THE IMPACT OF TEXT MESSAGING AND INSTANT MESSAGING ON ADOLESCENT SOCIAL BEHAVIOR AND SOCIAL SKILLS

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A dissertation submitted to
The Sanville Institute
In partial fulfillment of the requirements
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By

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CERTIFICATE OF APPROVAL

I certify that I have read THE IMPACT OF TEXT MESSAGING AND INSTANT

MESSAGING ON ADOLESCENT SOCIAL BEHAVIOR AND SOCIAL SKILLS by

Sherrill Elise Klosterman and that in my opinion this work meets the criteria for

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ABSTRACT

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SHERRILL ELISE KLOSTERMAN

This research was conducted as a qualitative study that used grounded theory to explore the impact of text messaging on adolescent social behavior and social skills. This new age of electronics has permeated almost every phase of our relational being. The study looks at our current use of electronic communication and asks the question: Are the social behavior and social skills of adolescents who text impacted from the perspective of the developmental model of Erik Erikson and the attachment model of John Bowlby? The research comes to some conclusions about whether the replacement of face-to-face contact by electronic messaging is affecting and impacting adolescents in the area of social skills and social behavior.

DEDICATION

This dissertation is dedicated to my parents who always hoped I would finish It while they were still here! And most importantly to my two sons who always understood I was "working on my paper"!

Thank you all for being so patient with me.   Dad, even though you are no longer with us, I know you know that I finished!

ACKNOWLEGEMENTS

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CHAPTER I: INTRODUCTION

Intent of the Study: Statement of the Problem

The growing development of technology over the last half century has created a new electronic culture for teens in the form of cell phone connectivity, texting and computer instant messaging. In this millennium, in many instances, text messaging in particular is replacing the traditional face-to-face contact with friends, family, or groups that used to function as a mirror, internal working model, and support system for adolescents. In effect, this new electronic culture is also replacing guidelines for traditional attachment relationships, values, and developmental milestones that were held as standards in the past. Among adolescents, social contact appears to be transforming from a traditional model to one that may be more physically disconnected. I am struck by the widespread utilization of electronic communication in this era and the profound shifts that have occurred as a result. It is imperative to more deeply understand how this phenomenon affects our young, in particular, adolescents. Adolescents are in the phase of their development where the challenge is to consolidate their identity. This burgeoning use of an electronic relationship essentially eliminates a good deal of the element of human contact, in that it eliminates verbal and visual feedback. How often have we all seen teens in a group texting and not talking to each other? One might wonder what the effect is of these disembodied relationships via the phone or instant messaging on development in terms of social skills and social behavior. That is what this study will investigate.

The culture of electronics has also permeated pop culture, which has a great impact on adolescents. Today, there are commercials, cartoons, and sitcoms that all incorporate the theme of cell phone use and text messaging. Pop music reflects the anonymity that is available through an electronic culture. In a recent song by Brad Paisley (2007), lyrics reflect a young man who, not happy with his identity, creates one online:

> I work down at a Pizza pit
>
> And I drive an old Hyundai
>
> I still live with my mom and dad
>
> I'm 5 foot 3 and overweight
>
> I'm a sci-fi fanatic
>
> A mild asthmatic
>
> And I've never been to second base
>
> But there's a whole 'nother me
>
> That you need to see
>
> Go checkout MySpace
>
> Cause online I'm out in Hollywood
>
> I'm 6 foot 5 and I look darn good . . .
>
> I'm so much cooler online
>
> So much cooler online

As referenced in the song, whole cyber identities are being created by electronic communication and gathering places. Electronic gathering places

such as MySpace and Facebook are becoming more and more popular and are used to showcase adolescents' identities that may not be real and may lend themselves to a false sense of self. This could result in identity/role confusion. I became intrigued by this subject several years ago when I noticed a preponderance of cell phone usage in public places such as restaurants, parks, movies, malls, the beaches, or almost any place where one could venture. I was amazed by the apparent necessity to remain connected electronically, even when the user was in a dyad or a group.

Research Question: Overview of the Design

This was an exploratory qualitative study. Study participants were five adolescent high school students between the ages of 15 and 18 years old. Data for the study was collected through semi-structured, open-ended interviews, and analyzed according to the constant comparative, grounded theory method. Texting is the latest form of "staying in touch" and while it is used by all ages, the question that this study asks is: Does cell phone/electronic text messaging impact teen social behavior/social skills?

I decided to focus on teen use because teens are at a pivotal developmental phase in which they are trying to establish identity and sense of place in this world. I felt it would be interesting to study what I was also currently observing, which is teens gathered in tandem, in groups, or at times solo, choosing to text rather than call or have face-to-face interactions with each other. What an interesting circumstance this creates. One cannot resist speculating why these young people choose this form of communication with each other over

more traditional forms. The research question directs us to consider from a developmental standpoint, how this type of behavior among teens might affect their developmental milestones/growth on some level in terms of social behavior/ social skills.

To begin, I would like to provide some working definitions of social behavior and social skills. Social behavior is defined by Rummel (1976) as a behavior, i.e. blinking, shouting, dancing talking, that is oriented towards other selves:

> Such behavior apprehends another as a perceiving, thinking, moral and intentional behaving person; considers the intentional or rational meaning of the other's field of expression; involves expectation about the other's acts and actions . . . What differentiates social from non-social behavior then is whether another self is taken into account in one's acts, actions or practices. (p. 2)

Social behavior is more simply described by the online resource Wikipedia as "behavior directed towards society, or taking place between," (Social behavior, n.d.) members of society. It is defined as a behavior that is directed at other people and designed to induce a response and a process of communicating. Within this definition, I would like to include the concept of social skills. Social, skills are defined in the Oxford Dictionary (Issacs, Kandlin, & Lindberg, 2003) under social and skills. Social is defined as: "relating to society or its organization, concerned with the mutual relations of human beings, needing companionship; interdependent, cooperative" (p. 1442). Skills are defined as

"ability, aptitude, expertise, facility, skillfulness" (p. 1421). Greene and Burleson (2003) define social skills as "social interaction skills," which they describe as:

> a set of behaviors and behavior sequences. Asking a question or making eye contact are examples of interpersonal skills. Whether these skills were enacted in a way that was successful, satisfying, appropriate, clear and so forth is a matter of quality or competence. (p. 98)

This segues back to the dictionary definition of social and skills. Wikipedia perhaps offers a summary of the above descriptions of social skills:

> . . . a group of skills that people need to interact and communicate. Examples of social skills are verbal communication: small talk, sharing jokes, sharing philosophical ideas and non-verbal communication: active listening, body language, facial response. Also included in verbal skills are intelligible speech, variable tone and appropriate sense of humor. Included within non-verbal skills are: Active listening, confident stance, relaxed manner, body language (in sync with verbal message), leans forward while talking, smile, maintaining appropriate eye contact. (Socialskills, n.d.)

Another concept included within social behavior is the idea of social belonging. Social belonging connotes the state in which an individual, by assuming a role, is characterized by inclusion in the social collectivity. The sense of belonging to a group is certainly very important during adolescent development. According to Parsons (1959), the structure of social belonging involves the solidarity of the collectivity. The four chief components that define it

are attachment, loyalty, the sense of affinity and we-feeling. Adolescence certainly relies on the sense of we-feeling in the formation of a collective identity.

Attachment behavior is defined by the *Encyclopedia of Childhood and Adolescence* (LaFreniere, 2001) as a proximity seeking behavior including smiling, crying, clinging, gazing, and signaling. For the purposes of this paper, I would like to posit that attachment behaviors are a form of social behavior as they are designed to induce a response; they are directed at other people and are a process of communicating. Thus, when I look at the impact of electronic communication on teen social behavior, attachment behavior will be included along with a brief look at how developmental stages are affected.

Theoretical Context of the Study: Erik Erikson's Stages of Development and John Bowlby's Theory of Attachment

Looking at Erikson's (1950, 1959) stages of development in tandem with Bowlby's (1988) theory of attachment, one can begin to see how both development and ability to attach might be affected when teens shortcut the usual rituals of forming relationships and communicating with each other by electronic messaging and texting. Since social behavior, which includes social skills, and attachment behavior are predominately reliant on face-to-face interactions, how does social behavior develop appropriately in teens who rely on non face-to-face interventions to communicate? McDonald (2007) suggests that attachment and development are clearly issues in texting and cyberspace. The author recounts a story of an adolescent boy who meets someone online and furthers the relationship through text messaging. The girl lives 900 miles away

and no one has met her face-to-face, and the young boy wants to travel to another state to see her. The traditional cultural rites of passage and development are being bypassed through cyberspace. Instead of the mom "meeting" her son's first crush face-to-face, she realizes that her son has developed a crush on someone that might not even exist. This is reminiscent of the song by Brad Paisley (2007) referenced on page two of this paper, remarking on the various identities he is able to assume via internet –none of them real. The social skills the boy would need in a face-to-face meeting of eye contact, body language, and verbal cues are all being avoided. Who is this girl, and is she even a teenage girl?

The concept of development refers to stages of growth. Erikson (1950) defined ego development as the mastery of tasks in each of the successive stages of human life. Erikson (1950) basically linked his ego development stages to Freud's earlier psycho-sexual stages, but unlike Freud, Erikson (1950) stressed the interplay of instinctual factors with psychosocial factors. He stressed the importance of the interpersonal, environmental, and cultural factors to development and identity formation. He suggested that successful negotiation of each of the life stages contributes to the formation of the individual's development of trust, autonomy, integrity, initiative, industry, generativity, and ego integrity.

John Bowlby looked at the process of emotional/personality development as having a direct link to attachment. Bowlby (1988) defined attachment as "any behavior that results in a person attaining or maintaining proximity to some other

clearly identified individual who is conceived as better able to cope with the world" (pp. 26-27). More specifically, attachment behaviors in infants include sucking, crying, clinging, following, and smiling. Schore (2003) has looked at the neurobiology and psychobiology of the attachment bond. He writes, "According to Bowlby . . . vision is central to the establishment of a primary attachment . . . and imprinting is the learning mechanism that underlies attachment bond formation" (p.12). Schore (2003) quotes Ainsworth, who worked closely with Bowlby, as stating that attachment is more than an overt behavior. She said attachment is also internal, "built into the nervous system in the course of and as a result of the infant's experience of its transactions with the mother" (as cited in Schore, 2003, p. 12). Erikson stressed the interpersonal in the formation of identity, while Bowlby made the link between development, the interpersonal, and environment. Bowlby (1988) stated:

> In understanding individual development, it is necessary to consider the environment in which each individual develops. A principal variable in the development of each personality is the pathway along which attachment (or the interpersonal bond) comes to be organized. (p. 64-65).

I am positing within the framework of this study that the electronic culture plays host to an electronic environment that impacts the attachment and developmental processes. Trust, autonomy, and ego integrity are all the underpinnings of a secure base and the ability to form good internal working models, which would assist one through the rest of the developmental stages in Erikson's model. Erikson's theory was not very different from Bowlby's. He was

concerned about the individual's place in historical time and cultural context and felt that a child's identity/development was shaped through caregiving practices that reflected the values and needs of the culture into which the child was born. Erikson viewed childhood as a time when social mores may introduce the child to a particular cultural style. He talked about ways that social/cultural interactions influenced the structure of the family and the individual in it through the lifespan. Erikson (1950, 1959) saw his phases of development as being complimented by and in creative tension with its opposite operative and in constant struggle with each other as follows:

Trust vs. mistrust

Autonomy vs. shame and doubt

Initiative vs. guilt

Industry vs. inferiority

Identity vs. role confusion

Intimacy vs. isolation

Generativity vs. stagnation

And ego integrity vs. despair. (pp. 247-275)

This study will focus only on the stages, described below, that are important to the aspects of electronic culture it addresses. Goldstein (1984) has noted:

Erikson saw each stage of the life cycle (from birth to death) as having a core psychological "crisis", the resolution of which is essential to optimal healthy functioning. Clearly this developmental scheme implies that the

ideal resolution of later phases will be dependent on early ones. (pp. 82-83)

Bowlby (1988) similarly posited that attachment formation in early life, impacted by internal working models, follows the child into adulthood affecting future attachment and romantic relationships. Thus, an argument is made for the impact of environment, which includes culture, on development.

Karen (1998) noted that in the first stage of Trust vs. Mistrust, for instance, the infant's trust in the care he receives (i.e. from the caregiver) enables him to self regulate. According to Schore (2003),

. . . in infancy and beyond, the regulation of affect is a central organizing principal of human development and motivation. . . . Emotions and their regulation are . . . essential to the adaptive function of the brain. (p.129)

Schore further posits that,

The right brain is centrally involved in not only processing social-emotional information, facilitating attachment function, and regulating . . . affective states, but also in the control of vital functions . . . enabling the organism to cope actively and passively with stress. (p.129).

Later the infant's ability to trust and self-regulate enables him to let his mother out of his sight, without undue anxiety or rage. In the end, it forms the basis on which a child develops his identity and a sense of being all right. This directly corresponds to the definition of secure base. Bowlby (1988) defined a secure base as:

. . . the provision of a base by both parents from which a child or an

adolescent can make sorties into the outside world and to which he can

return, knowing for sure that he will be welcomed when he gets there,

nourished physically and emotionally, comforted if distressed, reassured if

frightened. (p. 11)

As the child progresses through toddlerhood, early childhood, and

adolescence, the child strives to find out what kind of person he is. According to

Erikson, during the Initiative vs. Guilt stage, children model themselves after the

caregivers and search for others with whom they can identify. The development

of behavior and conscience and values are important in this phase. Goldstein

(1984) notes that in conjunction with this phase, "The availability of . . . support

and encouragement from those close (to the child), of role models and . . . a

value system . . . are crucial to development" (p. 87).

Skipping ahead, Identity vs. Role Confusion involves the integration of the

past, into the present of the individual. As a result, it entails the integration of all

of the many – what Bowlby termed "internal working models" or identifications

with others – into a model that represents one's whole self. Goldstein (1984)

notes that a positive identity formation may become more difficult when a child

comes into adolescence with little sense of competence. He may face severe

frustration and reinforcement for his low self esteem, and a positive identity

formation may become more difficult, especially when he chooses models that

are inappropriate or negative.

Finally, related to this last phase is Intimacy vs. Isolation and Self Absorption. This is perhaps the most important phase, although as indicated earlier, each phase is implicitly connected to the others. Although Erikson originally posited this phase to be representative of early adulthood, I find that it also represents adolescence. Adolescence is a period of time where, having forged one's identity (although in constant flux), one is experimenting with forming relationships and testing acceptance or rejection by others. Here perhaps is the pinnacle of proof of how successfully the previous developmental stages were completed. In this stage, the individual who has not achieved a solid sense of himself may avoid relationships with others, become self absorbed, and eventually become isolated. In his later writings, Erikson (1968) acknowledged that adolescence has its own particular hallmarks:

> Thus, in the later school years, young people, beset with the . . . uncertainty of the adult roles ahead, seem much concerned with faddish attempts on adolescent subculture with what looks like a final rather than a transitory, or in fact, initial identity formation. They are sometimes morbidly, often curiously, preoccupied with what they appear to be in the eyes of others as compared to what they feel they are, and with the question of how to connect the roles and skills cultivated earlier with the ideal prototypes of the day. (p. 128)

Forty years ago, Erikson (1968) articulated a social problem we face today and one that is the very basis of this paper. He saw the link between the culture of an environment and human development. In an article by Hafner (2009), it is

suggested that the developmental need for time alone, to grow, and to attain peace and quiet is needed to establish one's identity and become the person you decide you want to be. She further suggests that this is an important task that adolescents must complete to separate from their parents. This is the task described in Erikson's phase of Autonomy, and Hafner implies that this task is difficult to achieve without sufficient quiet time. The assumption is that quiet time is sacrificed to the use of constant connection with electronics. "Texting hits directly at both these jobs" (Hafner, p. 2). Hafner quotes Turkle as concluding that

> Psychologists expect to see teenagers break free from their parents as they grow into autonomous adults. . . . If technology makes something like staying in touch very, very easy, that's harder to do; now you have adolescents texting their mothers 15 times a day. (p. 2)

Tyler (2007) further talks about the concept of "helicopter parents" who stay in touch with their kids and hover over them into adulthood due to cell connectivity. Tyler concludes that some hovering is appropriate as it can prevent catastrophes, but small errors can induce critical and autonomous thinking important to the total development of an adolescent. She quotes Epstein: "A parent's most important task is to help (them) become independent and autonomous. When we infantilize our young, we stifle their development" (p. 2).

Holson (2008) suggests the contrary is occurring in our age of technology. "Children define themselves and create social circles apart from their families, changing the way they communicate with their parents" (p. 1). She suggests that

contrary to being a connective device that infantilizes children, it helps them to separate and form their own social networks.

Cellphones, instant messaging, e-mail and the like have encouraged younger users to create their own inventive . . . private written language. That has given them the opportunity to essentially hide in plain sight. They are more connected than ever but also far more independent. (p. 2)

In terms of identity formation, Turkle (2006) notes, "As for peace and quiet if something next to you is vibrating every couple of minutes, it makes it very difficult to be in that state of mind" (p. 2). Perhaps Turkle, (as quoted in Holson, 2008), best sums up some of the questions about the impact of cell phone technology on children and culture: "For kids it [cell phone technology] has become an identity-shaping and psyche-changing object . . . no one creates a new technology really understanding how it will be used or how it can change a society" (p. 2).

A case is made by Mechanic (1974) that the social environment or culture not only meets the basic needs of the individual but affects his values, character, identity, and ego functioning. This study focuses on how the culture of electronics can have a major impact on development. Lewis (2005) describes an ongoing link between development and culture, stating that "development is as much a cultural process as a social one and that developmental processes are likely to be more positive if culture is taken seriously" (p. 1). He goes on to say, "There are those who argue that undesirable cultural traits present barriers to development, and those who instead see culture as something which needs to

be "built" by outsiders with power" (p. 1). Could this debate be a metaphor for the influence of the dot com industry represented by outsiders with power who merchandise and push always evolving products to children, at the same time creating undesirable cultural traits that seem to inhibit development? One of the concerns of this study is that ultimately the dependence on electronic communication could inhibit social and attachment development.

In his book, *No Sense of Place*, Meyrowitz (1985) explores the idea that at one time, physical presence was a requisite for firsthand experience. In order to hear someone speak, give a performance or witness an event, you had to physically be there. Meyrowitz says:

> The evolution of the media has decreased the significance of the need of physical presence in the experience of people and events. One can communicate directly with others without meeting in the same place. As a result, the physical structures that once divided our society into many spatial settings for intersection have been greatly reduced in social significance, (p. 1)

What does this mean from a developmental perspective? Perhaps one meaning is that people no longer rely on eye contact and verbal interaction to register a connection, approval, or disapproval.

To return to the beginning of this section for a moment, social skills allow people to interact and communicate with others. Examples of social skills are verbal communication (small talk, sharing jokes, sharing philosophical ideas) and non-verbal communication (active listening, body language, facial response).

Included within verbal skills are intelligible speech, variable tone, and appropriate sense of humor. Included with body language (in sync with verbal message) are the behaviors of leaning forward while talking, smiling, and maintaining appropriate eye contact.

How does one accomplish all of the above without face-to-face interactions? What is the impact of this new culture of electronic texting on the traditional developmental model? Does it affect social mores that traditionally introduce the child to a particular cultural style and does it impact the social/cultural interactions that Erikson (1950) felt influenced the individual through the lifespan? If as Bowlby (1982) and Schore (2003) suggest, attachment needs are hardwired into the limbic system, do these needs get met through electronic communication without the benefit of visual mirroring, tone of voice, and body language? Hence, this study.

CHAPTER 2: REVIEW OF THE LITERATURE

In my search of the literature, I found three empirical studies and a limited number of articles from professional journals addressing teen cell phone use and text messaging. I expected to find more empirical studies in this area but I did not. However, this is a relatively new topic and I suspect there will be more studies done in the future. The balance of the articles I include in my literature review appeared in newspapers and magazines. All of the studies and most of the articles addressed the impact of cell phone technology on social behavior on one level or another.

Cellspace and Teen Culture

One study, *Cellspace and Teen Culture* (2007) by Williams was conducted in a high school setting in New York State. This study asked the question, "What effect(s) do cell phones have on social culture for teens who attend high school?" The paper discusses the influence of cell phones on teen culture and explores the social impact of cell phones. The author has coined the term "cellspace" to describe "the broader idea of an 'alternate dimension' where individuals can manipulate or avoid the rules of the real world due to the capabilities of a cell phone, particularly through sending text messages" (p. 4).

The study was conducted through a blog with an internet address to protect identities and ensure anonymity. Students who expressed interest in the project were given pre-set usernames and passwords to the blog to prevent unauthorized users from responding. A group of five students, ages 14-18, participated in the study. Eight topics were given as sources of the discussions

required by the study. Each participant was given a timeline to respond to and complete each topic. The topics were:

1. The story of your day using your cell phone. Look at your logs; tell the story of your day from the perspective of how you used your phone.

2. Where, When, How? Describe when, where and how you use your cell phone most.

3. Who? Who do you talk to, who do you text?

4. The ideal cell phone. If you could pick a cell phone to have tomorrow, what would it be?

5. Complications with cell phones. Describe a time when you and/or a friend got into an argument that was either started or complicated because of cell phones.

6. Parents and cell phones. Has there been a time where you and your parents got into a disagreement related to cell phones?

7. Do cell phones solve problems? Describe a situation where a cell phone helped solve a significant problem for you.

8. Problems in schools. There have been many articles and news stories lately regarding problem with cell phones in schools. Some of the concerns include: distractions in class, using cell phones for cheating, bullying/fighting/spreading rumors, etc. Do you think these issues are a problem (at your school)?

Several themes emerged from Williams' (2007) study. Under the category of When, Where, How, for instance, it became apparent that school rules as well

as social rules are often broken in the service of constant need for communication. Although texting is most often used in the classroom, it is still disallowed, and teachers often look the other way.

Themes that emerged from Williams' (2007) study were *Spreading rumors; fights/ misunderstandings; feeling connected 24/7; breaking the rules; social skills/social behavior.* Some excerpts from the study highlight the dependence and social impact that the cell phone has created on teen life. Relevant works from other researchers and authors will be woven into the following presentation of Williams' themes.

Spreading Rumors, Starting Fights, Misunderstandings

Williams (2007) notes that "sending text messages . . . can be especially dangerous in gang type fights and gossip control. What years ago would have taken a day or two to get 'passed around' town, can now be done in minutes" (p. 4). Teens who were interviewed on this topic responded: "cell phones start a lot of fights. Misunderstandings through texting start trouble" (p. 72). Another teen reported that "...as far as socially, cell phones are terrible. We text everything we hear about events and other people's lives . . . rumors live in cell phone texting." Another teen reported that "I only get into conflicts involving phones when there is an absence of calling being done" (p. 70). By that he meant making or returning calls to others. This was backed up by a friend who stated: "If you say your [sic] going to call . . . just give the courtesy. Another problem I run into is when someone tells me something but because of poor reception I hear something else" (p. 71). When texting is being done between people in the

same room, part of a group, perhaps, it often isolates the target and can result in backfiring. A teen recaps this experience in one of her posts.

> Friend 1 was mad a friend 2 and we were all out to dinner. Friend 1 sent me a text about friend 2 who was across the table and I never got the text and we couldn't figure out why. Well, friend 1 accidentally sent it to friend 2 and they're not friends anymore. (p. 71)

Feeling Connected 24/7

This theme was a predominate one found in the study. Williams (2007) notes that of the themes expected to emerge from her study, "connectivity was the overwhelming purpose for teens wanting to use their cell phones" (p. 24). One respondent stated: "I looked thru my cell phone and found that my cell phone affects my life greatly" (p. 53). Another respondent stated, "My usual day consists of probably 100 texts a day . . . texting comes in handy when I need to talk to friends" (p. 55). Another teen responded, "I probably use my cell phone the most from 8:30 PM to 11:00PM." She added, "I find texting easier than calling. I am not sure why though. When I am asleep if someone randomly needs me at 2 am, I will wake up for it" (p. 57). "I went to work and even though it is company policy [to have] no phones everyone is always texting there [sic] friends who wants to go 4 hours with no contact to or [sic] friends?" (p. 51).

Other transcripts include: "My phone is NEVER off. Even when it is charging I use it." And, "I use my cell all the time . . . I use it starting at 7:00 in the morning till 10-10:30. And while im [sic] sleeping I receive text messages . . . sometimes I get calls in the middle of the night when someone needs to talk

about something important. I never shut my phone off" (p. 57). Finally, one teen summed up the use and need for cell contact as follows:

> It's like in today's society, things just get really hard to do and really hard
> to keep in touch with out a cell phone. I think that's because we constantly
> want to know what's [sic] going on . . . Cell phones allow us to have a
> constant update. (p. 61)

What becomes clear is that teens have a strong need to be connected and the cell phone either fulfills that need or exacerbates it. What is also clear is that this small electronic device takes on the proportions of a lifeline.

Underscoring this idea, Turkle (2006), suggests that we are "tethered" to our cell phones. "We are tethered to our 'always-on/always-on-us' communication devices and the people and things we reach through them . . . " (p. 2). She observes that physical distance becomes a non-issue in feeling connected when connectivity can be provided by technology. "We are witnessing a new form of sociality in which the isolation of our physical bodies does not indicate a lack of connectedness. . . . The connectedness that matters is determined by our distance from available communications technology" (p. 3).

In the following excerpt, Turkle (2006) also underscores the issue Haste (2005) addresses of public versus private boundaries:

> In a café, a traditionally public place, one learned to lean forward toward
> the person with whom one was speaking, lending an ear while veiling the
> gaze to better share it with one's interlocutor. On a cell call, the speaker

often stares straight ahead, talks out loud, behaving as though no one around is listening. (p. 3)

Turkle observes how social behavior is greatly impacted by this small device. We are no longer experiencing face-to-face interactions where body language, gaze and social skills play a part, but rather we are participating in disembodied conversations through technological objects.

Breaking the Rules

Most of the teens interviewed in Williams' (2007) study were very aware that they used their phone in ways that broke school rules or rules at the workplace/in the community almost daily. Most did not appear to feel that it was a major violation of anyone's rights. Williams notes, "In this 'cellspace', the norms and rules of the real world can be manipulated or avoided" (p. 25). At school, especially, the texting feature enables teens to break the rule of no cell use in the classroom. As one teen in her study said, "I use my cell phone most during school. Breaking the rules, yes I know. Everyone in school [texts] right in the middle of class and most teachers do not say anything at all" (p. 27). Another milieu for rule breaking is the work place. One of Williams' participants said:

After school hours, I go to work, and at work my phone is on med-high. It's pretty loud. I like to hear when I have messages and phone calls. My boss . . . doesn't allow talking on them unless it is a relative-like a parent. (p. 60)

Social Behavior / Social Skills

This theme was captured in large part by Williams' (2007) study and contains sub themes such as social isolation, attachment, impact on self esteem and feeling of peer popularity. It also looks at the effect of reduced face-to-face contact or no contact with peers who do not have cell phones. Many of the studies reviewed for the current research project addressed the issue of uncomfortable conversations and terminating relationships. All found that the use of texting allowed the adolescent to deal with discomfort impersonally and not have to confront the discomfort directly. Preceding Williams' study, Ito and Daisuke (2003) also address these sub themes. They make the argument that adolescents are substituting poorer quality social relationships (weak ties) for better ones (stronger ties). According to them, a decline of social skills is enabled by less face- to- face contact and less emphasis on facial expression, body language, and an ability to terminate conversations and not return calls that might be uncomfortable. Similarly, Haste (2005) found in her study that, "For ending a relationship in terms of feeling comfortable . . . texting is the preferred mode" (p. 62).

Like Lewis (2005), Bryant, Sanders, and Smallwood (2006) look at how SITS (socially interactive technologies) affect offline friendships in terms of social technology and culture. In their study they reflect,

> Much has been said about the prevalence of technology in the lives of
> adolescents. Reports in the press and surveys of parents . . . range from
> exuberant, discussing how socially interactive technologies can save

youth from social isolation and depression to alarming, focusing on how

constant use of these technologies fosters anti social behavior. (p. 1).

The authors really pinpoint the focus of this study, with the following comment:

Previous research on youth and SIT's has tended to focus on who is using

the technology and why. Such research is vital to preliminary

understanding of a new technology. However it does not delve into the

heart of the more interesting questions, such as . . . how using these

technologies actually affect how children and adolescents communicate

with one another. For example, do youth use these less-rich media

technologies to obtain emotional, psychological and other forms of support

from their peers? (p. 2)

Social behavior has been defined earlier in this paper as a component of

social skills. Included in social behavior is the idea of social belonging. Social

belonging is impacted in many ways by social behavior. Social belonging seems

to have extended to cell phones themselves. Some responses in Williams

(2007) that underscored this were: "I never knew how bad I abuse my phone until

I read that story placing our phones as a real personal object with feelings" (p.

54). "In fact, throughout the study, teens report a reliance on their phones similar

to an attachment bond. "Let's see my phone is pretty much my life" (p. 59).

"Life basically would not be complete without a cell phone" (p. 62). Hasté (2005),

a professor of psychology at University of Bath and visiting professor at Harvard,

sums up the relationship between teens and their cell phones in an extraordinary

way:

> The mobile phone does not just substitute for the landline. It is attached to
> a person not a place; it is a prosthesis of the body . . . It has been argued
> that a young person's phone is a central expression of their identity. (p.
> 56)

Haste (2005) also suggests that we often view technology as making things easier, but the use of technology can change the technology itself. She says, "A good example is that the designers of the mobile phone assumed that people would use them to talk; no one anticipated the overwhelming move to texting" (p. 56). She notes from the data in her study that social practices in mobile phone use are evolving and, one could suggest, is changing social practices in general. Haste says:

> A striking example is that conversations used to be conducted in private.
> To overhear a conversation required some effort and was thought to be
> rude. The very public nature of mobile phone conversations . . . has
> transformed that code for both the speaker and the (unwilling) bystander.
> (p. 56).

She concludes that at the very least, boundaries between public and private are now drawn differently.

In this vein, the Williams (2007) study draws out other responses that also underline the collapse of social skills: "Texting is so popular because it's the easiest way to talk about other people in the room" (p. 60), Williams says. One of her participants said:

As for keeping in touch with my friends that don't have a cell phone, it's a tough question because I can only think of one of my friends who doesn't have cell phone. Texting is so much easier to do. It's like having a phone conversation - weird silences can happen, if you want to not talk to the person anymore there is no polite way to say that. Texting there is no conversation so you are okay and if you don't want to talk, just do not reply. (p. 59)

Williams (2007) found that social isolation becomes a factor when one does not own a phone: "The problem with her [respondent's friend] not having a phone is I don't hang out with her as much u kno [*sic*]" (p. 63). Another person said, "All my friends definitely have cell phones . . . really hard to keep in touch without cell phone" (p. 64). And finally, "I only get into conflict involving cell phones when there is an absence of calling being done. Like if someone said they would call me but didn't" (p. 70).

Social isolation and ostracism were also studied by Smith and Williams (2004). Their study specifically looked at the effects of imagined ostracism using cell phone texting as a modality of isolation. In this experiment, the authors used a triadic cell phone text messaging method in which participants either continued to be included or received no further messages from the others (and saw no messages between others). They looked at the psychological effects when, after initial inclusion in a conversation, participants continued to be included or received no further messages from the others. "Ostracized participants reported worse mood, low self esteem, lower states of belonging, control, self-esteem,

and meaningful existence . . ." (Smith &Williams, p. 291). Docksai (2009) noted that "The mobile phone can go to less than edifying purpose also. Some students at a school in British Columbia created a 'fight club' with scheduled smack downs that they recorded and uploaded for global sharing" (p. 5). He goes on to note that "In a Quebec classroom students acted chaotically so as to provoke their teacher and then recorded his angry outburst for later upload onto YouTube" (p. 5).

Walsh and White (2009) did a qualitative exploration into social psychological factors relating to young people's mobile phone use. Focus groups were conducted with 32 participants between the ages of 16 and 24 years. Three major themes, connectedness, belonging and social identity were explored in relation to young people's mobile phone use. They also looked at how psychological well being and development are enhanced by social identification along with belongingness. "Along with understanding, controlling, enhancing the self, and trusting, belonging is posited to be one of the five core social motivations that underpins much social behavior" (p. 226).

The above commentary captures the need for a constant attachment, the need to be needed, thus increasing self esteem, and the risk of being socially isolated if you do not own a cell phone or socially targeted even if you do. The reported amount of dependence on this device is remarkable. What is also remarkable is that it appears to be replacing in-person contact. This is evidenced by the teen in the Williams (2007) study who reported that she/he sees little of a friend who does not own a cell phone. It would appear that both the Walsh and

White (2009) and the Williams study underscore that "cellspace" does impact social/behavioral life of teens.

Williams (2007) concludes from her study that the primary function of cell phones for teens is connectivity with peers. Maintaining and remaining connected appear to be essential to an age group whose identity relies on constant mirroring. However, Williams found that texting in particular could be socially divisive as well as a distraction when used in the classroom. She did not focus on the absence of social skills in electronic messaging, i.e. engaging another with the use of tone of voice, body language, eye contact, small talk and jokes, and whether this would impact social behavior in teens.

Text-Messaging in Japan

Ito and Daisuke (2005) studied teen cell phone use in Japan. They focused on mobile phone use and location in relation to social contact and relational factors. Their study looked at how Japanese youth, particularly high school students, moved between places of home, school, and urban space that are all subject to a high degree of surveillance and regulated by adults. It appeared that these youth were using mobile phones to free themselves from restrictions of Japanese society and incorporate privacy into their own lives. Developmentally, along the lines of Erikson's stages, they may also be trying to create autonomy. The authors concur: "Although a limited form of contact, mobile email has fulfilled a function akin to co-presence for people that lack the means to share the same private physical space" (p. 21). The study is a departure from the other studies discussed in this paper as it does not look at

attachment aspects in relation to social, cultural, and relationship factors in a society that is highly regulated as is Japan's.

This study relied on interviews with 24 Japanese college and high school students and analyzed how the cell is used for anytime anywhere connectivity. It looked at cell phone use in three milieus: the private space of the home, public spaces of public transportation and the streets, and the virtual space of online peer connectivity. The authors conclude that their work represents "how mobile phone use is embedded in specific social and material locations that youth occupy in urban Japanese culture and society and in turn how usage changes their experience of places and their relationships to peers and parents" (p. 1).

The study used interviews and diaries. Participants kept personal diaries with records of every instance of mobile phone use, including voice and text messages, email, and web use, for a period of two days. The participants were asked to note the time of usage, with whom they were in contact, whether they received or initiated contact, where they were, what kind of communication device was used, and why they chose that form of communication. They were also asked who was in the vicinity at the time, if there were any problems associated with usage, or the content of the communication. After the completion of the diaries, the research group conducted interviews that covered general attitudes and background information relevant to mobile use. The study is described as ethnographic and involved seven high school students ages 16-18 and six college students ages 18-21. The study looked at mobile phone use in the home, at school, in urban space, and virtual places.

Several themes emerged from this study that overlapped with the previous study by Williams (2007) and some were new. The themes that emerged from this study in response to the diaries and interviews were that cell phones provide the opportunity for the following: anytime/anywhere connectivity; emotional and social support/communication; group membership; privacy; elimination of boundaries; rule breaking (at school and in public); decline of morality and values; the creation of an "other."

Anytime / Anywhere Connectivity

The importance of connectivity was a major theme in Ito and Daisuke's (2005) research study.

> Youths describe using phones for emotional and social communications, particularly for cementing peer relationships. Text messaging appears as a uniquely teen inflected form of mobile communication, in that (it) is lightweight, less intrusive . . . and enables easy contact with spatially distributed peer group. (p. 3)

The authors noted from the communication diaries kept by the adolescents that one of the participants in the study was part of a teenage couple. The diaries revealed:

> Their typical pattern is to begin sending a steady stream of email messages to each other after parting at school. These messages will continue through homework, dinner, television shows and bath and would culminate in voice contact in the late evening, lasting for an hour or more. (p. 12)

This is followed up by "a trail of messages [following] the voice call ending in a good night exchange and revived again upon waking" (p. 12).

From this study, Ito and Daisuke (2005) have concluded that the mobile phone has created a need to be continuously available to friends and lovers, and it created a need to always carry a functioning mobile device. One participant noted, very much like the participants in the Williams (2007) study, "I am constantly checking my mail with the hopeful expectation that somebody has sent me a message. I always reply right away. With short text messages I reply quickly so that the conversation doesn't stall" (Ito & Daisuke, p. 19). The students in the study were able to acknowledge that when a message is not returned right away, there is a sense that a social expectation has been violated.

Group Membership

Group membership was another theme that emerged in the Ito and Daisuke (2005) study. Adolescence was described as "a unique time in the lifecycle . . . [in which] peers play a central role during this period and . . . the mobile phone becomes a tool to define a sense of group membership" (p. 3). The ability to text several people at one time created a sense of belonging or having a "co-presence" (p. 17). Classmates set up meetings after school or received emails from friends who could not attend. One of the diaries revealed:

> Out shopping, a lone girl sends a picture of the shoes she is buying to a
> friend. Another sends a message announcing that she has just discovered
> a great sale. After a physical gathering, as friend(s) disperse on trains,
> buses, cars and on foot, a trial of messages often continues the

conversation . . . This kind of communication is freed from prior contingencies that required . . . pay phones and physical co-presence. Rather than fixing a meeting place, gatherings between youth are now almost always arranged in a fluid way as people coordinate their motion through urban space, eventually converging on a shared point in time and space. (p. 17)

Privacy / Boundary Elimination

Ito and Daisuke (2005) note that there are peculiarities to the urban Japanese case with respect to personal environment. "Most notably, Japanese youths . . . through college, have less private space compared to their US and even European counterparts" (p. 9). The cost of a private line in a teen's bedroom is very high – about twice what it costs to get a mobile phone. The authors add, "The phone has always provided a way of overcoming the spatial boundary of the home, for teens to talk to each other late at night and shutout their parents and siblings" (p. 10). "This has freed youths to call each other . . . at hours of the day when other family members are likely to be asleep" (p. 10). In this study, the researchers also interviewed the parents about their response to the use of cell phones in the home and whether they felt they could regulate or control it.

I: Do you have a problem with her using her mobile phone during meals, or when you are together in the living room?

Mother: I don't have a problem with it when we are just lounging around.

But during meals or when she is studying I try to tell her to tell the other

person on the line.

I: Are you curious or concerned about with who and what she is

communicating?

Mother: I am concerned about all of it. . . .

I: When you tell her to stop, does she stop?

Mother: She goes to her room . . . if I am strict about it.

I: Do you ever ask her, "what in the world are you talking about!"

Mother: I do ask sometimes. But I just get a vague reply. . . (p. 12)

From the tenor of this interview, it appears that this parent did not attempt to or

just does not feel able to regulate the use of the teen's cell. It can leave one

wondering how generalized is this phenomenon

Mobile Phones at School

As in the previous study by Williams (2007), the researchers in Ito and

Daisuke (2005) found that there was variability in how teachers dealt with cells in

class and breaking the rules. They say:

Some schools have greeted the recent ubiquity of mobile phones with

blanket prohibition. Almost all schools officially ban phones from

classrooms, but most students do use email during class at least

occasionally. In this regard, sub themes such as rule breaking and

anytime anywhere connectivity pop up. The mobile phone gets used most

frequently during the lunch time hour and immediately after school, as students scurry to hook up with their friends. (p. 14)

It is ironic that they choose to text during a time when they could be having one-on-one contact in person.

Almost all school officials in Japan ban phones from the classroom as they do in the U.S, but there appears to be very little adult enforcement of the rules. Like students in the U.S., this study found that most students left their phones out on their desk for the clock function. In the study, "all students reported in their interviews that they would receive and send messages in class hiding their phone under their desks to do so" (Ito & Daisuke, 2005, p. 13)

A sample of the transcripts of the interviews with high school students shows a general theme of boredom in class which may precipitate texting:

I: do you email to people sitting in the same classroom?

Student: Yes, I do that . . .

I: what do you say?

Student: "This is boring"

I: And you get a reply?

Student: Yes.

I: When you write your email do you hide it?

Student: Yes, when the teacher is facing the blackboard, I quickly type it in. (Ito & Daisuke, 2005, p.13)

Ito and Daisuke (2005) note that interviewing three other students produced similar conversations: "This sucks", "this is boring," or "check it out, the teacher buttoned his shirt wrong" (p. 13).

In conclusion, the Ito and Daisuke (2005) study looks at how institutions condition Japanese youth's mobile phone use, not at relationships in connection with mobile phone use. They see place as a power geometry that integrates the social, material and cultural. In other words, the parameters or restrictions of place imposed by society curtail the privacy or freedom of youth. Interestingly, the authors conclude that instead of destroying the integrity of place, mobile phones participate in the structuring of new forms of place-base norm and disciplines, much in congruence with social theory, and change brings about social transformation or reworking of norms. Indirectly, the study does suggest through interviews that the phone also serves as an attachment object, as students interviewed used it to remain connected and looked forward to activity in the form of text messages from peers. This phenomenon is not discussed in terms of social skills or social behavior in the study nor in terms of the concept of attachment.

Teen Instant Messaging and Attachment

The final study to be reviewed is authored by Boneva, Quinn, Kraut, Kiesler, and Shkovski (2006). It looks at teenage communication in an instant messaging era from the viewpoint of attachment relationships, how instant messaging via computer (from this point on referred to as IM) promotes individual and group friendships, as well as how it promotes role identity from an Eriksonian

(1968) developmental model. Other studies have not addressed this directly. This study compares instant messaging communication patterns to in-person and phone communication patterns. "In the transition from childhood to adolescence, teen(s) are engaged in defining who they are and finding a place in the wide world which creates insecurity" (Boneva et al., p. 615). In contrast to Turkle (2006), this study maintains that "Peer communication with peers is a complementary process to private reflection for the adolescent: the social and personal processes support one another in adolescents making sense of life experience and constructing viable relationships between self and society" (Boneva et al., p. 616). This is congruent with Holson (2008) who has previously been cited in this paper as advocating for technology in terms of its creating independence and social connectivity among the young.

The Boneva et al. (2006) study, in contrast to the others, looks at the developmental need of the adolescent to both connect and be connected to another. It suggests, as Ainsworth (1967) proposed, that perhaps the need to be connected is inherent or internal, "being built into the nervous system in the course of and as a result of the infant's experience of its transactions with the mother" (p. 12). The study looks at instant messaging via computers and one-to-one conversations in the home and in public. As did the previous studies, Boneva et al. look at adolescent communication in terms of one-to-one and one-to-many.

There are two distinct modes in which an adolescent communicates with peers: one to one and one to many. These modes are associated with

two different types of relationships: forming and maintaining individual friendships and belonging to peer groups. (p. 616)

Boneva et al. (2006) posit in their study that person-to-person communication among teens serves a purpose similar to the mirroring that goes on in an attachment relationship. They say:

Person-to-person communication with another peer provides vital information for the adolescent to compare to similar others and to receive verification for his or her own feelings, thoughts and actions and is crucial to self identity formation. One to many communication, adolescent's connectedness to a group that creates a feeling of group belonging, is crucial to one's social identity formation. (p. 616)

This study asks the question: How is IM use associated with these two ways of adolescent connectivity: through maintaining individual friendships (that helps them 'decipher' self) and through belonging to peer groups (that helps them map the self into the social categories of the larger world). The study argues that due to time limitations, during school, after school and on weekends, adolescents have less time to interact with friends or hang out with groups at school. Thus, electronic communication is attractive to adolescents, as the time required for face-to-face communication that supports both individual friendships and maintains group interactions is limited at a developmental period when communication needs are at the highest.

Although discussing text messaging rather than IM, Holson (2008) suggests that this ability to communicate quickly and electronically is attractive to parents also.

In a survey released 18 months ago, AT&T found that among 1,175 parents the company interviewed, nearly half learned how to text-message from their children. More than 60 percent of parents agreed that it helped them communicate, but that sometimes children didn't want to hear their voice at all. (p. 2)

The Boneva et al. (2006) study surmises that the phone primarily supports only one–to-one communication and many teens do not have wireless access. This restricts privacy as most conversations will emanate from the home. IM, however, supports one-to-one and one-to-many communication. The authors state that, "Our major goal is to understand how the available technological features of IM have been appropriated by adolescents to support their two distinctly different communications with a close friend and by hanging out with a group" (p. 625).

Boneva et al. (2006) used a combination of quantitative and qualitative analysis .The data for the qualitative study examines adolescent peer connectedness by asking teens to describe a communication session with a friend by instant messaging, phone, and face-to-face. Data for the quantitative study was collected by random digit dialing of residential telephone exchanges to secure a representative sample of teens in Caucasian households in the United States. The authors state that the reason for this restraint was there were not

enough non-Caucasian adolescents or IM sessions to be able to control for race and type of relationship in the IM use. The respondents were asked to report on one online (either IM or email) and one offline (either face-to-face visit or telephone call) communication session that they had 'yesterday'. For each session, respondents answered questions that described both the communication session and their communication partner. A total of 106 communication sessions were examined that included face-to-face visits, phone and IM conversations with a friend.

The qualitative study included a sample of 20 families that were interviewed with a total of 26 adolescent children over a four month period from December 2001 to March 2002. The age range was 13 to 18 years old. The twenty families were selected from the national HomeNet Survey sample if they met the following criteria: lived in Pittsburgh metropolitan area, had access to the internet at home; and had at least one adolescent live-in child. Interviews were about three hours long and consisted of two parts: a family interview where all members of the family discussed their use of the home computer and the internet and individual (adolescent) interviews in front the computer. The interviews were tape recorded and videotaped. No mention of ethnicity is made regarding the qualitative part of the study.

In conclusion, the study by Boneva et al. (2006) was very interesting in that the authors found that IM appears to fulfill two separate psychological functions for adolescents. First, it connects adolescents to peers and extends their opportunities in terms of time and space to communicate. This is the

communicative function mentioned earlier. Second, IM helps to define the social identities of adolescents, which the Boneva et al. study addressed but did not answer. This developmental function or connection between social behavior and technological communication has yet to be studied and will be the topic of the current research study. A critique of the Boneva et al. study is that it did not delineate or identify the results between the quantitative and qualitative studies.

Summary

All of the studies examined in this literature review have one thread in common – they agree that teen cell use is primarily for connectivity. Williams (2007) concluded that maintaining and remaining connected appears to be essential to an age group whose identity relies on constant mirroring. While Williams did not look directly at attachment issues, she did address social skills and social behavior directly. Her interviews expose attachment issues indirectly, however. Ito and Daisuke (2005) looked at cell use as a way to create space and privacy away from adult regulation. They proposed it to be a cultural issue as much as a developmental one due to the high degree of surveillance imposed by society in Japan. This study also looked at the need to be connected constantly and the need for group membership. While it did not look at attachment issues specifically, attachment needs are described in some of the interviews, "I am always checking my mail with the hopeful expectation that someone has sent me a message. I always reply right away" (p. 19).

The study by Boneva et al. (2006) focused on teenage communication in an instant messaging (IM) era from the viewpoint of attachment relationships via

computer. However, while the study does look at how IM promotes role identity from an Erikson developmental model (1968), it falls short of addressing the connection between social behavior (attachment behavior) and technological communication, which has yet to be studied. It also did not delineate or identify the results between the quantitative and qualitative studies. None of the studies included in this review have addressed the impact of text messaging or instant messaging on adolescent social behavior or social skills.

CHAPTER 3: METHODS AND PROCEDURES

The purpose of this study is to examine the impact of electronic

communication on adolescents versus face-to-face interactions. The central

question is whether the developmental and attachment needs of adolescents are

affected through electronic relationships that involve text messaging and instant

messaging rather that face-to-face interactions. In particular, the study examines

whether social skills and social behavior are affected. In this chapter on

methodology, I will segue from theory and review of the literature to the process

and techniques that has guided my study of the data.

Design

My approach was qualitative. The focus of this study was the subjective

experience of teens as reported in open ended interviews that invited their

thoughts and feelings about the process of electronic messaging versus face-to-

face interactions in interpersonal relationships. A qualitative approach is

appropriate for understanding an area of research that is relatively unexplored

and is appropriate for analyzing data derived from participant's personal

experiences, allowing for analysis and interpretation. "Qualitative research is

emergent, not tightly preconfigured. It takes place in a natural setting and uses

methods that are interactive and humanistic." (Creswell, 2003, p. 181). It is also

fundamentally interpretative. "One cannot escape the personal interpretations

brought to qualitative data analysis." (Creswell, 2003, p. 182).

Maxwell (2005) defines qualitative research as the process in which the

researcher asks "how *X* plays a role in causing *Y*... and what the process is that

connects *X* to *Y*" (p. 23). Maxwell (2005) further elaborates, "In qualitative interview studies, the demonstration of causation rests heavily on the description of a visualizable sequence of events . . . each event flowing into the next" (p. 23). The specific method that guided my research was grounded theory. The grounded theory researcher begins with an area of inquiry and allows the theory to emerge from the data, rather than beginning with a preconceived idea and fitting the phenomenon into it. This approach goes beyond description of phenomena through the organization and categorization of data into increasingly complex conceptualizations and levels of abstraction. Grounded theory is described by Creswell (2003) as a process in which "the researcher attempts to derive a general abstract theory of a process, action or interaction grounded in the views of the participants in the study" (p. 14). Charmaz (2006) defines grounded theory as consisting of "systematic yet flexible guidelines for collecting and analyzing qualitative data to construct theories 'grounded' on the data themselves. The guidelines offer a set of general principles and heuristic devices rather than formulaic rules" (p. 2).

Participants and Sampling Procedures

The sampling method that was used in this study was purposeful sampling. This is defined by Creswell (2003) as "the purposefully selected sites or individuals for the proposed study. The idea behind qualitative research is to purposefully select participants or sites that will best help the researcher understand the problem or the research question" (p. 185). The sample was focused on a small number of subjects to be interviewed. The size of the sample

was five subjects. Patton (1990) states that, "Qualitative inquiry typically focuses in depth on relatively small samples" (p. 169). The number of participants was determined by whether sufficient information was gathered to do justice to the research question.

I strived for maximum variation in the sample by selecting participants from different backgrounds, cultures, and genders. Although my participants were all teens, their ages differed slightly. The focus of maximum variation sampling is to uncover central themes that may cut across participant variation. Strauss and Corbin (1998) state that a small sample of great diversity yields "high quality detailed descriptions of each case which are useful for documenting uniqueness and important shared patterns that cut across and derive their significance from having emerged out of heterogeneity" (p. 172).

Criteria for Selection

To be included in this study, participants had to be high school age, 15 – 18 years old, and identify themselves as using electronic messaging such as text messaging, instant messaging, or email to communicate with peers. Teens who did not use electronic messaging were not included in the study. The population was pre-selected in that all participants were volunteers serving the agency used as the site for this study. However, I strived for balance by selecting for a range of gender, age, and other demographic variables. To maximize variation, I included mixed text messaging use, i.e. from occasional use to nearly constant use. I attempted to maximize variation in these areas of messaging by selecting from participants who have many friends with whom they communicate

electronically to those who have a few or one friend with whom they communicate electronically in order to have the broadest view of the impact of electronic messaging on social behavior and social skills.

Recruitment

I recruited participants through a teen volunteer group in southern California. I sent a letter describing the research project (see Appendix A) to the facilitator of this group and asked the facilitator to recommend potential participants. The participants who were interested, emailed me of their interest and this was followed by a phone call to do a brief telephone screening with a screening tool (see Appendix B). Subsequently, a letter was sent to the pre-selected prospective participants who agreed to be part of the study (see Appendix C) and to their parents (see Appendix D). The letter included a description of the research project and its methodology and the informed consent forms for potential participants and their parents to review (many of the participants were minors) (see Appendix E). Two copies of the consent forms were sent, one for them to keep and one to send back in a self addressed stamped envelope. Once the consent forms were signed and returned, I contacted the participants to set up an interview date. There did not turn out to be any teens who were interested in participating whom I did not interview. If there had been I would have sent them a letter thanking them for their interest, (see Appendix F) but this proved unnecessary.

Data Collection

The Interview

Data for the study was collected through semi-structured interviews, as defined by Creswell (2003): "In interviews, the researcher conducts face-to-face interviews with participants. . . .These interviews involve unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from the participants" (p.188). An open ended interview is an appropriate tool to gather the type of information sought in this study, i.e., the thoughts and other subjective experiences of teens about an aspect of their experience in communicating with peers. According to Patton (1990),

> The purpose of open-ended interviewing is not to put things in someone's mind (for example the interviewer's preconceived categories for organizing the world) but to access the perspective of the person being interviewed. We interview people to find out from them those things we cannot directly observe. . . . Qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable and able to be made explicit. (p. 278)

Procedure

I interviewed each participant once, for about an hour, in the setting in which they volunteer. I tape recorded the interviews and then had them professionally transcribed. An interview guide (see Appendix G) consisting of a set of topics and probe questions helped me insure that certain questions were

covered during the interview, but the interview guide was only for my own use. It did not direct or shape the interview.

Before beginning the tape-recorded interview, I reviewed the purpose of the study and issues of confidentiality and had participants sign the informed consent, a copy of which they received prior to the interview along with a copy sent to the parent of each participant. Parental consent had already been given. I initiated the interview by inviting participants to begin to talk about their thoughts and experiences related to the research topic. After that, the interview followed the direction set by the participant's own narrative process and flow of thoughts in response to the central research questions. If I wanted to ask about something that did not come up spontaneously during the interview, or if I wanted the participant to clarify or elaborate on something they brought up, I asked questions about what seemed to be appropriate points in the interview, hoping not to interrupt the flow.

The Interview Guide

The preliminary interview guide (see Appendix G) consisted of a list of topics and probe questions designed to help me attend to areas of inquiry that would shed light on the research questions. I conducted pre-tests to see if additional interview topics would arise. Early interviews suggested additional topics and probe questions which were added to the interview guide for subsequent interviews. Although the topics were presented in the interview guide in a certain logical order, during the interview I did not follow any pre-

conceived order of questioning. The order of the questions asked was entirely dependent on how the interview proceeded.

After the participant had given consent to proceed with the interview and we discussed whatever questions he/she might have had about the project, I began the interview with an introductory statement about the research question. I then asked the participant to begin talking about his/her initial reactions and thoughts about the research question. As the interview proceeded, I referred, when needed, to the topic areas listed in the interview guide (see Appendix G), particularly those concerning length of use of electronic messaging, the way their use of electronic messaging differs from fact-to-face encounters, and their perceived advantages and disadvantages of electronic messaging.

Asking about the length of time the participant has been using electronic messaging served several purposes. It was important to know whether this participant had been a long time user or was relatively new to using electronic messaging. This question was designed to tease out whether messaging was the preferred method of communication for the participant and if so, why. This question also explored which type of electronic messaging the participant used most, i.e., text messaging via cellular phone or instant messaging via computer. This question also allowed the participant to create his/her own personal context for messaging and if there was a preference.

Asking how participants use messaging versus face–to-face encounters allowed the participants to go into more detail about their personal experiences with cellular or computer messaging and elicit whether there was a particular

context for its use or if it were the only method used to communicate with peers. It was also designed to examine whether the social skill set of a participant was such that he/she would prefer the anonymity of texting to face–to-face encounters and how this form of communication might affect the developmental tasks the adolescent may be working on with respect to social skills and social behavior. Did the use of texting exacerbate this developmental deficit or allow them to proceed on track?

This question concerning the perceived advantages/disadvantages of using electronic messaging allowed the participant to discuss situations or events that may have had positive or negative outcomes due to the particular characteristics of text messaging: it's benefits and limitations. At the end of the interview, I left my contact information (Appendix H) with each participant.

Data Analysis

I analyzed material from the interviews according to the constant comparative method. According to Charmaz (2006):

> The grounded theory method depends on using constant comparative methods and your engagement. Both constitute the core of the method. Making comparisons between data, codes and categories advances your conceptual understanding because you define analytic properties of your categories and then begin to treat these properties to rigorous scrutiny. (pp. 178-179)

Questioning is the medium for data collection and a tool for understanding the date that has been collected.

A grounded theory researcher asks what something in the data is or what it means and considers qualities belonging to categories he/she already knows in order to begin to make sense out of the phenomenon under study. The process of making such comparisons suggests new questions to ask oneself to deepen and broaden understanding of the phenomena under study and move from the particular to the more general and abstract. In the grounded theory approach, analysis of the data begins as soon as the initial data has been collected, in contrast to quantitative approaches where all of the data is collected prior to analysis. Thus, the process of making comparisons influences the process of collecting data and may suggest further questions to be asked in interviews, based on the evolving theoretical analysis. When new data comes in, further comparisons are made. Other tools involved in analyzing data, such as the different types of coding to be discussed below, assist in this process of asking questions and making comparisons, and eventually in theory generation.

Data analysis began with listening to the audiotape of each interview to get a sense of the participant's unique voice and to summarize the themes that stood out. Then the audiotape was transcribed. As more interviews were conducted and their audiotapes reviewed, I began to make comparisons between them, noting both the uniqueness of each and generalities that emerged. As mentioned above, emerging categories suggested the need to collect more data until all relevant categories were saturated.

The primary tools for analyzing data within the grounded theory approach are a series of coding procedures that facilitate theory building from the particular

phenomenon to more abstract and interrelated conceptualizations and categorizations. The different types of coding – open, axial, and selective - do not take place in a linear, sequential manner, but operate in tandem.

Open coding refers to the process of breaking down the data and examining it closely, looking for similarities and differences. Transcripts of the interviews were examined line by line, looking for collections of phrases and words that seemed important, looking for clusters of related phrases, while also paying attention to the general themes. "Fresh data and line by line coding prompt you to remain open to the data and see nuances in it" (Charmaz, 2006, p. 50). "The work of open coding is to name concepts, define categories, and develop those categories in terms of their properties and dimensions." (Strauss & Corbin, 1998, p. 103). "The purposes of axial coding are to sort, synthesize, and organize large amounts of data and reassemble them in new ways after open coding." (pp. 124,142). " Selective coding integrates and refines categories, establishing their relationships to one another, and moves towards a theory." (p. 145).

Presentation of the Data

The presentation of the data in Chapter 4 consists of a summary and overview of the data analysis and findings. It includes a description of the participants, careful to protect their anonymity and note their common features and variations. I describe the categories and sub-categories that emerge through coding and organization of the data with illustrations from the data. I discuss the study's implications and significance as well as its limitations in

chapter 5 and talk about how the patterns that emerged in the data analysis relate to the research question and to the literature. I also address the reliability and validity of the study.

Reliability and Validity

Reliability and validity are the criteria commonly used to evaluate experimental or other quantitative types of research. They are less useful in the evaluation of qualitative research. Reliability concerns the accuracy of the measuring instrument or procedure: does the measuring procedure yield the same result on repeated trials? Can other researchers reproduce the experiment? Joppe (2002), defined reliability as follows:

> The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of the study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. (as cited in Golafshani, 2003, p. 598)

Validity refers to the rigor of the research design and also the extent to which researchers take into account alternative explanations for any causal relationships they explore. Validity, according to Creswell (2003) "is seen as a strength of qualitative research but it is used to suggest determining whether the findings are accurate from the standpoint of the researcher, the participant or the readers of an account" (p. 196). Validity concerns whether the study measures what the researchers set out to measure. Are a study's findings generalizable? Cook and Campbell define validity as, "the approximate validity with which we

infer that the presumed casual relationship can be generalized to and across different types of persons, settings and times" (as cited in Lincoln & Guba, 1985, p. 291).

Considering its goals and its methodology, qualitative research needs validity. Validity can be adapted to address the design and scope of qualitative research. Strauss and Corbin (1998) consider the reproducibility aspect of reliability in qualitative research and argue that another researcher who follows the same procedures for data collection and analysis will come to "the same or very similar theoretical explanation about the phenomenon under investigation" (p. 267).

According to Strauss and Corbin, (1998) generalizability is not the goal of qualitative research, and with regard to validity, it may be more relevant to ask if the results are transferable rather than generalizable. Strauss and Corbin (1998) point out that qualitative research builds theory through "the language of explanatory power" rather than through generalizability. "The real merit of substantive theory lies in its ability to speak specifically for the populations from which it was derived and to apply back to them" (p. 267). In the present study the population from whom I derive theory and for whom that theory should hold "explanatory power" consists of high school age adolescents who are experienced electronic messaging users.

Though the findings of this study are limited to this particular population, the study may have broader implications through its suggestions concerning the use of electronic messaging and the impact of that use on social behavior and

social skills. Polkinghorne (1989) suggests that the test of validity centers on whether findings can be trusted and used as the basis for decisions. To be valid, the research conclusion "inspires confidence because the argument in support of it has been persuasive. . . . The degree of validity of the findings of a . . . research project . . . depends on the power of its presentation to convince the reader that its findings are accurate" (p. 41). Maxwell (2005) takes this a step further and posits the following:

> Validity does not imply the existence of any " objective truth" to which an account can be compared. However, the idea of "objective truth" isn't essential to a theory of validity that does what most researchers want it to do, which is to give them some grounds for distinguishing accounts that are credible from those that are not. Nor are you required to attain some ultimate truth in order for your study to be useful and believable. (p. 106)

Limitations

This study is limited by the exclusion of teens who do not text via cell phone or instant message via computer. It is also limited by the exclusion of teens in the general population as opposed to a particular group of teens who volunteer their services to the same organization. I chose adolescents who do text as I was primarily interested in the behavioral patterns that possibly result in texting. The study could have compared communications between teens who connect face-to-face with those who text to communicate or choose to communicate through telephone conversations, but that may be the basis for a future study. This study is also limited by the number of participants I have

chosen to interview. However, this number is well within the parameters of a qualitative study using grounded theory. A further limitation of this study arises from its geographical restrictions. All of the participants are located in the Southern California area. Further research in other areas or states might yield further data that could build on the present study's interest in electronic messaging.

An additional limitation is related to my experience as an attachment therapist and my knowledge of attachment theory. I may have biases about the effects of electronic messaging versus face-to-face contacts between adolescents. In essence, I have some concerns about the absence of eye contact, tone of voice, and body language which, taken together, present a more comprehensive communication template than simply written text, which is often open to a broader interpretation. I have concerns that the absence of these factors can bypass the development of social behavior and social skills necessary to the ongoing development of an adolescent.

CHAPTER 4: FINDINGS

This study explored the relationship between text messaging and the impact it may have on social behavior and social skills of adolescents ages 15-18 years old. Before I began the interviews, I expected that text messaging would have an impact on adolescents both socially or behaviorally on some level, even if minutely in the form of creating misunderstandings or hurt feelings, which it did. I also expected participants to report that that they reacted in some way or another to the absence of tone of voice, eye contact, and body language that is missing from texting, which they also did. My review of the literature yielded almost nothing on this aspect of texting, and I wondered what the participants would talk about from their actual experience of the lack of tone of voice, body language, or eye contact and how that might have contributed to any angst as a result.

I collected data for the study from hour long open ended interviews with five adolescents, recorded on audio tape and later transcribed. I began the interviews by explaining that I was interested in understanding and exploring whether text messaging had any impact from their perspective or personal experience on social behavior or social skills among teens. I then invited the participants to provide their perspectives derived from personal experience on this topic.

Participants

The sample used for this study was a select group of five adolescents who were all in high school and between the ages of 15 and 18 years old, grades

10-12. I had emailed the director of the program to inquire whether there might be the possibility of recruiting the volunteers who worked there for my research. The director of the program then emailed the volunteers about my project and they were instructed to reply to me by email if they were interested in being part of the research. All five adolescents who were contacted responded. There were four females and one male and they were of various ethnic groups: Caucasian, Mid-Eastern, Amerasian, and Indian. All of the interviewees texted 40 to 60 percent of the time they spent communicating with family and peers, the remainder being telephone contacts or face-to-face interactions. I was unable to recruit interviewees who texted less than 40% of the time. All of the interviewees had been texting since the ages of 12 or 13.

As the participants are all part of a fairly small group, I have protected their identities by not disclosing any demographic or personal description of them. The names used to identify the participants are fictitious and in no way reflect any real or known person interviewed.

During the telephone screening interview I established that each of them used text messaging at least one time per day or week and that there had not been any associated trauma in conjunction with texting as a result. This was to establish as much as possible that there would not be any trauma retriggered during an interview. All of the participants understood the research question and were very enthusiastic about it. Despite their individual differences, their responses were very homogeneous.

Overview of Themes and Categories

The findings of this study reveal that indeed social skills and social behavior are impacted by text messaging. Five categories were developed as a result of the general themes that emerged from each interview. A major category of findings was Misunderstandings and Ambiguities created by lack of tone of voice, body language, and eye contact. In addition, themes such as maintaining social contacts, personal control, intimacy and distancing, as well as safety and confidentiality have arisen as issues that come with texting and were developed as categories.

Presentation of Findings

Social Bulletin Board / Maintains Social Contacts

One theme that came out of the interviews was that texting is used as a sort of social bulletin board to broadcast news instantly to all names on a group. Many of the interviewees stated that they have used or experienced this type of group messaging to share information about events, emergencies or social gatherings. Texting also serves as a vehicle to maintain social contacts and build up social networks. In conjunction with the social bulletin board effect, the two themes were merged as one category. All of the teens interviewed seemed to feel that without texting their social contacts with peers would be impacted. Elizabeth said:

> For example, my school has had a lot of student deaths recently and my
> friends have communicated it to me and others over a text message.

That's just how it is nowadays, I don't know. My school is very

technologically savvy now because that's what all the kids are doing so

they'll send out [mass] emails and they send out text messages even.

That's just how they communicate because that's the best way we

communicate. And so we did like have a lot of emergency assemblies;

that's the best way to communicate with us when kids are going off

campus. That's just how it is.

Many of the interviewees stressed that texting is used to organize social

functions. Cal said this:

Usually texting is used for like a social, like, or like an organized social

thing I feel like there's definitely, in order to do things socially you just text,

that's what you do. Like you don't call people up and like talk about it . . . I

don't know why. And it's only for social things. If you like need a

homework problem then you call them up but if you're working on going to

a party or something and getting a carpool or whatever then you always

like, text . . . I don't know why but I think that's true.

Agreeing with Cal, Lana also said: "All my friends have a bunch of different [text]

groups and it's good because that way you can plan things instead of like

sending five texts."

Three of the five interviewed talked about how texting increased their

social networks. Cal said: "It's just a . . . catalyst to more social interaction,

something like that."

Elizabeth said:

Absolutely! And I hate to say that I am part of this crowd, but its one of the ways that you stay in the, stay in the scene. If you don't text then it's like social suicide but it has that effect nowadays. So if you want to be in the know and you know, like what parties are going on tonight all the I mean stuff that really doesn't matter and shouldn't matter, it's how you communicate it.

Elizabeth:

If anything, I have found that my friends who live further away I communicate with more over text messaging or over the phone just because that's how it is. I have a lot of friends who are in college nowadays and I still find it easier to text them rather than call. I know a lot of kids have like limited text messaging and I find that I don't communicate with them as much because of it.

Isabella:

I'd rather text them [her friends] than have them on the phone all the time. I guess that's why I resort to texting all the time. When someone wants to call me and I don't want to be on the phone for hours or even an hour, I'll just text them, so it's much easier . . .

Elizabeth:

I find that texting makes my life easier in a sense which I'm embarrassed to say because it sounds really pathetic but convenient only I just find that texting is fast and it gets straight to the person and it's simple and when

my life is so busy in so many other ways . . . it's just really quick and easy to send someone a text message. Also I wouldn't have a lot of the relationships I do if it wasn't for texting because conversations are a lot easier over [texting] so I think I actually like developed a wider base of friends.

Isabella:

I think . . . there are some texters out there, you know, I'm not one of them, where they text all day, millions of people. . . but I think there is a right time and a right place for texting . . .

Elizabeth:

I think there's more communication among us teens now because of text messaging and I think that definitely has its benefits.

Misunderstandings / Ambiguities

All five interviewees talked about misunderstandings created from texting due to lack of visual cues or audio cues such as tone of voice, body language, and eye contact or just the amount of time it takes to receive a reply! Most of them spoke to the experience of eye contact and tone of voice that was missing in text messaging and how this triggers misunderstandings and some hurt feelings.

Cal:

If somebody like, if you send a text and then they don't reply for a long time and you're like, oh, they hate me [laughs]. And it's so easy to just put a happy face even when you're pissed . . .There are definitely times when

I have read a text and it's just like, okay, yes, there is a happy face but . . . what are we really feeling? What's going on here?

Lana:

It takes several minutes 'cause text takes a while to exchange. So you know, you're just kind of sitting there for a couple of minutes wondering what's going on, if the person's mad at you or not.

Elizabeth:

Sometimes things come across the wrong way and I can send a message that's only one word and my friends will be like, "what's going on? Like you seem upset" when really I'm just driving in the car and shouldn't be texting . . .

Elizabeth:

At times when I want to have a serious conversation with a person, lack of tone makes it very difficult to do and so in that case it's easier to talk in person.

Lana:

Sometimes texting is a disadvantage because sometimes you may not understand the true meaning of someone's text or comment over a text and that can hurt some people sometimes or get them confused. I know it's happened several times to me. You don't hear the tone of the person's voice or anything; it's just written words as opposed to a phone conversation where you hear the tone of their voice. Like sometimes sarcastic remarks...and I don't know if they're meant to be rude or not so

that can be taken the wrong way. I know a lot of people usually have those times when they feel uncomfortable over text.

Kristen:

Well I really miss seeing a person's expression when they reply and their tone. Tone is like key for me: that is a huge part of misunderstandings in texting is the tone because you can't decipher tone through text messaging so I think that is like the most, the thing I lack most when I text.

Kristen:

You could say something and it could come across as something totally different than you want it to and you have to add those smiley faces or those expressions to let the person know what you're feeling right now. Maybe that's not what the texter on the other line is intending to do, but sometimes I'll take things the wrong way just because it's not face-to-face contact it's not. I don't see their body language, I don't see their facial expressions, I don't see the tone of their voice so it definitely kind of gets tricky sometimes when . . . texting, you really have to understand what the person is talking about and how they are saying it. And I try not to take it the wrong way so I'll, if I have to I'll ask them tons of questions, you know, trying to find out what they mean by this but I know that I probably wouldn't if we were in face-to-face contact. . . . That's really how it is cause you don't know how they're going to reply- you're just waiting for it . . . while when you are face-to-face you can kind of see the thought process, you can kind of predict [what they are thinking].

Cal:

Well, if like someone doesn't include a smiley face in their text. . . . Yeah,
there's a big difference between saying "Yes"! with a smiley face and
"Yes" without anything. Like if there's no emoticon that's you saying that
something's up.

Elizabeth:

I've texted the wrong person and it sucks. Yeah things like that happen.

Isabella:

Oh, that's [texting the wrong person] happened so many times, it was
horrible! It doesn't happen now because I make sure I like triple check
before sending my text. But it has happened before that I texted a girl I
wasn't talking about [another] girl but I said some stuff that I didn't want
the other girl knowing and I ended up sending that to the other girl and it
was horrible! She texted me, she's like wrong text with an attitude and I
knew it was with an attitude because I kind of already know the way she
talks and I knew like the dialect.

Isabella:

Maybe it's not what the texter is intending to do, but sometimes I'll take
things the wrong way just because it's not face-to-face contact . . . I don't
see their body language, I don't see their facial expressions, I don't [hear]
their tone of voice, so it definitely kind of gets tricky sometimes when . . .
texting, understand what a person is talking about and how they are
saying it. And I try not to take it the wrong way, so I'll ask them tons of

questions, you know, trying to find out what they mean by this and I know I probably wouldn't if we were in face-to-face contact.

Kristen:

So I think when you're texting it does like cause you to . . . because there is no tone, no hand gestures, which I think are really important there's no facial expression. I think that causes like me especially to overanalyze the text and that's what my problem is, has a lot to do with, so because there's no emotion I read into things a lot more than I should. So, like one time [my friend and I] had a friend's party we were both planning on going to and I texted her "So are you coming? Do you want to car pool? I can pick you up, I can give you a ride." And then she texted me back saying "I can't go to the party. I am not going to the party." I wasn't sure that she liked this person or that she wanted to go with me or something like that . . . Then she said, "My mom won't let me". And I say, What? What do you mean your mom won't let you? She's like, "I've got too much homework." And I was like, is she making this up? Like why is she saying that she can't go? This is so unlike her. Her mom isn't that responsible like that. Like her mom wouldn't do that and it was very out of character for her and her mom and so I just took it as like she was blowing me off and she was being rude and she didn't want to hang out with me and I was like really upset by that so I took that as like a bad thing and so I went back to her like the next day like I was kind of upset and she's like "What? You don't believe me?" and I'm like, No, I don't really believe you. Anyways we got

into a fight and it turns out that I was wrong and her mom did actually tell her that she couldn't go out.

Control

The third theme or category that emerged from the interviews was that that texting can often involve personal control over communication with others in general. It avails one of control over how quickly a text is answered if at all, an ability to pause and edit what one wants to say, control over how much time is spent "talking" to another person, safely hiding real feelings that might otherwise ignite an argument. The following are some excerpts from the interviews:

Cal:

> If someone sends me a text I can just read it and let it percolate. . . . If you send a text to someone and they don't reply for a long time you're like, Oh they hate me!

Elizabeth:

> If I feel like I've done something wrong maybe I don't want to confront the person, it's definitely the easy way out to text them. People I wouldn't want to talk to in person, it's a lot easier to text.

Lana:

> Sometimes your friend might not check the text message because they don't feel like it. I text people when I get a message and I expect my friends to text me back right away. So, if they don't text me back within 15 minutes, I call them.

Kristen:

>Sometimes when you're mad at your friend and you like don't want to show your full expression because you might regret it later, you just send a text message. You can hide feelings safely. That's just kind of just more distance so that they kind of get the message - Whoa she's mad at me. You know, now we're in a fight. It's kind of like an easier way to let the person know that you're kind of ticked off or so. I have done that a couple of time and my friends too, yeah and it works. I would like for things like misunderstandings to talk on the phone but I have a friend who, she's the type of person who doesn't like to talk at all on the phone. She won't pick up. Like she tells me "I'm a faster texter, I'd rather text." And it's an unsaid rule.

Isabella:

>I'd rather text than be on the phone all the time. I guess that's why I resort to texting all the time. When someone wants to call me and I don't want to be on the phone for an hour I'll just text them, it's so much easier really. If I were to give up texting – I guess texting for me is- I guess this sounds really bad but in a way texting is a way of sort of avoiding people that I don't want to talk to and I just worry sometimes if I didn't have texting, those people would call me and constantly write to me [email]. With texting I have the option of replying or not. There's a whole bunch of other networks [to communicate from], there's

Facebook, My Space, and people write to me non-stop. I feel like my
computer would explode if I were to write back!

Cal:

I was thinking just now [re: phone calls] it was because, like 'I'm too cool
to call you. I'm doing other things. But like I can text you. I don't know but I
think that's just the way it's evolved, not that texting has had much time to
evolve . . .

Lana:

Like sometimes [there is] bad reception and it takes five minutes [to clarify
a point] or like your friend might not check the text because they just don't
feel like it so sometimes when you need to know something it's not the
best to text at that moment because it's not going to be instant.

Lana:

[regarding turning her phone off at night] Most of my friends turn it off or
put it on silent but I leave it on . . . occasionally I get a text in the middle of
the night but I also keep it on for emergencies in case I need something.

In the following segment Kristin speaks about a problem that seems to be
the result of controlling communication through texting. Her comments could also
fit into the category of intimacy/distancing. Isabella said something related that I
did include in the category of intimacy/distancing, but which also seemed to
express a form of control: not wanting to face an "aftermath or consequences" of
your actions.

Kristen:

> Just another example [of problems caused by texting] is people breaking up with each other, boyfriend and girlfriend over text message – huge problem; it's horrible, horrible, horrible. My friend was dating my other friend and he broke up with her on a phone call and she was upset, like she was devastated and she was like "how could he break up with me in a phone call." Imagine a text message would be ten times worse. Like you know, just sending a text 'oh we're breaking up. Bye'. But it happens, and it's unfortunate, it happens a lot. Like confrontation with guys face-to-face is really hard . . .

> Perhaps, like Isabella suggests in the following segment, there is less aftermath or consequences to face when the interaction is not face-to-face. I am wondering if in a way one is controlling the outcome -- the emotional reverberation of interactions.

Intimacy / Distancing

The fourth theme that came out of the interviews was the issue of using texting to avert intimacy or create distance in the situation, for instance, where there was a need to convey an uncomfortable thought or an uncomfortable conversation might take place if the situation was face-to-face. All of the interviewees spoke to this experience in one form or another. Perhaps there is a fine line between this category and control at times, but it appears to be a category of its own as you will see from the following excerpts.

Isabella:

> I definitely see now that everyone resorts to texting. I mean whether some people feel like talking about something like a touchy subject or it would be easier over text, I feel like breaking up or getting together with a girl, that's not what texting should be used for. I mean, but then it depends on the person's confidence I admit to doing the same thing sometimes. I won't text that person across from me but sometimes it's easier to come out with something, to reveal something over text because you have more, you don't have enough confidence . . . I mean I think it's better to talk on the phone with people because it brings them closer and it's more clear so I think that texting lacks that aspect.

Elizabeth:

> I was just speaking that I actually told my mom about one of the kids who passed over a text message because I didn't want to go home and tell her face-to-face. It's easier [to text] and I'm definitely taking advantage of that. It's probably going to affect me in the long run but for now it's just how it is. [She didn't share what she meant by how it would affect her, but the example of long range thinking was interesting.]

Elizabeth:

> Yeah, definitely I have experience where . . . my friends are texting me when I'm sitting right in front of them. For example, when I'm at dinner my brother and I put our phones away because we look at other kids and I see that's not how I want to act. Last night I was with my boyfriend in the

car and we didn't say one word, actually fought about it afterwards because he was texting the whole time and it really bothered me. Attached as I am to text message, I don't think it should ever replace verbal communication and I think it makes me more aware of my actions. There's a new thing at dinner parties where I found out they did this with my friends. There is a large punch bowl where we all put our cell phones in and the phones go away for the whole dinner. It's great if people are okay with it. I'm totally fine with it. I'd rather have a conversation with you if you're here but a lot of people, it really bothers them. They are so attached to their phones that they have withdrawal, so that's just like a new thing.

Isabella:

I know that . . . if you're with a group of friends and you're texting each other, why be [together] if you are just going to communicate over text? It's rude. If you have something to say, speak up and say it. I find that shady and I've had people do that in front of me before and I'm shocked! I don't understand why you even bother to join a group if you're going to be kind of secluded and doing your own thing. If they are sitting across from you and you're texting the person you see their facial expressions, you know and you read a text and you can have a shocked face or an upset face and you get to actually see how they react to the text. I feel like the whole thing is . . . [anonymous]. That's why everyone resorts to texting all the time, they don't want to face the consequences, and they don't want to

face the aftermath. Texting is easy. It's so easy and everyone always

relies on texting.

In the above passage Isabella demonstrates how the themes of control and

intimacy/distancing can be closely related. It also appears that Isabella was

saying that teens are not taking enough responsibility for what they are saying by

the fact that the texting distances them from the spoken word.

Elizabeth:

I see how the emotions are definitely skewed [with texting] and I don't

know if that's bad . . . I don't know if we need to feel those emotions.

Cal:

One of my best friends is a crackberry [crack texter who has a blackberry]

[and is] just always on that thing and it's . . . very frustrating. Like we went

to a concert . . . and had pretty good seats. And she was just always on

that thing and it's crazy. It was just like wow. And I'm very close with her

and we get along great but it's true that she is always texting . . .

sometimes you definitely feel like wow, is the person you are texting really

. . . more important than I am? I think that it's really rude to be texting a

person [when you are with someone else]. There was another occasion

when my best friend [and I] were out doing something and she was texting

her friend because it was her mom's birthday the next day and her mom is

Korean and my friend doesn't write in Korean. The friend she was texting

does and she wanted her to translate a message for her mom. I mean I

understand the cause, but she was texting her friend the whole time! She was on the phone for a long, long time and it was kind of hurtful.

Elizabeth:

I think there is a level of intimacy with face-to-face conversations and I still talk to my really close friends over the phone or in person. There are some conversations that you want to find out about in person and you don't really do it over a text message. For example last night I was with my friend and she received a message that this guy didn't like her and she was crushed. I think she would have liked to know in person, [but] in person it's harder, it's harder. But, you know, you just adapt to it I guess I don't think we are lacking in social skills, I just think it's changing.

Isabella:

I feel like if you were to say something in person, you'd say so much more. You're not going to write three essays in a text but there's so much you can say in just one expression on your face as a thousand words that you get [on text]. And from texting it is like anonymous.

Cal:

I can think of one example [of not wanting face-to-face contact]. There's a PE teacher, they're just the scariest people and I wanted to use the gym in my school and I knew the guy's name that was in charge of that and so instead of going to see him I just sent him an email just because going to see him would be so, just ugh! And then he never replied and then like a week passed and so then I said, "Oh god I have to go and see him." So I

talked to one of our friends and he was like, okay, he walked me through like what I was going to say when I go in there. I went in to see him and the guy is nice but maybe kind of judgmental and it was fine. But like I definitely tried to get out of the situation by using email.

Cal:

The first time I tell someone I love them it would have to be in person. I would never do it on a text.

Lana:

I think people are going to open up more on text and on emails and on instant messages because like sometimes when you talk to someone you can see them judging you with their eyes or with their body [language] and tone of voice and stuff like that. So I think that some people like to open up to each other more over text but I don't necessarily think it's the healthiest and safest thing to do.

Kristen:

Oh my god, I hate my dad in text messaging. He is the worst. He, everything has to be proper. Everything has to be short and sweet, to the point. No emotion, absolutely none. I definitely think it [texting] dulls the emotions in a wide scale sense. I've noticed, I'm very energetic, like I love to express myself and I love to show people my emotions and like what I'm feeling. So I think that's really lacking in the generation that's coming 'cause I'm noticing it a lot that my friends aren't as expressive and not as, you know, [emotional nor] as sorry as they should be. They're not as

regretful, you know, have no regret or guilt. They're not as happy . . . just

on the whole emotional scale they're – it's very lax and dull . . .

Isabella:

I definitely think it's rude to text with other people unless I'm with my

friends and I have to text my parents and let them know what I'm up to.

But if you're having fun with your friends, why have your phone out, just

put it away for a little but spend some time with them.

Not Confidential / Not Safe

A last category that developed in the interviews was that texting is not

always confidential nor is it always safe. It was not addressed to the extent that

the prior four categories were, but I felt it was important to include because it

speaks to the risks of the electronic age we live in from a point of view of trust,

which is certainly a social behavior as well as a component of the attachment

process.

Perhaps it also speaks to knowing who we are talking to whether it is on

text, email, Facebook, or MySpace, which can all be public forms to express

thoughts and have them viewed by others without your necessarily knowing.

Kristen shared that as a result of going on a cruise, she met a young man

who she gave her phone number to. Unfortunately he misused this privilege and

she was text stalked by him for many months afterwards.

Kristen:

I was on a cruise with my family and there was a guy there and he was

younger than me and apparently he was really interested in me . . . and I

wasn't comfortable like interacting with him at all. Long story short . . . he asked me out and I said no. It was a very small cruise ship and everyone knew each other and word got around and like people were kind of making fun of him that I turned him down and I felt really bad. So my friend told me, "listen he is going to ask you for your phone number next." She told me he was very upset and sad that I had turned him down so anyways I gave him my phone number and he seemed really happy and I was like okay, whatever he probably won't text me. He doesn't have the courage but a couple of weeks after the cruise, I get a text message from him and he won't stop texting me and it's really uncomfortable and annoying. I replied to him about two or three times, like just replying back to he said, like how are you doing and stuff. After that he got so annoying he sent me constant text messages like throughout, like forever for months and it was just horrible. I mean I couldn't stand it. It was really a bad experience. Finally he stopped. The unfortunate thing is you can't block people.

Isabella:

When I am texting someone I don't know if it's something I would want to stay confidential or private, I don't know if they're sharing it with other people but if I am talking to them in person . . . if I wanted to be confidential I'd rather talk about it over the phone or if it's something serious I'd definitely do it in person just because that way I know that my word is safe.

Lana:

I feel it's generally safer to communicate over the phone. There is a certain time when you should only text or only use the phone. Each of them depends on the question or comment or like whatever you want to say. If it's something serious it's better to do it on a call, but if it's not serious or just a quick question, do it on text. In text, sometimes, when you get into a fight with someone one person will show like, oh look at what this person said to me, so I think that face-to-face is actually more. . . I think text can get you into more trouble 'cause it's like proof [of what you said].

Summary

In summary, the findings from the interviews were organized into categories which reflected themes from the responses. The categories developed were Social Bulletin Board/ Maintains Social Contacts; Ambiguities/Misunderstandings; Intimacy/Distancing; Control; and Not Confidential/Not Safe.

The responses of the participants were discussed and the impact of text messaging on social behavior and social skills, as well as its resultant impact on feelings of attachment, has been revealed in the context of their responses. I will end this chapter with a quote from two of the participants, which seems to sum it up:

Lana:

Sometimes texting is a disadvantage because you may not understand the true meaning of someone's text or comment over a text and that can hurt some people sometimes or get them confused.

Kristen:

Well I really miss seeing a person's expression when they reply and their tone. Tone is like the key for me: That is a huge part of the misunderstandings in texting is the tone because you can't decipher tone through text messaging so I think that is like the most [important]. I'll take things the wrong way because . . . I don't see their body language, I don't see their facial expressions, I don't [hear] their tone of voice.

CHAPTER 5: DISCUSSION

The Goals and Purpose of This Study

This project is a small qualitative exploratory study using grounded theory. It asks the question: Does text/electronic messaging impact the social skills and social behavior of adolescents? Of course, social behavior and social skills don't stand alone. One has to look at what the elements are that comprise social behavior and social skills. This research is also asking whether this new electronic culture is replacing guidelines for traditional attachment relationships, values, and developmental milestones that we held as standards in the past and whether social skills and social behavior are affected as a result. The assumptions going into the research were that social skills and social behavior might be affected on a variety of levels.

The five participants used for the research were from a select group of adolescents who have all chosen to be part of a volunteer group in Southern California. Their ages ranged from 15-18 years, and they were in grades 10-12. They represented varied ethnic groups – Indian, Caucasian, Mid Eastern, and Amerasian – and they all used text messaging as a part of their daily life. They were recruited through the director of the volunteer project. Each of the participants was interviewed for about one hour and from the interviews, five categories or themes were developed. This chapter will discuss the findings in each category.

My Findings, Other Research, and Theories

The first category that developed from the interviews, Social Bulletin Board/Maintaining Social Contacts, seems to correspond with what I described in Chapter 1 as social belonging or feeling part of a group. It is about how text messaging connects teens and provides a broader base for social networking. Text messaging can inform hundreds of teens (all the names on a group) almost instantly of social events coming up or emergencies and social gatherings. It also appears to serve as a vehicle to maintain social contacts and in fact broaden them. All the participants interviewed seemed to feel that without texting, their social contacts with peers would be impacted.

In Chapter 1, social behavior, social skills, and attachment, which are the underpinnings of this study, are defined. That chapter explores adolescent developmental milestones that are suggested by Erikson (1950) and how those may be linked to attachment behavior as defined by Bowlby (1988). It also looks at how attachment and developmental milestones might be affected by the development of social behavior, social skills, and social belonging via text messaging in this millennium. The culture of electronics has permeated almost every phase of our culture, from Facebook, to MySpace, to pop culture (see Appendix I). Today, there are commercials, cartoons, sitcoms that all incorporate the theme of cell phone use and text messaging. Pop music, another piece of pop culture, also reflects the anonymity that is available through an electronic culture and through anonymity, the potential for the development of a false self.

We can only speculate how the pervasiveness of the age of electronics has impacted almost every facet of relational being. It is replacing face-to-face interactions at an amazing rate. Most of the adolescents interviewed used it 40-60% of the time they communicate with friends and family. As Elizabeth aptly stated: "It's one of the ways you stay in the scene I guess and if you don't text then it's like social suicide." How does that speak developmentally to the need to form warm personal relationships and maintain them with appropriate social behavior and social skills, balancing acceptance and rejection while keeping our attachments intact? In this study, it became apparent in the findings that without tone of voice, body language or eye contact, misunderstandings and hurt feelings become uninvited guests.

I am positing in this study that the electronic culture plays host to an electronic environment that impacts the attachment and developmental processes simply by the very lack of attachment behaviors as described in Chapter 1. Erikson's developmental stages of trust, autonomy, and ego integrity are all the underpinnings of a secure attachment base and the ability to form secure internal working models, which would assist one through the rest of the developmental stages in Erikson's model. Erikson's developmental stages of Trust vs. Mistrust, Autonomy vs. Shame and Doubt, Initiative vs. Guilt, Industry vs. Inferiority, Identity vs. role Confusion, and Intimacy vs. Isolation are all defined and discussed as they pertain to the study. Highlighted in this section are the importance of the adolescent finding his identity and the person he is to become developmentally. All the while, the adolescent is supported by internal

working models, through which he receives feedback from the caregiver and peers and creates a sense of self. During the teen years, an adolescent's sense of competency may be challenged which could feed directly into his sense of identity. Belonging or not belonging, having skills or not having them, being a part of versus being isolated from can be crucial factors in identity formation. What this study has found is that feedback about belonging or not belonging, being liked or not liked was very important to all of the adolescents interviewed. From their transcripts, it became apparent that electronic conversations were not doing a very good job of providing this feedback. Something as simple as a delayed response from one texter to another caused the teens to take pause and ask if the delay was due to not being liked.

As reported in my review of the literature in Chapter 2, the Williams (2007) study discusses the influence of cell phone on teen culture and explores the social impact of cell phones. Her theme of Feeling Connected 24/7 corresponds with my category Social Bulletin Board/Maintaining Social Contacts. Williams notes that of the themes expected to emerge from her study, "Connectivity was the overwhelming purpose for teens wanting to use their cell phones" (p. 24). One of Williams' respondents stated: "I looked thru my cell phone and found that my cell phone affects my life greatly" (p. 53). Another respondent stated, "My usual day consists of probably 100 texts a day . . . texting comes in handy when I need to talk to friends" (p. 55). Another teen responded, "I probably use my cell phone the most from 8:30 PM to 11:00PM . . . . I find texting easier than calling. I am not sure why though" (p. 56).

One is constantly experimenting with forming relationships and testing acceptance or rejection by others. Before electronic messaging, one had only to interact with a look, a smile, or a short conversation to know where one stood in the realm of peer relationships. On the one hand, texting seems to be making it easier for the rejecter and harder for the recipient to discern where they stand exactly. Part of the developmental milestone of being an adolescent is learning how to deal with human relationships and garner the skills to deliver good news as well as bad.

Erikson saw the link between the culture of an environment and human development. In an article by Hafner (2009), it is suggested that the developmental need for time alone, to grow, attain peace and quiet is needed to establish one's identify and become the person you decide you want to be. She further suggests that this is an important task that adolescents must complete to separate from their parents. This is the task described in Erikson's phase of Autonomy and Hafner implies that this task is difficult to achieve without the quiet time needed. The assumption is that quiet time is sacrificed to the constant connection with electronics. Williams (2007) found from one of her participants: "When I am asleep . . . if someone randomly needs me at 2 am I will wake up for it" (p. 57). The Williams findings seem to suggest that many teens are texting 24/7 and keep their cell phone on overnight so as not to miss someone's message, to remain connected. The protocol of courtesy that apparently is expected by adolescent texters requires fairly rapid responses to prevent being rude. If an adolescent is constantly writing and receiving texts at warp speed,

how does this impact the quiet time that adolescents need? Like the participants in my study have suggested, the use of text messaging had positive attributes as well as glitches.

For adolescents, texting can provide the privacy they need in a public place for a private conversation that might otherwise be overheard. Turkle (2006), addresses public versus private boundaries:

In a café, a traditionally public place, one learned to lean forward toward the person with whom one was speaking, lending an ear while veiling the gaze to better share it with one's interlocutor . . . On a cell call, the speaker . . . often stares straight ahead, talks out loud, behaving as though no one around is listening. (p. 3)

Texting has certainly provided a solution to that but at the expense of a genuine person-to-person verbal and visual exchange. It can also invade privacy, be the purveyor of hurt feelings when sent to the wrong person, and act as a conduit of misunderstandings and ambiguities due to lack of visual or audio cues. Williams (2007) noted that misunderstandings can occur for a variety of reasons, such as sending a text to the wrong person, and social isolation can occur if one does not own a phone or if an adolescent is the target of isolation from others in a group.

In my study, Misunderstandings/Ambiguities seemed to be a predominate theme though not for the same reasons Williams uncovered. In this study, the participants seemed to strongly indicate that lack of tone of voice, eye contact, and body language lent themselves to misinterpreting or misunderstanding written messages. Also the speed at which those messages are written and

received not only adapts itself to scanning, which lessens understanding, but also serves as feedback whether the receiver is worthy of a quick reply. For example, Lana noted early in the interview, "Sometimes texting is a disadvantage because sometimes you may not understand the true meaning of someone's text. You don't hear the tone . . . it's just written words . . . like sometimes sarcastic remarks can be taken the wrong way." In turn, as previously noted, Kristen remarked that "I really miss seeing a person's expression when they reply [to a text] and their tone. Tone for me is key: that is a huge part of misunderstandings in texting . . . because you can't decipher tone through [written words] text."

Of course the age of electronics is always ten steps ahead and has already found a way electronically, to replace the absent tone and body language with emoticons – those little smiles, frowns, and smirks we encounter after a provocative thought. Are they all that important? Cal remarked: "Well if like someone doesn't include a smiley face in their text. . . . Yeah, there's a big difference between saying 'Yes'! with a smiley face and 'yes' without anything. Like if there's no emotion that's you saying there's something up." It is interesting to note that despite the importance of electronic communication in almost every aspect of our millennium culture, the purveyance of emotion is still paramount.

Although not her primary focus, Williams (2007) addressed social skills and social behavior in terms of social isolation, self esteem, and using texting to address situations that would be uncomfortable face-to-face. Her findings were

similar to those of my study, expressed in the theme of using texting to avoid uncomfortable conversations which, for the most part, was not encouraged by the adolescents interviewed. In the sections of Chapter 4 presenting the categories of Control and Intimacy/Distancing, Kristen mentioned in her interview: "People breaking up with each other over text message – huge problem; it's horrible, horrible, horrible . . . but it happens and unfortunately it happens a lot." Isabella noted:

> I definitely see now that everyone resorts to texting. I mean whether some people feel like talking about something like a touchy subject or it would be easier over text, like breaking up or getting together with a girl, that's not what texting should be used for.

Control would also seem to reflect the ability to self regulate in terms of how often a teen might need to blog or text with peers and the amount of time that teen could tolerate waiting for a reply. Self regulation is part of an overall attachment behavior as discussed in chapter 1. To recap briefly, Shore (2003) states that self regulation is part of a right brain function that enables the brain to cope actively and passively with stress. Lana spoke to this ability to tolerate a lengthy wait for a reply:

> It takes several minutes 'cause texts take a while to exchange, so you know you're just sitting there for a couple of minutes wondering what's going on, if the person's mad at you or not.

The ability to tolerate the not knowing is a major component of self regulation so one needs to be able to employ this ability to self regulate to avoid

over-texting or becoming anxious needlessly. Texting for most of the

adolescents interviewed in this study and those in the Williams (2007) study

certainly tested the need for instant gratification in terms of being able to wait for

a response and the subsequent thoughts and emotions tied to that waiting. In

the past, prior to the advent of texting, social protocol or social skills might have

called for being patient and politely waiting for a return call or letter. Today, that

is hard for teens, and through the interviews it seems that some at least would

more than likely text back wanting an answer while the respondent might not be

answering right away to maintain control over the situation. The common thread

here is that today it is still considered rude by teens not to respond to a text in a

short period of time after getting it.

Ito and Daisuke (2005) made the argument that adolescents are

substituting poorer quality social relationships (weak ties) for better ones (strong

ties). According to their study, a decline of social skills is fostered by less face-

to-face contact and less emphasis on facial expression, body language, and

ability to terminate conversations, not return calls that might be uncomfortable.

Similarly, Haste (2005) found in her study that, "For ending a relationship in

terms of feeling comfortable . . . texting is the preferred mode" (p. 62).

In the study by Boneva et al. (2006), adolescent communication is looked

at from the standpoint of instant messaging, which is a little quicker than texting

and can be done via computer or some cell phones. This study looked at

attachment relationships and how instant messaging (which is referred to as IM)

via computer or cell phone can promote role identity and individual and group

friendships from an Erikson (1968) developmental model. It posits that there are two modes in which adolescents communicate – person-to-person and person-to-group. This was certainly found in this study under the category or theme of Social Bulletin Board/Maintaining Social Contacts, previously discussed. As in this study, Boneva et al. (2006) found that person-to-person communication among teens serves a purpose similar to the mirroring that goes on in an attachment relationship. They say:

> Person to person communication with another peer provides vital information for the adolescent to compare to similar others and to receive verification for his or her own feelings, thoughts and actions and is crucial to identity formation. One to many communication - adolescent's connectedness to a group that creates a feeling of group belonging, is crucial to one's social identity. (p. 616)

The argument then, that there may be an impact upon adolescent social behavior and social skills via electronic communication, is supported in the literature and in the current research study.

The last category that was developed from the interviews is Not Confidential/Not safe. As I indicated in Chapter 4, it speaks to the fact that texting is not always confidential nor is it always safe. This category or theme was addressed minimally by Williams (2007) but not to the extent that the other categories were developed. It was also a less developed category in my study. Still, I felt it was important to include because it speaks to the risks of the electronic age we live in from a point of view of trust, which is certainly a social

behavior as well as a component of the attachment process. It also speaks to knowing who we are talking to whether it is on text, email, Facebook, or MySpace, which can all be public forms to express thoughts and have these thoughts viewed by others without necessarily knowing. This study picked up several examples of interviewees feeling that what they texted to one person might be shared with many. As Lana noted:

I feel it's generally safer to communicate over the phone...in text, sometimes when you get into a fight with someone, one person will show like, oh look at what this person said to me, so I think that face-to-face is actually more [safe].

Conclusions

This study has been a journey for me also. In my personal experience, all of the categories or themes uncovered in this study as a result of the interviews have certainly given presence to my experience of text messaging. Receiving a text that is misunderstood may be, but is not always humorous or fun. While texting can have benefits, such as the ability to "edit" what we say, as there is more time to do that than in a face-to-face conversation, we also have to avail ourselves of that benefit. Like anything else, it can also have drawbacks. In the interviews, the predominate drawback noted by the adolescents themselves was lack of face-to-face contact and the elimination of body language, facial expression, tone of voice, all components of attachment behaviors. These behaviors are all components of the mirroring we have grown up with and come to expect from others. It is significant that that these adolescents can titrate their

capacity for using what is new, available, and cutting edge and still have the knowledge that it is imperfect and cannot replace person to person contact in many ways. Many examples of this have already been given in this chapter and Chapter 4. The absence of attachment behaviors can cause many difficulties when teens are attempting to communicate with each other via text. It was clear from the Williams (2007) study as well as this one that teens use texting to avoid difficult or uncomfortable situations at times. Sometimes it is warranted. It can be a short cut or a less confrontational way to address a touchy issue. However, along with that goes the developmental task of growing up and becoming skilled at using face-to-face contact to purvey your perspective or your point of view and stand confident with it. It could be argued from the findings of this study, that in some ways text messaging cheats them of this skill. From the interviews, it appeared that many of the adolescents participating in this study were on the cusp of identifying this issue. They had a glimmer of this new challenge to maturation and development that texting brings to their lives.

I would like to suggest that the impact of not attaining adequate social skills or appropriate social behavior goes well beyond the adolescent years. When these same teens grow up, get a job, get married, what skills will they have garnered to navigate all of those pathways? They will not be able to have an interview for a job, offer a difference of opinion with a boss, or mitigate a disagreement with a colleague or a spouse through text messaging. The hands on learning of these skills through the practice of face-to-face contact are

essential in my opinion. In these ways, I believe relying on texting as their primary means of interpersonal communication will fail them.

I have to include myself in the practice at times of voicing something I know is uncomfortable or "touchy" in a text, thinking it will be more palatable, but it is not. The receiver catches on right away and usually wants to know why it could not have been discussed. I myself have scanned and misunderstood texts due to their length at times, which in a conversation would take up maybe 30 seconds.

If anyone reading this has ever experienced texting, you will understand how important attachment behaviors are at the end of the day when we communicate with others. The presence of body language (relaxed versus tensed for instance), and tone (empathic versus upset), and eye contact can change the tenor of a written or verbal conversation from acerbic to warm and understanding immediately.

In the end, the conclusions I came to from this study and my own personal experience were that texting when used alone, without face-to-face or verbal contact, can be a disruptive force to relationships. Misunderstandings can occur as a result of misusing texting to convey emotional material. On the other hand, it can certainly be an advantage in terms of being a short cut to announcing social gatherings and dispersing information that is outside the emotional realm. Also, as previously mentioned, it aids teens in communicating in a more private way in public places like restaurants and public transportation, while at the same time, it takes away attention from the event. Perhaps texting also acts as a

magnifier of the areas of a relationship that need work. It may reveal patterns of communication or insights that would not otherwise be stamped for revisiting versus a conversation that goes into thin air. Although texting can be disruptive, if used judiciously, it can possibly be used to look at conversations, insights, and patterns of communicating that could later serve as a corrective experience.

Teens are at a pivotal developmental phase in their lives in which they are trying to establish identity and a sense of place in this world. At the onset of this study, I felt it would be interesting to research what I was also currently observing, which is teens gathered in tandem, in groups, or at times solo, choosing to text rather than to call or have face-to-face interactions with each other. At the time, I wondered what impact this would have on social behavior and social skills not just in the present, but as they grow to maturity.

Validity

According to Maxwell (2005) the concept of validity in qualitative studies is a way to:

> refer to correctness or credibility of a description, conclusion, explanation, interpretation or other sort of account. It does not imply any objective truth to which an account can be compared. All we require is the possibility of *testing* these accounts against the world, giving the phenomena that we are trying to understand a chance to prove us wrong . . . . Nor are you required to attain some ultimate truth for your study to be useful or believable. (p. 106)

Finally, Maxwell (2005) concludes that "the main emphasis of a qualitative proposal ought to be on how you will rule out . . . threats to your interpretations and explanations. Here he is talking about two specific threats: researcher bias and reactivity.

The question that this study originally asked was does text messaging impact the social skills and social behavior of adolescents? This study has explored the question it asks and found that social skills and social behavior are indeed impacted by text messaging, based upon the responses of all of the participants. While there was a possible bias on the part of the interviewer due to my attachment theory perspective, as discussed elsewhere, the open-ended interviews took place without preconceived ideas about outcomes. The three empirical studies reviewed in Chapter 2 also looked at the need for constant connectivity, lending credibility to my study, which took the prior studies one step further. It looked at how attachment behaviors play a part in our everyday attempts to communicate with each other or the barriers to that communication. It looked at why the quality of these attachment behaviors is very important to adolescents developmentally and emotionally. Without mirroring through body language, tone of voice, eye contact, and facial expression, adolescents will have a much more difficult time achieving what they need to do at this phase of development – establish a sense of self, a sense of their place, and an identity in this world. This was picked up again and again in the participants' responses during the interviews.

In their discussion of validity, Strauss and Corbin (1998) talk about the transferability of qualitative research rather than generalizability and the "language of explanatory power" as contributing to the researcher's ability to develop theory from participant data. My findings with regard to the question of whether text messaging impacts adolescent social behavior and social skills were validated by the voices the participants and are transferable to other adolescents who may become empowered socially by the results of this study.

Limitations

As I mentioned in Chapter 3, a limitation of this study may be the outcome of my experience as an attachment therapist and my knowledge of attachment theory. I acknowledged that I may have biases about the effects of electronic messaging versus face-to-face contacts between adolescents. In essence, I have some concerns about the absence of eye contact, tone of voice, and body language. When taken together, these behaviors present a more comprehensive communication template than written text, which is often open to a broader interpretation. I have concerns that the absence of these factors can bypass the development of social behavior and social skills necessary to the ongoing development of an adolescent.

In the end, I do not think these biases were limitations. As the study progressed, I was not sure that text messaging should be vilified or idealized, but perhaps it fills both categories. This is a new age, and with it we have to expect change. Sometimes at the beginning, change seems like our nemesis, but with

time we figure it out. The adolescents I interviewed seemed to be aware of this and seemed to be trying to meet the challenge.

Recommendations for Future Studies

Of course, this paper does not cover every aspect of texting. There are many areas left yet to study. I narrowed my focus to social skills and social behavior of adolescents and did not include adults or children, which would be another interesting study. This study could have compared communications between teens who connect face-to-face with those who text to communicate or choose to communicate through telephone conversations. Such a comparison could be the basis for a future study. I also did not address how texting may be creating a literacy issue for adolescents because there is shorthand that goes with it that does not include good spelling, syntax or grammar. This too could be another topic to investigate. Texting used for bullying or social isolation was included by Williams (2007) but was not a theme that emerged in my interviews, yet this would be another good area to explore in terms of how texting can affect mental health. Regarding mental health, one also could study whether electronic messaging could lead to personality disorders in adolescents with fragile attachments. Texting is an upcoming technological advance in the world of mental health and one might wonder how this would impact the client. This question is especially important if the presenting problems are related to attachment issues and part of the client's needs are to "re-attach." The list for future research studies seems endless. Hopefully more research will be done in

this area that will further our understanding producing feedback and positive outcomes for us all.

APPENDIX A: RECRUITMENT LETTER

To Head of Teen Volunteer Group

Date,   2009

Dear   ,

I am doing a research project for my doctoral candidacy through The Sanville Institute which has approved this project.

My qualitative research examines the impact of text messaging and instant messaging on teen social behavior and social skills.

I am looking for five to seven teens between the ages of 15 and 18 who use text messaging at least some of the time versus face-to-face or telephone conversations to connect to and communicate with peers. I will spend no more than sixty minutes in an audio tape-recorded, loosely guided conversation with the selected participants who will have a chance to express their opinions and feelings about their experiences of text or instant messaging with their friends.

I would appreciate any referrals you might be able to give me who would be interested in participating in this project. Once you have contacted the possible participants, I would appreciate hearing from them directly or from you with the name(s) so I can contact them directly. I will send the teen and the parent a letter inviting participation and an informed consent for both the participant and the parent to sign.

All of the material from the interview process will remain confidential and in the safekeeping of the investigator. All names will be removed from the tapes before the tapes are professionally transcribed. In the discussion portion of the dissertation, there will be no reference to any names or identities.

I can be contacted at (323) 823-7415 or by email at sherri.klosterman@gmail.com.

I very much appreciate your time and attention to this and will look forward to hearing from you soon.

Sincerely,

Sherri Klosterman, LCSW
286 N. Madison Ave
Unit 412
Pasadena, Ca 91101

APPENDIX B: SCREENING TOOL

Do you use text messaging or instant messaging to connect with or communicate with friends?

How many times a day do you estimate that you text or receive texts from others?

If you are texting, how long have you been texting?

Have you ever experienced any discomfort such as anxiety, tears, and anger, as a result of texting to others or receiving texts?

If you did, how did you handle it? Does the experience feel resolved to you?

Would you feel comfortable being part of a research project that focuses on the use of texting or instant messaging and the comfort or discomfort that may result?

APPENDIX C: LETTER INVITING PARTICIPATION

Date,   2009,

Re: Qualitative research study titled "The Impact of Text Messaging and Instant Messaging on Adolescent Social Behavior and Social Skills.

Dear   ,

The head of your volunteer group has contacted you about this research project and told you I would be following up with you. Thank you for your time and consideration. This study is part of my educational requirement at The Sanville Institute for achieving a degree of Doctor of Philosophy in Clinical Social Work.

My research examines how the use of text messaging via cell phones and instant messaging via computer may impact the social behavior and social skills of adolescents, versus the use of face-to-face encounters.
I am looking for five to seven teens who are between the ages of 15 to 18 years old and use text messaging or instant messaging at least some of the time versus face-to-face interactions or telephone conversations to connect with friends.   Adolescents such as yourself, who have firsthand experience with text messaging or instant messaging will be a valuable resource for this study.

This study is completely voluntary and if you are selected to participate you will not be personally identified in any way in the study. You may withdraw your consent at any time up until the publication of the research.

What would be asked of you is as follows:

1. A screening contact with me about the study by telephone or in person of approximately 15 minutes or less.

2.   At a mutually agreed upon space, a private audio-recorded loosely guided conversation lasting no more than 60 minutes will take place. You and your parent(s) will sign consent for your participation and for the interview to be recorded.   The interview will be conducted with you about your experience of text or instant messaging. This exchange will include your experiences with texting your friends or receiving texts from friends.

3. Prior to transcription, I will code your identity with a code known only to me. That information will be kept securely by the investigator. At the end of the research project, the transcript will be shredded, the tape

erased and both appropriately disposed of as other confidential material in our field are.

4. A follow-up telephone call from me of no more than fifteen minutes within two weeks after our recorded conversation.

5. I allow you to elaborate on your experience (comfortable or uncomfortable) of texting and also provide the opportunity to compare these experiences to face-to-face interactions.

Discussion of the use of texting or instant messaging may bring up uncomfortable memories or feelings including sadness, anxiety, fear and anger. This is one of the risks for you. The discussion of these matters in a confidential format and for the purpose of expanding clinical knowledge can also be quite liberating. It is important for you to remember as you decide about whether to participate, that you may withdraw at any time from this voluntary study and for whatever reason(s) by calling me (323 823-7415) or emailing me at (sherri.klosterman@gmail.com) at any time. This research proposal has been approved by the dissertation committee, the Institute's Human Participants' Committee and The Sanville Institute.

I am pleased that you are considering participation in this valuable research. I will be contacting you by phone or email if you let me know that you are interested by calling me or emailing at the above contact designations provided. If interested please let me know in your contact whether you would prefer a telephone screening or face-to-face contact for that purpose.

I very much look forward to hearing from you soon.

Sincerely,

Sherri Klosterman, LCSW

encl: Copy of Informed Consent Form for your parents and your consideration.

APPENDIX D: LETTER TO PARENT INVITING PARTICIPATION OF MINOR

Date,   2009,

Dear Parent of _____

Re: Qualitative research study titled "The Impact of Text Messaging and Instant Messaging on Adolescent Social Behavior and Social Skills."

The head of your son/daughter's volunteer group has identified your son/daughter as a potential candidate for my research project and told you I would be following up with you. Thank you for your time and consideration. This study is part of my educational requirement at The Sanville Institute for achieving a degree of Doctor of Philosophy in Clinical Social Work.

My research examines how the use of text messaging via cell phones and instant messaging via computer may impact the social behavior and social skills of adolescents, versus the use of face-to-face encounters.

I am looking for five to seven teens who are between the ages of 15 to 18 years old and use text messaging or instant messaging at least some of the time versus face-to-face interactions or telephone conversations to connect with friends.   Adolescents who have firsthand experience with text messaging or instant messaging will be a valuable resource for this study.

This study is completely voluntary and if selected to participate, your child will not be personally identified in any way in the study. You may withdraw your consent at any time up until the publication of the research.

What would be asked of your child is as follows:

1. A screening contact with me about the study by telephone or in person of approximately 15 minutes or less.

2. At a mutually agreed upon space, a private audio-recorded loosely guided conversation lasting no more than 60 minutes will take place. You and your child will sign consent for his/her participation and for the interview to be recorded. The interview will be conducted with your child about his/her experience of text or instant messaging. This exchange will include his/her experiences with texting his/her friends or receiving texts from friends.

3. Your child's identity will be pre-coded and known only to me and the information will be kept secure. At the end of the research project, the transcript will be shredded, the tape erased and both appropriately disposed of as other confidential material in our field are.

4. A follow-up telephone call from me of no more than fifteen minutes within two weeks after our recorded conversation. I allow your child to elaborate on your experience (comfortable or uncomfortable) of texting and also provide the opportunity to compare these experiences to face- to- face interactions.

Discussion of the use of texting or instant messaging may bring up uncomfortable memories or feelings including sadness, anxiety, fear and anger. This is one of the risks for your child. The discussion of these matters in a confidential format and for the purpose of expanding clinical knowledge can also be quite liberating. It is important for you to remember as you decide about whether to participate, that you may withdraw at any time from this voluntary study and for whatever reason(s) by calling me (323 823-7415) or emailing me at (sherri.klosterman@gmail.com) at any time. This research proposal has been approved by the dissertation committee, the Institute's Human Participants' Committee and The Sanville Institute.

I am pleased that your child is considering participation in this valuable research. I will be contacting you by phone or email if you let me know that you are interested by calling me or emailing at the above contact designations provided. If interested please let me know in your contact whether you would prefer a telephone screening or face-to-face contact for that purpose.

I very much look forward to hearing from you soon.

Sincerely,

Sherri Klosterman, LCSW

encl: Copy of Informed Consent Form for your consideration.

APPENDIX E: INFORMED CONSENT FORM

I, _____, hereby willingly consent to have my

son/daughter, _____, participate
(print name of research participant)

in the study The Impact of Text Messaging and Instant Messaging on Adolescent Social Skills and Social Behavior. This doctoral research project will be conducted by Sherrill Elise Klosterman under the direction of Elinor Dunn Grayer, Ph.D, Principle Investigator and faculty member, and under the auspices of The Sanville Institute.

I understand that my participation in this study will involve the following:
1. Voluntary, participation in a research project screening of approximately 15 minutes or less over the telephone or in person with the investigator.
2. Voluntary, self-selected participation in an audio tape-recorded interview of approximately 60 minutes in the setting in which the participant volunteers.
3. Receiving a follow-up telephone call of no more than 10-15 minutes within two weeks.
4. Potential publication of the study or parts of it in which the anonymity and confidentiality of the research participant will be preserved. Such publication would exclude any reference to my name or personal identity. Moreover, any of my friends mentioned in the interview would have their confidentiality protected also; no identifying information including agency or service will be disclosed.

I understand that the potential risks and benefits of my participation are as follows:
1. I might feel vulnerable talking with the investigator on tape despite the agreed upon procedures for ensuring anonymity and confidentiality.
2. Discussing my experience of text messages with friends could result in some emotional discomfort.
3. If I have elected to receive the results of the research study and find those results interesting and relieving, I may experience some discomfort recalling other situations relating to the research that now may emerge.

I understand that the following steps will be taken by the research investigator to minimize the previously stated risks to me:
1. The investigator will remind me that I may drop out of the research process at any time without explanation or recrimination.
2. The investigator has left contact information with me and I have been encouraged to contact the investigator should I experience stress related to the research project arise for me.
3. I know that the investigator will be contacting me two weeks after the interview and I may discuss any emotional discomfort I may be feeling at that time.
4. The procedures for this research project include up to three free consultations with a qualified person made available through the investigator, to work through

any lingering emotional discomfort in relation to my participation in this research study, should that occur.

I understand that my participation in this study is completely voluntary and that I may withdraw from the study at any time. I understand that this study may be published and that my (anonymity) (confidentiality) will be protected- that is, any information I provide that is used in the study will not be associated by my name or identify.

My signature below indicates that I have read the above explanation about my participation in this research study, that I understand the procedures involved and that I voluntarily agree to participate.

Signature of Parent: _____Date_____

Signature of Participant: _____Date_____

 If you would like a copy of the results of this study, please provide your name and address:

Name_____

Address_____

APPENDIX F: LETTER OF THANKS TO THOSE NOT SELECTED

Date: , 2009

Dear   ,

Thank for your interest in the research study I am conducting as a doctoral candidate at **The Sanville Institute** which has approved the project. At this time, I have recruited a sufficient number of participants for the project. However, if interviewing additional participants becomes appropriate, I may contact you again to determine if you would still be interested and available to participate.

Your interest in the work I am doing is very much appreciated.

Thank you again for your offer of participation.

Sincerely,

Sherri Klosterman, LCSW

APPENDIX G: INTERVIEW GUIDE

(Only to be used selectively, as needed,
in areas where information is not flowing)

Today, teens seem to be relying on electronic messaging as a preferred method of contact between friends.

Specifically, I am interested in understanding what perceived advantages or disadvantages are from the perspective of the teen user of text or instant messaging.

Electronic or text messaging lacks body language, tone and facial expression. You don't see or hear the other person. I wonder if this is an advantage or disadvantage for you. (Can you talk more about this?)

Thinking about your experience of text messaging over time, was there a time when you felt that electronic messaging provided as much fulfillment as face-to-face interactions?

Are there some issues that you would feel more comfortable texting or talking about with parents? With friends?

Is there a difference for you between electronic messaging and face-to-face encounters?

Have you ever experienced anything through electronic messaging or texting that might be a disadvantage?

What percentage of the time does you use electronic or text messaging versus calling or have face-to-face encounters? Can you tell me more about that?

Is there anything you miss about face-to-face encounters when you engage in electronic or text messaging?

What are the advantages of electronic or text messaging?

Is there anything you would like to add to your feelings or experiences about text or instant messaging?

APPENDIX H: CONTACT INFORMATION LEFT WITH PARTICIPANT

Research Study: **The Impact of Text Messaging and Instant Messaging on Adolescent Social Behavior and Social Skills**

Investigator: **Sherri Klosterman at (323) 823-7415 or Sherri.Klosterman @gmail.com**

Research project approved by **The Sanville Institute**

APPENDIX I: EXAMPLE OF POP CULTURE

In an episode of *Two and a Half Men,* staring Charlie Sheen (as Charlie) and Jon Cryer (as Charlie's brother, Alan), and entitled *Good Morning, Mrs. Butterworth* (Roberts, 2009), the following satire on texting takes place and reflects technology in competition with a romantic face-to-face relationship.

While Chelsea (Charlie's girlfriend) and Charlie were in bed, Alan was texting Chelsea funny text messages. "He's hilarious! I'll tell him we'll talk tomorrow," Chelsea said to Charlie as Charlie wasn't very happy about the text messages. Alan kept sending multiple texts. Chelsea tried to ignore them, but she wanted to make sure Alan was ok. As Chelsea checked her text messages, Charlie said he was thirsty and that he would be right back. He went straight to Alan's room, where Alan was in bed on his phone texting Chelsea. "Your penis is no match for my technology!" Alan yelled. Charlie then walked in. "You're text-blocking me!" Charlie said to Alan.

APPENDIX J: PROTECTION OF RESEARCH PARTICIPANTS APPROVAL

APPENDIX J: PROTECTION OF RESEARCH PARTICIPANTS APPROVAL

THE SANVILLE INSTITUTE
PROTECTION OF RESEARCH PARTICIPANTS APPLICATION

Title of Research Project __The Impact of Text Messaging and Instant Messaging on Adolescent Social Behavior and Social Skills _____

Principal Investigator: _____Elinor Dunn Grayer, Ph.D_____
                                      print name and degree)
Investigator: _____ Sherrill Elise Klosterman_____
                                      (print name)

I have read the *Guidelines, Ethics, & Standards Governing Participation & Protection of Research Participants* in research projects of this Institute (in Appendix D of the Student and Faculty Handbook), and I will comply with their letter and spirit in execution of the enclosed research proposal. In accordance with these standards and my best professional judgment, the participants in this study (check one)

_____   Are not "at risk."

____X____   May be considered to be "at risk," and all proper and prudent precautions will be taken in accordance with the Institute protocols to protect their civil and human rights.

I further agree to report any changes in the procedure and to obtain written approval before making such procedural changes.

_____   12-2-09_____
                (signature of principal investigator/date)

_____   12/3/09_____
                (signature of investigator/date)

Action by the Committee on the Protection of Research Participants:

Approved ___X___ Approved with Modifications _____ Rejected _____

_____   Date 2/13/2010
Signature of representative of the Committee on the Protection of Research Participants/date

_____   2/12/2010
                (signature of dean & date)

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