is collaborative learning or the development of shared meaning among group members. The collaborative development of shared meaning requires a substantial amount of communication, perhaps even more so in online than in face-to-face groups" (p. 111). As such, there is a development of shared meaning among group members online.

A final issue surrounding CMC and pedagogy is the use of theory. As mentioned above, Brandon and Hollingshead (1999) address theory by providing a

model that combines research on both CMC and collaborative learning. Yet, instructional research tends to be variable driven, with little effort to provide a theoretical framework (Waldeck, Kearney, & Plax, 2001). The use of theory is not only a research concern, but also a concern when making pedagogical decisions. Weisgerber (2002) argues that online courses fail to consider theory as part of the design process. She incorporates the notion of hyperpersonal communication (Walther, 1996) as a guide for the development of online communication classes. According to the hyperpersonal communication framework, this approach helps in understanding the ways CMC users sometimes experience intimacy, affection and interpersonal assessment that differ from those occurring in face-to-face encounters. An awareness of the hyperpersonal framework may enhance the learning process for adult learners online.

The Hyperpersonal Framework

The hyperpersonal framework comes from the work of Walther (1996). Walther's 1996 review of various research on CMC encounters shows the progression from the impersonal, or reduced channels perspectives to research that suggests CMC enhances relationship development. Early research on CMC took the perspective that fewer nonverbal cues are available due to the very nature of the medium. As a result, impressions were limited and interactions were much more task-oriented (Walther, 1996; Walther, Slovacek, & Tidwell, 2001). Much of this research uses the social presence theory to explain how reduced social presence, such as that found online, reduces the interpersonal warmth and connection that develops in face-to-face interactions.

Walther (1996) cites research that suggests social presence and other "cues-filtered-out" approaches to CMC do not always result in impersonal communication. In an attempt to explain results that point to interpersonal rather than impersonal CMC relationship development, Walther (1996) advances the hyperpersonal framework. This perspective is based on a social information processing perspective, in which social cognition and normal relationship development do in fact influence CMC to be interpersonal and social in nature (Tidwell & Walther, 2002; Walther, 1992; 1996). The primary difference between face-to-face and CMC regarding impression formation and relationship development is the notion of time. Clearly, those CMC encounters that are one-time only or time-limited groups are more task-oriented. However, CMC communication that is ongoing provides the opportunity for participants to use verbal cues and the delayed element of time to result in "normal, but temporally retarded interpersonal development" (Walther, 1996, p. 5). In fact, CMC may allow users to experience increased levels of affection and perceptions of one another due to the medium. This phenomenon is what Walther (1996) labels "hyperpersonal communication," where the communication in an online environment is "...more socially desirable than we tend to experience in parallel FtF interaction" (p. 9). The hyperpersonal framework is explained via four elements of the communication process—receiver, sender, channel, and feedback.

Walther (1996) argues that CMC affects these four factors in ways that are not possible in face-to-face communication. Furthermore, asynchronous com-

munication is key in the development of the hyperpersonal communication. In other words, the notion of time plays a part in the perceptions/impressions formed, particularly since CMC users can respond to others at a time that is convenient. As such, the communication that occurs is not in sync, as is the case with face-to-face communication.

Walther (1996) claims that receivers engage in idealized perceptions of their online partners or group members. In other words, the perceptions of others are inflated due to the nature of the online interaction. Without the presence of face-to-face cues, CMC partners positively over exaggerate their impressions of one another. When in a group setting, individuals perceive greater similarity with other members, increasing their liking for one another. Walther uses the social identification/deindividuation (SIDE) theory to further explain this phenomenon. Without the use of visual cues, participants in CMC cannot see one another as individuals (deindividuation). As a result, any social and/or personal information received is subject to over-attribution (Walther, Slovacek, & Tidwell, 2001).

When referring to senders, socially favorable communication is sent to receivers; in other words, there is optimized self-presentation (Walther, 1996). When using CMC, the ability to be selective with self-impressions is greatly enhanced. Senders are able to manage their impressions due to lack of visual cues and time spent constructing presentational messages. As a result, they engage in what Walther calls personal and relational optimization.

Walther (1996) discusses face-to-face interaction in light of entrainment, or as very synchronized and coordinated. The fact that hyperpersonal messages do not need to follow face-to-face turn-taking rules, they are disentrained, or asynchronous. The asynchronous nature of CMC defines how the channel is important to the hyperpersonal framework. The coordination, or flow, of communication is greatly influenced by the channel, especially since there are no time-bound concerns when regulating the flow of interaction. CMC users can take advantage of the channel to engage in both task and social messages.

The final component of the hyperpersonal model is feedback, which Walther (1996) claims is intensified via CMC. Since the interaction with CMC involves minimal cue interaction, confirmation, or feedback, seems to be magnified. CMC senders and receivers reciprocate, through feedback, idealized images of one another. The interaction, via the asynchronous channel, reinforces and confirms through feedback, the optimal self and idealized receiver, much like a self-fulfilling prophecy.

Taken together, hyperpersonal communication is a different communication system due to the unique characteristics of receivers, senders and the message exchange process (Caplan, 2001). Walther (2001) summarizes the elements of the hyperpersonal perspective as depicting "... how senders select, receivers magnify, channels promote, and feedback increases enhanced and selective communication behaviors in CMC" (p. 4). CMC may take advantage of the capabilities of textual communication to create positive impressions that may not occur in face-to-face, or offline encounters (Tidwell & Walther, 2002).

A learning environment that encourages the conditions of hyperpersonal communication may increase students' perceptions of teachers and other stu-

dents, as well as contribute to information exchange (Weisgerber, 2002). The asynchronous nature of computer-mediated instruction could capitalize on the way messages are sent and optimized. The hyperpersonal framework may be of particular interest when students are adult learners.

Adult Learners

Educational institutions continue to increase online course offerings and target adult learners. Continuing education is the fastest growing area in education, and most online students are adults (Rudestam & Schoenholtz-Read, 2002). Online courses are expanding to promote lifelong learning and to provide adult professionals with additional training. Because of their multiple commitments, such as with work and family, adult learners have embraced online courses. The asynchronous nature of the online environment allows for flexibility in teaching and learning.

Adult learning is a growing enterprise, surpassing the activities found in all other educational settings (Merriam & Caffarella, 1999). Instructors with the opportunity to teach adult learners should know it is erroneous to speak of the adult learner, as adult learners are as varied as students at any age and level. Some distinct categories for understanding the variability among adult learners include motives for learning, cognitive characteristics, personality differences, roles, and life experiences (Long, 1990).

Perspectives on adult learning often stem from the work of Knowles (1980; 1984), who coined the term andragogy. Andragogy is the science of helping adults learn, and Knowles' (1984) framework of andragogy includes four assumptions of adult learners: (1) adults are self-directing; (2) adults use their personal experiences as a learning resource; (3) adults tend to have a life, task, or problem-centered orientation to learning as opposed to a subject-matter orientation; and, (4) adults are motivated to learn due to intrinsic rather than extrinsic factors. In light of these assumptions, it is clear that adult learning situations should involve real-life tasks and situations, or conditions that allow personal involvement. Adult education literature describes adults as self-directed, self-reflective, and more likely to bring their own life experiences to the learning situation (Pascual-Leone & Irwin, 1998).

Personal experience is particularly important in adult education, as students not only build on prior experience, but their experience shapes learning (Merriam & Caffarella, 1999). Adult educators recognize that pedagogical decisions that encourage group interaction and reflection may be of particular interest to life long learners. Since the adult learner is self-directed, the educator's role should be that of a coach, or facilitator. Educators can make effective decisions when designing an adult course that capitalizes on participants' strengths.

Adult learning research has recently turned to the role of technology (Imel, 1999). An important consideration when designing courses for adult learners is to consider technologies that promote learning. Biswalo (2001) uses distance learning to suggest ways that the environment can be enhanced for adult learners. The opportunities in this setting include individual response times, learning that occurs in a real-world context, participation of all learners without compro-

mising class time, and a community of learners based on intellectual interest rather than physical proximity. Whether the technology involves email, distance learning or an online course, the environment is conducive for capitalizing on the strengths of the adult learner when well designed and implemented on the part of the instructor.

Summary

Clearly, there is a strong link between adult learners and CMC. Computer-mediated instruction is rapidly changing the face of education. Technology provides interesting research opportunities as adult learners participate in online courses. Online courses are popular with adult learners because the students are involved, self-directed and construct their own meaning. In other words, there is mutual understanding while participants exchange ideas and feelings as they create social knowledge. Much learning takes place in social contexts, or while interacting with others. In fact, social construction of knowledge occurs not only with one's own understanding, but also through the interactions of others.

The hyperpersonal perspective shows how communication that occurs online surpasses the typical interactions that occur in face-to-face relationships, as communicators present and perceive one another in an inflated, positive manner. Using the hyperpersonal framework as a lens to examine CMC in an online course with adult learners provides insight into the ways adult students interact in this asynchronous environment. Analyzing the messages of online postings provides an original, descriptive look at the communication that occurs among adult learners. Therefore, the following research question is raised:

RQ: How is the hyperpersonal perspective reflected in the messages sent by adult learners in an online course?

Method

This study is a descriptive content analysis that is qualitative in nature. Because this research focuses specifically on one class and all the resulting posts, it can be considered a case study. In instructional research, a case study examines educational phenomena in their natural context (Gall, Gall, & Borg, 1999). In case studies, a conceptual framework is used to understand the collected data. The data in this case are the postings, and the conceptual lens is the hyperpersonal framework. Although the data emerged according to theme and course direction, it was content analyzed according to the four components of the hyperpersonal framework.

The Course and Participants

The online course was taught from a constructivist approach. Learning was inquiry-based and dependent upon the adult learners' messages. The course, Facilitating Learning in Community, was taught online for 14 weeks as an elective in a Masters of Education and Professional Development program at a small Midwestern university through the use of the instructional software, Blackboard.

Eleven graduate students participated in the online course. All of the students in the course were working professionals. Four students were male and seven were female, with a mean age of 43. Only two students had previous experience with an online course.

Students were required to attend two face-to-face sessions. The first session was used to meet classmates as well as verify all students were able to use the technology. The second session was the final class meeting and was used to complete required documents and provide feedback about the course.

Procedures and Data Analysis

With the exception of the two face-to-face sessions, all course materials and communication was online. Students were encouraged to post questions and comments on the discussion board; however, there were no requirements for number of posts. Students and the instructor generated 554 posts throughout the semester. Posts ranged from 2 to 357 words per posting. The average length of a posting was 94 words.

All postings were printed at the end of the semester. Patton (1990) points out that there are several strategies for analyzing written data, such as according to chronology, key events, or issues. This research fits the strategy of processes, where data is labeled and/or organized according to important processes. The postings were marked according to the components of the hyperpersonal framework, specifically: 1) receiver, 2), sender 3) channel, and 4) feedback. The intention is not to have mutually exclusive or exhaustive ways of organizing data, but to provide a framework. The framework in this case allows for a content analysis that is descriptive in nature. The researchers individually coded the postings according to the hyperpersonal components, then together discussed the postings for descriptive results and implications.

Results

Although 554 posts were generated, thousands of messages were embedded in the postings. However, the scope of this research was to focus on those messages that clearly fit the hyperpersonal components.

Receiver

In the hyperpersonal framework, perceptions of others are inflated in a positive way (Walther, 1996). The adult learners in this case perceived a greater similarity with their classmates due to the nature of the interaction and their shared experience. The postings with this group appear to reinforce this notion. Representative receiver-focused messages include:

- We're on the same page of wanting to stretch and grow in our facilitator skills, so this is a safe place to share experiences that will inform others as well as get feedback to serve as future guidance.
- I know that I won't have any trouble developing strong bonds with you and will be able to develop a shared vision and shared values.

- I really appreciate those who have been holding down the fort. You people just amaze me.
- I am very grateful for this opportunity to share with so many incredible people who value the same love of learning and joy in the profession that I do.
- I have gained more respect and admiration for those people who are always giving of their time and insight. I have learned so much from everyone's postings.
- You are all amazing people and I feel honored to be a part of this course.
- I feel I have learned a great deal about people and how they think...I learned many new things about each one of you also. You really are very intelligent, reflective people.

The influence of both the nature of an online class and the fact that participants are adult learners highlight the inflated views of one another. The postings seem to reflect a need to establish common ground, particularly since all students were part of the same Master's program. This may explain their comfort in giving compliments and reinforcing positive perceptions of one another. As Walther (1996) posited, these online learners idealized their perceptions of their classmates, evidenced in their positive perceptions of one another.

Sender

Walther (1996) suggests that in hyperpersonal communication senders manage the impressions they send to others about themselves. The nature of the online environment allows them to posture and purposefully send messages of personal and relational optimization. In this case, adult learners showed little evidence of personal optimization. However, they clearly posture, or manage, what they are saying about their own uncertainty and frustrations. Examples include:

- Either way, stranger or friend, one of the biggest problems for me in this setting is the fear of sounding unintelligent or the fear that I will be thought of as unintelligent.
- This senseless banter is just what is on my mind. I am often the silent voice, and I believe I must be more present in the discussion threads.
- When I logged onto Blackboard and saw the extent of activity, I realized I'm going to have to plan time more carefully.
- I have to admit though, the suggestion that we develop a set of values for our virtual community caused my heart to race.
- I find myself intimidated because I am going beyond my comfort zone in my ability to utilize a computer other than to word process or send email.
- Am I thinking too hard on this? Maybe, but I have been struggling with the fact that I have not participated in this class as much as I would have expected my students to participate if I were facilitating this class. I've been feeling guilty and perhaps a bit overwhelmed by all the reading and other stuff going on in my life.

- I'm puzzled but not surprised. I'm the one who knocked off the back steps of the house on my first attempt to back the car up when I was 16.
- I have not taken the time to fully edit my posts. After reading what many people said in regard to their editing, I was a bit ashamed...that my posts could have been more reflective if I would have taken the time to really edit my pieces. Another item that I can learn from.
- Interestingly, these adult learners were more negative in their self-presentation, as indicated by their willingness to express self-directed angst, frustration, and weaknesses. However, it is clear that the way they present themselves is selective in the way they come across to others, although that presentation is negative in nature. The postings include messages that could be interpreted as both sender and receiver regarding the hyperpersonal framework, as the use of negative perception in turn elevates the receivers and their abilities.

Channel

In the hyperpersonal framework, the channel is key to understanding the interactions of participants. The channel is asynchronous in nature, affecting the coordination, or flow of communication (Walther, 1996). These adult learners, as reflected in the following postings, embraced the asynchronous nature of the channel:

- I am excited to see where this class takes us and all of the information that I can gain through everyone else. I will be learning how we can form a community online as I watch everything unfold.
- I like the way you summarized your thoughts about each person's comments. I know we can't always do that, but it helped me get an idea of how you were responding to all of the thoughts.
- So then, what is a learner's responsibility to other members of the online community? Is it fair and equitable to take and not contribute to the dialogue? Is it OK to reflect privately in a course designed to help every member learn from each other?
- This is one of the great things about this class. In a regular class, someone may comment on something that you would like more time to reflect about, but can't since the class keeps moving forward with or without you. Here, we can read and reflect at our own leisure and post questions for more clarification. I think that in itself helps develop connections to our learning and as a result, deeper understandings.
- Interestingly, we found more channel messages that were directed at the pragmatic nature of the channel (use of a computer) than those that were evidence of disenfranchisement. In fact, many messages focused on the technical difficulties experienced with the channel itself. Technical difficulties were more frequent in the beginning of the semester, but their expression with these difficulties became more sophisticated as time passed:
- I'm on a MAC and having trouble opening some documents posted by PCs; any clues for me as to how to overcome that hurdle?

- I pushed the wrong button...and lost all the messages. My board says I've read them all; actually, I haven't started. I know they probably aren't really lost...but I sure can't find them. Tried the expand and collapse button. Didn't help. Any ideas?
- I followed your directions step by step but when I press the collect button, I get a dialogue box that reads "you must have one item selected to collect". And that's the problem. I seem to have buried those items out on the back 40 with no map to find them!
- Being a novice on Blackboard, I feel like I am going through the motions but I am not yet comfortable with the process.
- A lot more time has been spent on the computer than usual and I am feeling that twitch in my eye from squinting. The physical problems mentioned in the text are real and are a concern for me.

The uncertainty with the channel also reflects the negative self-perceptions of senders. Although there were concerns about the technology and their own limitations, all of the adult learners discussed the positive implications of the channel. Although this discussion of the channel is different from Walther's (1996) channel in the hyperpersonal framework, it is important to reveal how the medium itself is discussed and interpreted by adult learners. The following postings show some of the positive comments about the channel and how the asynchronous nature contributes to the other components of hyperpersonal communication:

- I look forward to having a place to meet when we are not physically together.
- It will be great to convert those email sessions into online discussions or announcements.
- I guess one of the exciting elements to this is being able to strengthen our communications skills via the Internet.
- I think Blackboard is a wonderful tool for sharing and a lot of learning can take place in a constructivist environment.

Feedback

Based on the hyperpersonal framework, feedback is magnified online. Through the use of feedback, senders and receivers reciprocate idealized images of one another (Walther, 1996). However, since the adult learners tended to NOT idealize themselves, the feedback messages were more in line with the positive perceptions of the receivers. They seemed to focus more on others than on themselves. The postings were affirming in nature while asking questions or seeking information.

- I finally read your idea carefully and think we should all use this method more often. Good work!
- I like the idea of supporting one another as much as we can.
- Amen. I agree. As a matter of fact, being able to share the joy of learning with others having a common foundation is a real blessing.

- Thank you for sharing your thoughts. They not only have helped me better understand what we have just gone through in regard to this online class, but given me more things to reflect on.
- Love this! I think you nailed it for me.
- What do the rest of you think?
- Any comments, questions or criticisms about this approach?
- So then, what is a learner's responsibility to other members of the online community? Is it fair and equitable to take and not contribute to the dialogue? Is it ok to reflect privately in a course designed to help every member learn from each other?

Adult learners in this research tended to affirm one another on a regular basis. When they were not affirming others, they were seeking feedback from the group.

Based on the analysis of the results, the four components of the hyperpersonal framework were present in postings. The four components of the hyperpersonal framework (receiver, sender, channel, and feedback) were evident, although the sender messages did not appear to selectively inflate one's presentation of self.

Discussion and Implications

A pedagogical concern with CMC instruction is uncertainty with the technology itself (Brandon & Hollingshead, 1999). The messages examined in this case study reinforce concerns on the part of these adult learners when using technology in an online class. Participants were specific about addressing strengths and weaknesses of the online learning environment. In an attempt to make sense of this channel, many messages compared online interactions to face-to-face communication. This attempt at sense making is typical of adult learners' willingness to use their experiences to shape their own learning (Merriam & Caffarella, 1999).

Knowles' (1984) framework of andragogy includes the notion that adults tend to have a life, task, or problem-centered orientation to learning as opposed to a subject matter orientation. As such, adults tend to be intrinsically motivated, self-directed, and turn to personal experiences as a resource. This examination of adults' online communication provided a unique way to see how adults indeed used their own life experiences and the reinforcement of others consistently throughout the course. Although the examples provided for this research were representative of the hyperpersonal framework, it should be noted that these and all postings frequently turned to social and identity messages rather than a consistent focus on the course itself. Although this may not be unique to communication in an online setting, it reveals how the adults in this class reveal traits that are consistent with andragogy research.

The lens of the hyperpersonal framework examined adult learners' perceptions of the receiver, sender, channel, and feedback. Walther (1996) argued that hyperpersonal communication intensifies and idealizes perceptions of self and others because of asynchronous interactions online. As a result, any social

and/or personal information received is subject to over-attribution (Tidwell & Walther, 2002).

Our analysis of the receiver messages indicated that adult learners did inflate their perceptions of their classmates. Responses revealed a strong affinity toward one another and were extremely complementary. Although the participants were acquainted through the same graduate program, early postings addressed the uncertainty that exists with an online course as they shared their experiences. However, it became clear that bonds grew stronger online through the positive perceptions and compliments that were showered on one another. Based on this analysis, the idealized receiver concept within the hyperpersonal framework was obvious in adult learners' communication online. Therefore, the online instructor could discuss hyperpersonal research and how online students positively over exaggerate their perceptions of one another. The online instructor could also ask students to challenge one another and encourage them to provide constructive criticism when appropriate online.

Walther (1996) claims that senders portray themselves in a socially favorable way online by managing their self-presentational messages. Although there were many sender messages embedded in postings, the nature of those messages tended to avoid self-optimization. We found an abundance of messages that showed personal angst and negative self-perceptions—these adult learners downplayed their abilities. They did not hesitate to express negative feeling and attitudes about themselves, such as with their technological skills, contributions to the group, and their intelligence. This may be unique to the adult learner population because adults are more willing to increase their self-awareness (Imel, 1999). Because adult learners use critical reflection, the presentation of self is not focused on others' perceptions, but instead, on their own self-awareness.

Adult learners should feel comfortable assessing themselves. Biswalo (2001) notes that adult learners experience anxiety because of their fear of failure and/or looking foolish to others. Within a few weeks of an online course, an instructor may notice adult learners tend to downplay self-presentation while inflating their peers' abilities. This is an opportunity for the online instructor to facilitate a discussion about the hyperpersonal framework and the role of the sender. Although it is common to inflate perceptions of others online, adults should know that their classmates may also be feeling similar anxiety about the online experience. This not only validates their negative self-perceptions, but also allows for the non-threatening, supportive climate that is advocated by adult learning scholars (Biswalo, 2001; Imel, 1999; Merriam & Caffarella, 1999).

The channel is discussed via the hyperpersonal framework as instrumental to the idealized perceptions of senders and receivers due to the asynchronous nature of computer technology. As such, communicators are not bound by time in the message exchange. The implication is that the channel itself reinforces the ways senders and receivers present themselves in a positive manner. The results of this study indicate that while the asynchronous nature of the channel was appreciated, the channel itself was a major influence in all aspects of the class. Although it appears that these adult learners appreciated the opportunity to re-

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flect on postings of others and carefully compose responses, it is difficult to discern channel messages as explained in the hyperpersonal framework through content analysis alone. Observation or follow-up interviews with participants may provide insight into how the channel influences personal impression management decisions. The channel messages that were prevalent go beyond the role of the channel by pragmatically addressing concerns such as technical difficulties and personal limitations. The way the channel messages were described by adult learners were in the recognition that technology is primarily a medium that can help or hinder communication rather than using it as an opportunity to manage impressions.

One major concern of an online class for adults is the use of technology. Uncertainty with technology likely reinforces adult learners apprehension and participation level. One way to reduce this anxiety is to have a face-to-face meeting at the beginning of class to make sure all students are capable of using the required technology. Another suggestion is to offer flexibility to accommodate certain circumstances. Technical difficulties will occur, so online instructors need to communicate their understanding of events beyond students' control.

Walther (1996) claims that feedback is intensified through CMC. The hyperpersonal framework shows that feedback between senders and receivers online reinforce and confirm positive perceptions. In this case study, the feedback component was present due to the nature of the course. Intensification describes how the participants appeared interested in giving and receiving feedback to one another. However, feedback messages, as presented in the hyperpersonal framework, were somewhat influenced by the lack of self-optimization regarding sender messages. As such, the feedback messages tended to reinforce group members, showing the influence of the idealized receiver. This was clearly evident through the recurring posts that were affirming in nature. In addition, feedback messages frequently sought information and asked questions. The questions seeking information further reinforce the willingness to clarify and admit weaknesses rather than present oneself as an expert. In fact, the feedback questions may have influenced the idealized perceptions of the receivers through reinforcement and affirmation.

Research with adults shows how learning is affected by stages of development. Adult learning is frequently motivated by life transitions and is usually voluntary. Adult learners bring a mature perspective to classrooms due to work, family and life experiences (Merriam & Caffarella, 1999; Rudestam & Schoenholtz-Read, 2002). This understanding of adult learners sheds light on the nature of the messages examined for this research. The messages exchanged by these adult learners were reflective of a supportive environment where careful reflection and question asking was encouraged. In fact, the results of this research and the suggestions provided are consistent with Maehl's (2000) recommendations when teaching adults. Specifically, an instructor should incorporate problem-centered learning that includes life experiences as well as emphasize collaboration rather than control, which allows for mutual respect (Maehl, 2000). By examining the postings in this case, adults clearly took it upon themselves to use

life experience and collaboration as they consistently communicated respect for the other. It is possible that an online environment, due to its asynchronous nature, plays to the strengths and preferences of adult learners.

Using the hyperpersonal framework as a way to study adult learners' messages revealed that all components were present. Shared experiences, self-directed learning, and other factors that influence adult learners were present in their postings. The components of the hyperpersonal framework are clearly interdependent, and in this case, the downplaying of the optimized self can be recognized in the other components.

From a pedagogical perspective, the hyperpersonal framework is suggested as a framework to inform, or influence, the design of online courses (Weisgerber, 2002). Although many online courses are taught, seldom do instructors consider the influence of CMC on curricular decisions (Lane & Shelton, 2001). Instructors would be well served to understand the interpersonal and hyperpersonal interactions that occur online. This research provides a descriptive understanding of adult learners' postings. Future research could utilize other methodologies to examine this phenomenon in a variety of online classroom settings. In both CMC and traditional classroom settings, adult learners are rarely studied, creating a rich research opportunity for instructional communication scholars.

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