Cyberbullying among Children in Japanese and American Middle Schools:

An Exploration of Prevalence and Predictors

by

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ABSTRACT

Cyberbullying has emerged as one of educators' and researchers' chief concerns as the use of computer mediated communication (CMC) has become ubiquitous among young people. Many undesirable outcomes have been identified as being linked to both traditional and cyberbullying, including depression, truancy, and suicide. America and Japan have both been identified as nations whose youth engage frequently in the use of CMC, and may be at a potentially higher risk to be involved in cyberbullying. Time spent using CMC has been linked to involvement in cyberbullying, and gender and age have, in turn, been linked to CMC use - these may play significant roles in determining who is at risk. In order to assess the effects of nationality, gender, and age on cyberbullying involvement among Japanese and American middle school students, a survey exploring these factors was developed and carried out with 590 American and Japanese middles school students (Japan: n = 433 and America: n = 157). MANOVA results indicated that that Americans tend to both use CMC more and be more involved in cyberbullying. In addition, Japanese involvement increased with age, while American involvement did not. There were minimal differences between Americans and Japanese with regards to traditional bullying.

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ここまで一緒にがんばってきて、本当にいい研究が出たと思います。

心から感謝しています。本当に、ありがとうございました。

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Cyberbullying Among Children in Japanese and American Middle Schools: An Exploration of Prevalence and Predictors

Over the past ten years, technology has advanced at an exponential rate. In particular, information technology has vastly altered the socio-cultural landscape surrounding us, significantly impacting human development, (Montero & Stokols, 2003). Specifically, computer mediated communication, or CMC, has become a catalyst for rapid change in the ways humans communicate, relate to one another, and interact with their various environments (Ho & Mcleod, 2008).

While CMC has had many positive effects such as enhancing the speed and efficiency of interpersonal communication over great physical distances and fostering a more integrated global community (Montero & Stokols, 2003), it has also created a host of new problems for society (namely, creating a new social platform on which to exhibit antisocial behavior). Ybarra and Mitchell (2007) originally described cyberbullying as any threat of offensive behavior sent online to a victim or posted online about a victim for others to see. Agaston, Kowalski, and Limber (2007) expanded upon this definition to include the sending of text messages via cell phone, and Ybarra and Mitchell (2007) acknowledged the prevalence of cyberbullying in the form of text messages in subsequent studies.

Cyberbullying can integrate various electronic methods in order to harm others (Agaston, Kowalski, & Limber 2007). For example, Strom and Strom (2005) discussed how a Japanese child committed suicide after being harassed by relentless cyberbullies. In this instance, bullies took an embarrassing photo of the

child with a cell phone camera and then disseminated the image to other students' cell phones and to blogs on the internet.

Teachers and administrators are well aware of problems related to bullying on school grounds, but few are aware of the extent to which students are being harassed online (Li, 2007). Bullying and cyberbullying differ in a variety of ways. A traditional bully needs a physical location in order to harass the victim (Mason, 2008). A cyberbully need not confront the victim face-to-face. Also, the anonymity granted by CMC which has been identified as an advantage granted by information technology becomes precisely the most insidious aspect of online bullying (Kowalski & Limber, 2007).

Cyberbullying is pervasive; it continues on and off the school campus, it is almost impossible to trace, and it prevents victims from feeling secure in or out of school. Using a computer, a bully can send a harmful message not only by email, but through instant messaging, internet bulletin boards, and text messages (Patchin & Hinduja, 2006). Therefore, a student can be victimized at home or in school by an unknown assailant who may or may not actually be on school premises (Li, 2007).

Researchers have reported instances of cyberbullying across the globe, including Japan, Scandinavia, Australia, Canada, New Zealand, and England (Campbell, 2005). Japan, in particular, is a prime area to explore because the likelihood of being cyberbullied has been correlated with an individual's time spent using CMC, (Smith et. al., 2008) and the Japanese have been identified as being heavy consumers of technology (Imamura et. al., 2009). Additionally, the

Japanese culture is one whose members fear being socially excluded, and may censor what they say in public for fear that it may damage their reputations (Pruitt, 1988). Consequently, various CMC media may have flourished there because of the anonymity it garners, allowing Japanese people to speak what is on their minds without fear of social repercussions. (Safdar, Friedlmeier, Matsumoto, Yoo, Kwantes, Kakai, *et. al.*, 2009). Japanese young people spend considerable time online (Miyata, Boase, & Wellman, 2005) – implicitly increasing their risk to be cyberbullied (Mitchell & Ybarra, 2004). Unfortunately, studies regarding cyberbullying in Japan are as of yet limited, and moreover, they remain untranslated (Ruiz & Tanaka, 2001). Japan is a technologically savvy society (Imamura et. al., 2009), in which bullying has been identified as an area of growing concern (Ruiz & Tanaka, 2001). A study involving Japanese youngsters regarding cyberbullying may prove illuminating in search of the prevalence and predictors of CMC related aggression. Additionally, by comparing results in Japan to results found concurrently in the US, understanding of the link between technology use and cyberbullying may become clearer.

Cyberbullying presents a plethora of issues with which researchers and school officials must grapple. Research on this topic is still in the developmental stages; explorations of prevalence and predictors across various settings will be necessary to gain greater insight into the problem (Li, 2007). Through the detailed surveying of adolescents, one may not only gain a better understanding of the prevalence of cyberbullying, but also gain insight into what factors may commonly be associated with it (Agaston, Kowalski, & Limber, 2007). These

factors include gender, age, and time spent using the internet. Another factor in need of exploration is the connection between traditional bullying and cyberbullying. The literature has suggested that children who are traditionally bullied are more likely to be cyberbullied (Williams & Guerra, 2007), but has also suggested that children who are traditionally bullied may be likely to retaliate using CMC (Ybarra, 2004). In order to gain a clearer understanding of these associated factors, researchers must perform prevalence studies. Once researchers have established a solid foundation of knowledge from which to work, they can attempt to devise strategies to eliminate bullying behaviors.

Literature Review

Seminal Research on Bullying

Olweus' research in the early 1990s regarding the prevalence and predictors of bullying revolutionized how mental health professionals conceptualized bullying and its related issues. Olweus (1991) began collecting a sample of 150,000 Scandinavian school children between 7 and 16 years of age in 1983. The resulting analyses revealed that nine percent were victims and that seven percent bullied others. However, Olweus inferred that the study actually underestimated the true numbers of bullies and victims (Olweus, 1995).

Olweus systematically dispelled pervading myths regarding bullying, such as the idea that the victims were likely to be strange looking, have red-hair, be fat, or wear glasses (Olwues, 1993). He also found quantitative evidence to disprove the traditionally held belief that bullies are individuals with low self-esteem who victimize those weaker than themselves in order to bolster their own self-confidence (Olweus, 1996). The bullies in his study actually tended to be relatively secure individuals who felt little anxiety. They believed themselves entitled to dominate others (Diamanduros & Downs, 2008; McGuiness, 2007; Olweus, 1995).

Victims tended to be physically weaker than average, and were usually cautious, sensitive, and quiet (Olweus, 1995). Particularly in the case of boys, Olweus identified three underlying factors that may lead to a child becoming a bully. First, they had an innate need for power and dominance – the act of subduing others was intrinsically reinforcing for these children. Second, they had

been reared by parents who were either overly permissive toward aggressive behavior or demonstrated aggressive or violent ways of dealing with problems themselves (by directly abusing the child, loved ones, or others). Finally, bullying behavior was maintained extrinsically because the bullies were reinforced for their behavior by gaining access to such things as money, food, alcohol, or cigarettes (coerced from the victims) or the prestige of demonstrating dominance in front of bystanders.

Bullying has been found to have an extremely adverse psychological impact on children (Ybarra, Espelage, & Mitchell, 2007). Involvement in bullying for either the bully or the victim has been associated with school dropout and poor psycho-social adjustment, among other negative outcomes (Kochenderfer-Ladd & Skinner, 2002; Solberg & Olweus, 2003). Victims have been found to suffer from emotional difficulties, academic problems, poor social relationships, lowered self-esteem, and an increased likelihood of developing depression (Hawker & Boulton, 2000; Sharp, Thompson, & Arora, 2000). In some extreme cases of victimization, individuals have been known to run away from home, refuse to attend school, and even attempt suicide (Olweus, 1990). Many children identified as bullies in school exhibited a severe antisocial affect – more than half have developed criminal convictions by the time they reached their 20s (Olweus, Limber, & Mihalic, 1999).

In light of the severe consequences of bullying in schools, researchers have attempted to create sweeping interventions to counteract children's bullying behaviors, (Olweus, 1995). The model of intervention at first conceptualized by

Olweus (1993) involved a number of factors – ideally, all adults involved in the children's lives both at school and at home should strive to create an environment characterized by constructive interest and warmth, while at the same time providing firm limits on unacceptable behavior by consistently administering non-hostile, non-physical sanctions when those limits are violated.

The results of such interventions have had success in reducing incidences of bullying. Evaluation of the effects of the Olweus bully-prevention program revealed a marked decrease in bullying – an incidence reduction of over 50 percent. The intervention was implemented over 2.5 years targeting a total of 2,500 Norwegian students (Olweus, 1995). However, subsequent, similar interventions, while all succeeding in reducing bullying, have yielded inconsistent results (Bauman & Del Rio, 2005). There have been few rigorous scientific studies evaluating these types of interventions (Yoon, Barton, & Taiariol, 2004). Smith (2004) compiled the results of a variety of related studies; in most cases reductions in the incidents of peer victimization ranged between 5% and 20%.

Despite the success of interventions such as the one designed by Olweus, myths regarding the nature of bullies and victims still persist (McGuiness, 2007); therefore, researchers have made concerted efforts to educate both parents and teachers (Willard, 2007). Teachers are often unaware that bullying is taking place, leading to an inconsistent dispensation of sanctions against bullies. Such practices may actually increase problems for victims (Smith & Shu, 2000).

Increasing adult awareness of the facts regarding bullying is an integral part of the intervention process (Olweus, 1995). Therefore, researchers must compile quantitative evidence regarding the prevalence, predictors, and associated outcomes of school bullying in order to provide validity for their argument to parents and teachers alike that a problem in the schools persists. The case is the same for a new form of bullying on the rise – cyberbullying. Relatively little research has been done on this topic, although it has already become apparent that the prevalence is increasing (Hinduja & Patchin, 2007).

Cyberbullying: Explorations of Prevalence

Concern about cyberbullying can be traced to far back as 1999 when attorney general Janet Reno suggested to Vice-President Al Gore that Internet based harassment was becoming a growing concern for law officials (Campell, 2005). Since that time, a number of pilot studies have been conducted regarding the basic prevalence and predictors of cyberbullying, although even the number of incidents remains somewhat unclear (Williams & Guerra, 2007).

In 2004, Ybarra conducted a study using data collected from the Youth Internet Safety Survey (YISS) study involving 1501 youth between the ages of 10 and 17. In this cross-sectional, nationally representative survey, 19 percent of the students were involved in online aggression, 3 percent were both aggressors and targets, 4 percent were targets online, and 12 percent reported aggression.

Ybarra (2004) conducted several follow-up studies revealing that 13.3 percent of young people targeted by cyberbullies also reported symptoms of major depression. Only 4.6 percent of those not targeted by cyberbullies reported

the same symptomology. However, the researchers theorized that those with depression may be more likely to report online threats because they actually perceive them as more threatening than do people without depression.

Li (2006) performed two studies in which the prevalence of cyberbullying and its predictors was assessed. In her survey, 17 percent of students reported that they had been bullied via electronic media among a sample of 264 randomly selected students. However, 53.6 percent reported they knew someone who had been bullied. Factors such as gender and SES did not affect whether or not an individual was involved in cyberbullying. The study also found that a majority of bystanders did not report instances of bullying to authorities. Li inferred that this was because they did not believe that adults would help.

Mitchell, Ybarra, and Finkelhor (2007) performed another study evaluating the data obtained from the YISS study involving the same sample of 1,501 students in the 10 to 17 age range, this time focusing on the relationship between online and offline forms of interpersonal abuse. Twenty-three percent of the participants reported instances of being abused online. Nearly three-fourths (73%) of youth who acknowledged reporting online victimization also reported offline victimization. This would appear to be in contrast to the suggestion of Diamanduros, Downs, and Jenkins (2008) that many cyberbullies were actually victims of traditional bullies and that they used CMC as a method of retaliation.

Researchers have also carried out a limited number of international forays into exploring cyberbullying around the world. Incidents of cyberbullying are being reported not only in the United States, but in Canada, Japan, Scandinavia,

the United Kingdom, Australia, and New Zealand (Campbell, 2005). In Turkey, Aricak et al. (2007) found that 13.4 percent of boys and 10.4 percent of girls self-reported as having been cyberbullied. Nineteen percent of boys and 16.7 percent of girls reported being cyberbullies – a difference that was not significant. This finding is inconsistent with the popular theory that girls will cyberbully more frequently than boys because of the covert nature of the behavior (Agaston, Kowalski and Limber, 2007; Patchin & Hinduja, 2008).

Kowalski and Limber (2007) attempted to find evidence to suggest that more girls than boys are involved in cyberbullying as either the aggressors or the victims. They theorized that girls are more likely to be involved with Internet bullying because, traditionally, they are perceived to participate in more covert forms of bullying such as social exclusion or rumor spreading (Kowalski & Limber, 2007). Campbell (2003) also suggested that the prevalence of girls involved in cyberbullying would be higher than boys because they spend more time texting and chatting online. Similar theories were also offered by Patchin and Hinduja (2006) which reflected girls' preference to text and chat online. They cited that 36 percent of girls had been cyberbullied, as opposed to 32 percent of boys. They did acknowledge that these differences were smaller than anticipated.

Smith and colleagues (2008) found that girls were no more likely than boys to either cyberbully or to be cyberbullied. Williams and Guerra's study (2007) also contradicted findings from previous studies that girls were not significantly more likely to be involved in cyberbullying. There are a few possible inferences one can make as to why the results differed based upon the nature of

each of these studies. For example, Hinduja and Patchin (2006) began their study with the self admitted pre-supposition that it is girls who are more prone to be perpetrators of cyberbullying. They provided the website link to their study within a fan-site for a female pop-singer popular with teenage girls. This produced a convenience sample essentially comprised of only girls within the 10-18 age range. Despite the fact that the study was embedded in a website aimed at girls, it still did not produce results that corroborated the theory that girls are more involved in cyberbulling than boys.

A common link between these studies was that instances of cyberbullying increased with age (and peaked at about 15 years old) because older children were more likely to use CMC (Agaston et. al., 2008; Smith et al., 2008). However, the actual perpetration of cyberbullying paralleled that of traditional bullying; girls were more likely to practice such aggressive techniques pertaining to interpersonal relationships such as exclusion and rumor spreading, and boys were more likely to directly harass their intended victim (Williams & Guerra, 2007).

It is still unclear as to whether or not there is a connection between gender and cyberbullying. The suggestion that cyberbullying appeals to girls who are would-be-aggressors stems from the assumption that cyberbullying is psychologically analogous to covert forms of bullying (Kowalski & Limber, 2007). It is possible, however, that the issue is not that simple; different forms of cyberbullying may be analogous to different forms of traditional bullying (Smith et al., 2008). Therefore, it would be informative to determine who is likely to engage in a particular form of cyberbullying.

Psycho-Social Implications for Cyberbullying

The introduction of CMC into the schools and the rise of cyberbullying among students may have serious implications for the psycho-social development of children, equal to that of traditional bullying (Ybarra, Espelage, & Mitchell, 2007). As with traditional bullying, Li (2008) suggested that those who are cyberbullied are at risk for experiencing poor psycho-social adjustment. Mason (2008) noted that cyberbullying during school can have long-term negative effects on victims for years beyond graduation. In the short run the victims become depressed, and if the long-term effects are analogous to traditional bullying, years later it is likely that those who are cyberbullied may potentially suffer diminished self esteem, be prone to substance abuse, and be more likely to experience anxiety and depression (Patchin & Hinduja, 2006; Thomas, 2006).

The threats to children presented by cyberbullying are quite concerning. Because the current understanding of cyberbullying is still in the inchoate stages, exploring its prevalence and scope is crucial to gaining a better perspective of the issue. In order to assess its pervasiveness, we must also more clearly define and operationalize the behaviors to be included within cyberbullying.

Defining Bullying: Three Categories

Ybarra and Mitchell (2007) stated that the term bullying specifically refers to when an individual with more power is harassing an individual with less power. Cyberbullies may follow the patterns of traditional bullies in the sense that they target those whom they perceive as weaker than themselves in the physical world

(Willimas & Guerra, 2007). However, in the cyberworld, power is derived from technological proficiency (Patchin & Hinduja, 2006). Therefore, the balance of power is tipped in the direction of those who are more skilled in navigating the Internet and manipulating electronic devices such as cell phones. This lends itself to the proposition that children who perceive themselves as disempowered in the real world may take revenge in the cyberworld (Diamanduros, Downs, & Jenkins, 2008).

Traditionally, researchers consider bullying methods to be divided into three categories: Physical, verbal, and relational (Olthof & Groosens, 2008). Recently, however, even these formerly well-accepted categories into which researchers describe types of bullying are somewhat problematic; there seems to be significant overlap between some definitions of verbal and relational bullying (Olthoff & Groosens, 2008).

The types of behaviors that constitute physical bullying seem to be clear enough; they include any number of overt physical assaults (Jacobson & Bauman, 2007). However, placing forms of verbal bullying into a discrete category is more challenging, because verbalized forms of abuse can be either overt or covert (McGuiness, 2007). However, in the literature, verbal bullying generally refers to direct verbal abuse. Rumor spreading, also referred to as slander, is considered a style of relational abuse (Bauman & Del Rio, 2006).

However, McGuiness (2007) combined overt verbal abuse and slander into a single verbal category. Scheithauer, Petermann, and Jugert (2006) also defined verbal bullying as including both direct verbal assaults and rumor

spreading. A separate category was set aside specifically for relational bullying which contained instances of purposeful manipulation of friends in order to exclude a certain individual from a given peer group (Monks & Smith, 2006). Thus, the lines dividing the categories of bullying have become blurred. Though it has been suggested that the causal pathways between different categories of traditional bullying share commonalities with categories of cyberbullying (Hinduja & Patchin, 2007), concrete, agreed-upon definitions of these categories still prove elusive.

Relational bullying unarguably contains exclusionary forms of bullying, but those necessarily involve verbalization in order to manipulate peer groups into excluding a victim (McGuiness, 2007). If verbal bullying is defined as bullying carried out through the use of words, any form of relational bullying could simultaneously be considered verbal bullying.

Cyberbullying often involves the spreading of embarrassing or incriminating images of a victim (Kowalski & Limber, 2007). These images are usually taken candidly via cell phone, and then rapidly distributed to other cell phones or posted on the Internet (Smith et. al., 2008). Sometimes, however, a bully will directly assault a victim, physically humiliating him or her while an accomplice takes a photo via cell phone. The orchestrated scene is then distributed via CMC methods. This method of cyberbullying is often referred to as “happy-slapping,” and is one of the most disturbing forms of cyber bullying.

The methods of cyberbullying that involve the distribution of images pose possibly the biggest problem in the categorization of modern bullying styles.

Spreading vicious text messages or emails about a victim is a form of slander, and may fit neatly into the category of either relational or verbal bullying, depending on which definition is used (Jacobson, 2007). However, spreading an embarrassing image of someone without the use of words is not slander per se; the definition of slander is to spread untrue rumors – incriminating verbal packets of information (McGuiness, 2007). Thus, distributing an image is not precisely spreading a rumor, but it is certainly a covert way of humiliating a victim (Berger, 2007).

However, in the case of happy slapping, the overlap between styles of bullying becomes increasingly pronounced. Happy slapping involves a physical assault; the distribution of the image simply allows the bully to seek a wider audience in displaying his or her power over the victim (Williams & Guerra, 2007). Olthof and Goosens (2008) discuss how bullying is reinforced and maintained by a category of bystander called a facilitator. It is possible that some physical bullies receive great reinforcement from the notion that they are recognized for their social and physical dominance. In this sense, happy slapping is actually physical bullying combined with cyberbullying; CMC becomes a medium through which the bully can perform for a larger audience.

Regardless of the vague boundaries between categories of bullying, most researchers seem in agreement on the overarching three factors that categorize a behavior as bullying – 1) behavior that is intended to hurt, 2) behavior that is carried out repeatedly over a stretch of time, and 3) behavior that is perpetrated by one individual upon another when there is a distinct imbalance of power between

the two, favoring the bully (Vailancourt, 2008). Whether physical, verbal, relational, or any combination of the three, how one categorizes the style of abuse is less important than if the behavior meets the three definitional criteria of bullying (Berger, 2007).

In this regard, however, there is some conflict in how researchers have attempted to define bullying, and how children typically conceptualize bullying (Vailancourt, 2008). Children vary on their view of bullying in terms of all three criteria for a behavior to be considered bullying (Agaston *et al*., 2007). For example, children often disregard such criteria as the imbalance of power, or repetition over time (Vailancourt, 2008). A physically dominant child who has been teased only once may report having been bullied.

There has been an effort to separate actual bullying from simple fighting or teasing. If two individuals are of equal strength, then researchers have defined this as a fight, not bullying (Vanderbosch & Van Cleemput, 2008). Also, solitary instances of harassment are categorized as teasing as opposed to bullying, which needs to occur on repeated occasions. The most troubling of the three criteria is the intention to hurt, (McElearney et. al., 2008). This is a question of perception – has bullying occurred only if the aggressor intended to hurt the victim or also if the victim felt hurt, regardless of the perpetrator's intention?

Cyberbullying has been defined by the same three criteria used in identifying traditional bullying – an imbalance of power, intention to hurt, and repetition over time. Vanderbosch and Van Cleempute (2008) attempted to separate cyberbullying from simply cyberfighting or cyberteasing, pointing out

instances of CMC-based aggression that did not meet the three criteria of traditional bullying. However, many children feel that they have experienced cyberbullying even if their experience with aggression online did not in fact meet all three bullying criteria. For example, a child may feel bullied even if he or she only has received one nasty message (Vanderbosch & Van Cleempute, 2008).

Though there may be some disagreement within the literature as to which categories include which bullying behaviors, the behaviors themselves are defined with greater clarity. Therefore, when devising a survey to account for cyberbullying prevalence, one may be better served by ignoring concepts such as overt vs. covert bullying, or verbal vs. physical vs. relational, and simply create items based solely on the behaviors expressly identified within the research.

Cyberbullying: Identifiable Behaviors

By specifically identifying different types of bullying behaviors (Ybarra, 2008) a researcher can eliminate confusion and ambiguity inherent in the categorization of bullying types or the general definition of bullying. A survey that directly addresses each bullying behavior with a description of the behavior may not only facilitate a better student understanding of the questions, but may also lead to a more honest response to the individual questions (Ybarra, 2008).

There are many ways in which young people harass one another. The method that is most easily observed and generally garners the most attention is physical bullying (Patchin & Hinduja, 2006). The nature of physical bullying is clear – Patchin and Hinduja (2008) defined it as including any direct physical assault such as punching, kicking, shoving, tripping, pulling on clothes etc.

As discussed earlier, cyberbullying can include the behavior of the taking and distribution of a photograph or video clip of a person in an embarrassing situation (Smith et. al., 2008). Often, one student will assault another student, while an accomplice takes the incriminating photo or clip (Agaston & Limber, 2007). This is an example of a physical assault that incorporates a cyber component. Here the literature identifies both traditional and cyber versions of physical assault.

Students may also directly say rude and cruel things intended to hurt a person's feelings (Ybarra & Mitchell, 2007). Calling another child by a dirty name, an ethnic slur, or generally insulting their ability to perform a certain task are all examples of this behavior.

Youngsters may also say cruel things to one another via CMC. This would include cell-phone text, computer email, online chat rooms or instant messengers, or on a message board as part of one's personal homepage such as MySpace or Facebook (Slonje & Smith, 2008). Here the literature identifies each individual method by which one may be insulted, including all relevant cybermethods.

Students may also spread rumors whether they are true or not (Ybarra, 2006). They may do this by actually verbalizing the rumors, or they may choose to disseminate the rumor through CMC (McElearney, Roosemale-Cocq, Scott, & Stephenson, 2008). This would include all the methods previously discussed: cell-phone text, computer email, online in a chat room, or on a message board, (Agaston, Kowalski, & Limber, 2007).

Young people may attempt to harm one another through social exclusion, (Dehue, Bolman, & Vollink, 2008). Students may exclude one another from social groups or activities on or off school campus (Worthen, 2007). This may also be perpetrated through CMC – for example, an individual can be excluded from an online group of friends (Ybarra, 2008).

Finally, a young person may threaten to withhold friendship from another individual for the failure to comply with a request ("If you don't do what I say, I won't like you anymore") (Campbell, 2005). This can be accomplished via CMC as well as by cell-phone text, computer email, chat-rooms, or bulletin boards, (Diamanduros Downs, & Jenkins, 2008).

In summary, the most critical areas of bullying behaviors that should be addressed are the following: 1) physical bullying – which is defined as direct physical assault such as punching, kicking, shoving, tripping, etc., 2) direct verbal bullying – calling names, or saying mean comments, etc., 3) direct rumor spreading, 4) direct social exclusion, and 5) direct threats of loss of loss of friendship. In terms of cyberbullying, behaviors analogous to those just mentioned are: 1) transmission of embarrassing pictures or videos via internet, 2) cyber name calling or use of mean or cruel comments, 3) cyber rumor spreading, 4) cyber social exclusion, and 5) cyber threats regarding loss of friendship

Regardless of category or method, the list of potential bullying behaviors is clearly identified. Using this as a platform from which to build a survey, one has a good chance of uncovering the core of the issue of cyberbullying – what

kinds of behaviors are young people actually perpetrating and how often are they doing it?

The Relationship Between Cyber and Traditional Bullying

The relationship between which children are either bullies or victims in the physical world and which children are bullies and victims in the cyberworld is also unclear. Ybarra, Diener-West, and Leaf (2007) reported that although one in three (34.4%) of a student sample between the ages of 10 and 15 reported at least one instance of Internet harassment in the previous year and 8 percent reported frequent harassment, there was little overlap between cyber and traditional harassment. These findings were in contrast to Ybarra's (2004) previous assertion that cyberbullying may be a favored avenue of retaliation for those traditionally bullied. Slonje and Smith (2008) also found results that contradicted the retaliation theory – only 1 percent of students in their survey had been bullied and then retaliated through electronic media.

Traditionally, there are three roles related to bullying – the bully, the victim, and the bully/victim (Vailancourt, 2008) and two types of bystanders – those who sit on the sidelines and merely watch, and those who try to support the victim. There may also be facilitators – bystanders who encourage the bully (Williams & Guerra, 2007). Cyberbullying also includes these roles (Mason, 2008). In the cyberworld bullies often are entitlement bullies, who believe that they are better than their victims and are entitled to intimidate others. Victims are those whom the bully views as inferior or different. Entitlement bullies prey on

the imbalance of power between themselves and the victim (Vandebosch & Van Cleemput, 2008).

Bully/victims are those who are bullied, but also bully others. The role equivalent to the traditional bully/victim within the context of the cyberworld is that of the *retaliator* – an individual who has already been bullied by others, and seeks retribution through use of the Internet. The difference between the traditional bully/victim and the cyberbully retaliator is that the retaliator may have been a victim initially in either the real world or the cyberworld. The victims of retaliators are often traditional bullies who harassed the retaliator in the physical world (Diamanduros et. al., 2008); the retaliators seek revenge within the virtual world because their actual physical strength is not important and both victims and perpetrators inhabit an even playing field. Diamnanduros and colleagues (2008) discussed a role reversal in which those who are bullied in the real world retaliate in the cyberworld. However, Williams and Guerra (2007) maintained that cyber-retaliators were somewhat rare, and that the same causal pathways that maintain standard bullying maintain cyberbullying, especially those of verbal bullying.

Different studies have generated somewhat different results regarding the predictors of cyberbullying. Slonje and Smith (2008) pointed out that of the 360 adolescents between the ages of 12-20 years surveyed, only one percent had actually been traditionally bullied and retaliated via cyberbullying. This finding suggests that Ybarra and Mitchell (2007) may not have been accurate in their assertion that cyberbullying is often used as retaliation against traditional bullies.

A final issue inherent within the context of cyberbullying is the sense of invisibility and anonymity associated with online interaction. Though proponents of CMC would consider this as an advantage, Mason (2008) provided a theory to the contrary: It is precisely this sense of anonymity that encourages aggression and leads to an overall degradation in psychological development. She concluded that the Internet inadvertently undermines the quality of human interaction, allowing free reign to destructive human impulses that would have otherwise remained in check. Diamanduros and colleagues (2008) concurred, stating that CMC strips away many aspects of socially accepted roles, transforming the Internet into an arena for aggressive, hateful behavior. Moreover, cyberspace fails to provide an environment where empathetic responses can be validated or developed.

The anonymity granted by the use of CMC is particularly important in the case of cyberbullying because it automatically creates a technological power imbalance between the bully and victim (Ybarra & Mitchell, 2004). Because the asymmetry in power is implicit when the anonymity of CMC is taken into consideration, there is less room for argument about whether or not harassment carried out over electronic media should be considered bullying as opposed to physical fighting or teasing (Slonje & Smith, 2008).

Both proponents and detractors of computer mediated communication have acknowledged the sense of freedom from social judgment garnered from online communication (Li, 2007). The result is a loss of inhibition; the sense of anonymity granted from online activities can lead shy people to increase their

social sphere, but may also result in aggressive behavior from those who would have otherwise refrained from this for fear of punishment (Kowaski & Limber, 2007).

Cyberbullying in Japan

Within the context of cyberbullying, Japan may prove an especially informative place to assess the effect of cyberbullying Japan in particular has been identified as a nation in which people dread being socially ostracized (Ruiz & Tanaka, 2001). In addition, the Japanese value technological savvy (Imamura et. al., 2009). The combination of these two factors has led to a CMC boom; many city elementary school children now carry cell phones and text each other in-between classes (Okada, 2008). Cyberbullying has now been identified as a concern among educators, parents, and children in Japan. Because of the nature of both the Japanese social landscape, as well as the focus on technology, Japan is a prime area to explore cyberbullying. If the hypothesis that CMC use increases the likelihood of being cyberbullied, Japanese children may be at an especially high risk. Imamura and colleagues' (2009) look at the link between student's use of cell phone text and mental health is currently the only research pertaining to this field in publication. Researching cyberbullying trends in Japan would provide a window into how the extreme wide-spread use of CMC may further influence children's development.

Japanese Education

In order to discuss cyberbullying within a Japanese context, we must first consider the body of research that discusses the phenomenon of traditional

bullying in Japan, and also acknowledge why Japanese bullying may differ from what western educators consider to be bullying. An integral part of these differences is the structure of Japanese education itself.

The Japanese school year is divided into three trimesters; it begins in April, and ends in March (Ruiz & Tanaka, 2001). The second and third trimester are divided by a summer break that is about 2 months long. Until the early 1990s, The Japanese school week included attendance in school on Saturdays – that changed with the introduction of the *yuutori kyouiku* (relaxed education) movement at which time the school week was shortened to Monday through Friday (Yoneyama & Naito, 2003).

Elementary school typically contains first through sixth grades and emphasizes curriculum comparable to what is taught in the west: reading, writing, arithmetic, social studies, and science (Hilton, Anngela-Cole, & Wakita, 2010; Ruiz & Tanaka, 2001). After completing elementary school, Japanese students enter junior high school via a ceremony which many community members attend. Entrance into junior high school is an important rite of passage in Japan – it is at this time that Japanese children are expected to recognize the importance of their becoming productive members of Japanese society (Ruiz & Tanaka, 2001).

Junior high school in Japan is three years long and includes what would be the equivalent of 7^{th}, 8^{th}, and 9^{th} grades in the United States (Prewitt, 1988). It is intensely academically rigorous – one of the main purposes of junior high school in Japan is to prepare students for the entrance examinations to various academic high schools (Treml, 2001). Students who wish to attend academic high schools

must pass an entrance exam for the specific school they wish to attend; it is not uncommon for a student to take multiple entrance exams, each specific to a different school. They will then choose the best school into which they were accepted (Ruiz & Tanaka, 2001; Tanaka, 2001; Yoneyama & Naito, 2003)

However, unlike schools in the United States, there is also extreme pressure on students to participate in *bukatsu* – school officiated extra-curricular activities that include team sports, brass band, art, *shogi* (a game similar to chess), English language, and martial arts (Hilton, Anngela-Cole, & Wakita, 2010). Before the introduction of *yuutori kyouiku*, participation in *bukatsu* was mandatory. Though participation in *bukatsu* is now voluntary, it is often given equal emphasis to academic curriculum and students are extremely dedicated to their *bukatsu* clubs. If a student opts not to participate in *bukatsu*, he or she likely participates in a club that offers an activity not available at the student's school. Students, especially those involved in team sports, are often required to attend morning *bukatsu* practices as early as 6 AM (Ruiz & Tanaka, 2001). Though the Japanese school day generally runs from 8:00 AM until 2:00 PM, students participating in *bukatsu* are sometimes expected to be at practice until 5 or 6 PM. *Bukatsu* clubs regularly hold practices during the weekends and during vacation time.

Another important aspect of Japanese middle school culture is *juku* or "cram" school (Ruiz & Tanaka 2001; Yoneyama & Naito, 2003). *Jukus* are small private schools that students attend in order to prepare for the high school entrance exams. They are intensely rigorous as the testing process is highly

competitive (Ruiz & Tanaka, 2001). During their final year of junior high school students retire from *bukatsu* so that they may instead focus all their energy on preparing for the high school entrance exams. The attendance of *juku* is almost ubiquitous as about 96 to 97 percent of Japanese students attend academic high schools (Rios-Ellis, Bellamy, & Shoji, 2000). Students attend *juku* on a daily basis and usually do not return home until about 5 or 6 PM, as if they were still participating in *bukatsu* (Ruiz & Tanaka, 2001). In high school, students must repeat the process again – they re-enroll in the high school level of *bukatsu* until it is time to prepare for college entrance exams, at which time they begin attending *juku* again (Prewitt, 1988). Japanese high school is equivalent to 10^{th}, 11^{th}, and 12^{th} grades in the US.

Aside from preparing students to take high school entrance exams, a major function of Japanese middle school is to indoctrinate students in their role as members of Japanese society (Treml, 2001). Students are expected to be considering their future careers as the high school they attend after completion of middle school will dictate their career path. Okabayashi (2001) stated that there is tremendous pressure on Japanese middle school students which may a have a variety of adverse psychological consequences, including an increase in bullying (Yoneyama & Naito).

One way in which Japanese students are encouraged to construct their social identity is in terms of their membership in their school community and membership in their homeroom class (Treml, 2001). Japanese students spend time each day cleaning their schools and are encouraged to take particular pride their

role as custodians of their own classrooms (Hilton, Anngela-Cole, & Wakita, 2010). In Japanese middle school, students are taught by different teachers for different subjects but stay with the same group of students for each class. They learn to identify strongly with that particular group of students which generally will become their core group of friends (Yoneyama & Naito, 2003). This begs the question: what happens to a student who becomes ostracized from his or her own core group? The lifestyle of a Japanese student leaves very little free time, and also very little room to expand one's social circle. This creates an atmosphere of pressure unique to Japan which may have serious implications in terms of bullying (Yoneyama & Naito, 2003).

Ijime – Bullying in Japan

Researchers on bullying in Japan have often adopted a definition modeled on the classic Olweus definition of bullying which includes an imbalance of power, intention to harm, and repetition over time (Morita *et al.*, 1999). However, there is a key difference: Morita and Kiyonaga (1986) the seminal researchers on bullying in Japan define *ijime* - Japanese bullying - in terms of a group context, as opposed to emphasizing the one-on-one component. Another integral part of the Japanese definition of bullying is that it is viewed in terms of causing mental suffering on part of the victim – unlike western research on bullying, physical acts of violence are given less attention. In fact, bullying in Japan primarily focuses on what has been labeled relational bullying by western researchers. The term *shikato* (shunning) or *nakama hazure* (group exclusion) are the bullying behaviors that concern Japanese people the most (Tanaka, 2001).

Concern for bullying in Japan rose in 1985 when 16 pupils committed suicide after being harassed incessantly by other students at their schools (Prewitt, 1988). Treml (2001) relates one of the most famous harassment incidents in which one student began to avoid school because he was endlessly oppressed by bullies. One day, he showed up to find that his desk had been put in front of the class. The students had arranged a mock funeral for him as if he had committed suicide – they burned incense on his desk and had prepared a condolence card which the entire class, and four teachers, had signed. Quickly thereafter, he killed himself.

During the early days of the exploration of Japanese bullying, researchers in Japan found that neither schools, nor the local police, were particularly sympathetic to parents' concerns for their children (Okabayashi, 1996). Teachers and administrators tended to downplay the bullying that may have potentially occurred on school premises as to not damage the reputation of the school. When concerned parents asked the school to for help, the teachers and administrators recommended that the student should simply change schools (Naito & Gielen, 2005).

Japanese researchers have claimed that Japanese bullying is more insidious than bullying in other countries because students are often bullied by their core circle of students who are supposed to be friends (Hilton, Anngela-Cole, & Wakita, 2010; Morita et. al., 1999; Yonehama & Naito, 2001). Victims of bullying are unable to escape this group; there is pressure to conform to norms of one's homeroom classmates, and a student who is bullied there will suffer even

further *shikato* if he or she separates from his or her core group and seeks friendship elsewhere (Hilton, Anngela-Cole, & Wakita, 2010). Ironically, Yonehama and Naito (2003) explain that bullied Japanese students will often cling to the group that bullies them for fear that separating themselves from that group would lead to even worse consequences.

Further complicating matters, because the victim remains attached to the group by whom he or she is bullied, the teacher often assumes that everyone is simply joking around and having fun. Indeed, there was an important study carried out by the *Monbukagakusho* – the Japanese Ministry of Education, Culture, Sports, and Science - that revealed that it was difficult for students and teachers alike to separate which behaviors were actually bullying from simply teasing or joking around (Ogi, 1997; Naito & Gielen, 2005). Also, teachers are afraid to report incidences of bullying for fear that other teachers, and administrators, will blame *them* (Naito & Gielen, 2005). Hilton, Anngela-Cole, and Wakita (2010) comment that since teachers are afraid that having bullies in their classes will reflect poorly on them as professionals they tend to downplay the presence of bullies. Likewise, administrators are afraid to contact local boards of education about concerns regarding bullying because they are fearful that it will reflect poorly upon the school in general and be damaging to their reputations. In fact, Ruiz and Tanaka (2001) go as far as to say that some teachers even join in on the harassing of a bullied student. They claim that the teacher notices that the students are having fun while they observe one student suffer, and that it is easier to manage the class and teach the lesson when the students are

enjoying themselves. Therefore, it is the victim's duty to suffer in order to instill a sense of class unity for the benefit of the team. This is especially true in classrooms where the victim changes from time to time – even the popular students have to take a turn at being shunned, therefore fulfilling their duty to their class.

Nihonjinron – The Theory of "Being Japanese"

There are other differences between Japanese *ijime*, and western bullying. Foremost among them is that most bullying occurs in the classroom as opposed to the playground or in the halls (Rios-Ellis, Bellamy, & Shoji, 2000). Japanese researchers claim that another difference is that Japanese bullying is potentially more psychologically damaging than bullying in other countries because of how devastating being shunned in Japanese society is for a Japanese person (Tanaka, 2001). However, there may be a trend among Japanese researchers to catastrophize or believe that their problems are unique when compared to the rest of the world (Naito & Gielen, 2005). There is an entire publishing industry built around the idea of Japanese uniqueness referred to as *Nihonjinron* (The theory of being Japanese) (Naito & Gielen, 2005). In 1971, Takeo Doi, the eminent Japanese *shinryounaika* (psychiatrist) and seminal author in the *Nihonjinron* movement wrote the influential text *Amae no Kouzou* (*The Anatomy of Dependence*) in which he discusses the state of "being Japanese" and how it is "more unique" than any other way of being on earth. Thus, there may be a tendency among Japanese researchers to believe that Japanese society's problems are somehow unique and "darker" than the rest of the world because of this

perspective. There was a time in which Japanese experts doubted whether any benefit could be attained through cross cultural research because they believed the Japanese condition to be entirely non-equivalent to other cultures and therefore incomparable (Yoneyama & Naito, 2003). However, there is now a trend among Japanese researchers to doubt the ideas promoted during the *Nihonjinron* movement and reject such ideas that the Japanese psyche is somehow incomparable to others. Within the context of bullying, Japanese researchers have reported that bullying in Japan is no worse in terms of frequency than in other places such as America, Canada, England, and Scandinavia (Ruiz & Tanaka, 2001). Naito and Gielen (2005) claim that the only reason why Japanese bullying and the impact that it has appears worse when compared to Americans is that the Japanese have relatively less problems with juvenile delinquency, so the scattered incidence of bullying seem more extreme in comparison. Furthermore, in America for example, there are significantly more problems with drugs, weapons, and teenage pregnancy, and it is because America is faced with such severe youth-related problems that the focus of bullying has faded into an area of less concern.

Current Directions

As research regarding bullying has progressed in Japan, there has become an increased interest in intercultural studies. Japanese researchers acknowledge the paucity of literature regarding *ijime* and have begun to make forays into comparison studies between Japan and other countries (Ruiz & Tanaka, 2001). America is somewhat infamous for its frequency of acts of violence perpetrated by youth, and there is mutual interest in exploring factors regarding bullying in

both American and Japanese society (Hilton, Anngela-Cole, & Wakita, 2010). Both researchers in Japan and America have a growing concern with regards to the occurrence and elimination of bullying; it's a prime time to begin an investigation into this subject.

Cyber *Ijime*

Brand names like Sony, Nintendo, Hitachi, and Yamaha are ubiquitous in the western world – Japan is often seen as leading the way in a technological revolution. Behaviors such as texting, emailing, web surfing, and virtual social networking have become ever more popular in Japanese society (Imamura *et al.*, 2009). Indeed, the Japanese have often been trendsetters in developing advanced cellular phone technology. For example, concepts such as *emoji*, known as emoticons in America, were popular first in Japan.

Cyberbullying is often discussed in the literature in terms of being particularly relational in nature. As defined by Olweus (1999), relational bullying consists of the strategic manipulating of social groups in order to gain some sort of advantage over an individual. Rumor spreading and exclusion are usually the types of bullying most associated with relational bullying. Japanese students' bullying style has been repeatedly identified as "relational" within the extant literature – Naito and Gielen (2005) went as far as to say that bullying in Japan has a "feminine ring" because relational bullying is usually associated with female students. Kowalski and Limber (2007) suggested that cyberbullying is largely relational in nature because of how instrumental it can be in the dissemination of rumors and defaming images of an individual. Exclusion

behaviors have also been cited as a hallmark of cyberbullying. In light of the fact that cyberbullying may be largely relational in nature, that Japanese *ijime* is largely relational in nature, and that Japanese students are technologically savvy, Japanese students may be at risk equal to, or even greater than, American students.

Need for Affiliation

Two constructs – *need for affiliation* and *fear of social rejection* may be particularly relevant to Japan with regards to bullying. Murray (1938), the seminal researcher on the construct of *need for affiliation* defined it as the drive to seek and maintain social relationships. Helmes and Jackson (1977) piloted the development of the Personality Research Form (PRF) which specifically addressed Murray's concept of *need for affiliation* and further defined the construct as "enjoying or having a need to be with people and friends and general, as well as making a concerted effort to win and maintain relationships with people".

Japan is a collectivist society (Pruitt, 1998); researchers may infer that Japanese students have a high need to for connectedness with members of their peer group. Additionally, as was discussed by Naito and Gielen (2005), social acceptance within the classroom is crucial to a Japanese young person's sense of wellbeing. Therefore, in light of the fact that Japanese *ijime* is reportedly largely relational in nature, these two interpersonal relationship based constructs may have particular significance within the context of bullying in Japan.

These constructs may also be germane to discussion of CMC use and cyberbullying. Peter and Valkunberg (2006) began investigations in this arena and found that those who have a high *need for affiliation* or *fear social rejection* may be more likely to engage in CMC use to build relationships. With the coming of adolescence, young people experience a rise in their *need for affiliation* (Peter and Valkunberg, 2006).This is simultaneously the time that a young person begins middle school.

The Japanese are a collectivist society in which one defines him or herself via his or her relationships within the context of the social group (Tanaka, 2001). Particularly within a Japanese middle school, there is a marked rise in a student's need to cultivate strong bonds with one's homeroom classmates, as well as *bukatsu* team members (Hilton, Anngela-Cole, & Wakita, 2010; Tanaka, 2001; Yonehama and Naito, 2003). Given the context of middle school in Japanese society, creating bonds with fellow students takes on particular significance; one's own identity is created by way of an individual's relationship with his or her group (Tanaka, 2001).

Peter and Valkunberg (2006) identify *need for affiliation* as one of the prime predictors of engagement in communication via CMC. In their research, they describe four benefits from CMC use a student may perceive: *controllability*, *reciprocity*, *breadth of communication*, and *depth of communication*. Those with a high *need for affiliation* were found to perceive a greater *depth* in their ability to communicate when engaging in CMC. *Depth* in communication refers to the individual's perception that his or communication is meaningful and the topics in

which he or she engages are more intimate. This perception of *depth* may lead an individual with a high *need for affiliation* to engage in communication via CMC more frequently. Japanese students, who have been identified as having a high need to create and maintain social relationships (Tanaka, 2001), likely will have a high *need for affiliation* as defined by Peter and Valkunberg (2006). This may result in an increased perception of *depth* in communication and a rise in CMC use for Japanese middle school students, and this perception may lead them to engage in CMC more frequently.

Fear of Social Rejection

Those who are anxious of social rejection are also more likely to engage in CMC (McKenna & Bargh, 2000; Peter & Valkunberg, 2006). There are a number of reasons that have been identified that likely contribute to this preference, foremost among them the perceived sense of anonymity garnered from CMC (McKenna & Bargh, 2000). When engaging in communication via the Internet, it is unnecessary for one to identify him or herself or reveal social status cues (Kiesler, Siegel, & McGuire, 1984); this perception of anonymity engenders a sense of freedom from negative judgment and may lead to a greater sense of confidence and enjoyment when communicating (McKenna & Bargh, 2000). Peter and Valkunberg (2006) explore how anonymity facilitates communication for those who fear social rejection by identifying three factors which conceptualize these benefits: *controllability*, *reciprocity*, and *breadth of communication*.

Controllability (McKenna & Bargh, 2000; Walther, 1996) refers to people's abilities to modify or modulate how they express themselves when communicating. Arkin and Grove (1990) offer evidence that people who fear social rejection prefer to communicate via a media in which they can plan out how they will communicate (i.e., decide what they will say in advance). CMC offers people an opportunity to edit their self-expressions, whether it is via email, chat, or texting. Therefore, CMC may be perceived as offering a greater degree of *controllability* within the context of interpersonal communication (Peter & Valkunberg, 2006).

Reciprocity refers to whether an individual feels that his or her communication effort will be rewarded with an equal communication effort from the person with whom he or she is interacting (McKenna & Bargh, 2000). *Breadth* of communication refers to an individual's perception that he or she may engage in discussion of a wider variety of topics than if they were speaking face-to-face. According to Peter and Valkunberg (2006) those who fear social rejection experience a greater sense of *controllability*, *reciprocity*, and *breadth* when using CMC. Those identified as belonging to this group also perceived a greater sense of *depth* when using CMC. The Internet allows them to plan what they say in advance and edit their phrases before sending them, and the accompanying reduction in anxiety may allows them to discuss a broader range of topics. This increased sense of an ability to communicate leads to a greater sense of reciprocity and intimacy when communicating. Together, these factors form a

powerful force that may motivate those who are fearful of social rejection to increase their time communicating via the Internet.

As discussed within the context for *need for affiliation,* Japanese middle school students are under pressure to conform to their peer groups in order to be successful in school (Tanaka, 2001). Middle school students in Japan experience a mounting sense of anxiety when faced with the complex challenges of the middle school environment, which include becoming part of their homeroom classes and the *bukatsu* teams (Hilton, Anngela-Cole, & Wakita, 2010; Yonehama & Naito, 2003). Failure to conform to these groups may result in social rejection – a fate associated in Japan with highly unfavorable outcomes for students (Ruiz & Tanaka, 2001),

Because of these pressures that are particular to Japan, Japanese middle school students may have a particularly high *fear of social rejection*. According to Peter and Valkunberg (2006) those with this anxiety are more likely to engage in CMC because of the anonymity and the associated benefits anonymity offers – namely *controllability*, *reciprocity*, and the perceived *breadth* and *depth of topics when communicating*. Combined with Japan's penchant for high technology use, it would appear that the Japanese middle school students would have a particular preference for engaging in CMC. Also, this would put them at a higher risk to be involved in cyberbullying. Yonehama and Naito (2003) discussed how bullying in Japan tends to be perceived as largely relational when compared to western bullying and Kowalski and Limber (2007) discussed cyberbullying being predominantly relational in nature. These factors, combined with the factors

identified in this discussion of *need for affiliation* and *fear of social rejection* further suggest that CMC use and cyberbullying may be a particularly salient issue in Japan.

The Present Study

There is still a need to discover and quantify both the extent to which cyberbullying occurs and the factors related to rates of cyberbullying (Li, 2007). The present study will expand on the present literature by addressing this need in the context of both U.S. and Japanese middle school populations. Currently, researchers disagree about whether gender is related to perpetrating, or being a victim of, cyberbullying. Moreover, there is little consensus on how traditional bully/victim paradigms are related to incidents of cyberbullying. Additionally, though age, cell-phone use, and time spent online have been linked to increased incidents of cyberbullying, results are inconclusive. Prevalence rates themselves associated with the different categories of cyberbullying fluctuate from study to study. Through further exploration of all of these factors, researchers can increase their understanding of the fundamental issues underlying cyberbullying, forming a more secure foundation from which to mount further studies.

In regards to the factors related to incidents of cyberbullying addressed in the literature, three related trends have emerged. 1) Gender: it appears gender has little influence on whether someone will be involved in cyberbullying (Smith et. al., 2008; Williams & Guerra, 2007) 2) Age: age and cyberbullying seem to be positively correlated (Smith et. al., 2008). 3) Frequency of CMC use and the increased risk of being cyberbullied: evidence suggests that the use of CMC is

positively correlated with the likelihood of being a victim of cyberbullying (Campbell, 2005; Smith et. al., 2008).

Japan is of particular interest within the context of cyberbullying because of its society's high level of technological know-how paired with the tendency for Japanese individuals to favor CMC methods of communication. In light of Japan's relevance to the issues related to cyberbullying, it is important to have research results available for discussion in English since most of literature on bullying in Japan is not published in English. Comparing schools in the United States to those in Japan may be helpful because it would make clearer the relationship between the use of CMC and rates of cyberbullying occurrence. Researching cyberbullying trends in Japan would provide a window into how the extreme wide-spread use of CMC may further influence children's development.

Research Questions and Hypotheses

This study will address the following questions in the context of U.S. and Japanese middle schools:

Research Question 1: *What are the effects of gender and age on time spent using various CMC modalities.*

Hypothesis 1a*: Japanese girls will spend more time using CMC, and so will American girls. Japanese and American students will also both spend more time using CMC as they get older.*

Research Question 2*: What are the effects of gender and age on involvement in cyberbullying and traditional bullying for Japanese and American students separately?*

Hypothesis 2a: *Japanese girls and boys will not differ in terms of their respective rates of bullying or being bullied, and neither will the Americans. Both Japanese and American students will become more involved as they grow older.*

Research Question 3: *What are the effects of nationality, gender, and age across the entire sample in terms of CMC modalities, cyberbullying, and traditional bullying?*

Hypothesis 3a: *Japanese students will have higher mean rates of CMC use.*

Hypothesis 3b: *Japanese students will have higher rates of cyberbullying than U.S. students, but for traditional bullying they will be equivalent.*

Hypothesis 3c: *Japanese students will have higher mean rates of being cyberbullied than U.S. students, but for traditional bullying they will be equivalent.*

Research Question 4: *Are there nationality effects on the constructs need for affiliation and fear of social rejection across the entire sample?*

Hypothesis 4a: *The Japanese will have a higher need for affiliation.*

Hypothesis 4b*: The Japanese will have a higher fear of social rejection.*

Method

Participants

Data were collected from 449 Japanese children enrolled in an urban middle school. Middle school students in Japan range from 12 to 15 years of age. The school is located in the city of Himeji in the Hyogo Prefecture of Japan. The students are from a variety of SES backgrounds.

Data were also collected from 189 middle school students in the U.S. The students attend a middle school in a public school district in the southwestern United States. Of the students surveyed, 16 individuals were excluded from the Japanese sample and 32 individuals were excluded from the American sample because they had left items blank on the questionnaire. All individuals missing data were eliminated via list-wise deletion. The final sample included 223 male Japanese students, 210 female Japanese students, 82 male American students, and 75 female American students. Of the male Japanese students, approximately 29, 33, 31, and 5 percent were 12, 13, 14, and 15 years old, respectively. Of the female Japanese students approximately 37, 33, 22, and 7 percent were 12, 13, 14, and 15 years old, respectively. Of the male American students, approximately 9, 44, 46, and 1 percent were 12, 13, 14, and 15 years old, respectively, and of the female American students, approximately 20, 42, 34, and 3 percent were 12, 13, 14, and 15 years old, respectively.

It should be noted that while the Japanese sample was relatively homogenous, the American sample was comprised of a demographically diverse student body: approximately 4 percent of the students were Asian, 12 percent

were African American, 45 percent were Hispanic, 1 percent was Alaskan/Native American, and 39 percent were Caucasian. In terms of SES, the 54.2 percent of the students in one school, and 54.76 percent of the other received free and reduced price lunches.

Instruments

The survey was a 90 item questionnaire targeting behaviors that have been identified in the literature as being either cyber or traditional bullying (see Appendix A). All items included in the survey related to both cyber and traditional bullying (except those related to the distribution of digital images via CMC) were adapted from *the Growing Up with Media* survey conduct by Ybarra in 2006, 2007, and 2008. Internal reliability for the dimension pertaining to cyber-harassment (defined in the *Growing Up with Media* scale as items related making mean/rude comments or rumor spreading) was α =.81 indicating a high covariance between items related to cyber-harassment (M. Ybarra, personal communication, October 15, 2009) For sake of brevity, select items were adapted from that scale for the present study. Ybarra gave permission to adapt her items for the questionnaire.

Items 1 -13 are questions that relate to the general rates at which students use CMC, as well as the factors being investigated in terms of their effect on student involvement in bullying and cyberbullying. The factors are *nationality*, *gender*, and *age*. The CMC related questions ask about the amount of time spent talking on a cell phone, texting on a cell phone, browsing the Internet, e-mailing,

chatting, instant messaging, and using personal websites such as Facebook or MySpace.

Items 14 – 75 tap the following specific types of bullying behaviors: Saying mean or rude things, spreading rumors, distributing incriminating images or video clips, group exclusion, and physical bullying. The American schools requested that the items pertaining to physical bullying be removed from the survey, so these were not included in the analysis. There is a version of each item pertaining to perpetrating or being a victim of the given behavior. Each related series of items begins with a prompt describing the behavior. The five questions following the prompt inquire as to whether the behavior has been performed face-to-face or via various electronic media (cell phone text, computer email, chat-room, instant messenger, or on a personal webpage).

Items 76-90 examined the constructs *need for affiliation* and *fear of social rejection*. Items tapping these constructs were adapted from the Sociotropy Autonomy Scale (SAS) developed by Bieling, Beck, and Brown (2000). The items taken from the scale that represented *need for affiliation* and *fear of social rejection* both represented unidimensional scales, had good measures of internal consistency (Conbach's alphas of .90 and .74, respectively.) and also displayed acceptable loadings on their appropriate factors in both Bieling, Beck, and Brown's original study, as well as within the context of Peter and Valkunberg's (2006) exploration of factors relating to preference for using CMC

Items 80, 81, 84, 86, and 89 represented the construct *need for affiliation*. Items 78, 79, 82, 83, 85, 87, and 88 represented the construct *fear of social*

rejection. The original study conducted by Bieling, Beck, and Brown (2000) contained 11 items for *need for affiliation*, and 16 items for *fear of social rejection*. Based on the suggestions by Peter and Valkunberg (2006), only the highest loading items were adapted for the present study.

The questions asked respondents to indicate how frequently they had engaged in a behavior over the past 12 months. With the exception of items that inquired about gender and age, the items were all Likert Scale questions. Responses to items 3 - 75 ranged either from A to E or 1 to 5 and responses to items 76-90 ranged from either A to D or 1 to 4. In America, the survey contained A to E scale, with a response of A indicating the most frequency or agreement and E indicating the least. In Japan, the survey used the 1 to 5 scale, consistent with Likert Scale customs in a Japanese setting. Both surveys included an anchor before questions 3, 14, and 76. The anchor before question 3 pertained to the amount of time spent communicating via various modalities of CMC. The anchor before item 14 defined the degree to which a student had been involved in bullying or cyberbullying (A lot of the time = almost every week, Often = once or twice a month, etc.) The anchor before item 76 described the level of agreement to statements pertaining to the constructs of *need for affiliation* and *fear of social rejection* (strongly agree, agree, disagree, and strongly disagree).

A pilot study was conducted administering an initial version of the survey in Japanese to 7 male native Japanese speakers between the ages of 12-14. These were children attending the Arizona Gakkuen – an international school for Japanese nationals living in the United States. In an effort to establish evidence of

reliability for the Japanese version of the scale, a think-aloud exercise was conducted with each student to ascertain if the individual's interpretation of each survey item was consistent with the original intent. The Japanese students interpreted the survey items in a manner that was consistent with the original intent with the exception of two students who asked the question, "What if I was just joking?" Also, several of the students complained that the survey "appeared too long". Amendments were made to the survey to reflect these results in the think-aloud exercise – consistent with Olweus definition, "intention to hurt" was emphasized in the revised survey, which was also condensed and streamlined in its presentation in order to appear less intimidating.

The original survey, an amended version of the survey, and suggestions that resulted from the think-aloud study were presented to members of a Japanese board of education. The mediators from the Japanese schools constructed and provided a revised survey in Japanese in consultation with the co-investigator. The items regarding the bullying and cyberbullying behaviors both identified in the literature and adapted from the *Growing up with Media* survey remained largely unchanged. The survey is in compliance with Japanese instructional methods. The survey was translated into English and then back translated into Japanese to ensure veracity to the original intention. The new English version of the survey was only slightly modified to remove awkward sentence structure and wording that would become ambiguous in English, although clear in Japanese. This version was then translated into Japanese, and then back translated into English. The final version of survey is equivalent in both languages, contains no

ambiguous wording in either language, and was approved by both the American and Japanese schools.

Procedure

The survey was carried out simultaneously in an American school district and in the Japanese middle schools with the assistance of personnel associated with each respective institution. In the case of the American school district, a doctoral psychologist functioned as a mediator to see to the administration of the survey. In the case of the Japanese middle schools, the Vice-Principal and Principal assumed the mediator roles and oversaw the administration and collection of the survey materials. In all cases the mediator delivered the materials to the co-investigator. The co-investigator had no direct interaction with the children.

The materials for the study were provided to the mediators. The mediators distributed the consent forms to guardians, and the surveys to classroom teachers who administered the surveys to the students. Assent forms were signed by students before participating in the survey. The surveys were completely anonymous – students were specifically instructed to include no personal information.

For the Japanese schools, a letter explaining the study and student rights requesting passive consent was distributed to each student's parents, in compliance with customary Japanese education practices (see Appendix B). The Japanese schools expressly requested this method of informed consent as it is their usual method. The American school district communicated a desire to use

active consent. Active consent was received from 50.04 percent of the students. The method of receiving informed consent complied with how each has specifically requested the study to be performed. In both situations the students were provided with an assent form before participating in the study. In all cases the parents and students were told they could choose not to participate in the study with no negative consequences.

Results

In order to assess the aspects of hypotheses 1 and 2, which examined the effects of gender and age on students' overall time spent using CMC, and the frequency of both students being bullies and being victims for Americans and Japanese groups separately, the researcher conducted nine separate two-way MANOVAS (2 X 4), each targeting a group of related behaviors for the Japanese and American samples. The independent variables were gender and age. The levels for gender were male and female, and the four levels for age were 12 years through 15 years. The first MANOVA examined time spent across all communication behaviors ranging from face-to-face contact to corresponding over personal websites such as Facebook. The subsequent MANOVAS examined both bully and victim versions of direct verbal bullying, rumor spreading behaviors, the distribution of harmful images, and group exclusion behaviors. Follow-up between subjects tests were conducted to examine the main and interaction effects of gender and age on each individual behavior within each cluster. The Holms' method was used to control for type I error.

For hypotheses 3a, b, and c, in order to assess the effects of nationality, gender, and age on the total sample, as well as any potential interactions between those factors, a three-way (2 X 2 X 4) MANOVA was conducted on the groups of behaviors pertaining to time spent communicating via various media, behaviors for direct verbal bullying, rumor spreading bully and victim behaviors, behaviors related to dissemination of harmful images for bullies and victims, and exclusion behaviors for both bullies and victims. The factors were nationality, gender, and

age, and the levels were Japanese and American, male and female, and 12 years through 15 years, respectively.

For Hypotheses 4a and b, a three way MANOVA (2 X 2 X 4) was conducted across the sets of items that represented the constructs *need for affiliation* and *fear of social rejection*. Gender and age were included in the model to control for their effects. A factor analysis was also performed to examine the *a priori* assumption that the items selected to represent the two constructs were structurally consistent with the previous study within which they were used, and consistent within the context of the present study.

Main effects of gender and age within the Japanese sample

Within the Japanese sample the MANOVAs produced statistically significant Wilks' Lambdas for behaviors for both gender and age for time spent communicating via various methods, and for both bully and victim behaviors pertaining to direct verbal bullying. There were also significant gender effects on being a victim of rumor spreading and being a victim of exclusion. There were no gender effects on rumor spreading for either bullies or victims, no age effects on exclusion victims, or gender or age effects on the distribution of harmful images for both bully and victim versions of the associated items. There were significant interactions of gender and age across behaviors indicating time spent communicating, being a victim of direct verbal bullying, being a victim of rumor spreading, and being a victim of rumor spreading. There were none for the distribution of harmful images and exclusion victim behaviors. Effect sizes were

generally small, ranging from .02 to.08. The results for the Wilks' Lambda tests for the Japanese sample are summarized in table12.

Main effects of gender and age within the American sample.

Within the American sample, the MANOVAS produced significant results in terms of the Wilks' Lambda test for the interaction between gender and age for exclusion bullying, $F = 1.88$, $p = .02$. The partial η^2 indicated that about 7 percent of the variance could be accounted for by the interaction. Other tests did not reveal significance within the American sample, though gender effects on exclusion behaviors approached significance, $F = 2.08$, $p = .06$. The effect size for this particular Wilks' was .08 – the lack of significance was likely a power issue. The Wilks' lambda tests for the American sample are summarized in table 13.

Between subject tests examining individual behaviors for Japanese sample.

The between subject tests examining main and interaction effects on each individual behavior for the Japanese students revealed varied results. In the groups of behaviors and interactions that produced statistically significant Wilks' Lambdas, the majority of individual measures of bullying behaviors (for both perpetrator and victim categories) were significant with few exceptions. Both gender and interaction effects produced no significant results for being a victim of direct verbal bullying or exclusion bullying behaviors after using the Holms' method to control for type I error. Also, for gender effects on behaviors pertaining to being an exclusion victim, only face-to-face bullying had a significant result. Age did produce significant results for texting and email in the direct verbal bullying category. Age had no significant results for face-to-face bullying in any

category. None of the interactions within the rumor spreading category for bully and victim behaviors produced significant results after controlling for error. Effect sizes were generally low, and were within a range similar to that of the Wilks' tests. The results of the between subjects tests of the individual behaviors are summarized in tables 15 to 23.

Between subjects tests examining individual behaviors for American sample.

The between subjects tests examining the main and interaction effects for individual behaviors for the American students were generally non-significant with a few exceptions. The effect of gender was significant for exclusion with email, chat, instant messenger, and personal websites. The gender effect on behaviors pertaining to being a victim of exclusion (text, email, chat, and personal websites) approached significance when face-to-face behaviors were included in the model, and became significant when the face-to-face item was eliminated. There were no age effects for the American sample. The Holms' method was used to control for type I error. The results of the between subjects tests of the individual behaviors for the American sample are summarized in tables 24 to 32.

Direction of effect

Pairwise comparisons were conducted on the marginal means for both the Japanese and American samples to determine the direction of the effect of gender and age on time spent communicating and on the incidence of bullying and bully-victim behaviors. Within the Japanese sample, the general trend of the results indicated that female students used CMC more, and communicated with each other more in general. Male students perpetrated more direct verbal bullying both

face-to-face and with CMC, and were also more often victims. The other mean differences were small. Japanese students bullied or were bullied with CMC more as they became older.

The American sample displayed significantly higher marginal means for girls for behaviors pertaining to exclusion other than face-to-face bullying and bullying with texting. There was no significant difference among the different age groups. Type I error was controlled for using the Shaffer method. Among the American students, girls spread more rumors face-to-face. The cell means which display the magnitude and direction of effect are displayed in tables 1 through 11.

Effects of nationality, gender, and age on complete sample

Judging from the Wilks' Lambda tests, there were significant main effects for nationality across all groups except for the effect on being a victim for behaviors pertaining to the dissemination of harmful images. The partial η^2 indicated that 31 percent of the variance across time spent communicating via various media could be accounted for by nationality, and effect sizes ranged from .04 through .10 for the individual bullying and victim behaviors when examined via between subjects tests. There were also significant main effects for gender on time spent communicating, bully behaviors for direct verbal bullying, victim behaviors for rumor spreading, and both bully and victim behaviors for exclusion. The results indicated an effect size of .50 for time spent communicating via various media. There was a main effect of age on time spent communicating via various media with an effect size of .03, and there were also main effects for age on bully behaviors for direct verbal bullying, and on victim behaviors for rumor

spreading, and on both bully and victim behaviors for exclusion. Effect sizes were small, ranging from .02 to .04 with older students being more involved in bullying behavior.

The interactions for nationality and gender, nationality and age, gender and age, and nationality, gender, and age were all assessed via Wilks' Lambda tests. For time spent communicating via various media, every type of interaction was significant with effect sizes ranging from .04 to .06. For bullying behaviors pertaining to direct verbal bullying, nationality and age had a significant interaction effect $F = 1.96$, $p < .01$. The effect size was .02. There was also a significant interaction for nationality and age, and gender and age for rumor spreading bullying behaviors, and there were significant interactions for nationality and age, gender and age, and for nationality, gender, and age for rumor spreading bully-victim behaviors. There was an interaction between nationality and age for the dissemination of harmful images. For exclusion bullying behaviors there were main effects for all types of interactions with effect sizes as high as .06. For exclusion bully-victim behaviors, nationality and gender, and nationality and age also had significant interaction effects.

Between subjects tests for individual behaviors of the complete sample.

Between subjects tests for the individual behaviors across all categories were also conducted as part of the MANOVA examining nationality, gender, and age effects. Nationality had a significant effect on all behaviors pertaining to communication via various media and nearly all cyberbullying behaviors, with effect sizes for time spent using CMC to communicate falling generally between

.10 to .20, and ranging from .04 to .07 for bullying and victim behaviors. After using the Holms' method to control for type I error, all results regarding the effect of nationality were significant except for the following: there were no significant nationality effects for direct verbal bullying or victim behaviors with email or chat. There were also no effects for rumor spreading bullying and bully victim behaviors involving email, and being a victim of the dissemination of harmful images via text or email. There was also no significant effect for any form of face-to-face bullying behaviors.

There were scattered gender and age effects on time spent communicating via various media, as well as the various bully and victim behaviors, though the significant tests revealed small effect sizes. The results of between subjects' tests for nationality, gender and age for the individual behaviors are summarized in tables 33 to 41.

Interaction effects for the various individual behaviors between subjects tests were also assessed. Several interactions were found between nationality and gender, nationality and age, and nationality, gender, and age, though effect sizes were small. Time spent in a chatroom had a marginally higher effect size of .03 though most significance for all other behaviors was eliminated after controlling for type I error. The results of between subjects tests for the interactions are summarized in tables 33 to 41.

Direction of effect.

Pairwise comparisons were conducted on the marginal means to determine the direction of the effect of nationality, gender, and age on time spent

communicating and on the incidence of bullying and bully-victim behaviors. The results indicated that Americans spend twice the time communicating via CMC, and spend the same amount of time talking face-to-face, as do their Japanese counterparts. The female students used CMC more, and the older students used CMC more, though significance tests were inconsistent. Overall, Americans were both bullies and victims more often than were the Japanese for the various bullying behaviors with the exception of face-to-face bullying. Male students perpetrated more direct verbal bullying face-to-face, and were also more often victims. The other mean differences were generally insignificant, though female students, and older students, tended to be more likely to be involved in cyberbullying. The general trend was that older, female, American students were the most involved, and younger male Japanese students were the least involved in cyberbullying. The magnitude and direction of effects are summarized in tables 1 -15, which display the individual cell means.

***Fear of social rejection* and *need for affiliation*.**

MANOVAs were also conducted to test the effect of nationality on the behaviors representing the constructs of fear of social rejection and need for affiliation. The Wilks' Λ test was significant $F = 34.56$, $p < .01$. The model accounted for 30 percent of the total variance. Examination of the individual items found significant differences for all with the exception of the need to be liked and approved, and the tendency to be careful about what one says because they are concerned that someone might disapprove. The effect size for the preference to be physically hurt rather than be socially rejected was particularly

large, accounting for 22 percent of the variance. Pairwise comparisons of the marginal means indicated that the American students had a higher fear of social rejection, answering higher for all items that had significantly different means, other than the item for being uncomfortable when unsure of how to behave in a given situation, in which the Japanese students reported a higher score. The results for the Wilks' Lambdas are summarized in table 24, the between subjects tests for the items are summarized in tables 42 and 43 and cell means displaying the magnitude and direction of effect are summarized in table 11.

The Wilks' Lambda test examining the effect of nationality on the items representing the construct *need for affiliation* was significant, $F = 35$, $p < .01$. The effect size accounted for 23 percent of the total variance. Examination of the items comprising the construct revealed significance for all but the feeling lonely when home by oneself. Effect sizes ranged from .04 to .15. According to the pairwise tests for the differences in the estimated marginal means, the American students gave higher ratings across all significant items in this category.

Factor analysis exploring *need for affiliation* and *fear of social rejection*

An exploratory factor analysis was also conducted to estimate the construct validity of the scale proposed to measure the constructs of *fear of social rejection* and *need for affiliation*. As per the *a priori* hypothesis, 2 factors were initially extracted using Oblimin rotation. For the Japanese sample, approximately 53.87 percent of the variance could be explained by a two factor solution. However, upon examination of the pattern matrix, as well as the Scree Plot, it appears that a one factor solution may have been more appropriate as most of the

items loaded on the first factor. With the exclusion of the items pertaining to whether it is preferable to be physically hurt than to be socially rejected and the need to have social plans for the weekend, every item had high factor loadings on a single factor, ranging up to .85. This is highly indicative of unidimensionality. The Scree Plot for the Japanese sample is contained in figure 1. The factor loadings for the two factor solution are contained in table 45.

For the American sample, the 2 factor solution accounted for approximately 37.38 percent of the variance, and the factors did not load as exactly as predicted. Most of the items loaded at above .4 for the anticipated factor, though even after oblimin rotation, there was considerable cross loading among items. Furthermore, a few items (such as need for social acceptance and weekend plans) loaded on the alternate factor. The Scree Plot indicated that a three factor solution may have been more appropriate. Addition of a third factor accounted for 46.95 percent of the variance. The Scree plot for the American sample is contained in figure 2 and the two a solution for the American sample are contained in table 46.

There was a numbering error following number 58 on the American version of the survey. The six items that followed item 58 were mislabeled; they were mistakenly also numbered 53 - 58. All following items were labeled correctly, treating the second 58 as the proper 58. Over half of the students skipped the second set of 53 – 58, and continued with the item labeled 59 until they had completed the item labeled 84, the final numbered item on the survey itself. A number of the students responded to all 90 items. In the original survey,

items pertaining to students threatening each other that they would withhold friendship if one did not obey the other were included to assess another dimension of relational bullying. These items, which followed the error, were eliminated from the analysis. For the items pertaining to the two constructs *need for affiliation* and *fear of social rejection*, one way ANOVAS were conducted across the two groups of American students (those who responded to 84 or 90 items) to assess whether or not the difference in answering patterns impacted responses to the construct related items. The majority of these items when examined in this way yielded miniscule *F* statistics and non-significance, suggesting that answering was consistent across groups. There were, however, a handful of significant items – whether this can be attributable to within group variance or whether it is actually indicative of a second answering pattern remains unclear. The ANOVA results are summarized in table 42. We must be cautious when interpreting the data that follows the first set of 53-58.

Discussion

Gender and Age Effects on Cyberbullying among Japanese and American Students

Past research has suggested that there are, in fact, no gender differences among perpetrators of cyberbullying, and that there is an increase in cyberbullying behaviors as children grow older (Campbell, 2003; Patchin & Hinduja, 2006). This has been attributed to the students' increased access to, and skill in using, CMC applications. For the American sample, the present study provides evidence in support of the claim that there is little difference in the cyberbullying behavior in terms of gender. However, for the American children, age had little effect on the incidence of cyberbullying. The students seemed to have equal involvement as bullies and victims across all age groups.

An exception was that there was a difference in behavior for boys and girls in terms of exclusion behaviors. Girls excluded, and were excluded, more frequently. Past research has implied that boys more frequently engage in direct bullying behaviors, while girls more frequently engage in social manipulations (Kowalski & Limber, 2007). This would include both rumor spreading and exclusion. While girls did not spread rumors significantly more frequently than boys (another form of indirect bullying), they did exclude more, which would be consistent with that hypothesis.

This partially supports the conclusion drawn by Smith et. al. (2008) – though it was their initial hypothesis that girls would cyberbully more, they found that cyberbullying behaviors may run analogous to traditional bullying behaviors.

That is, boys tend to use direct modes of aggression such as verbal abuse via texting, while girls use CMC to perform social manipulations. Williams & Guerra (2007) also concluded that male and female behavior in regards to cyberbullying may be analogous to traditional bullying in that boys tend to use CMC in order to be directly aggressive while girls may use CMC to manipulate relationships which includes exclusion bullying.

The Japanese students behaved differently than did the Americans. There were small but significant gender differences, indicating that boys engage in direct verbal bullying behaviors more than girls among Japanese students. This too, supports the conclusion drawn by Smith et. al. (2008) - boys, whether in the physical world or in the cyber-world, will be more likely to engage in direct verbal bullying.

The female students used CMC more frequently and more as they grew older, as indicated by the interaction between gender and age for the items pertaining to time spent communicating. It is interesting that there were no age differences in CMC use nor in terms of instances of cyberbullying for Americans, though there were for the Japanese sample. It follows logically that Japanese cyberbullying increases with age as the Japanese students increase their use of CMC. It is possible that Americans become inundated with CMC at an earlier age; by the time they reach middle school, they have full access to, and have become fully acquainted with, all CMC applications. It is likely that the Japanese on the other hand, have not fully become indoctrinated in the CMC rich culture as have the Americans, but increase their technological savvy as they grow older.

However, it is also possible that the lack of age effects within the American sample may simply be because of the small number of older participants. There may be a need for another study to examine when youth begin receiving expanded access to CMC.

Nationality effects on Cyberbullying

In terms of actual instances of cyberbullying, the American students were more involved as both bullies and victims across nearly every kind of CMC related bullying. Effect sizes were high enough to indicate the difference to be more than trivial – it is clear from the evidence provided by the present study that the American children were involved in cyberbullying with significantly more frequency than their Japanese counterparts.

Effect sizes were highest for the tests that measured the differences in time spent using CMC for the Japanese and American students. Mean differences indicate that for the sample in the present study, American students use CMC twice as frequently. It is not surprising that consequently they are more involved in actual bullying via CMC modalities. This is consistent with several studies connecting an increase in CMC use with increased student involvement in cyberbullying – among the early forays into investigating cyberbullying prevalence, nearly every study made this connection (Agaston et. al., 2008; Hinduja & Patchin, 2006; Smith et. al., 2008).

There may be a temptation to hypothesize that Japanese students simply respond to survey items more conservatively, and as a result, appear to bully less. However, there were no significant differences between Japanese and American

students for face-to-face bullying, with the exception of the items pertaining to direct verbal bullying. The fact that there are minimal differences between Japanese and American students in terms of face-to-face bullying is one of the most important finding of the present study. This brings into sharp contrast the difference in CMC bullying behaviors; outside of CMC, American and Japanese students bully the same. It is only via CMC that the difference emerges. Ruiz and Tanaka (2001) surmised that despite claims to the contrary, the prevalence of traditional bullying within the Japanese schools was consistent with that of other nations (i.e., America). This study produced quantitative evidence supporting this assertion. Naito and Gielen (2005) also discussed how the Japanese may have a misconception that bullying in Japan is especially severe because they have relatively less other school problems, and that actually the prevalence of bullying in Japan may be consistent with that in the west.

The present study referenced the fact that there is no difference in CMC use among age groups for American students, but there is an increase in CMC use in Japan as the children grow older. It is possible that the gap between cyberbullying among Japanese and American students will grow smaller as the Japanese become older and increase their access to CMC. There could be some sort of threshold – once a student crosses this threshold their mastery of CMC increases exponentially, and consequently their involvement in the misuse of CMC. It is possible that American students simply reach this threshold before entering middle school, while the Japanese students are progressively heading toward this threshold throughout middle school, crossing it at some point in high

school. This could be determined by conducting a similar survey to the one discussed here among high school students in both America and Japan. It would be telling if the Japanese caught up to the Americans in their CMC use post middle school and, as a result, also cyberbullied commensurately.

Fear of Social Rejection and *Need for Affiliation*

The Japanese students also rated the items associated with the constructs of *fear of social rejection* and *need for affiliation* significantly less highly than did the Americans. This is contrary to the *a priori* hypothesis that Japanese students who live in a collectivist society would be more likely to rate these items higher. It is possible that because they live in a collectivist culture, there is simply less rejection happening, while in America, students witness social ostracization more frequently. While the impact on an individual student in Japan may be felt more acutely, because Japanese students are less inclined to feel threatened by the possibility of being socially ostracized, perhaps they fear it less. This is particularly apparent on the item "it is better to be physically harmed than socially rejected". Americans agreed with this twice as strongly as did the Japanese.

The same could be said for the items that pertained to the construct *need for affiliation*. The Japanese, being from a collectivist society, may already feel affiliated – essentially, their need is satiated naturally from their culture. The Americans, who live in an individualist society, do not have a sense of satiation for their *need for affiliation*, and, as a result, tend to agree more strongly with these items.

Regardless of the reasoning behind the Japanese and American patterns of answering these items, judging from the results of the factor analysis, it is highly questionable whether these items accurately represent the constructs they are reported to do. The factor structure for the two populations is clearly different – nearly all of these items appear to load on a single factor for the Japanese students. This suggests a clear unidimensionality for the Japanese conceptualization of both *need for affiliation* and *fear of social rejection* – this unidimensionality suggests that these two constructs are closely linked for Japanese people. The structure for the American students is entirely different – judging from the EFA, a *three* factor solution may have been the most appropriate. The items generally loaded on the appropriate factors with loadings consistent with Bieling, Beck, and Brown's (2000) research on the constructs. Note that in that study, too, the two factor solution accounted for around 36 percent of the variance and there was some question of whether a three factor solution may have been more appropriate. Also, though the factors loaded appropriately in general, there were significant cross loading, particularly for the items pertaining to *fear of social rejection*. Considering these cross loadings, and considering that the Japanese appeared to be unidimensional regarding their patterns of item response, caution must be used when making inferences based on these results. Further research will be necessary moving forward with this portion of the scale.

Conclusion and Direction for Future Research

Discovering the reasons that Japanese middle school students cyberbully significantly less than do Americans is a direction for possible future research. While Japan, as a society, may be commensurate with, or even surpass Americans, in terms of their development of CMC related technologies, the average Japanese student clearly has very different behavior patterns regarding this when compared to American students. This is likely due to a number of factors: school policies regarding cell phones, access to personal computers, and the structure of a student's daily routine. Some schools in Japan, including the present school, have strict policies in place restricting the use of cell phones while on school property. The use of cell phones in the classroom is strictly prohibited (T. Iizuka, personal communication, March 9, 2011). In the American schools surveyed in the present study, cell phone use is also discouraged but there is not a district policy regarding cell phones, and ultimately how to enforce prohibition of cell phone use is left to individual teacher discretion (N. Stafford, personal communication, April 11). The number of personal computers in Japanese homes may be less than that of Americans, and Japanese students' access to private use of computers may be more restricted (T. Iizuka, personal communication, March 9, 2011). For example, fewer Japanese students may have personal computers in their own rooms. If the Japanese students have computers in common rooms within their houses, they may be better monitored by their parents and also feel more inhibited about performing inappropriate online behaviors.

The Japanese students also often participate in *bukatsu* – structured, after school, extracurricular activity clubs run by the school that include team sports, orchestra, band, or art (Hilton, Anngela-Cole, & Wakita, 2010). While American students also have such activities included in their schedule, there may be a higher percentage of Japanese students involved in these clubs, as there is cultural pressure on them to actively participate in these activities. As discussed earlier *bukatsu* clubs meet on a daily basis before and after school – the Japanese school day usually runs from 8:00 AM to 3:00 PM (Prewitt, 1988), though participation in the clubs may have students arriving as early as 6 and returning home much later in the afternoon that do Americans. This leaves much less time for using CMC.

Furthermore, it's possible that a higher percentage of Japanese students, when they are home, are not left unattended. The structure of the Japanese family may lend itself to better supervision by adults and afford less opportunities to use CMC in general, and the inappropriate use of CMC in particular (T. Iizuka, personal communication, March 9, 2011).

A final difference between the American students and the Japanese students may be related to what is known in Japan as *doutoku kyouiku* - moral education. While Japanese moral education doesn't specifically address cyberbullying *per se*, it addresses respect for others in general. Japanese students engage in federally mandated moral education, though no such program was in place within the American school district included in the present study (N. Stafford, personal communication, April 11, 2011).

The present study provides evidence that indicates that Americans use CMC more, and are involved in cyberbullying more. What it has not addressed are the school policies in place in regards to CMC, non-CMC related behaviors that constitute each student's day, the student's access to CMC in both private and public places, and both parents' and school personnel's attitudes toward the students' use of CMC. Further investigation of these factors may serve to illuminate how Americans may better construct a relatively cyberbully-free environment for their children through the examination of Japanese school practices. It seems relatively clear that in terms of non-CMC related bullying, regardless of culture, Japanese and American students bully equally. It is specifically in regards to the cyber component that the samples differed. Therefore, American school may be able to adopt a specific policy change currently employed by the Japanese in an effort to decrease the misuse of CMC.

Tables and Figures

Table 1

Mean and Standard Deviation for Cell Means: Time Spent Via Various Methods of Communication

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Face-to-Face									
	12 years	3.00	1.20	2.97	1.09	4.00	1.41	3.60	1.18
	13 years	2.80	1.11	3.21	1.23	3.89	1.30	3.97	1.28
	14 years	3.18	1.16	3.91	1.15	4.08	0.00	4.46	0.99
	15 years	3.08	0.86	4.50	0.76	5.00	1.24	4.00	1.41
Talking on a cell phone									
	12 years	1.15	0.44	1.34	0.50	2.86	1.22	2.27	1.10
	13 years	1.19	0.57	1.41	0.52	2.25	1.18	2.97	1.38
	14 years	1.21	0.58	1.41	0.69	2.32	1.14	3.27	1.22
	15 years	1.23	0.44	1.36	0.50	3.00	0.00	4.50	0.71
Sending Text Messages									
	12 years	1.17	0.65	1.56	0.80	4.14	0.90	3.27	1.75
	13 years	1.41	0.94	2.14	1.12	3.17	1.67	3.62	1.76
	14 years	1.51	1.07	2.09	1.21	3.29	1.58	4.15	1.29
	15 years	2.10	1.61	1.64	0.84	5.00	0.00	5.00	0.00
Browsing the Internet									
	12 years	2.12	0.94	2.04	0.94	4.14	0.69	3.13	1.41
	13 years	2.38	1.19	2.32	1.05	3.31	1.04	3.41	1.32
	14 years	2.72	1.16	2.74	1.44	2.95	1.11	3.50	1.39
	15 years	2.69	1.25	2.79	1.37	3.00	0.00	3.50	2.12
Using Computer Email									
	12 years	1.05	0.21	1.16	0.47	1.71	1.50	2.13	1.60
	13 years	1.26	0.70	1.17	0.41	1.97	1.08	2.63	1.36
	14 years	1.35	0.74	1.59	0.88	1.76	0.97	2.31	1.05
	15 years	1.69	1.12	1.21	0.43	1.00	0.00	3.50	2.12
Using a Chatroom									
	12 years	1.11	0.44	1.06	0.25	1.43	0.54	1.40	0.63
	13 years	1.20	0.52	1.13	0.48	1.42	0.81	2.19	1.45
	14 years	1.35	0.93	1.28	0.62	1.37	0.97	1.15	0.61
	15 years	1.00	0.00	1.29	1.07	1.00	0.00	3.50	0.71
Instant Messenger									
	12 years	1.06	0.39	1.00	0.00	2.14	1.07	1.40	0.63
	13 years	1.03	0.23	1.03	0.24	2.03	1.42	2.13	1.36
	14 years	1.13	0.61	1.07	0.33	1.92	1.44	2.31	0.84
	15 years	1.31	0.86	1.00	0.00	2.00	0.00	2.50	0.71
Personal Websites									
	12 years	1.08	0.41	1.08	0.35	3.43	1.51	2.40	1.35
	13 years	1.04	0.20	1.04	0.20	2.19	1.37	2.91	1.63
	14 years	1.08	0.33	1.30	0.63	2.37	1.40	3.00	1.52
	15 years	1.23	0.60	1.43	0.76	3.00	0.00	3.50	2.12

Table 2

Mean and Standard Deviation for Cell Means: Direct Verbal

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Face to Face									
	12 years	2.62	1.04	2.05	0.71	3.43	0.98	2.67	1.29
	13 years	2.57	1.05	2.25	0.81	3.00	1.12	2.66	1.34
	14 years	2.83	1.20	2.37	0.85	2.61	1.13	2.46	1.36
	15 years	3.00	0.91	2.57	1.28	5.00	0.00	4.00	1.41
By Cell Phone Text									
	12 years	1.08	0.41	1.14	0.38	2.14	1.46	1.93	1.28
	13 years	1.11	0.54	1.28	0.57	1.86	1.15	2.03	1.36
	14 years	1.32	0.88	1.50	0.94	1.66	0.85	2.08	1.26
	15 years	1.38	0.87	1.21	0.43	2.00	0.00	3.50	0.71
By Computer Email									
	12 years	1.05	0.21	1.03	0.16	1.57	0.98	1.53	1.06
	13 years	1.05	0.23	1.00	0.00	1.31	0.82	1.81	1.40
	14 years	1.17	0.61	1.09	0.36	1.24	0.59	1.65	1.06
	15 years	1.38	1.12	1.07	0.27	2.00	0.00	3.00	0.00
In a Chat Room									
	12 years	1.05	0.28	1.03	0.16	1.71	1.25	1.20	0.41
	13 years	1.16	0.60	1.04	0.20	1.31	0.82	1.56	1.22
	14 years	1.21	0.79	1.11	0.38	1.21	0.53	1.35	0.85
	15 years	1.31	1.11	1.00	0.00	2.00	0.00	3.00	0.00
On Instant Messenger									
	12 years	1.02	0.12	1.00	0.00	1.43	0.79	1.27	0.46
	13 years	1.01	0.12	1.01	0.12	1.33	0.83	1.69	1.33
	14 years	1.07	0.49	1.00	0.00	1.34	0.78	1.54	0.86
	15 years	1.31	1.11	1.00	0.00	2.00	0.00	3.00	0.00
On Personal Websites									
	12 years	1.06	0.39	1.03	0.16	2.29	1.70	1.67	0.98
	13 years	1.03	0.23	1.00	0.00	1.47	1.03	2.00	1.48
	14 years	1.07	0.49	1.11	0.38	1.47	0.89	1.88	1.42
	15 years	1.15	0.56	1.21	0.58	2.00	0.00	2.50	0.71

Table 3

Means and Standard Deviation of Cell Means: Direct Verbal Victims

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Face to Face									
	12 years	2.57	1.16	2.32	1.15	3.14	1.35	2.27	1.03
	13 years	2.64	1.03	2.23	0.87	3.03	1.34	2.72	1.25
	14 years	2.58	1.04	2.30	0.94	2.82	1.36	2.46	1.17
	15 years	2.77	1.24	2.79	0.89	1.00	0.00	2.00	0.00
By Cell Phone Text									
	12 years	1.02	0.12	1.06	0.25	1.57	0.79	1.67	1.05
	13 years	1.04	0.26	1.18	0.48	1.67	1.04	1.81	1.26
	14 years	1.17	0.63	1.33	0.67	1.63	0.94	2.15	1.26
	15 years	1.38	1.12	1.21	0.58	1.00	0.00	1.50	0.71
By Computer Email									
	12 years	1.00	0.00	1.01	0.11	1.00	0.00	1.13	.52
	13 years	1.04	0.26	1.00	0.00	1.53	0.97	1.44	1.11
	14 years	1.15	0.71	1.07	0.25	1.16	0.44	1.58	0.95
	15 years	1.38	1.12	1.00	0.00	1.00	0.00	1.50	0.71
In a Chat Room									
	12 years	1.03	0.25	1.05	0.27	1.00	0.00	1.00	0.00
	13 years	1.15	0.52	1.03	0.24	1.31	0.79	1.56	1.08
	14 years	1.21	0.81	1.02	0.15	1.21	0.53	1.38	0.90
	15 years	1.31	1.11	1.07	0.27	1.00	0.00	2.00	1.41
On Instant Messenger									
	12 years	1.00	0.00	1.01	0.11	1.14	0.38	1.00	0.00
	13 years	1.04	0.26	1.00	0.00	1.47	1.00	1.41	1.01
	14 years	1.08	0.53	1.00	0.00	1.29	0.77	1.46	0.76
	15 years	1.23	0.83	1.00	0.00	1.00	0.00	1.50	0.71
On Personal Websites									
	12 years	1.02	0.12	1.04	2.50	1.43	1.13	1.40	0.63
	13 years	1.04	0.26	1.00	0.00	1.56	1.16	1.72	1.28
	14 years	1.07	0.49	1.09	0.35	1.50	0.92	2.00	1.27
	15 years	1.23	0.83	1.07	0.27	1.00	0.00	2.00	0.00

Table 4

Means and Standard Deviation of Cell Means: Rumor Spreading

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Face to Face									
	12 years	2.14	1.13	1.95	0.89	1.43	0.79	1.93	0.88
	13 years	2.08	1.00	2.04	0.73	1.83	1.06	2.38	1.29
	14 years	2.13	1.08	2.13	1.02	1.79	1.08	1.96	1.15
	15 years	1.69	0.86	1.93	0.83	1.00	0.00	3.50	0.71
By Cell Phone Text									
	12 years	1.02	0.12	1.13	0.46	1.71	0.95	1.73	0.88
	13 years	1.14	0.60	1.32	0.65	1.69	1.04	1.97	1.33
	14 years	1.27	0.77	1.52	0.89	1.50	0.98	1.85	1.32
	15 years	1.15	0.56	1.07	0.27	1.00	0.00	3.00	0.00
By Computer Email									
	12 years	1.03	0.17	1.04	0.25	1.14	0.38	1.20	0.56
	13 years	1.09	0.41	1.00	0.00	1.31	0.79	1.53	1.14
	14 years	1.17	0.61	1.30	0.87	1.05	0.23	1.38	0.85
	15 years	1.23	0.60	1.14	0.54	1.00	0.00	2.00	1.14
In a Chat Room									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.07	0.26
	13 years	1.09	0.34	1.00	0.00	1.25	0.73	1.59	1.16
	14 years	1.24	0.82	1.00	0.00	1.05	0.23	1.15	0.61
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	2.00	1.41
On Instant Messenger									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.33	0.72
	13 years	1.01	0.12	1.00	0.00	1.47	0.83	1.63	1.21
	14 years	1.14	0.68	1.00	0.00	1.11	0.54	1.46	0.95
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	1.50	0.71
On Personal Websites									
	12 years	1.02	0.12	1.00	0.00	1.29	0.49	1.40	0.63
	13 years	1.03	0.16	1.00	0.00	1.36	0.80	1.72	1.35
	14 years	1.11	0.60	1.00	0.00	1.32	0.84	1.85	1.46
	15 years	1.00	0.00	1.07	0.27	1.00	0.00	1.50	0.71

Table 5

Means and Standard Deviation of Cell Means: Rumor Spreading Victim

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Face to Face									
	12 years	1.78	0.98	1.92	1.04	1.43	0.79	1.80	1.01
	13 years	1.86	0.85	1.99	0.80	1.92	1.05	2.00	1.32
	14 years	1.92	0.97	2.09	1.01	1.76	0.97	2.23	0.99
	15 years	1.62	0.77	2.14	1.03	1.00	0.00	2.50	0.71
By Cell Phone Text									
	12 years	1.02	0.12	1.03	.16	1.43	0.79	1.13	.35
	13 years	1.04	0.26	1.15	.36	1.72	0.94	1.91	1.45
	14 years	1.17	0.63	1.41	.83	1.55	0.95	2.19	1.23
	15 years	1.23	0.60	1.50	.86	1.00	0.00	1.50	0.71
By Computer Email									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.07	0.26
	13 years	1.04	0.26	1.01	0.12	1.28	0.85	1.41	1.10
	14 years	1.10	0.54	1.24	0.74	1.18	0.56	1.54	1.03
	15 years	1.23	0.60	1.14	0.54	1.00	0.00	1.50	0.71
In a Chat Room									
	12 years	1.00	0.00	1.00	0.00	1.14	0.38	1.00	0.00
	13 years	1.11	0.46	1.00	0.00	1.47	0.94	1.56	1.27
	14 years	1.08	0.50	1.00	0.00	1.08	0.27	1.31	0.84
	15 years	1.08	0.28	1.00	0.00	1.00	0.00	2.00	1.41
On Instant Messenger									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
	13 years	1.03	0.16	1.00	0.00	1.36	0.80	1.44	1.11
	14 years	1.08	0.53	1.00	0.00	1.13	0.34	1.69	1.09
	15 years	1.15	0.56	1.00	0.00	1.00	0.00	2.50	2.12
On Personal Websites									
	12 years	1.00	0.00	1.00	0.00	1.57	0.79	1.13	0.35
	13 years	1.04	0.20	1.00	0.00	1.44	0.97	1.81	1.33
	14 years	1.10	0.59	1.02	0.15	1.29	0.61	2.04	1.31
	15 years	1.15	0.56	1.07	0.27	1.00	0.00	2.00	0.00

Table 6

Means and Standard Deviation of Cell Means: Dissemination of Harmful Images

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
By Cell Phone Text									
	12 years	1.00	0.00	1.00	0.00	1.43	0.79	2.40	1.30
	13 years	1.14	0.58	1.01	0.12	1.44	0.91	1.94	1.37
	14 years	1.20	0.82	1.02	0.15	1.63	1.10	1.81	1.27
	15 years	1.15	0.59	1.07	0.27	2.00	0.00	1.00	0.00
By Computer Email									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.33	1.05
	13 years	1.01	0.12	1.00	0.00	1.28	0.70	1.50	1.16
	14 years	1.13	0.61	1.02	0.15	1.26	0.76	1.38	0.90
	15 years	1.15	0.56	1.00	0.00	2.00	0.00	1.00	0.00
In a Chatroom									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.13	0.52
	13 years	1.00	0.12	1.00	0.00	1.19	0.58	1.44	1.05
	14 years	1.02	0.54	1.02	0.15	1.13	0.53	1.12	0.43
	15 years	1.00	0.00	1.00	0.00	3.00	0.00	1.00	0.00
On Instant Messenger									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.07	0.26
	13 years	1.00	0.00	1.00	0.00	1.25	0.65	1.47	1.05
	14 years	1.08	0.50	1.02	0.15	1.13	0.53	1.23	0.59
	15 years	1.00	0.00	1.07	0.27	2.00	0.00	1.00	0.00
On a Personal Website									
	12 years	1.00	0.00	1.00	0.00	1.43	1.13	1.47	0.74
	13 years	1.01	0.12	1.00	0.00	1.19	0.62	1.56	1.22
	14 years	1.07	0.49	1.02	0.15	1.39	0.79	1.50	0.95
	15 years	1.00	0.00	1.07	0.27	2.00	0.00	1.00	0.00

Table 7

Means and Standard Deviation of Cell Means: Dissemination of Harmful Images Victims

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
By Cell Phone Text									
	12 years	1.00	0.00	1.01	0.11	1.00	0.00	1.20	0.41
	13 years	1.07	0.30	1.03	0.17	1.19	0.62	1.41	0.95
	14 years	1.11	0.67	1.11	0.43	1.18	0.61	1.31	0.74
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
By Computer Email									
	12 years	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
	13 years	1.00	0.00	1.00	0.00	1.17	0.61	1.25	0.80
	14 years	1.06	0.48	1.00	0.00	1.11	0.39	1.15	0.61
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00

Table 8

Means and Standard Deviation of Cell Means: Exclusion

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Face to Face									
	12 years	1.82	.92	1.86	0.80	2.14	1.57	1.93	0.96
	13 years	1.93	.94	1.92	0.75	2.25	1.34	2.34	1.34
	14 years	1.92	1.09	1.76	0.82	2.34	1.15	1.88	0.82
	15 years	1.69	086	2.14	0.66	1.00	0.00	2.00	0.00
By Cell Phone Text									
	12 years	1.00	0.00	1.01	0.11	1.57	1.13	1.40	0.74
	13 years	1.05	0.37	1.18	0.49	1.25	0.73	1.69	1.23
	14 years	1.17	0.70	1.26	0.77	1.29	0.70	1.58	0.95
	15 years	1.08	0.28	1.07	0.27	1.00	0.00	2.00	0.00
By Computer Email									
	12 years	1.00	0.00	1.01	0.11	1.00	0.00	1.07	0.26
	13 years	1.08	0.40	1.00	0.00	1.22	0.76	1.47	1.19
	14 years	1.15	0.69	1.17	0.74	1.05	0.32	1.27	0.67
	15 years	1.08	0.28	1.00	0.00	1.00	0.00	2.50	0.71
In a Chat Room									
	12 years	1.00	0.00	1.01	0.11	1.43	1.13	1.07	0.26
	13 years	1.12	0.47	1.00	0.00	1.19	0.71	1.66	1.26
	14 years	1.25	0.89	1.00	0.00	1.03	0.16	1.19	0.63
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	3.50	2.12
On Instant Messenger									
	12 years	1.00	0.00	1.13	0.11	1.00	0.00	1.80	1.66
	13 years	1.04	0.20	1.00	0.00	1.17	0.61	1.50	1.19
	14 years	1.14	0.68	1.00	0.00	1.05	0.23	1.27	0.67
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	3.50	2.12
On Personal Websites									
	12 years	1.00	0.00	1.01	0.11	1.14	0.38	1.73	1.44
	13 years	1.03	0.16	1.00	0.00	1.39	0.86	1.56	1.19
	14 years	1.13	0.68	1.00	0.00	1.21	0.62	1.54	0.91
	15 years	1.00	0.00	1.07	0.27	1.00	0.00	3.50	2.12

Table 9

Means and Standard Deviation of Cell Means: Exclusion Victim

		Japanese				American			
		Male		Female		Male		Female	
Method	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Face to Face									
	12 years	1.49	0.73	1.87	1.08	1.43	0.54	1.73	0.96
	13 years	1.51	0.73	1.76	0.87	2.00	0.99	2.25	1.32
	14 years	1.58	0.87	1.65	0.88	2.03	1.20	2.31	1.29
	15 years	1.31	0.63	1.79	0.80	1.00	0.00	2.50	0.71
By Cell Phone Text									
	12 years	1.00	0.00	1.03	0.16	1.00	0.00	1.40	0.74
	13 years	1.04	0.20	1.07	0.35	1.39	0.80	1.81	1.42
	14 years	1.10	0.51	1.13	0.45	1.24	0.59	1.38	0.64
	15 years	1.08	0.28	1.14	0.54	1.00	0.00	3.00	0.00
By Computer Email									
	12 years	1.00	0.00	1.01	0.11	1.00	0.00	1.13	0.35
	13 years	1.04	0.20	1.00	0.00	1.14	0.54	1.44	1.19
	14 years	1.08	0.50	1.04	0.30	1.05	0.23	1.27	0.67
	15 years	1.08	0.28	1.00	0.00	1.00	0.00	2.50	0.71
In a Chat Room									
	12 years	1.00	0.00	1.01	0.11	1.00	0.00	1.07	0.26
	13 years	1.07	0.25	1.00	0.00	1.28	0.78	1.72	1.40
	14 years	1.15	0.69	1.00	0.00	1.03	0.16	1.15	0.46
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00
On Instant Messenger									
	12 years	1.00	0.00	1.01	0.11	1.00	0.00	1.00	0.00
	13 years	1.04	0.20	1.00	0.00	1.28	0.66	1.47	1.27
	14 years	1.07	0.49	1.00	0.00	1.08	0.36	1.31	0.74
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	2.50	0.71
On Personal Websites									
	12 years	1.00	0.00	1.01	0.11	1.00	0.00	1.27	.59
	13 years	1.03	0.16	1.00	0.00	1.31	0.71	1.84	1.35
	14 years	1.07	0.49	1.02	0.15	1.18	0.61	1.46	0.91
	15 years	1.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00

Table 10

Mean and Standard Deviation for Cell Means: Fear of Social Rejection

		Japanese				American			
		Male		Female		Male		Female	
Item	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
"Liked and Approved"									
	12 years	2.47	1.16	2.81	.99	3.14	1.22	3.21	1.05
	13 years	1.93	1.04	2.76	.87	2.65	1.15	2.59	1.32
	14 years	2.35	1.06	2.64	.87	2.36	.96	2.31	1.05
	15 years	2.75	1.06	3.14	.77	3.00	.00	3.00	1.41
"Social/Physical"									
	12 years	1.39	.71	1.42	.72	2.57	1.40	2.00	1.11
	13 years	1.33	.73	1.48	.71	2.50	1.14	2.53	1.24
	14 years	1.38	.67	1.41	.58	2.44	1.05	2.27	1.08
	15 years	1.42	.79	1.79	.89	3.00	0.00	3.00	1.41
"Uneasy/Likes"									
	12 years	1.69	.89	2.45	.85	2.43	1.27	3.14	1.17
	13 years	1.86	1.07	2.54	.92	2.35	1.01	2.75	1.11
	14 years	2.14	1.07	2.77	1.03	2.47	.91	2.85	.88
	15 years	2.17	.94	2.57	.76	3.00	.00	3.50	.71
"Sure/Behave"									
	12 years	2.66	1.02	3.23	.77	1.86	.38	3.07	1.44
	13 years	2.10	1.04	2.59	.86	2.35	.92	2.50	1.05
	14 years	2.38	1.06	2.98	.82	2.14	.87	2.54	1.10
	15 years	2.25	1.06	2.93	.92	1.00	.00	3.00	.00
"Uncomfortable"									
	12 years	1.94	1.10	2.42	1.09	2.29	.95	3.21	.89
	13 years	1.63	.99	2.07	1.10	2.53	.83	2.66	1.21
	14 years	1.52	.93	2.14	1.15	2.50	1.13	2.58	1.07
	15 years	1.75	.97	1.79	.89	1.00	0.00	3.00	1.41
"Careful"									
	12 years	2.63	1.04	3.16	.83	3.00	1.29	2.50	1.09
	13 years	2.08	1.18	2.86	.96	2.32	.95	2.84	1.05
	14 years	2.47	1.11	2.95	.99	2.56	1.00	2.38	1.27
	15 years	2.08	1.08	2.79	1.05	1.00	.00	2.00	1.41
"Look for Signs"									
	12 years	1.97	1.02	2.76	.98	2.43	.98	2.57	1.45
	13 years	1.81	1.07	2.44	1.07	2.74	.90	2.69	1.03
	14 years	1.89	1.03	2.52	1.05	2.50	1.13	2.73	1.08
	15 years	1.92	.90	2.43	.94	1.00	.00	2.50	.71

Table 11

Mean and Standard Deviation for Cell Means: Need for Affiliation

		Japanese				American			
		Male		Female		Male		Female	
Item	Age	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
"Separated"									
	12 years	2.57	1.22	3.11	.95	3.14	1.07	3.50	1.09
	13 years	2.05	1.15	3.04	.99	3.18	.80	3.34	.83
	14 years	2.34	1.15	3.16	.93	3.14	.73	3.17	1.20
	15 years	2.54	1.27	3.14	1.10	3.00	.00	2.50	.71
"Friends and Family"									
	12 years	1.71	.84	2.58	1.03	2.43	1.13	3.29	.83
	13 years	1.75	1.02	2.49	.92	3.35	.73	3.28	.73
	14 years	1.90	1.01	2.73	1.03	2.91	.85	3.17	1.05
	15 years	2.08	1.04	2.79	.80	3.00	.00	3.00	1.41
"By Myself"									
	12 years	1.98	1.07	2.38	1.00	2.00	1.53	2.64	1.50
	13 years	1.82	1.06	2.43	1.04	2.18	1.17	2.47	1.02
	14 years	2.10	1.12	2.51	1.04	2.14	1.03	2.21	1.14
	15 years	2.00	1.08	2.43	.76	1.00	.00	3.50	.71
"Close Bonds"									
	12 years	1.83	.84	2.52	.83	2.71	.95	3.64	.84
	13 years	1.75	.98	2.45	.96	2.79	.91	3.22	.91
	14 years	1.93	1.00	2.47	.97	2.83	.82	3.08	1.14
	15 years	2.23	1.09	2.57	.85	3.00	.00	2.50	.71
"Social Plans"									
	12 years	1.46	.73	1.68	.84	2.71	1.38	2.79	1.48
	13 years	1.53	.94	1.62	.77	1.82	.80	2.12	1.07
	14 years	1.43	.70	1.62	.78	2.09	.85	2.21	1.22
	15 years	2.00	1.08	1.43	.65	1.00	.00	3.00	1.41

Table 12

Japanese Children Only: Wilks' Lambdas

Fixed Factor	F	Partial η2	P
Time spent using CMC			
Gender (G)	5.81*	.10	p <. 01
Age (A)	3.72*	.07	p <. 01
G X A	2.21*	.04	p <. 01
Direct Verbal Bullying			
Gender (G)	5.82*	.08	p < .01
Age (A)	2.01*	.03	p < .01
G X A	1.27	.02	p = .20
Direct Verbal Victimization			
Gender (G)	5.03*	.07	p < .01
Age (A)	2.17*	.03	p < .01
G X A	1.51*	.02	p = .08
Rumor Spreading			
Gender (G)	1.32	.02	p = .25
Age (A)	2.36*	.03	p < .01
G X A	1.66*	.02	p = .04
Rumor Spreading Victimization			
Gender (G)	5.19*	.07	p < .01
Age (A)	2.30*	.03	p < .01
G X A	1.85*	.03	p = .02
Harmful Image Distribution			
Gender (G)	2.36*	.03	p = .04
Age (A)	2.15*	.03	p < .01
G X A	1.45	.02	p = .12
Harmful Image Distribution Victimization			
Gender (G)	0.19	> .01	p = .83
Age (A)	1.17	.01	p = .32
G X A	0.57	> .01	p = .75
Exclusion			
Gender (G)	2.15*	.03	p = .05
Age (A)	1.51*	.02	p = .08
G X A	1.91*	.03	p = .01
Exclusion Victimization			
Gender (G)	3.03*	.04	p < .01
Age (A)	1.18	.02	p = .27
G X A	0.89	.01	p = .60

* indicates statistical significance at the .05 level.

Table 13

American Children Only: Wilks' Lambdas

Fixed Factor	F	Partial η^2	*P*
Time spent using CMC			
Gender (G)	1.42	.08	p =. 13
Age (A)	1.15	.06	p = .28
G X A	1.23	.07	p = .21
Direct Verbal Bullying			
Gender (G)	1.48	.06	p = .19
Age (A)	1.01	.04	p = .45
G X A	0.54	.02	p = .94
Direct Verbal Victimization			
Gender (G)	0.69	.03	p = .66
Age (A)	0.81	.03	p = .69
G X A	0.63	.03	p = .88
Rumor Spreading			
Gender (G)	1.15	.05	p = .34
Age (A)	1.26	.05	p = .21
G X A	0.87	.04	p = .62
Rumor Spreading Victimization			
Gender (G)	1.19	.05	p = .32
Age (A)	1.39	.06	p = .13
G X A	0.95	.04	p = .52
Harmful Image Distribution			
Gender (G)	1.84	.06	p = .11
Age (A)	1.84*	.06	p = .03
G X A	1.33	.04	p = .18
Harmful Image Distribution Victimization			
Gender (G)	0.28	> .01	p = .76
Age (A)	0.43	.01	p = .86
G X A	0.08	> .01	p = 1.00
Exclusion			
Gender (G)	2.08	.08	p = .06
Age (A)	1.37	.05	p = .14
G X A	1.87*	.07	p = .02
Exclusion Victimization			
Gender (G)	1.49	.06	p = .19
Age (A)	1.58	.06	p = .06
G X A	0.56	.02	p = .92

*indicates statistical significance at the .05.

Table 14

Japanese and American Children: Wilks' Lambdas

Fixed Factor	F	Partial η^2	*P*
Time spent using CMC			
Nationality (N)	31.48*	.31	p < .01
Gender (G)	3.72*	.05	p < .01
Age (A)	2.19*	.03	p < .01
N X G	3.51*	.05	p < .01
N X A	2.64*	.04	p < .01
G X A	2.53*	.03	p < .01
N X G X A	2.40*	.03	p < .01
Direct Verbal Bullying			
Nationality (N)	10.67*	.10	p < .01
Gender (G)	3.16*	.03	p = .01
Age (A)	1.97*	.02	p = .01
N X G	2.09	.02	p = .05
N X A	1.98*	.02	p = .01
G X A	0.94	.01	p = .53
N X G X A	1.20	.01	p = .25
Direct Verbal Victimization			
Nationality (N)	4.39*	.04	p < .01
Gender (G)	1.50	.02	p = .17
Age (A)	1.59	.02	p = .05
N X G	1.65	.02	p = .13
N X A	1.44	.02	p = .11
G X A	1.07	.01	p = .38
N X G X A	1.01	.01	p = .45
Rumor Spreading			
Nationality (N)	4.99*	.05	p < .01
Gender (G)	1.70	.02	p = .12
Age (A)	1.75	.02	p = .03
N X G	1.84	.02	p = .09
N X A	2.68*	.03	p < .01
G X A	1.57	.02	p = .06
N X G X A	1.24	.01	p = .22

Table 14 (continued)

Fixed Factor	F	Partial η^2	*P*
Rumor Victimization			
Nationality (N)	6.19*	.06	p < .01
Gender (G)	2.18*	.02	p = .04
Age (A)	3.73*	.04	p < .01
N X G	3.18*	.03	p < .01
N X A	2.47*	.03	p < .01
G X A	1.82*	.02	p = .02
N X G X A	2.40*	.03	p < .01
Harmful Image Distribution			
Nationality (N)	10.15*	.08	p < .01
Gender (G)	5.31*	.05	p < .01
Age (A)	4.57*	.04	p < .01
N X G	5.62*	.05	p < .01
N X A	5.56*	.05	p < .01
G X A	3.44*	.03	p < .01
N X G X A	3.36*	.03	p < .01
Harmful Image Victimization			
Nationality (N)	1.13	< .01	p = .32
Gender (G)	0.44	< .01	p = .64
Age (A)	1.20	.01	p = .31
N X G	0.42	< .01	p = .66
N X A	1.03	.01	p = .40
G X A	0.16	< .01	p = .99
N X G X A	0.29	< .01	p = .94
Exclusion Bullying			
Nationality (N)	7.01*	.07	p < .01
Gender (G)	4.59*	.05	p < .01
Age (A)	2.57*	.03	p < .01
N X G	6.20*	.06	p < .01
N X A	3.01*	.03	p < .01
G X A	4.36*	.04	p < .01
N X G X A	3.47*	.04	p < .01

*indicates statistical significance at the .05 level.

Table 14 (Continued)

Fixed Factor	F	Partial η^2	*P*
Exclusion Victimization			
Nationality (N)	5.66*	.06	p < .01
Gender (G)	3.87*	.04	p < .01
Age (A)	2.45*	.03	p < .01
N X G	4.25*	.04	p < .01
N X A	2.89*	.03	p < .01
G X A	1.16	.01	p = .29
N X G X A	1.37	.02	p = .14
Need for Affiliation			
Nationality (N)	8.92*	.07	p < .01
Gender (G)	3.55*	.03	p < .03
Age (A)	1.39	.01	p = .15
N X G	2.86*	.03	p = .02
N X A	1.53	.01	p = .09
G X A	1.14	.01	p = .32
N X G X A	0.90	.01	p = .56
Fear of Social Exclusion			
Nationality (N)	10.99	.12	p <.01
Gender (G)	3.95	.05	p <.01
Age (A)	1.98	.03	p =.01
N X G	1.17	.02	p = .32
N X A	1.41	.02	p = .11
G X A	1.48	.02	p = .07
N X G X A	1.00	.01	p = .46

*indicates statistical significance at the .05 level.

Table 15

Japanese Children Only: Time Spent Using CMC Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Talking Face to Face				
Gender (G)	1	20.80*	.05	>.01
Age (A)	3	8.96*	.06	>.01
G X A	3	4.26*	.03	.01
Talking on a Cell Phone				
Gender (G)	1	7.65*	.02	.01
Age (A)	3	0.35	>.01	.79
G X A	3	0.06	>.01	.98
Sending Text Messages				
Gender (G)	1	6.72*	.02	.01
Age (A)	3	5.74*	.04	>.01
G X A	3	2.79	.02	.04
Browsing the Internet				
Gender (G)	1	0.02	>.01	.96
Age (A)	3	7.9*	.05	>.01
G X A	3	0.08	>.01	.97
Using Computer Email				
Gender (G)	1	0.51	>.01	.48
Age (A)	3	8.63*	.06	>.01
G X A	3	3.29	.02	.02
Using a Chatroom				
Gender (G)	1	0.11	>.01	.74
Age (A)	3	3.37	.02	.02
G X A	3	0.77	.01	.51
Using Instant Messenger				
Gender (G)	1	5.73	.01	.02
Age (A)	3	1.50	.01	.19
G X A	3	1.36	.01	.26
Using Personal Websites				
Gender (G)	1	4.93	.01	.03
Age (A)	3	6.62*	.05	>.01
G X A	3	2.45	.02	.06

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 16

Japanese Children Only: Direct Verbal Bullying Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Gender (G)	1	13.90*	.03	<.01
Age (A)	3	2.74	.02	.04
G X A	3	.41	<.01	.75
By Cell-Phone Text				
Gender (G)	1	.61	<.01	.44
Age (A)	3	5.10*	.04	<.01
G X A	3	.73	.01	.54
By Computer Email				
Gender (G)	1	6.97*	.02	.01
Age (A)	3	3.74*	.03	.01
G X A	3	1.25	.01	.29
In a Chatroom				
Gender (G)	1	5.34	.01	.02
Age (A)	3	1.50	.01	.21
G X A	3	.74	.01	.53
On Instant Messenger				
Gender (G)	1	7.96*	.02	.01
Age (A)	3	2.14	.02	.09
G X A	3	2.43	.02	.07
On a Personal Website				
Gender (G)	1	.05	<.01	.83
Age (A)	3	2.58	.02	.05
G X A	3	.40	<.01	.75

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method

Table 17

Japanese Children Only: Direct Verbal Bullying Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Gender (G)	1	3.24	.01	.07
Age (A)	3	.90	.01	.44
G X A	3	.37	<.01	.77
By Cell-Phone Text				
Gender (G)	1	.60	<.01	.44
Age (A)	3	5.39*	.04	<.01
G X A	3	1.14	.01	.33
By Computer Email				
Gender (G)	1	7.57	.02	.01
Age (A)	3	3.24	.02	.02
G X A	3	2.25	.02	.08
In a Chatroom				
Gender (G)	1	5.14	.01	.02
Age (A)	3	1.02	.01	.39
G X A	3	1.30	.01	.27
On Instant Messenger				
Gender (G)	1	6.20	.01	.01
Age (A)	3	1.28	.01	.28
G X A	3	1.66	.01	.17
On a Personal Website				
Gender (G)	1	1.08	<.01	.30
Age (A)	3	1.90	.013	.13
G X A	3	.81	.01	.49

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 18

Japanese Children Only: Rumor Spreading Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	.01	<.01	.98
Age (A)	3	.79	.01	.50
G X A	3	.47	<.01	.71
By Cell-Phone Text				
Gender (G)	1	2.53	.01	.11
Age (A)	3	6.24*	.04	<.01
G X A	3	.69	.01	.56
By Computer Email				
Gender (G)	1	.03	<.01	.86
Age (A)	3	5.39*	.04	<.01
G X A	3	1.45	.01	.23
In a Chatroom				
Gender (G)	1	3.58	.01	.06
Age (A)	3	2.47	.02	.06
G X A	3	2.47	.02	.06
On Instant Messenger				
Gender (G)	1	1.26	<.01	.26
Age (A)	3	1.59	.01	.19
G X A	3	1.59	.01	.19
On a Personal Website				
Gender (G)	1	.43	.<.01	.51
Age (A)	3	.85	.01	.47
G X A	3	1.27	.01	.29

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 19

Japanese Children Only: Rumor Spreading Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	4.36	.01	.04
Age (A)	3	.53	<.01	.66
G X A	3	.37	<.01	.77
By Cell-Phone Text				
Gender (G)	1	8.00*	.02	.01
Age (A)	3	9.78*	.07	<.01
G X A	3	1.59	.01	.19
By Computer Email				
Gender (G)	1	.02	<.01	.89
Age (A)	3	5.84*	.04	<.01
G X A	3	1.39	.01	.24
In a Chatroom				
Gender (G)	1	3.84	.01	.05
Age (A)	3	.97	.01	.41
G X A	3	.97	.01	.41
On Instant Messenger				
Gender (G)	1	5.00	.01	.03
Age (A)	3	1.16	.01	.33
G X A	3	1.16	.01	.33
On a Personal Website				
Gender (G)	1	2.16	.01	.14
Age (A)	3	1.85	.01	.14
G X A	3	.46	<.01	.71

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 20

Japanese Children Only: Distribution of Harmful Images Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
By Cell-Phone Text				
Gender (G)	1	3.24	.01	.07
Age (A)	3	1.61	.01	.19
G X A	3	.95	.01	.42
By Computer Email				
Gender (G)	1	4.17	.01	.04
Age (A)	3	2.16	.02	.09
G X A	3	1.29	.01	.28
In a Chatroom				
Gender (G)	1	.65	<.01	.42
Age (A)	3	1.73	.01	.16
G X A	3	.68	.01	.57
On Instant Messenger				
Gender (G)	1	.38	<.01	.54
Age (A)	3	1.78	.01	.15
G X A	3	.62	<.01	.60
On a Personal Website				
Gender (G)	1	.01	<.01	.93
Age (A)	3	1.16	.01	.32
G X A	3	.65	.01	.58

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 21

Japanese Children Only: Distribution of Harmful Images Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
By Cell-Phone Text				
Gender (G)	1	.03	<.01	.85
Age (A)	3	2.16	.02	.09
G X A	3	.15	<.01	.93
By Computer Email				
Gender (G)	1	.36	<.01	.55
Age (A)	3	.59	<.01	.62
G X A	3	.59	<.01	.62

* indicates statistical significance at the .05 level.

Table 22

Japanese Children Only: Gender and Age Effects on Exclusion Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	.56	<.01	.46
Age (A)	3	.31	<.01	.82
G X A	3	.89	.01	.44
By Cell-Phone Text				
Gender (G)	1	1.02	<.01	.31
Age (A)	3	4.39*	.03	.01
G X A	3	.47	<.01	.71
By Computer Email				
Gender (G)	1	.40	<.01	.53
Age (A)	3	3.37	.02	.02
G X A	3	.47	<.01	.70
In a Chatroom				
Gender (G)	1	3.22	.01	.07
Age (A)	3	1.96	.01	.12
G X A	3	2.34	.02	.07
On Instant Messenger				
Gender (G)	1	1.38	<.01	.24
Age (A)	3	1.16	.01	.33
G X A	3	1.51	.01	.21
On a Personal Website				
Gender (G)	1	.24	<.01	.62
Age (A)	3	.94	.01	.42
G X A	3	1.57	.01	.20

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 23

Japanese Children Only: Gender and Age Effects on Exclusion Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	7.79*	.02	.01
Age (A)	3	.25	<.01	.86
G X A	3	.81	.01	.49
By Cell-Phone Text				
Gender (G)	1	.91	<.01	.34
Age (A)	3	2.24	.02	.08
G X A	3	.03	<.01	.99
By Computer Email				
Gender (G)	1	1.44	<.01	.23
Age (A)	3	1.21	.01	.31
G X A	3	.46	<.01	.71
In a Chatroom				
Gender (G)	1	2.00	.01	.16
Age (A)	3	1.28	.01	.28
G X A	3	1.70	.01	.17
On Instant Messenger				
Gender (G)	1	.84	<.01	.36
Age (A)	3	.43	<.01	.73
G X A	3	.83	.01	.48
On a Personal Website				
Gender (G)	1	.34	<.01	.56
Age (A)	3	.82	.01	.48
G X A	3	.45	<.01	.72

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 24

American Children Only: Time Spent Using CMC Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Talking Face to Face				
Gender (G)	1	0.32	>.01	.57
Age (A)	3	1.28	.03	.28
G X A	3	0.72	.01	.54
Talking on a Cell Phone				
Gender (G)	1	2.47	.02	.12
Age (A)	3	0.99	.02	.40
G X A	3	2.11	.04	.10
Sending Text Messages				
Gender (G)	1	0.04	>.01	.84
Age (A)	3	1.22	.02	.31
G X A	3	1.49	.03	.22
Browsing the Internet				
Gender (G)	1	.01	>.01	.93
Age (A)	3	0.58	.01	.63
G X A	3	2.03	.04	.11
Using Computer Email				
Gender (G)	1	6.42	.04	.01
Age (A)	3	0.77	.02	.52
G X A	3	0.61	.01	.61
Using a Chatroom				
Gender (G)	1	5.33	.04	.02
Age (A)	3	3.95	.07	.01
G X A	3	4.12	.08	.01
Using Instant Messenger				
Gender (G)	1	.02	>.01	.89
Age (A)	3	0.40	.01	.76
G X A	3	1.00	.02	.39
Using Personal Websites				
Gender (G)	1	.17	>.01	.68
Age (A)	3	0.46	.01	.71
G X A	3	1.86	.04	.14

* indicates statistical significance at the .05 level after controlling for type I error using the Holms' method.

Table 25

American Children Only: Gender and Age Effects on Direct Verbal Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	1.84	.01	.18
Age (A)	3	2.92	.06	.04
G X A	3	.38	.01	.77
By Cell-Phone Text				
Gender (G)	1	1.39	.01	.18
Age (A)	3	.55	.01	.65
G X A	3	.63	.01	.60
By Computer Email				
Gender (G)	1	1.97	.01	.16
Age (A)	3	1.02	.02	.39
G X A	3	.46	.01	.71
In a Chatroom				
Gender (G)	1	.57	<.01	.45
Age (A)	3	1.94	.04	.13
G X A	3	1.25	.03	.29
On Instant Messenger				
Gender (G)	1	1.24	.01	.27
Age (A)	3	1.28	.03	.28
G X A	3	.55	.01	.65
On a Personal Website				
Gender (G)	1	.25	<.01	.62
Age (A)	3	.45	.01	.72
G X A	3	1.17	.02	.33

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 26

American Children Only: Gender and Age Effects on Direct Verbal Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	.10	<.01	.76
Age (A)	3	1.21	.02	.31
G X A	3	.52	.01	.67
By Cell-Phone Text				
Gender (G)	1	.73	<.01	.40
Age (A)	3	.62	.01	.59
G X A	3	.39	.01	.76
By Computer Email				
Gender (G)	1	.72	.01	.40
Age (A)	3	1.26	.03	.29
G X A	3	1.04	.02	.38
In a Chatroom				
Gender (G)	1	1.85	.01	.18
Age (A)	3	1.63	.03	.19
G X A	3	.38	.01	.77
On Instant Messenger				
Gender (G)	1	.17	<.01	.68
Age (A)	3	.98	.02	.40
G X A	3	.36	.01	.78
On a Personal Website				
Gender (G)	1	1.19	.01	.28
Age (A)	3	.48	.01	.70
G X A	3	.48	.01	.69

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 27

American Children Only: Gender and Age Effects on Rumor Spreading Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	6.28	.04	.01
Age (A)	3	1.01	.02	.39
G X A	3	1.07	.02	.36
By Cell-Phone Text				
Gender (G)	1	3.01	.02	.09
Age (A)	3	.26	.01	.85
G X A	3	.62	.01	.60
By Computer Email				
Gender (G)	1	2.38	.02	.13
Age (A)	3	.99	.02	.40
G X A	3	.37	.01	.78
In a Chatroom				
Gender (G)	1	2.49	.02	.12
Age (A)	3	2.92	.06	.04
G X A	3	.66	.01	.58
On Instant Messenger				
Gender (G)	1	1.35	.01	.25
Age (A)	3	1.56	.03	.20
G X A	3	.18	<.01	.91
On a Personal Website				
Gender (G)	1	1.11	.01	.30
Age (A)	3	.31	.01	.82
G X A	3	.21	<.01	.89

*indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 28

American Children Only: Gender and Age Effects on Rumor Spreading Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	2.79	.02	.10
Age (A)	3	.67	.01	.57
G X A	3	.64	.01	.59
By Cell-Phone Text				
Gender (G)	1	.50	<.01	.48
Age (A)	3	1.74	.03	.16
G X A	3	1.07	.02	.37
By Computer Email				
Gender (G)	1	.87	.01	.35
Age (A)	3	.83	.02	.48
G X A	3	.28	<.01	.84
In a Chatroom				
Gender (G)	1	1.08	.01	.30
Age (A)	3	2.33	.05	.08
G X A	3	.50	.01	.69
On Instant Messenger				
Gender (G)	1	3.77	.03	.05
Age (A)	3	1.59	.03	.20
G X A	3	1.65	.03	.18
On a Personal Website				
Gender (G)	1	1.53	.01	.22
Age (A)	3	.50	.01	.69
G X A	3	1.80	.04	.15

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 29

American Children Only: Gender and Age Effects on Distribution of Harmful Images Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
By Cell-Phone Text				
Gender (G)	1	.17	<.01	.68
Age (A)	3	.22	<.01	.88
G X A	3	.95	.02	.42
By Computer Email				
Gender (G)	1	.07	<.01	.79
Age (A)	3	.35	.01	.79
G X A	3	.48	.01	.70
In a Chatroom				
Gender (G)	1	3.40	.02	.07
Age (A)	3	2.53	.05	.06
G X A	3	2.70	.05	.05
On Instant Messenger				
Gender (G)	1	.45	<.01	.50
Age (A)	3	1.57	.03	.20
G X A	3	.74	.02	.53
On a Personal Website				
Gender (G)	1	.16	<.01	.69
Age (A)	3	.08	<.01	.97
G X A	3	.70	.01	.55

* indicates statistical significance at the .05 level.

Table 30

American Children Only: Gender and Age Effects on Distribution of Harmful Images Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
By Cell-Phone Text				
Gender (G)	1	.33	<.01	.57
Age (A)	3	.54	.01	.66
G X A	3	.06	<.01	.98
By Computer Email				
Gender (G)	1	.03	<.01	.86
Age (A)	3	.77	.02	.51
G X A	3	.03	<.01	.99

* indicates statistical significance at the .05 level.

Table 31

American Children Only: Gender and Age Effects on Exclusion Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	.07	<.01	.79
Age (A)	3	.66	.01	.58
G X A	3	.79	.02	.50
By Cell-Phone Text				
Gender (G)	1	1.62	.01	.21
Age (A)	3	.03	<.01	.99
G X A	3	.70	.01	.55
By Computer Email				
Gender (G)	1	4.15	.03	.04
Age (A)	3	1.62	.03	.19
G X A	3	.75	.02	.53
In a Chatroom				
Gender (G)	1	6.83*	.04	.01
Age (A)	3	3.14	.06	.03
G X A	3	3.28	.06	.02
On Instant Messenger				
Gender (G)	1	10.67*	.07	<.01
Age (A)	3	1.69	.03	.17
G X A	3	1.89	.04	.13
On a Personal Website				
Gender (G)	1	7.52*	.05	.01
Age (A)	3	.75	.02	.53
G X A	3	1.38	.03	.25

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 32

American Children Only: Gender and Age Effects on Exclusion Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η2	*P*
Face-to-Face				
Gender (G)	1	2.24	.02	.14
Age (A)	3	1.41	.03	.24
G X A	3	.25	.01	.86
By Cell-Phone Text				
Gender (G)	1	6.18	.04	.01
Age (A)	3	2.02	.04	.11
G X A	3	1.09	.02	.36
By Computer Email				
Gender (G)	1	5.40	.04	.02
Age (A)	3	1.24	.02	.30
G X A	3	.83	.02	.48
In a Chatroom				
Gender (G)	1	6.34	.04	.01
Age (A)	3	4.47*	.08	.01
G X A	3	1.66	.03	.18
On Instant Messenger				
Gender (G)	1	3.57	.02	.06
Age (A)	3	1.82	.04	.15
G X A	3	.79	.02	.50
On a Personal Website				
Gender (G)	1	6.84	.04	.01
Age (A)	3	2.05	.04	.11
G X A	3	1.02	.02	.38

*indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 33

Japanese and American Children: Time Spent Using CMC Via Various Modalities

Fixed Factor	*Df*	*F*	Partial η^2	*P*
Talking Face to Face				
Nationality (N)	1	14.43*	.03	<.01
Gender (G)	1	.92	<.01	.34
Age (A)	3	5.86*	.03	<.01
N X G	1	4.34	.01	.04
N X A	3	.23	<.01	.89
G X A	3	1.78	.01	.15
N X G X A	3	.64	<.01	.59
Talking on Cell-Phone				
Nationality (N)	1	138.36*	.19	<.01
Gender (G)	1	8.84*	.02	<.01
Age (A)	3	2.26	.01	.08
N X G	1	2.74	.01	.10
N X A	3	1.92	.01	.13
G X A	3	4.42*	.02	<.01
N X G X A	3	4.31*	.02	.01
Sending Text Messages				
Nationality (N)	1	112.01*	.16	<.01
Gender (G)	1	1.01	<.01	.32
Age (A)	3	2.24	.01	.08
N X G	1	.23	<.01	.63
N X A	3	2.51	.01	.06
G X A	3	3.08	.02	.03
N X G X A	3	1.76	.01	.15
Browsing the Internet				
Nationality (N)	1	18.60*	.03	<.01
Gender (G)	1	.01	<.01	.94
Age (A)	3	.38	<.01	.77
N X G	1	.01	<.01	.92
N X A	3	3.70	.02	.01
G X A	3	2.12	.01	.10
N X G X A	3	1.60	.01	.19
Using Computer Email				
Nationality (N)	1	31.70*	.05	<.01
Gender (G)	1	11.32*	.02	<.01
Age (A)	3	1.75	.01	.16
N X G	1	13.92*	.02	<.01
N X A	3	2.97	.02	.03
G X A	3	.73	<.01	.53
N X G X A	3	2.48	.01	.06

Table 33 (continued)

Fixed Factor	*df*	*F*	Partial η^2	*P*
Using a Chatroom				
Nationality (N)	1	15.82*	.03	<.01
Gender (G)	3	9.49*	.02	<.01
Age (A)	3	3.62	.02	.01
N X G	1	8.36*	.01	<.01
N X A	3	7.90*	.04	<.01
G X A	3	6.36*	.03	<.01
N X G X A	3	5.28*	.03	<.01
Using Instant Messenger				
Nationality (N)	1	57.65*	.10	<.01
Gender (G)	3	.03	<.01	.86
Age (A)	3	1.44	.01	.23
N X G	1	.43	<.01	.52
N X A	3	.83	<.01	.48
G X A	3	2.52	.01	.06
N X G X A	3	2.66	.02	.05
Using a Personal Website				
Nationality (N)	1	131.03*	.19	<.01
Gender (G)	3	1.09	<.01	.30
Age (A)	3	2.14	.01	.09
N X G	1	.11	<.01	.74
N X A	3	.96	.01	.41
G X A	3	5.76*	.03	<.01
N X G X A	3	4.70*	.02	<.01

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 34

Japanese and American Children: Direct Verbal Bullying Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Nationality (N)	1	13.74*	.02	<.01
Gender (G)	3	7.18*	.01	.01
Age (A)	3	3.33	.02	.02
N X G	1	.10	<.01	.75
N X A	3	4.22*	.02	.01
G X A	3	.61	<.01	.61
N X G X A	3	.39	<.01	.76
By Cell Phone Text				
Nationality (N)	1	37.90*	.06	<.01
Gender (G)	3	3.31	.01	.07
Age (A)	3	1.11	.01	.34
N X G	1	1.98	<.01	.16
N X A	3	2.41	.01	.07
G X A	3	1.12	.01	.34
N X G X A	3	1.22	.01	.30
By Computer Email				
Nationality (N)	1	37.98*	.06	<.01
Gender (G)	3	.27	.01	.10
Age (A)	3	2.94	.02	.03
N X G	1	7.57*	.01	.01
N X A	3	2.55	.01	.06
G X A	3	.84	<.01	.47
N X G X A	3	1.45	.01	.23
In a Chatroom				
Nationality (N)	1	25.90*	.04	<.01
Gender (G)	3	.14	<.01	.71
Age (A)	3	3.10	.02	.03
N X G	1	2.69	.01	.10
N X A	3	3.87*	.02	.01
G X A	3	1.57	.01	.20
N X G X A	3	2.86	.02	.04
On Instant Messenger				
Nationality (N)	1	46.09*	.07	<.01
Gender (G)	3	1.71	<.01	.19
Age (A)	3	4.32*	.02	.01
N X G	1	5.46	.01	.02
N X A	3	2.77	.01	.04
G X A	3	1.28	.01	.28
N X G X A	3	1.74	.01	.16
On a Personal Website				
Nationality (N)	1	46.13*	.07	<.01
Gender (G)	3	.77	<.01	.38
Age (A)	3	1.39	.01	.24
N X G	1	.65	<.01	.42
N X A	3	1.25	.01	.29
G X A	3	3.32	.02	.02
N X G X A	3	2.98	.02	.03

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 35

Japanese and American Children: Direct Verbal Bullying Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Nationality (N)	1	.22	<.01	.64
Gender (G)	3	.84	<.01	.36
Age (A)	3	.84	<.01	.47
N X G	1	.06	<.01	.81
N X A	3	2.00	.01	.11
G X A	3	.71	<.01	.55
N X G X A	3	.62	<.01	.60
By Cell Phone Text				
Nationality (N)	1	13.27*	.02	<.01
Gender (G)	3	2.12	<.01	.15
Age (A)	3	2.56	.01	.05
N X G	1	1.20	<.01	.27
N X A	3	.80	<.01	.49
G X A	3	.84	<.01	.47
N X G X A	3	.64	<.01	.59
By Computer Email				
Nationality (N)	1	4.75	.01	.03
Gender (G)	3	.36	<.01	.55
Age (A)	3	2.90	.02	.04
N X G	1	3.63	.01	.06
N X A	3	2.79	.01	.04
G X A	3	1.34	.01	.26
N X G X A	3	2.31	.01	.08
In a Chatroom				
Nationality (N)	1	3.79	.01	.05
Gender (G)	3	1.22	<.01	.27
Age (A)	3	3.17	.02	.02
N X G	1	5.72	.01	.02
N X A	3	2.01	.01	.11
G X A	3	.44	<.01	.73
N X G X A	3	1.08	.01	.36
On Instant Messenger				
Nationality (N)	1	7.27*	.01	.01
Gender (G)	3	.03	<.01	.87
Age (A)	3	2.62	.01	.05
N X G	1	1.31	<.01	.25
N X A	3	2.27	.01	.08
G X A	3	.42	<.01	.74
N X G X A	3	1.29	.01	.28
On a Personal Website				
Nationality (N)	1	20.23*	.03	<.01
Gender (G)	3	2.68	.01	.10
Age (A)	3	1.59	.01	.19
N X G	1	3.98	.01	.05
N X A	3	.96	.41	.01
G X A	3	1.17	.32	.01
N X G X A	3	1.20	.01	.31

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 36

Japanese and American Children: Rumor Spreading Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Nationality (N)	1	.04	<.01	.84
Gender (G)	3	6.71*	.01	.01
Age (A)	3	.82	<.01	.49
N X G	1	6.63*	.01	.01
N X A	3	1.25	.01	.29
G X A	3	1.27	.01	.29
N X G X A	3	1.00	.01	.39
By Cell Phone Text				
Nationality (N)	1	18.88*	.03	<.01
Gender (G)	3	7.80*	.01	.01
Age (A)	3	.58	<.01	.63
N X G	1	3.79	.01	.05
N X A	3	1.77	.01	.15
G X A	3	1.06	.01	.36
N X G X A	3	1.42	.01	.24
By Computer Email				
Nationality (N)	1	4.07	.01	.04
Gender (G)	3	3.91	.01	.05
Age (A)	3	1.18	.01	.32
N X G	1	4.31	.01	.04
N X A	3	3.61	.02	.01
G X A	3	1.13	.01	.34
N X G X A	3	.74	<.01	.53
In a Chatroom				
Nationality (N)	1	6.77*	.01	.01
Gender (G)	3	2.96	.01	.09
Age (A)	3	4.19*	.02	.01
N X G	1	7.26*	.01	.01
N X A	3	5.73*	.03	<.01
G X A	3	1.94	.01	.12
N X G X A	3	1.01	.01	.39
On Instant Messenger				
Nationality (N)	1	10.71*	.02	<.01
Gender (G)	3	2.75	.01	.10
Age (A)	3	2.91	.02	.03
N X G	1	4.37	.01	.04
N X A	3	4.09*	.02	.01
G X A	3	.23	<.01	.87
N X G X A	3	.81	<.01	.49
On a Personal Website				
Nationality (N)	1	14.56*	.03	<.01
Gender (G)	3	2.86	.01	.09
Age (A)	3	1.12	.01	.34
N X G	1	3.57	.01	.06
N X A	3	.68	<.01	.56
G X A	3	.33	<.01	.80
N X G X A	3	.84	<.01	.48

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 37

Japanese and American Children: Rumor Spreading Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Nationality (N)	1	.24	<.01	.63
Gender (G)	3	5.81	.01	.02
Age (A)	3	1.23	.01	.30
N X G	1	1.09	<.01	.30
N X A	3	.34	<.01	.80
G X A	3	.90	.01	.44
N X G X A	3	.37	<.01	.77
By Cell Phone Text				
Nationality (N)	1	8.76*	.02	<.01
Gender (G)	3	2.92	.01	.09
Age (A)	3	6.54*	.03	<.01
N X G	1	.16	<.01	.69
N X A	3	2.72	.01	.04
G X A	3	3.25	.02	.02
N X G X A	3	1.12	.01	.34
By Computer Email				
Nationality (N)	1	2.51	.01	.11
Gender (G)	3	1.99	<.01	.16
Age (A)	3	3.48*	.02	.02
N X G	1	1.80	<.01	.18
N X A	3	1.30	.01	.28
G X A	3	1.19	.01	.31
N X G X A	3	.21	<.01	.89
In a Chatroom				
Nationality (N)	1	10.60*	.02	<.01
Gender (G)	3	1.65	<.01	.20
Age (A)	3	5.78*	.03	<.01
N X G	1	4.21	.01	.04
N X A	3	4.21*	.02	.01
G X A	3	1.06	.01	.37
N X G X A	3	1.5	.01	.21
On Instant Messenger				
Nationality (N)	1	18.27*	.03	<.01
Gender (G)	3	7.84*	.01	.01
Age (A)	3	4.92*	.03	<.01
N X G	1	12.92*	.02	<.01
N X A	3	3.59	.02	.01
G X A	3	3.03	.02	.03
N X G X A	3	4.80*	.03	<.01
On a Personal Website				
Nationality (N)	1	23.08*	.04	<.01
Gender (G)	3	3.31	.01	.07
Age (A)	3	1.75	.01	.16
N X G	1	5.35	.01	.02
N X A	3	1.03	.01	.38
G X A	3	4.03*	.02	.01
N X G X A	3	5.22*	.03	<.01

* indicates statistical significance at the .05 level.

Table 38

Japanese and American Children: Distribution of Harmful Images Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
By Cell Phone Text				
Nationality (N)	1	25.52*	.04	<.01
Gender (G)	3	.07	<.01	.79
Age (A)	3	.26	<.01	.85
N X G	1	1.04	<.01	.31
N X A	3	1.00	.01	.39
G X A	3	2.76	.01	.04
N X G X A	3	1.72	.01	.16
By Computer Email				
Nationality (N)	1	11.20*	.02	<.01
Gender (G)	3	.67	<.01	.42
Age (A)	3	1.11	.01	.34
N X G	1	.01	<.01	.95
N X A	3	.97	.01	.41
G X A	3	1.78	.01	.15
N X G X A	3	.97	.01	.41
In a Chatroom				
Nationality (N)	1	26.51*	.04	<.01
Gender (G)	3	9.58*	.02	<.01
Age (A)	3	5.19*	.03	<.01
N X G	1	7.68*	.01	.01
N X A	3	6.95*	.04	<.01
G X A	3	6.97*	.04	<.01
N X G X A	3	6.58*	.03	<.01
On Instant Messenger				
Nationality (N)	1	13.25*	.02	<.01
Gender (G)	3	1.46	<.01	.23
Age (A)	3	3.27	.02	.02
N X G	1	.97	<.01	.33
N X A	3	4.41*	.02	<.01
G X A	3	2.07	.01	.10
N X G X A	3	1.95	.01	.12
On a Personal Website				
Nationality (N)	1	22.45*	.04	<.01
Gender (G)	3	.45	<.01	.50
Age (A)	3	.38	<.01	.77
N X G	1	.49	<.01	.48
N X A	3	.12	<.01	.95
G X A	3	1.81	.01	.14
N X G X A	3	2.04	.01	.11

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 39

Japanese and American Children: Distribution of Harmful Images Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
By Cell Phone Text				
Nationality (N)	1	2.14	<.01	.14
Gender (G)	3	.59	<.01	.44
Age (A)	3	1.72	.01	.16
N X G	1	.74	<.01	.39
N X A	3	.84	<.01	.47
G X A	3	.07	<.01	.98
N X G X A	3	.17	<.01	.92
By Computer Email				
Nationality (N)	1	1.67	<.01	.20
Gender (G)	3	.03	<.01	.88
Age (A)	3	1.78	.01	.15
N X G	1	.15	<.01	.70
N X A	3	1.93	.01	.12
G X A	3	.15	<.01	.93
N X G X A	3	.11	<.01	.95

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 40

Japanese and American Children: Exclusion Perpetration Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Nationality (N)	1	.38	<.01	.54
Gender (G)	3	.29	<.01	.59
Age (A)	3	1.12	.01	.34
N X G	1	.01	<.01	.94
N X A	3	.59	<.01	.62
G X A	3	1.48	.01	.22
N X G X A	3	.45	<.01	.72
By Cell Phone Text	1			
Nationality (N)	3	11.39*	.02	<.01
Gender (G)	3	4.16	.01	.04
Age (A)	1	.27	<.01	.85
N X G	3	2.30	<.01	.13
N X A	3	.82	<.01	.48
G X A	3	1.68	.01	.17
N X G X A	3	1.04	.01	.37
By Computer Email				
Nationality (N)	1	7.88*	.01	.01
Gender (G)	3	6.60*	.01	.01
Age (A)	3	2.59	.01	.05
N X G	1	8.47*	.02	<.01
N X A	3	3.86*	.02	.01
G X A	3	1.25	.01	.29
N X G X A	3	1.66	.01	.17
In a Chatroom				
Nationality (N)	1	22.91*	.04	<.01
Gender (G)	3	9.79*	.02	<.01
Age (A)	3	4.03*	.02	.01
N X G	1	16.59*	.03	<.01
N X A	3	6.78*	.03	<.01
G X A	3	6.27*	.03	<.01
N X G X A	3	6.55*	.03	<.01
On Instant Messenger				
Nationality (N)	1	31.08*	.05	<.01
Gender (G)	3	25.12*	.04	<.01
Age (A)	3	3.28	.02	.02
N X G	1	29.94*	.05	<.01
N X A	3	5.06*	.03	<.01
G X A	3	5.75*	.03	<.01
N X G X A	3	4.04*	.02	.01
On a Personal Website				
Nationality (N)	1	37.00*	.06	<.01
Gender (G)	3	19.61*	.03	<.01
Age (A)	3	1.83	.01	.14
N X G	1	21.19*	.04	<.01
N X A	3	2.28	.01	.08
G X A	3	4.24*	.02	.01
N X G X A	3	3.40	.02	.02

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 41

Japanese and American Children: Exclusion Victimization Via Various Modalities

Fixed Factor	*df*	*F*	Partial η^2	*P*
Face-to-Face				
Nationality (N)	1	2.80	.01	.1
Gender (G)	3	6.65*	.01	.01
Age (A)	3	1.49	.01	.22
N X G	1	.72	<.01	.40
N X A	3	2.08	.01	.10
G X A	3	.62	<.01	.60
N X G X A	3	.32	<.01	.81
By Cell Phone Text				
Nationality (N)	1	22.66*	.04	<.01
Gender (G)	3	16.72*	.03	<.01
Age (A)	3	4.30*	.02	.01
N X G	1	13.60*	.02	<.01
N X A	3	4.54*	.02	<.01
G X A	3	2.60	.01	.05
N X G X A	3	2.45	.01	.06
By Computer Email				
Nationality (N)	1	14.97*	.03	<.01
Gender (G)	3	11.61*	.02	<.01
Age (A)	3	2.83	.02	.04
N X G	1	15.24*	.03	<.01
N X A	3	3.12	.02	.03
G X A	3	1.86	.01	.14
N X G X A	3	2.32	.01	.07
In a Chatroom				
Nationality (N)	1	19.59*	.03	<.01
Gender (G)	3	12.73*	.02	<.01
Age (A)	3	8.14*	.04	<.01
N X G	1	17.52*	.03	<.01
N X A	3	9.79*	.05	<.01
G X A	3	4.31	.02	.01
N X G X A	3	3.48	.02	.02
On Instant Messenger				
Nationality (N)	1	16.69*	.03	<.01
Gender (G)	3	8.79*	.02	<.01
Age (A)	3	4.57*	.02	<.01
N X G	1	10.79*	.02	<.01
N X A	3	4.59*	.02	<.01
G X A	3	2.16	.01	.09
N X G X A	3	2.32	.01	.08
On a Personal Website				
Nationality (N)	1	32.03*	.05	<.01
Gender (G)	3	18.90*	.03	<.01
Age (A)	3	5.01*	.03	<.01
N X G	1	20.51*	.04	<.01
N X A	3	5.63*	.03	<.01
G X A	3	2.94	.02	.03
N X G X A	3	2.76	.01	.04

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 42

Japanese and American Children: Items regarding *Fear of Social Rejection*

Fixed Factor	*df*	*F*	Partial η^2	*p*
Item 78 – "Liked and Approved"				
Nationality (N)	1	0.92	<.01	.34
Gender (G)	1	1.51	<.01	.22
Age (A)	3	4.38*	.02	.01
N X G	1	1.63	<.01	.20
N X A	3	2.18	.01	.09
G X A	3	0.50	<.01	.68
N X G X A	3	0.63	<.01	.59
Item 79 – "Social/Physical"				
Nationality (N)	1	50.95*	.09	<.01
Gender (G)	1	0.01	<.01	.91
Age (A)	3	1.12	.01	.34
N X G	1	1.12	<.01	.29
N X A	3	0.53	<.01	.66
G X A	3	0.82	<.01	.48
N X G X A	3	0.35	<.01	.79
Item 82 – "Uneasy/Likes"				
Nationality (N)	1	9.37*	.02	<.01
Gender (G)	1	10.00*	.02	<.01
Age (A)	3	1.41	.01	.24
N X G	1	0.12	<.01	.73
N X A	3	1.29	.01	.28
G X A	3	0.23	<.01	.87
N X G X A	3	0.09	<.01	.97
Item 83 - "Sure/Behave"				
Nationality (N)	1	3.67	.01	.06
Gender (G)	1	19.36*	.03	<.01
Age (A)	3	1.95	.01	.12
N X G	1	1.05	<.01	.31
N X A	3	2.16	.01	.09
G X A	3	2.05	.01	.11
N X G X A	3	1.55	.01	.20
Item 85 – "Uncomfortable/Not Like"				
Nationality (N)	1	8.90*	.02	<.01
Gender (G)	1	9.67*	.02	<.01
Age (A)	3	1.54	.01	.20
N X G	1	1.04	<.01	.31
N X A	3	0.27	<.01	.85
G X A	3	0.95	.01	.42
N X G X A	3	1.76	.01	.15
Item 87 – "Careful"				
Nationality (N)	1	2.59	.01	.11
Gender (G)	3	4.94	.01	.03
Age (A)	3	2.46	.01	.06
N X G	1	1.20	<.01	.27
N X A	3	1.39	.01	.25
G X A	3	2.41	.01	.07
N X G X A	3	0.75	<.01	.52

Table 42 (continued)

Item 88 – "Look for Signs"				
Nationality (N)	1	0.90	<.01	.34
Gender (G)	3	8.49*	.02	<.01
Age (A)	3	0.61	<.01	.61
N X G	1	0.24	<.01	.63
N X A	3	1.33	.01	.26
G X A	3	0.46	<.01	.71
N X G X A	3	0.75	<.01	.52

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 43

Japanese and American Children: Items Regarding *Need for Affiliation*

Fixed Factor	*df*	*F*	Partial η^2	*p*
Item 80 – "Separated"				
Nationality (N)	1	4.01	.01	.05
Gender (G)	1	3.98	.01	.05
Age (A)	3	0.54	<.01	.66
N X G	1	3.73	.01	.05
N X A	3	0.92	.01	.43
G X A	3	0.31	<.01	.82
N X G X A	3	0.44	<.01	.73
Item 81 – "Friends and Family"				
Nationality (N)	1	21.92*	.04	<.01
Gender (G)	1	9.42*	.02	<.01
Age (A)	3	0.88	.01	.45
N X G	1	2.41	<.01	.12
N X A	3	2.16	.01	.09
G X A	3	1.33	.01	.26
N X G X A	3	0.71	<.01	.55
Item 84 – "By Myself"				
Nationality (N)	1	0.09	<.01	.76
Gender (G)	1	11.87*	.02	<.01
Age (A)	3	0.01	<.01	1.00
N X G	1	1.14	<.01	.29
N X A	3	0.66	<.01	.58
G X A	3	1.18	.01	.32
N X G X A	3	1.24	.01	.29
Item 86 – "Close Bonds"				
Nationality (N)	1	20.15*	.04	<.01
Gender (G)	1	6.30*	.01	.01
Age (A)	3	0.29	<.01	.84
N X G	1	0.74	<.01	.39
N X A	3	0.56	<.01	.65
G X A	3	1.12	.01	.35
N X G X A	3	0.45	<.01	.72
Item 89 – "Social Plans"				
Nationality (N)	1	15.37*	.03	<.01
Gender (G)	1	3.69	.01	.06
Age (A)	3	3.18	.02	.02
N X G	1	4.09	.01	.04
N X A	3	3.32	.02	.02
G X A	3	0.32	<.01	.81
N X G X A	3	1.90	.01	.13

* indicates statistical significance at the .05 level after controlling for type I error using the Holm's method.

Table 44

Univariate tests of between subjects effects for American student groups 1 and 2 for the items pertaining to *need for affiliation* and *fear of social rejection*.

	df	*F*	*Adj.R*^{2}	*p*
It is important for me to be liked and approved by others.	1	8.36*	.05	<.01
It is worse to be socially rejected than physically hurt.	1	.02	<.01	.90
I am uneasy when I cannot tell whether or not someone likes me.	1	.17	<.01	.69
I am uncomfortable when I am not sure how I am expected to behave.	1	.08	<.01	.78
I get uncomfortable around a person who does not clearly like me.	1	.51	<.01	.48
I am careful what I say because I am concerned that other people may disapprove or disagree.	1	6.58*	.04	.01
When I am with other people, I look for signs whether or not they like being with me.	1	6.50*	.03	.01
I find it difficult to be separated from people I love.	1	5.15*	.03	.03
I often find myself thinking about friends or family	1	4.30*	.03	.04
I get lonely when I am home by myself	1	.31	<.01	.58
Having close bonds with other people makes me feel secure	1	1.23	<.01	.30
I feel bad when I don't have social plans for the weekend	1	2.32	.01	.13

* indicates significance at the .05 level.

Table 45

Japanese Children: Factor Loadings for Exploratory Factor Analysis with Oblimin Rotation of Need for Affiliation/Fear of Social Rejection Items – Two Factor Solution

Item	Factor 1	Factor 2
Fear of social rejection items		
It is important for me to be liked and approved by others.	**.63**	.11
It is worse to be socially rejected than physically hurt.	-.09	**.76**
I am uneasy when I cannot tell whether or not someone likes me.	**.58**	.32
I am uncomfortable when I am not sure how I am expected to behave.	**.87**	-.27
I get uncomfortable around a person who does not clearly like me.	**.60**	-.05
I am careful what I say because I am concerned that other people may disapprove or disagree.	**.85**	-.13
When I am with other people, I look for signs whether or not they like being with me.	**.62**	.31
Need for affiliation items		
I find it difficult to be separated from people I love.	**.70**	.16
I often find myself thinking about friends or family	**.56**	**.43**
I get lonely when I am home by myself	**.44**	.32
Having close bonds with other people makes me feel secure	**.73**	-.03
I feel bad when I don't have social plans for the weekend	.13	**.55**

Table 46

American Children: Factor Loadings for Exploratory Factor Analysis with Oblimin Rotation of *Need for Affiliation/Fear of Social Rejection* Items – Two Factor Solution

Item	Factor 1	Factor 2
Fear of social rejection items		
It is important for me to be liked and approved by others.	**.50**	.10
It is worse to be socially rejected than physically hurt.	**.54**	-.04
I am uneasy when I cannot tell whether or not someone likes me.	.34	**.49**
I am uncomfortable when I am not sure how I am expected to behave.	**.47**	**.45**
I get uncomfortable around a person who does not clearly like me.	**.44**	**.50**
I am careful what I say because I am concerned that other people may disapprove or disagree.	.07	**.67**
When I am with other people, I look for signs whether or not they like being with me.	.16	**.74**
Need for affiliation items		
I find it difficult to be separated from people I love.	**.66**	.22
I often find myself thinking about friends or family	**.70**	.16
I get lonely when I am home by myself	.29	.38
Having close bonds with other people makes me feel secure	**.62**	**.45**
I feel bad when I don't have social plans for the weekend	-.02	**.57**

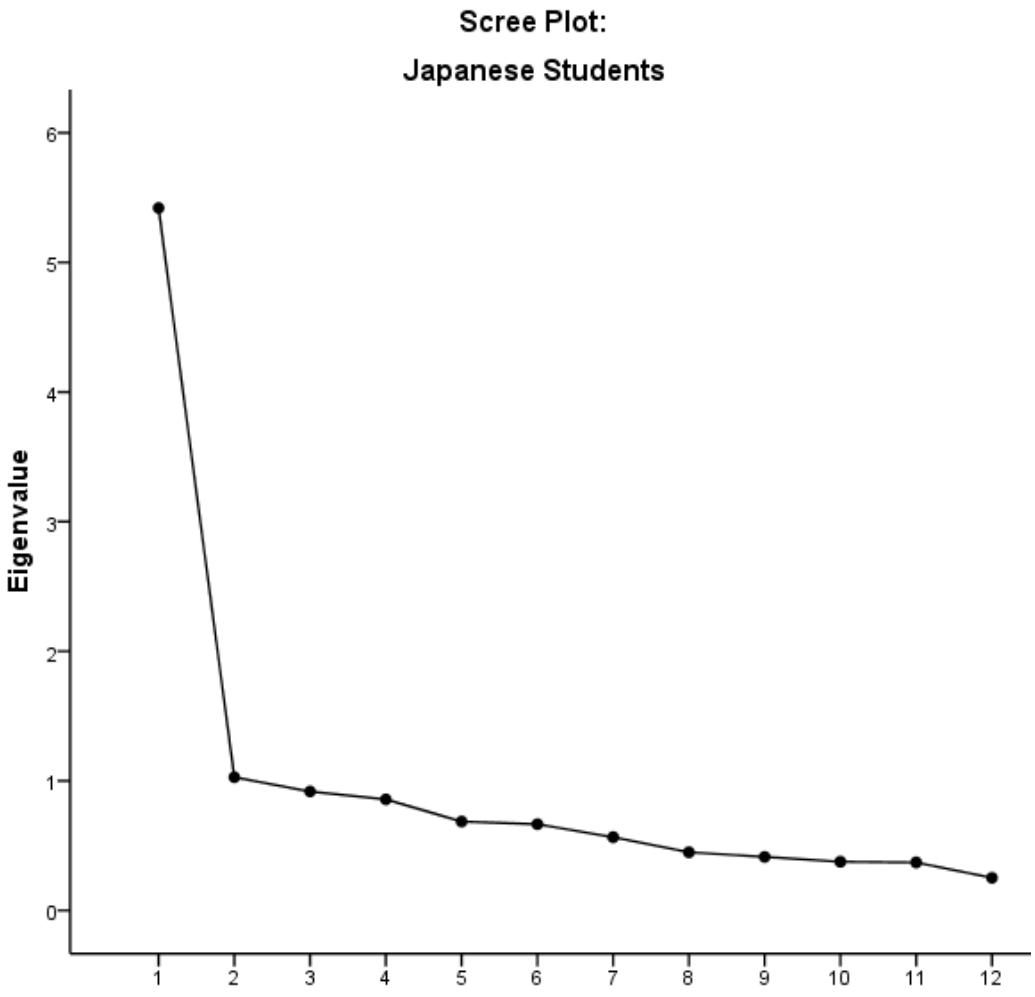

Figure 1. Scree plot indicating the potential number of factors to be extracted from an EFA regarding the constructs need for affiliation and fear of social rejection among Japanese students. The results indicate a single factor solution.

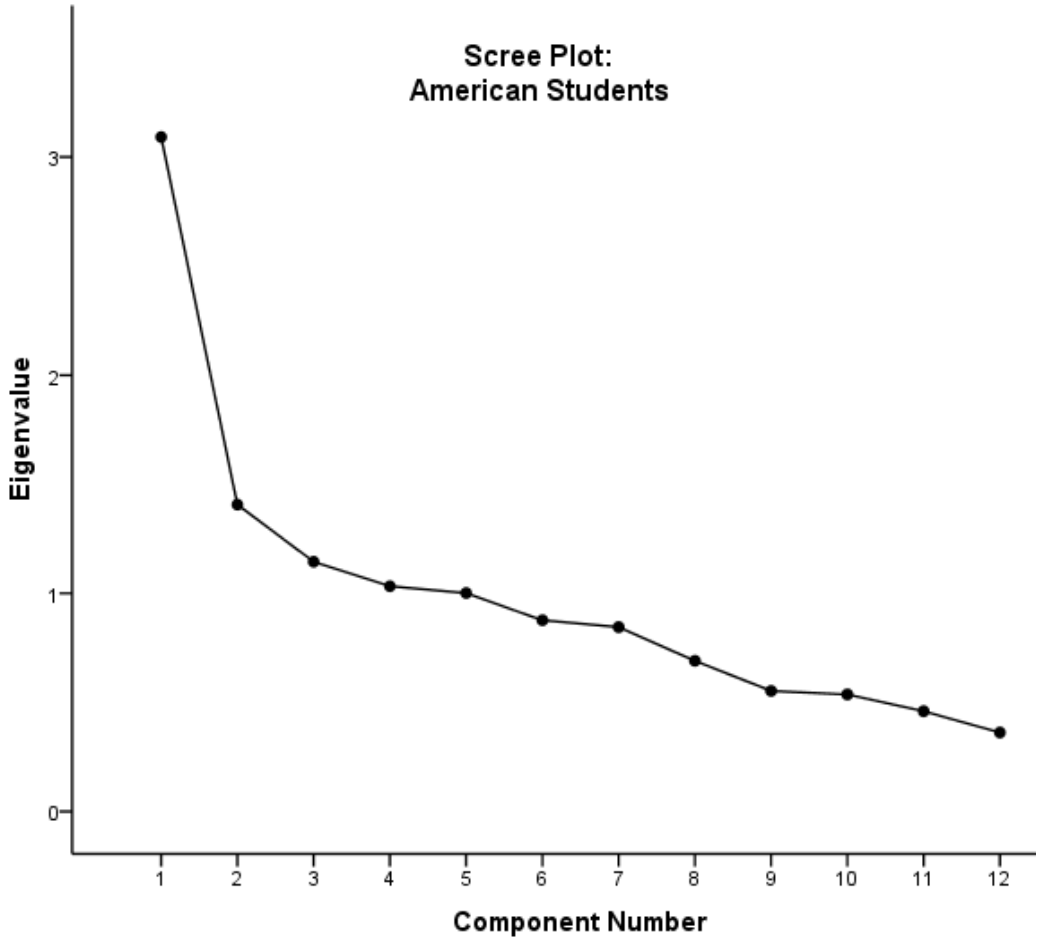

Figure 2. Scree plot indicating the potential number of factors to be extracted from an EFA regarding the constructs need for affiliation and fear of social rejection among American students. The results indicate a three factor solution.

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APPENDIX A

QUESTIONNAIRES

Please answer honestly the following questions by bubbling in the appropriate answer on the GENERAL PURPOSE DATA SHEET.
Please do not write your name on this form.
This survey is completely anonymous. Your answers will be used for nothing other than research purposes.

SECTION I.

1) Are you:
a) male
b) female

2) How old are you?
a) 12
b) 13
c) 14
d) 15

On the GENERAL PURPOSE DATA SHEET, use this scale to mark the response that best shows how much time you spend in a typical week doing the following activities:

A----------B----------C----------D----------E
more than 3 hours **2 to 3 hours** **1 to 2 hours** **between 1 minute and 1 hour** **none at all**

In a typical week, about how much time do you spend:

3. talking to friends face-to-face?
4. talking on a cell-phone?
5. sending text messages?
6. browsing the Internet?
7. using computer e-mail?
8. Have you ever heard of a chat room? (a = yes, b = no)
9. If yes, how much time do you spend? (If "no" answer E "none at all")
10. Have you ever heard of instant messenger? (a = yes, b = no)
11. If yes, how much time do you spend? (If "no" answer E "none at all")
12. Have you ever heard of personal websites such as Facebook or MySpace? (a = yes b = no)
13. If yes, how much time do you spend using them? (If "no" answer E "none at all")

SECTION II.

Use the following scale to indicate how often you have done, or have experienced, the described behaviors in <u>the past year</u> (12 months). Bubble in the response on the answer sheet that best describes the frequency of the acts.

A	B	C	D	E
A <u>lot</u> of the time (Almost every week)	**Often** (on average, once or twice a month)	**Some of the time** (on average, less than once a month)	**Rarely** (once or twice during the past year)	**Never** (zero times in the past year)

* <u>If you've never heard of something, please mark the answer "never"</u>

How often have you said something rude or mean which was intended to hurt another person:

14. face to face?
15. by cell phone text?
16. by computer email?
17. in a chat room?
18. on instant messenger?
19. on personal sites, such as Facebook or MySpace?

How often has someone said something rude of mean to YOU which was intended to hurt YOUR feelings:

20. face to face?
21. by cell phone text?
22. by computer email?
23. in a chat room?
24. on instant messenger?
25 on personal sites, such as Facebook or MySpace?

How often have you spread rumors whether they were true of not:

26. face to face?
27. by cell phone text?
28. by computer email?
29. in a chat room?
30. on instant messenger?
31. on personal sites, such as Facebook or MySpace?

How often has someone spread rumors whether they are true or not about YOU:

32. face to face?

33. by cell phone text?
34. by computer email?
35. in a chat room?
36. on instant messenger?
37. on personal sites, such as Facebook or MySpace?

How often have you sent around photos or videos of people being injured (punched, kicked, shoved, etc.) or embarrassed (being tripped etc.):

38. face to face?
39. by cell phone text?
40. by computer email?
41. in a chat room?
42. on instant messenger?
43. on personal sites, such as Facebook or MySpace?

How often has someone sent around photos or videos of YOU being injured or embarrassed:

44. face to face?
45. by cell phone text?
46. by computer email?

How often have you excluded someone from a group:

47. face to face?
48. by cell phone text?
49. by computer email?
50. in a chat room?
51. on instant messenger?
52. on personal sites, such as Facebook or MySpace?

How often has someone excluded YOU from a group:

53. face to face?
54. by cell phone text?
55. by computer email?
56. in a chat room?
57. on instant messenger?
58. on personal sites, such as Facebook or MySpace?

How often have you made comments to other students such as "if you don't do what I say, I won't like you anymore":

59. face to face?
60. by cell phone text?
61. by computer email?
62. in a chat room?
63. on instant messenger?
64. on personal sites, such as Facebook or MySpace?

How often have other students made comments to YOU such as "if you don't do what I say, I won't like you anymore:

65. face to face?
66. by cell phone text?
67. by computer email?
68. in a chat room?
69. on instant messenger?
70. on personal sites, such as Facebook or MySpace?

How often have you hidden your identity so others would not know who you were when you were:

71. texting on the phone?
72. sending an email?
73. chatting in a chat room?
74. sending instant messages?
75 using my personal webpages?

SECTION III.

For the next set of items, use the following scale. Bubble in the responses on the answer sheet that best describe you.

A----------B---------- ----------C----------D
Strongly Agree **Agree** **Disagree** **Strongly Disagree**

76. Being online gives me a sense of freedom.
77. When I am online, sometimes I hide my real identity.
78. It is important for me to be liked and approved by others.
79. It is worse to be socially rejected by peers than to be physically hurt.
80. I find it difficult to be separated from people I love.
81. I often find myself thinking about friends or family.
82. I am uneasy when I cannot tell whether or not someone I've met likes me.
83. I get uncomfortable when I am not sure how I am expected to behave.
84. I get lonely when I am home by myself.

85. I get uncomfortable around a person who does not clearly like me.
86. Having close bonds with other people makes me feel secure.
87. I am careful of what I say because I am concerned that other people may disapprove or disagree.
88. When I am with other people, I look for signs whether or not they like being with me.
89. I feel bad if I do not have social plans for the weekend.
90. I have participated in an anti-bullying program.

Thank you very much for your cooperation.

1. Default Section

以下の質問に正直に答えてください。
この用紙にあなたの名前を書かないでください。
このアンケートは完全に匿名です。あなたの回答が研究目的以外に利用されることは一切ありません。

あなたに当てはまる答え全てを○で囲んでください。

1. あなたは：

◯ 1 男

◯ 2 女

2. 何歳ですか？

◯ 12

◯ 13

◯ 14

◯ 15

3. 何年生ですか。

◯ 1

◯ 2

◯ 3

普段平日、あなたはだいたい何時間くらい:

4. 友達と面と向かって話す?

◯ まったく話さない

◯ 1 分から 1 時間くらい

◯ 1 時間から 2 時間くらい

◯ 2 時間から 3 時間くらい

◯ 3 時間以上

5. 携帯電話で話す?

◯ まったく話さない

◯ 1 分から 1 時間くらい

◯ 1 時間から 2 時間くらい

◯ 2 時間から 3 時間くらい

◯ 3 時間以上

6. 携帯メールを送る?

- ◯ まったく送らない
- ◯ 1 分から 1 時間くらい
- ◯ 1 時間から 2 時間くらい
- ◯ 2 時間から 3 時間くらい
- ◯ 3 時間以上

7. インターネットを見る?

- ◯ まったく見ない
- ◯ 1 分から 1 時間くらい
- ◯ 1 時間から 2 時間くらい
- ◯ 2 時間から 3 時間くらい
- ◯ 3 時間以上

8. パソコンのEメールを使う?

- ◯ まったく使わない
- ◯ 1 分から 1 時間くらい
- ◯ 1 時間から 2 時間くらい
- ◯ 2 時間から 3 時間くらい
- ◯ 3 時間以上

9. 「チャットルーム」機能を知っていますか。

- ◯ はい
- ◯ いいえ

10. 知っていれば、使う時間は？ (使わなければ「まったく使わない」を記入)

- ◯ まったく使わない
- ◯ 1 分から 1 時間くらい
- ◯ 1 時間から 2 時間くらい
- ◯ 2 時間から 3 時間くらい
- ◯ 3 時間以上

11. インスタントメッセンジャー」機能を知っていますか。

- ◯ はい
- ◯ いいえ

12. 知っていれば、使う時間は？ (使わなければ「まったく使わない」を記入)

- ◯ まったく使わない
- ◯ 1 分から 1 時間くらい
- ◯ 1 時間から 2 時間くらい
- ◯ 2 時間から 3 時間くらい
- ◯ 3 時間以上

13. フェイスブック・マイスペース・ミクシィなどの個人のウェブサイトを知っている？

- ◯ はい
- ◯ いいえ

14. 知っていれば、使う時間は？ (使わなければ「まったく使わない」を記入)

- ◯ まったく使わない
- ◯ 1 分から 1 時間くらい
- ◯ 1 時間から 2 時間くらい
- ◯ 2 時間から 3 時間くらい
- ◯ 3 時間以上

2.

(例)に従って、あなたが過去1年間でどれくらいの割合で経験したかを○で示してください。
(例) 全くない＝過去1年間で 0 回
めったにない＝過去1年間で1回か 2 回
時々＝平均して、1ヶ月に1回より少ない
よくある＝平均して、1ヶ月に1回か2回くらい
常に＝平均して、ほとんど毎週
* 問いの意味がわからなければ、「全くない」に○を書いてください。

1. あなたは、相手がいやがることや失礼なことを言ったことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって?	○	○	○	○	○
携帯電話のメールで?	○	○	○	○	○
パソコンのEメールで?	○	○	○	○	○
チャットルームで?	○	○	○	○	○
インスタントメッセンジャーで?	○	○	○	○	○
フェイスブックやマイスペースなどの個人のウェブサイトで?	○	○	○	○	○

2. あなたは、人からいやなことや失礼なことを言われたことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって?	○	○	○	○	○
携帯電話のメー	○	○	○	○	○
パソコンのEメールで?	○	○	○	○	○
チャットルームで?	○	○	○	○	○
インスタントメッセンジャーで?	○	○	○	○	○
フェイスブックやマイスペースなどの個人のウェブサイトで?	○	○	○	○	○

3. あなたは、うわさを広めたことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって?	○	○	○	○	○
携帯電話のメールで?	○	○	○	○	○
パソコンのEメールで?	○	○	○	○	○
チャットルームで?	○	○	○	○	○
インスタントメッセンジャーで?	○	○	○	○	○
フェイスブックやマイスペースなどの個人のウェブサイトで?	○	○	○	○	○

4. あなたは、うわさを広められたことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって?	◯	◯	◯	◯	◯
携帯電話のメールで?	◯	◯	◯	◯	◯
パソコンのEメールで?	◯	◯	◯	◯	◯
チャットルームで?	◯	◯	◯	◯	◯
インスタントメッセンジャーで?	◯	◯	◯	◯	◯
フェイスブックやマイスペースなどの個人のウェブサイトで?	◯	◯	◯	◯	◯

5. あなたは、人が暴力を受けたり、はずかしい思いをしている写真や動画を送ったことがある。

	全くない	めったにない	時々	よくある	常にある
携帯電話のメールで?	◯	◯	◯	◯	◯
パソコンのEメールで?	◯	◯	◯	◯	◯
チャットルームで?	◯	◯	◯	◯	◯
インスタントメッセンジャーで?	◯	◯	◯	◯	◯
フェイスブックやマイスペースなどの個人のウェブサイトで?	◯	◯	◯	◯	◯

3.

1. あなたは、自分が暴力を受けたり、はずかしい思いをする写真や動画を送られたことがある。

	全くない	めったにない	時々	よくある	常にある
携帯電話のメールで?	◯	◯	◯	◯	◯
パソコンのEメールで?	◯	◯	◯	◯	◯

2. あなたは、仲間から誰かをのけ者(無視を含む)にする、または、しようとしたことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって? (直接に、友達グループから)	◯	◯	◯	◯	◯
携帯電話のメールで?	◯	◯	◯	◯	◯
パソコンのEメールで?	◯	◯	◯	◯	◯
チャットルームで?	◯	◯	◯	◯	◯
インスタントメッセンジャーで?	◯	◯	◯	◯	◯
フェイスブックやマイスペースなどの個人のウェブサイトで?	◯	◯	◯	◯	◯

3. あなたは、仲間からのけ者(無視を含む)にされた、または、されそうになったことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって? (直接に、友達グループから)	◯	◯	◯	◯	◯
携帯電話のメールで?	◯	◯	◯	◯	◯
パソコンのEメールで?	◯	◯	◯	◯	◯
チャットルームで?	◯	◯	◯	◯	◯
インスタントメッセンジャーで?	◯	◯	◯	◯	◯
フェイスブックやマイスペースなどの個人のウェブサイトで?	◯	◯	◯	◯	◯

4. あなたは、人に「言うとおりにしないと、のけ者(無視)にする」と言ったことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって?	◯	◯	◯	◯	◯
携帯電話のメールで?	◯	◯	◯	◯	◯
パソコンのEメールで?	◯	◯	◯	◯	◯
チャットルームで?	◯	◯	◯	◯	◯
インスタントメッセンジャーで?	◯	◯	◯	◯	◯
フェイスブックやマイスペースなどの個人のウェブサイトで?	◯	◯	◯	◯	◯

5. あなたは、人から「言うとおりにしないと、のけ者(無視)する」と言われたことがある。

	全くない	めったにない	時々	よくある	常にある
面と向かって?	◯	◯	◯	◯	◯
携帯電話のメールで?	◯	◯	◯	◯	◯
パソコンのEメールで?	◯	◯	◯	◯	◯
チャットルームで?	◯	◯	◯	◯	◯
インスタントメッセンジャーで?	◯	◯	◯	◯	◯
フェイスブックやマイスペースなどの個人のウェブサイトで?	◯	◯	◯	◯	◯

4.

1. あなたは

	全くない	めったにない	時々	よくある	常にある
人に暴力をふるったことがある。(突いたり、足を引っかける等を含む)	○	○	○	○	○
人から暴力をふるわれたことがある。(突かれたり、足を引っかけられる等を含む)	○	○	○	○	○

2. あなたは、送り主が誰かわからないようにしたことがある。

	全くない	めったにない	時々	よくある	常にある
携帯電話でメールをしているとき?	○	○	○	○	○
Eメールを送っているとき?	○	○	○	○	○
チャットルームで話しているとき?	○	○	○	○	○
インスタントメッセージを送っているとき?	○	○	○	○	○
自分の個人ウェブサイトを使っているとき?	○	○	○	○	○

以下の項目について、あなたに一番近い表現の欄に○をつけてください。

3. 以下の項目について、あなたに一番近い表現の欄に○をつけてください。

	全くそう思わない	そう思わない	そう思う	強くそう思う
携帯電話やパソコンを使っているとき、誰にもじゃまされず「自分の世界」にいると感じる。	○	○	○	○
インターネット上で、ときどき自分が誰か他の人に分からないようにする。	○	○	○	○
他の人に好かれること・認められることは自分にとって大事だ。	○	○	○	○
仲間から無視されるより、暴力を受けた方がましだ。	○	○	○	○
大好きな人から離されるのはいやだ。	○	○	○	○
出会った人が、自分のことが気に入ってくれるかどうかわからないと不安になる。	○	○	○	○
どのようにふるまったらいいかわからないと不安になる。	○	○	○	○
友達や家族のことをよく考える。	○	○	○	○
自分のことが嫌いな人が周りにいると、落ち着かない。	○	○	○	○
家に一人でいるとさびしい。	○	○	○	○
意見を言うとき、反対されるかもしれないので、よく気をつけて言う。	○	○	○	○
人と心がつながっていると感じると安心する。	○	○	○	○
人と一緒にいるとき、その人が自分のことが好きかどうか知りたいと思う。	○	○	○	○
土曜、日曜に人と一緒に何かをする予定がないと不安になる。	○	○	○	○
いじめをなくすための活動に参加したことがある。	○	○	○	○

APPENDIX B

CONSENT AND ASSENT FORMS

CHILD ASSENT

Cyberbullying among Children in Japanese and American Middle Schools

I have been informed that my parent(s) have given permission for me to participate in a study concerning the Internet, cell phones, and text messaging. In particular, this study is looking into cyberbullying. I will be asked to complete a survey using paper and pencil. The survey should take only 5 to 10 minutes.

My participation in this project is voluntary, and I have been told that I may stop my participation in this study at any time. If I choose not to participate, it will not affect my grade in any way.

If you have any questions, you may ask at any time.

Different people may have very different answers. There is no right or wrong answer to any of the questions and you may stop at any time if you don't want to answer any more questions. You will not write your name on the survey, and no one will ever know your answers to the questions, not even you teachers, your parents, or you friends. Your answers are totally private.

_____ _____

Signature Printed Name

_____

Date

生徒同意書

日本・アメリカにおける子どものインターネットいじめ

私は、インターネット・携帯電話・携帯メールについての調査へ参加することを私の保護者が許可したことを、知らされています。この調査は特に、インターネットいじめについての調査です。私は鉛筆と紙を使ってアンケートに答えます。アンケートには5分から10分の時間がかかります。

私のこのプロジェクトへの参加は任意であること・この調査への参加をいつでもやめてよいことを知らされています。もし参加しないことに決めたとしても、私の成績等への影響は一切ないことを承知します。

質問がある場合は、先生にいつでも聞いてください。

私たちは、それぞれの人から違った答えがあることを楽しみにしています。正しい答え・間違った答えはありません。また、もう質問に答えたくないと思った場合、いつでもやめてかまいません。あなたの名前はアンケート用紙には書かないので、他の誰にも（先生・ご両親・お友達にも）あなたの回答が知られることはありません。あなたの回答は完全に内密にされます。

_____ _____

署名 氏名

_____

日付

PARENTAL LETTER OF PERMISSION

Dear Parent:

The Avondale Elementary School District is participating in a study in partnership with researchers from ASU to gain better insight into children's behavior regarding the Internet, cell phone use, and other related electronic media. We hope to explore the prevalence of cyberbullying in particular.

I am inviting your child's participation, which will involve responding to several questions on a survey which will be administered at school. Answering the questions will take about 5 to 10 minutes. Your child's participation in this study is voluntary. If you choose not to have your child participate, there will be no penalty (it will not affect your child's grade). Likewise, if your child chooses not to participate or to withdraw from the study at any time, there will be no penalty. The surveys will be completed entirely anonymously - the result of the research study may be published, but your child's name will never be used.

Although there may be no direct benefit to your child, a possible benefit is that by answering the questions your child may gain a better understanding of his/her own Internet behavior as well bring consciousness in the school to behavior related to electronic media. There are no foreseeable risks or discomforts to your child's participation.

All responses will be confidential. All surveys will be completed entirely anonymously.

The results of this study may be used in reports, presentations, or publications, but your child's name will not be known or used.

If you have any questions concerning the research study or you child's participation in the study, please contact Dr. Neil Stafford at (623) 687-7460
You can also contact the ASU investigator, Dr. Linda Caterino at (602) 702-3060 or the co-investigator, David Lerner, at (602) 405-0521

Sincerely,

Neil Stafford, PhD_____

IF YOU WILL ALLOW YOUR CHILD TO PARTICIPATE SIGN BELOW

_____ _____ _____
Signature Printed Name Date

By signing, you are giving consent for your child _____ to participate.

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

保護者同意書

教頭より

前略

　このたび、網干中学校は、アメリカ・アリゾナ州立大学の研究者と提携し、生徒のインターネット・携帯電話・その他の電子メディアの使用に関する行動へのより深い見識を得るため、調査に協力しています。このたびは特に、インターネットいじめのまん延状況について調査しようと考えております。

つきましては、学校で実施されますアンケートでいくつかの質問にお答えいただく内容で、お子様のご協力をお願い申し上げます。質問にお答えいただくのには、5分から10分程度のお時間がかかります。この調査へのお子様のご参加は任意です。もしお子様に参加させないことをご決断された場合でも、罰則（お子様の成績等への影響）は一切ありません。同様に、お子様自身が参加されないと決断された場合や、調査の中途棄権をされた場合にも、罰則等は一切ありません。アンケートは完全に匿名で実施され、調査研究の結果は公表される可能性がありますが、お子様のお名前が利用されることは一切ありません。

お子様への直接の利益はないかもしれませんが、質問に答えることで、お子様自身のインターネットの使用行為への更なる理解が期待されるほか、学校内での電子メディアに関する行動への意識をもたらすことができる可能性があります。お子様の参加に伴う予測されるような危険や不安はありません。

重ねて、全てのご回答は内密に守られます。全てのアンケートは完全に匿名で実施されます。

調査の結果は報告書類・プレゼンテーション・出版に利用される可能性がありますが、お子様のお名前が知らされることや利用されることは一切ありません。

お子様の調査へのご参加・研究調査についてご質問がある場合は、網干中学校校長までご連絡ください。

電話：079-273-6087

草々

網干中学校教頭　飯塚照三

お子様のご参加に**同意されない**場合、以下にご署名をお願いいたします。

_____	_____	_____
署名	氏名	日付

署名により、生徒_____の参加に**同意しない**ことを表明します。

APPENDIX C

IRB DOCUMENTS

To: Linda Caterino Kulhavy
EDB
From: Mark Roosa, Chair
Soc Beh IRB
Date: 08/18/2009
Committee Action: Expedited Approval
Approval Date: 08/18/2009
Review Type: Expedited F7
IRB Protocol #: 0908004210
Study Title: Cyberbullying among children in Japanese and American middle schools
Expiration Date: 08/17/2010
The above-referenced protocol was approved following expedited review by the Institutional Review Board. It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date. You may not continue any research activity beyond the expiration date without approval by the Institutional Review Board. Adverse Reactions: If any untoward incidents or severe reactions should develop as a result of this study, youare required to notify the Soc Beh IRB immediately. If necessary a member of the IRB will be assigned to look into the matter. If the problem is serious, approval may be withdrawn pending IRB review. Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, or the investigators, please communicate your requested changes to the Soc Beh IRB. The new procedure is not to be initiated until the IRB approval has been given.
Please retain a copy of this letter with your approved protocol.

ASU Knowledge Enterprise Development

Office of Research Integrity and Assurance

To:	Linda Caterino Kulhavy EDB
From:	Mark Roosa, Chair Soc Beh IRB
Date:	09/02/2010
Committee Action:	**Exemption Granted**
IRB Action Date:	09/02/2010
IRB Protocol #:	1009005455
Study Title:	Cyberbullying amoung children in Japanese and American Middle School

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(4) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.