Teaching Online Social Skills to Students with Emotional and Behavioral Disorders

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TEACHING ONLINE SOCIAL SKILLS TO STUDENTS
WITH EMOTIONAL AND BEHAVIORAL DISORDERS

By

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Bachelor of Arts
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2005

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A dissertation submitted in partial fulfillment
of the requirements for the

Doctor of Philosophy Degree in Special Education

Department of Educational and Clinical Studies
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ABSTRACT

Teaching Online Social Skills to Students with Emotional and Behavioral Disorders

by Joseph Morgan

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Students with emotional and behavioral disorders often lack appropriate social skills. This deficit can lead to negative outcomes including peer and teacher rejection, increased behavioral problems at school, and decreased academic achievement. In order to improve the social outcomes of students with emotional and behavioral disorders, teachers will often implement direct and explicit instruction of appropriate social skills in the natural environment. Increases in the use of technology for academic and social interaction have created a new natural environment where students participate. This environment has its own set of social rules and norms that users must understand. No published results were found related to the online social skills needed for interaction in online environments or related to the best way to teach these skills to students with emotional and behavioral disorders. In order to increase access to this environment, it is important for researchers to determine the skills needed for participation as well as the best methods for addressing these skills in school environments.

This study focused on teaching eight online social skills to students with emotional and behavioral disorders. Two instructional conditions were compared, traditionally-based online social skills instruction that involved practice of the skills in paper-and-pencil format and online social skills instruction that involved practice of the skills in online social environments. Data were compared to determine the effects on
student knowledge of the social skills, their ability to determine if the skills were implemented appropriately, and how they would revise inappropriate situations. Teacher and student perceptions of student acquisition of the skills were also compared. The impact of the interventions on teacher and student beliefs about the importance of learning the online social skill were evaluated prior to and at the conclusion of the study.

The results indicated that neither of the interventions was significantly effective at teaching the online social skills to students with emotional and behavioral disorders across time, and neither of the interventions was significantly better than the other. Neither teachers nor students felt that one intervention was more effective than the other at teaching the online social skills to students, although student perceptions of their learning approached significance across time. The two interventions did not have an impact on teacher beliefs about the importance of the online social skills. However, at the conclusion of the intervention, students viewed the targeted social skills as significantly more important than they did at the beginning of intervention.
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Dedicated to my first teacher, my mother,

Suzanne Marie Kelnofer.
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CHAPTER ONE
INTRODUCTION

Effective social skills are essential for success within the school setting, during post-secondary transition, and for life beyond the boundaries of school (Cumming et al., 2008; Herbert-Myers, Guttentag, Swank, Smith, & Landry, 2006; Konold, Jamison, Stanton-Chapman, & Rimm-Kaufman, 2010; Segrin & Taylor, 2007). The use of effective and appropriate social skills by students at school can lead to positive peer and teacher perceptions, which often results in higher student achievement and positive feelings about school (Konold et al., 2010; McClelland, Morrison, & Holmes, 2000; Meier, DiPerna, & Oster, 2006; Segrin & Taylor, 2007; Warnes, Sheridan, Geske, & Warnes, 2005). Failure to develop appropriate social skills is linked to a variety of negative outcomes, including peer rejection, deficiencies in core content areas, high rates of problematic behaviors, and negative interactions with teachers (Gresham, Elliott, Cook, Vance, & Kettler, 2010; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Mikami, Huang-Pollock, Pfiffner, McBurnett, & Hangai, 2007). Many curricula have been developed that specifically address deficits in the area of social skills (Gresham, Sugai, & Horner, 2001; Maag, 2005). However, the use of these curricula has shown mixed results, primarily because instruction does not occur in the natural environment and the skills taught seem irrelevant to students (Gresham, Sugai, & Horner, 2001; Maag, 2005). Therefore, it is important for educators to target social skills that frequently occur in natural environments, both in and outside of school.

A deficit in appropriate social skills is common among students identified as having emotional and behavioral disorders (EBD) (Bullis, Walker, & Sprague, 2001;
Gresham et al., 2010; Gresham, Sugai, & Horner, 2001; Maag, 2005; Miller, Lane, & Wehby, 2005; Warnes et al., 2005). Common characteristics of students with EBD include verbal and physical aggression, impulsive behavior, and a general inability to maintain interpersonal relationships due to deficiencies in communication skills (Gresham, Sugai, & Horner, 2001; Hill & Coufal, 2005; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Mikami et al., 2007). Social skills instruction is a commonly accepted intervention for addressing these deficits for students with EBD (Gresham, 2001; Gresham et al., 2001; Hill & Coufal, 2005; Johns, Crowley, & Guetzloe, 2005). This instruction is most effective when direct and explicit instruction of the targeted social skill is used (Bullis, Walker, & Sprague, 2001; Goldstein & McGinnis, 1997; Gresham, Sugai, & Horner, 2001). The direct instruction should include an appropriate replacement behavior and occur in the natural environment (Johns et al.; Maag, 2005).

Participation in online social environments (OSE) (e.g., Facebook, MySpace, Twitter) has increased dramatically in recent years (Brydolf, 2007; Klein, 2008; NSBA, 2007; Reed, 2007; Richardson, 2007; USDOE, 2004). Brydolf (2007) indicated that 50% of adolescent students participate in some type of OSE. These new OSE necessitate the identification and explicit teaching of appropriate online social skills. Although some school districts (e.g., Arcadia Unified School District, Saugus Union School District, Seattle Public School District) have recognized the importance of teaching appropriate online social skills and have created their own OSE for students to use, many school districts maintain that these environments have little educational advantage for students (NSBA, 2007). The National School Board Association (NSBA) found that students turn to their peers for guidance and education about participation in an OSE. However, peers
often teach each other inappropriate online skills (e.g., using inappropriate language, posting inappropriate content, communicating with strangers) (NSBA, 2007).

No published research related to the use of online social environments by students with EBD were found. While a few studies have focused on antisocial skills used in online social environments (Berson, Berson, & Ferron, 2002; Harman, Hansen, Cochran, & Lindsey, 2005; Hinduja & Patchin, 2009; Li, 2006), much of this research addresses societal concerns regarding cyberbullying (bullying in digital environments). More than 25% of students report that they have been the victim of cyberbullying (Hinduja & Patchin, 2009; Li, 2006), with the victims of cyberbullying being twice as likely to attempt suicide as a result of the bullying than victims of face-to-face bullying (Hinduja & Patchin, 2009).

Students who exhibit interpersonal problems in the physical environment (e.g., aggressive behaviors toward others, poor social skills, low levels of self-esteem) are more likely to use the Internet for inappropriate purposes than other students (Chak & Leung, 2004; Engelberg & Sjoberg, 2004; Harman, Hansen, Cochran, & Lindsey, 2005; Milani, Osualdella, & Di Blasio, 2009; Mitchell, Sabina, Finkelhor, & Wells, 2009). Because students with EBD often display inappropriate social behaviors and struggle with interpersonal relationships across settings, and with the high rate of participation in the online natural social setting, it is imperative for educators to identify methods to teach appropriate online social skills to improve the modern social interactions of this population.
Social Skills Defined

A variety of social skill definitions exist (Cavall, 1990; Gresham, Sugai, & Horner, 2001; Gresham et al., 2010; Miller, Lane, & Wehby, 2005; Warnes et al., 2005). Researchers in the field of psychology define three categories of social skills (Cavall, 1990; Riggio, 1986; Riggio, Tucker, & Coffaro, 1989). These are: (a) expressive skills (the ability to exhibit appropriate verbal and nonverbal behavior to meet an objective), (b) sensitivity skills (the ability to understand the impact of individual actions on others), and (c) controlling communication skills (the ability to determine appropriate verbal and nonverbal communication in a specific environment) (Cavall, 1990; Riggio, 1986; Riggio, Tucker, & Coffaro, 1989). Jenkins (1995) suggested that social skills are defined in two broad categories. These include sending and receiving social skills, ultimately defining the manner in which individuals interact with their environment to achieve a social purpose. Cavall (1990) indicated that the social skills adopted by an individual impact the achievement of status in their lives, consideration of other individuals in a global setting, and acceptance from peers.

Within the field of education, social skills typically are defined as prosocial skills students exhibit in order to access a particular social task within a specific environment (Gresham, Sugai, & Horner, 2001; Gresham et al., 2010). Many social skills curricula have identified and task-analyzed these skills (e.g., listening, joining in, dealing with anger) (Goldstein & McGinnis, 1997). Basically, social skills are the behaviors that humans exhibit in order to interact with others and navigate educational environments (Gresham, Sugai, & Horner, 2010).
Mastery of individual social skills assists in the development of social competence. Social competence is defined as a person’s overall ability to interact with the social environment in a positive manner as well as achieving and maintaining strong interpersonal relationships (Gresham, Sugai, & Horner, 2001; Gresham et al., 2010; Warnes et al., 2005). The goal of social skills instruction is to teach individual social skills to mastery, thereby improving a student’s overall ability to interact socially within the environment. This increase in social competence often results in more positive outcomes for students with emotional and behavioral disorders (Cumming et al., 2008; Gresham, Sugai, & Horner, 2001; Maag, 2005).

**Online Social Skills Defined**

Much like the classroom, online social environments have specific social skills required to achieve appropriate social interaction (Ducheneaut & Moore, 2005; Valkenburg & Peter, 2008). Although many of the social skills used in an online environment are similar to those used in physical environments (e.g., introducing yourself to new individuals, collaborating to achieve a task), there are social nuances specific to the online environment (Ducheneaut & Moore, 2005; Valkenburg & Peter, 2008). Online social skills, therefore, can be defined as specific social skills used in online environments that allow individuals to: (a) exhibit appropriate behavior, (b) understand the impact of specific social situations on other individuals, and (c) determine appropriate communication skills in specific online situations (Cavall, 1990; Ducheneaut & Moore, 2005; Riggio, 1986; Riggio, Tucker, & Coaffaro, 1989).
Social Skills Education

Students with EBD often lack the general social skills needed to participate in both school and community environments (Fitzgerald, 2005; Grehsam, Sugai, & Horner, 2001; Hill & Coufal, 2005; Johns, Crowley, & Guetzloe, 2005; Lane et al., 2008; Mikami et al., 2007). In school, deficits in appropriate social skills have been linked to lack of peer relationships, deficits in academic subjects, low levels of engagement, and high drop-out rates (Cumming et al., 2008; Gresham, Sugai, & Horner, 2001; Gresham et al., 2010; Fitzpatrick & Knowlton, 2009; Hill & Coufal, 2005; Lane, Givner, & Pierson, 2004; Lane et al., 2006; Lane et al., 2008; Miller et al., 2005). As adults, people with EBD often experience difficulty finding and keeping employment (Elksnin & Elksnin, 2006; Lane, Givner, & Pierson, 2004) and run a higher risk of developing psychological disorders (Gresham et al., 2010). Therefore, it is important for social skills instruction to be a part of the curriculum for students with EBD to facilitate positive life outcomes.

Need for Social Skills Instruction

Appropriate social skills are necessary for students to be successful in the school environment (Herbert-Myers et al., 2006; Konold et al., 2010; Lane, Pierson, & Givner, 2004; McClelland, Morrison, & Holmes, 2006; Meier et al., 2006; Rutherford, DuPaul, & Jitendra, 2008). The social skills necessary for school success include (a) teacher-pleasing behaviors, (b) assertion of opinion and needs in an appropriate manner, (c) self-control of emotions (e.g., excitement, anger, frustration), (d) cooperation with peers, (e) the ability to follow directions, and (f) peer-pleasing social skills (e.g., communicating with peers, following the rules, and cooperating when working with peers) (Lane, Pierson, & Givner, 2004; Herbert-Meyers et al., 2006; Meier et al., 2006).
Students who do not master these skills often are at-risk for teacher and peer rejection (Herbert-Meyers et al., 2006; Konold et al., 2010; Murray & Greenberg, 2006; Rutherford, DuPaul, & Jitendra, 2008). This rejection can result in a lack of connection to school, which is related to attendance and engagement with instruction (Panacek & Dunlap, 2003). The lack of peer connection and ability to build interpersonal relationships has a direct impact on post-secondary opportunities (Cumming et al., 2008; Lane et al., 2006). Elksnin and Elksnin (2006) stated that the most important skill needed to be successful at work is the ability to collaborate and communicate with others. Therefore, deficits in appropriate social skills often lead to lower employment rates for students with EBD (Cumming et al., 2008; Elksnin & Elksnin, 2006; Lane et al., 2006).

**Current Practices in Social Skills Instruction**

Because social skills impact a variety of factors (e.g., academic achievement, post-secondary job placement, and psychological well-being), educators employ several methods to teach these skills within the classroom environment (Barton-Arwood et al., 2005; Gresham, Sugai, & Horner, 2001; Johns, Crowley, & Guetzloe, 2005; Lane et al., 2006; Maag, 2005; Rotheram-Borus, Bickford, & Milburn, 2001; Rutherford, DuPaul, & Jitendra, 2008; Williams & Reisberg, 2003). Although social skills should be taught using direct and explicit instruction in the general education environment, little direct instruction actually happens (Dobbins, Higgins, Pierce, Tandy, & Tincani, 2010; Spence, 1983; Williams & Reisberg, 2003).

**Social skills instruction for typical students.** Most social skills instruction for typical students occurs naturally as a part of group activities, curricular incorporation (e.g., reading a story about someone with appropriate social skills, writing about
appropriate skills), and through conversation with the teacher (Elksnin & Elksnin, 2006). Korinek and Popp (1997) indicated that social skills often are taught through linkages with core academic skills. General education teachers will select curricula that present an important social skill either as a topic or through the activities implemented (e.g., complete a group assignment, play a game related to the topic). Students learn skills by engaging with the academic skill rather than through direct instruction (Korinek & Popp, 1997). This lack of direct social skills instruction in general education may be due to the lack of training received by general education teachers concerning the implementation of social skills instructional strategies in the classroom (Dobbins et al., 2010).

Social skills instruction for students with emotional and behavioral disorders. The most common approach to teaching appropriate social skills to students with emotional and behavioral disorders is through direct and explicit instruction of targeted skills (Barton-Arwood et al., 2005; Bullis, Walker, & Sprague, 2001; Johns et al., 2005; Goldstein & McGinnis, 1997; Gresham, Sugai, & Horner, 2001; Lane et al., 2006; Maag, 2005; Rotheram-Borus et al., 2001; Rutherford, DuPaul, & Jitendra, 2008). Although the terminology used in these curricula varies, the major components of most social skills instructional models include (a) discussion of the inappropriate social skill, (b) direct instruction of the new social skill, (c) modeling of the appropriate implementation of the targeted skill, (d) student role-play of the skill with immediate feedback from the teacher and peers, and (e) assigned practice focused on the generalization of the social skill (Johns et al., 2005; Goldstein & McGinnis, 1997; Gresham, Sugai, & Horner, 2001; Lane et al., 2006; Maag, 2005).
Effectiveness of Social Skills Instruction

There have been mixed results related to the effectiveness of social skills instruction (Lane et al., 2006). Several researchers have indicated that, although social skills instruction has a modest impact on the skills of students with disabilities, the majority of interventions have failed to produce long-term effects or show strength in the generalization of the skills (Bullis, Walker, & Sprague, 2001; Gresham, Sugai, & Horner, 2001; Maag, 2005). Several reasons have been discussed for the modest results of social skills instruction. First, social skills instruction is often applied universally to students with EBD without determining (a) if social skills instruction is needed, or (b) the type of social skills deficit that students are exhibiting (e.g., deficit in knowledge about the skill, lack of fluency in the skill, lack of motivation to implement the skill) (Bullis, Walker, & Sprague, 2001; Gresham, Sugai, & Horner, 2001; Maag, 2005). Additionally, the social skills targeted for instruction may not be an appropriate replacement for the skills students are exhibiting (Barton-Arwood et al., 2005; Maag, 2005). Finally, most social skills instruction takes place in an environment that is unrelated to the natural environment of students (e.g., in a special education classroom) (Johns, Crowley, & Guetzloe, 2005). Students with EBD struggle to generalize the targeted social skill into other areas, even after showing mastery of the skill within the instructional environment (Maag, 2005).

Several possible considerations exist that may impact the effectiveness of social skills instruction. First, instruction should be moved from the special education classroom environment to the natural environment in which the behavior occurs. Additionally, the most effective social skills instruction targets skills that are used by typical peers and are
applicable to building social relationships in the school environment (Maag, 2005). Student deficits in specific social skills should be identified and teachers should target this deficit area instead of using a more holistic teaching approach (Bullis, Walker, & Sprague, 2001; Gresham, Sugai, & Horner, 2001; Maag, 2005). The replacement skill being taught must provide the same access to the social environment as the current skill that students are using to ensure maintenance of the replacement behavior (Barton-Arwood et al., 2005).

The Use of Computer Technology with Students with Emotional and Behavioral Disorders

Students with EBD often find technology engaging to use, and technology may be the missing link between solid academic instruction and engagement in learning for students with EBD (Fitzgerald, 2005; Kuiper, Volman, & Terwal, 2005; Mikami et al., 2007; NSBA, 2007; Reschly & Christensen, 2006; Tyler-Wood, Cereijo, & Pemberton, 2004; USDOE, 2004). Although there is little research in the area of technology integration in the education of students with EBD, both for academics and social skills instruction, empirical data suggest that the use of technology may improve outcomes for this population in both areas.

Students with EBD often are disengaged from instructional activities within the academic environment (Fitzgerald, 2005; Lane et al., 2006; Reschly & Christensen, 2006; Tyler-Wood, Cereijo, & Pemberton, 2004). The incorporation of instructional methodologies that students with EBD find interesting may increase their academic achievement (Tyler-Wood, Cereijo, & Pemberton, 2004). Fitzgerald (2005) found that the
use of technology in the classroom may increase student engagement with the lesson, and thereby have a direct impact on student academic achievement. Although there is limited research related to the academic engagement and achievement of students with EBD and technology integration, several studies have shown promise.

Fitzgerald (2005) found that the use of technology in the classroom environment related to core subject areas resulted in higher academic performance on outcome measures and higher perception of engagement on the part of the teacher. Blankenship, Ayres, and Langone (2005) found that the use of computer-based cognitive mapping resulted in substantial increases in students reading comprehension levels after intervention. With the lack of engagement of students with EBD being correlated to a lack of academic achievement (Lane et al., 2006), technology may be a variable that can increase student engagement with school, eventually leading to higher outcomes (Cumming et al., 2008; Fitzgerald, 2005).

While there is little research related to the use of technology to teach appropriate social skills to students with EBD, there are studies that suggest the use of technology may facilitate social skills instruction. Cumming et al. (2008) found that student-created video models of targeted social skills increased student knowledge of social skills. Although the students did not perceive a higher mastery of the targeted social skills with the video-models, teachers reported they felt students were more engaged when using the video modeling. Additionally, Baker, Lang, and O’Reilly (2009) found that research supports the use of video modeling as an effective intervention for students with EBD, although the impact of the video modeling in generalized settings was limited.
The incorporation of technology into the education of students with EBD increases their on-task behavior in the classroom. Xu, Reid, and Steckelberg (2002) found that the use of computers to assist students with behavioral problems (e.g., communicate response cost, prompts to keep students on-task) was effective in decreasing off-task behaviors. Gulchak (2008) found that the implementation of a handheld computer device to keep track of behavior in the classroom resulted in higher levels of engagement and lower levels of off-task behaviors for a student with EBD.

In terms of the online environment, little research has been conducted related to the types of behaviors exhibited by students with EBD while participating in this environment. Mikami et al. (2007) conducted a study that focused on the participation of students with EBD in online chat rooms. The study was designed to determine the social skills students would exhibit in the online environment. Results indicated that students with externalizing problems were more likely to make aggressive and inappropriate comments to others in the online environment, while students with internalizing problems were less likely to participate at all while online. It appears that behavioral problems that occur in the physical environment also occur online, thereby requiring intervention.

**The Rise of Online Social Networking**

The social milieu of the world is changing rapidly (Hesel & Williams, 2009; NSBA, 2007; Rosen, 2010; Stout, 2010). Over 90% of teenagers interact with their peers online rather than on the phone or in person (Hesel & Williams, 2009; NSBA, 2007). Adolescents between the ages of 8 and 18 spend 7.5 or more hours per day using
technology to communicate (Stout, 2010). Thus, modern variables must be incorporated into educational plans for students with EBD.

According to the National Education Technology Plan (NETP) developed by the United States Department of Education (2004), technology has become an important component in the lives of students. The NETP found that close to 90% of children between the ages of 5-17 currently use a computer, and the largest increase in computer use was among students aged 2-5 (USDOE, 2004). Teenagers currently use the Internet and computers more than they watch television (NSBA, 2007; USDOE, 2004).

According to the NSBA, 96% of students who have access to the Internet participate in social networking activities (e.g., chatting, sending e-mail, meeting new people). Ninety-four percent of teenagers use the Internet for research on school projects (USDOE, 2004), and 59% of students who use the Internet to socialize talk about education-related topics (Brydolf, 2007; NSBA, 2007).

In addition to Internet use, schools currently have the highest rate of online connectivity in the history of modern education. According to the NETP, 99% of American schools are connected to the Internet and the ratio of students to computers is five to one (USDOE, 2004). These statistics indicate that technology is a commonly used tool for students both inside and outside of the educational environment.

**Problems of Social Networking**

Although the rise of online social environments has become a part of mainstream society, many educators express concerns about the safety of students in these environments (NSBA, 2007). Several media reports have highlighted the negative consequences of inappropriate activity in the OSE, including exploitation of children and
severe cases of bullying (Lazo, 2005; Maag, 2005; Stafford, 2006). In addition, school administrators are concerned with students accessing an OSE within the school environment (NSBA, 2007).

A major concern with the use of an OSE is cyberbullying (Hinduja & Patchin, 2009; Li, 2006; Morgan, 2010). Reports of incidents of cyberbullying range from 7-25% of online users (Berson, Berson & Ferron, 2002; Hinduja & Patchin, 2009; Li, 2006; NSBA, 2007; Potter & Potter, 2001; Privitera & Campbell, 2005). Hinduja and Patchin (2009) found that cyberbullying often has a serious impact on the emotional well-being of students. Among middle school students, the victims of cyberbullying were more likely to consider suicide than their peers who had not been victimized (Hinduja & Patchin, 2009).

It appears that the exploitation of young people who participate in an OSE is increasing (Berson, Berson, & Ferron, 2002; Harman, Hansen, Cochran, & Lindsey, 2005; Potter & Potter, 2001). Often participants share and receive inappropriate content via OSE, including sexually inappropriate materials, inappropriate language, and requests for the release of personal information (Berson, Berson, & Ferron, 2002; Harman et al., 2005; NSBA, 2007; Potter & Potter, 2001). Provision of this content puts the participant at risk for harassment, punishment at school, and may impact future job and school opportunities (NSBA, 2007; Richardson, 2007).

The National School Board Association (NSBA, 2007) indicated that many students learn how to navigate OSE from their peers, since most educational environments fail to address the appropriate method of interaction in the online environment. However, many students who are most influential in teaching online social
skills teach inappropriate skills (e.g., using inappropriate language, posting inappropriate content, communicating with strangers) (NSBA, 2007). The students who use the Internet the most for social networking typically are students who display inappropriate behaviors in the online environment (NSBA, 2007). Therefore, students who need to learn about appropriate participation in the OSE may learn inappropriate participation skills, putting them at higher risk of becoming involved in socially inappropriate behavior while online.

**Promises of Social Networking**

Even with the concerns about inappropriate use of OSE, there are many promises of the educative value of these systems. Sixty percent of students who use OSE do so in order to discuss education-related topics (e.g., college, news, jobs, politics) and 50% of students use OSE to discuss school work or projects (Hesel & Williams, 2009; NSBA, 2007). The use of OSE and other technological tools leads to higher student engagement and creativity with academic projects (Borsheim, Merritt, & Reed, 2008; Hutchinson, 2007; Klein, 2008; Kuiper, Volman, & Terwal, 2005; USDOE, 2004; Witte, 2007).

Additionally, students who lack a connection to the school environment and who exhibit lower participation within the classroom may be more comfortable making connections with people in an OSE (Brydolf, 2007). Using an OSE may provide students with EBD an opportunity to connect with peers and build the positive social relationships they lack (Murray & Greenberg, 2001; Panacek & Dunlap, 2003). Online social environments provide asynchronous environments in which students with EBD can think about the message they wish to communicate to their peers, act on their intent, and have time to analyze the responses they receive (Morgan, 2010). Online social environments may provide a model for students with EBD related to the appropriate use of online social
skills in a natural environment, increasing the inclusion of students with EBD in the general education environment (Morgan, 2010; Panacek & Dunlap, 2003).

**Skills Necessary for Safe and Appropriate Online Social Networking**

No published research findings were found that were directly related to the online social skills (OSS) needed for students to participate in an OSE. However, research exists related to skills needed for participation in other forms of technology (e.g., online gaming, chat rooms). Ducehneaut and Moore (2005) identified several skills needed to succeed in an online role-playing game: (a) having a conversation with someone you do not know, (b) being sensitive to statements individuals make to each other, (c) collaboration among players, (d) waiting turns to participate, and (e) having empathy for other players.

Alapack, Blchfeldt, and Elden (2005) discussed the prevalence of communication focused on feelings of attraction in online environments and the appropriate ways to address these issues. Students often lie about their personal information on the Internet, resulting in safety issues that arise as a result of these actions, as well as understanding the audience that will read posted content (Boyd, 2008; Harman et al., 2005). There is rising concern with cyberbullying and the need for students to understand the issues related to this topic (Li, 2006; Privitera & Campbell, 2005; Tynes, 2007). Finally, concerns about the release of personal information and its relation to Internet protection and privacy have been discussed (Barnes, 2006; Harman et al., 2005; Potter & Potter, 2001).

Eight online social skills related to participation in the online environment appear to have the strongest research support and will be the focus of this dissertation. These are: (a) creating an online profile with appropriate content (Barnes, 2006; Harman et al.,
2005; Potter & Potter, 2001), (b) introducing yourself to someone new (Ducheneaut & Moore, 2005); (c) responding to requests for personal information (Barnes, 2006; Mitchell, Wolak, & Finkelhor, 2008; Potter & Potter, 2001), (d) associating with groups on the Internet (Ducheneaut & Moore, 2005), (e) letting someone know that you like them (Alapack, Blichfeldt, & Elden, 2005), (f) responding to and refraining from cyberbullying (Li, 2006; Privitera & Campbell, 2005), (g) disagreeing with someone online (Li, 2006; Privitera & Campbell, 2005), and (h) understanding your audience (Boyd, 2008).

**Statement of the Problem**

Because students with EBD often lack the appropriate social skills needed to participate in a variety of social situations (Fitzgerald, 2005; Gresham, Sugai, & Horner, 2001; Hill & Coufal, 2005; Johns, Crowley, & Guetzloe, 2005; Mikami et al., 2007), coupled with the fact that children and youth participate in online social environments at high rates (Borsheim, Merritt, & Reed, 2008; Fitzgerald, 2005; Gilberti, 1999; Kuiper, Volman, & Terwal, 2005; USDOE, 2004), it is important for special educators to identify the best method to explicitly teach appropriate online social skills needed for participation in the natural environment of the OSE. However, no published research was found that identifies the online skills that students should learn or that addresses the best methodology for teaching online skills to students with EBD. Therefore, this study designed an online social skills curriculum in both a traditional (teacher-led) and natural (student participation online) format to determine the instructional format that results in
the highest rate of student acquisition of the targeted online social skills. The specific research questions addressed by this study were:

1. Does the knowledge of students with emotional and behavioral disorders related to online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

2. Do the student perceptions of the acquisition of knowledge related to appropriate online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

3. Do the teacher perceptions of the acquisition of knowledge related to appropriate online social skills by students with emotional and behavioral disorders increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

4. Is the knowledge of online social skills of students with emotional and behavioral disorders better maintained after the use of online social skills instruction when compared to a traditionally-based online social skills instructional model?

5. Will teacher beliefs concerning the importance of the targeted online social skills change following the implementation of traditionally-based online social skills instruction and online social skills instruction?

6. Will student beliefs concerning the importance of the targeted online social skills change following the implementation of traditionally-based online social skills instruction and online social skills instruction?
Significance of the Study

Knowledge of appropriate social skills is essential for student success, both in public school and post-secondary environments (Cumming et al., 2008; Herbert-Myers et al., 2006; Konold et al., 2010; Lane et al., 2006; McClelland et al., 2000; Warnes et al., 2005). Since explicit social skills instruction is not a common part of the general education curriculum (Dobbins et al., 2010; Spence, 1983; Williams & Reisberg, 2003), it is important for students with social skills deficits, primarily students identified as having emotional and behavioral disorders, to receive direct instruction of appropriate social skills. The most effective social skills instruction provides direct and explicit instruction in the targeted social skill (Bullis, Walker, & Sprague, 2001; Goldstein & McGinnis, 1997; Gresham, Sugai, & Horner, 2001) in the natural environment (Johns, Crowley, & Guetzloe, 2005).

As the use of OSE among children and youth increases, it is important for educators to identify the online social skills needed for appropriate participation, as well as determine the best methods to teach these targeted skills (Brydolf, 2007; Klein, 2008; NSBA, 2007; Richardson, 2007; USDOE, 2004). Failure to teach these online skills puts students at risk for being the victims or perpetrators of cyberbullying as well as for being exploited (Barnes, 2006; Harman et al., 2005; Li, 2006; Potter & Potter, 2001; Privitera & Campbell, 2006). Additionally, students with externalizing behavioral problems often show aggressive behaviors in the OSE and students with internalizing behavioral problems often do not participate in these environments (Mikami et al., 2007). Since students with EBD display behavioral problems in a variety of physical environments, it is highly probable that they will display similar behaviors in an online environment,
putting them at a high risk for negative consequences in the online environment. Therefore, teaching students with EBD appropriate online social skills is timely and important.

Recent research suggests that the incorporation of technology in social skills instruction increases a students’ knowledge of the targeted skill (Baker et al., 2009; Cumming et al., 2008), as well increases the engagement of students with EBD (Fitzgerald, 2005; Tyler-Wood, Cereijo, & Pemberton, 2005). However, no published research has been found related to specific methods for teaching OSS to students with EBD. Thus, this study (a) developed lessons for both traditional and online social skills instruction to explicitly teach these skills, and (b) determined the relative effectiveness of both types of instruction. The findings of this study contribute to the research base of effective strategies related to (a) social skills instruction for students with EBD, (b) the use of technology to improve students’ social skills, (c) the use of technology to improve the maintenance of social skill, and (d) the appropriateness of specific social skills in students’ online social environments. This study compared the effectiveness of traditionally-based online social skills instruction and online social skills instruction in the natural environment (e.g., the Internet), as well as the maintenance of skills over time. Additionally, this study compared the perceived effectiveness of each form of instruction.
Definitions

Blog. An Internet journal, in which a person writes their thoughts on any topic and other individuals provides comments about the author’s ideas.

Chat room. A messaging system that allows individuals an opportunity for synchronous communication. Both users must be logged into the same chat room in order to communicate. Chat rooms are usually topic or theme-related, allowing people with similar interests a place to connect.

Component. The different parts of the Gaggle system that are accessed by users. These include the blog, e-mail, profile, status updates, and wall posts.

Cyberbullying. A type of bullying where perpetrators harass their victims via the Internet (Hinduja & Patchin, 2009). This may take many forms (e.g., name calling, rumor spreading, threats).

Email. An electronic messaging system, allowing individuals asynchronous communication.

Emotional and behavioral disorder. A severe emotional disorder that is exhibited by a person for at least three months that negatively impacts academic performance and includes at least one of the following: (a) an inability to build or maintain interpersonal relationships, (b) inappropriate behaviors or feelings under normal circumstances, (c) pervasive moods of unhappiness or depression, or (d) fears or a tendency to develop physical symptoms associated with personal or school problems (Nevada Administrative Code, 2007).

Gaggle (2010). A simulated social networking website that is monitored for appropriate content and usage in the school environment. The software is developed to
resemble popular social networking websites and allows students to post information and communicate with other users.

**Internet.** A series of interconnected computer networks that contain many resources, services, and activities for users. Users generally access the World Wide Web (WWW), which is a series of documents that provide these services.

**Modeling.** Simulated implementation of an appropriate social skill for students (Goldstein & McGinnis, 1997).

**Online social environment.** A website that fosters users to create a community, connect with each other, and share information (Morgan, 2010).

**Online social skill.** Specific social skills used in online environments that allow individuals to: (a) exhibit appropriate behavior in online environments, (b) understand the impact of specific social situations on other individuals, and (c) determine appropriate communication skills in specific online situations (Cavall, 1990; Ducheneaut & Moore; Riggio, 1986; Riggio et al., 1989). The online social skills taught in this study were creating an online profile with appropriate content, introducing yourself to someone new, responding to requests for personal information, associating with groups on the Internet, letting someone know that you like them, responding to and refraining from cyberbullying, disagreeing with someone online, and understanding your audience.

**(a) Creating an online profile with appropriate content.** Creating a personal profile that does not release personal information or contain inappropriate pictures or language (Barnes, 2006; Harman et al., 2005; Potter & Potter, 2001).
(b) **Introducing yourself to someone new.** Appropriately introducing yourself to someone on the Internet and understanding appropriate and inappropriate times to give personal information (Ducheneaut & Moore, 2005).

(c) **Responding to request for personal information.** Recognizing when a request for information is inappropriate and deciding what types of information to provide while still protecting personal identity (Barnes, 2006; Mitchell, Wolak, & Finkelhor, 2008; Potter & Potter).

(d) **Associating with groups on the Internet.** Determining the intent of a group and realizing the consequences of associating with specific groups (Ducheneaut & Moore, 2005).

(e) **Letting someone know that you like them.** Determining appropriate ways to let someone know that you are attracted to them or interested in pursuing a friendship/relationship (Alapack, Blichfeldt, & Elden, 2005).

(f) **Responding to and refraining from cyberbullying.** Recognizing when cyberbullying is occurring, determining what to do about cyberbullying, and refraining from engaging in cyberbullying with another person (Li; Privitera & Campbell, 2005).

(g) **Disagreeing with someone online.** Appropriate methods for engaging in discussion when people have different viewpoints (Li; Tynes, 2007).

(h) **Understanding your audience.** Knowing who will read postings from online social environments and understanding the consequences of specific posts (Boyd, 2008).
**Social skills.** An individual’s ability to access social situations and implement an appropriate action that provides social attainment as well as teacher/peer acceptance (Cavall, 1990; Gresham, Sugai, & Horner, 2001).

**Status update.** A short message that can be posted in an online social environment that allows users to convey what they are doing or share thoughts about a particular topic. Other users can communicate with the individual about their status.

**Online social skills instruction.** Instruction on a targeted social skill in which modeling and practice of the skill occurs within an online social environment.

**Profile information.** The basic component of an online social environment. This allows users to share personal information about themselves (e.g., where they are from, their school, their interests).

**Screen shot.** A picture of a computer screen. These are used to display items from a computer in a different format (e.g., a Word document, a Powerpoint).

**Task analysis.** Instructional procedure that breaks down skills into smaller steps that are taught independently (Goldstein & McGinnis, 1997).

**Traditionally-based online social skills instruction.** Teacher-led instruction on a targeted social skill in which modeling and practice of the skill occurs in a paper-and-pencil format (Goldstein & McGinnis, 1997).

**Wall post.** A space located within an individual’s profile in an online social environment on which friends can write messages to the individual.
Limitations

The limitations of this study are:

1. The data from this study were collected in self-contained special education classrooms for students with emotional and behavioral disorders. This limits the generalization of the results to other disability groups or types of classrooms.

2. Each phase of the intervention lasted for 2 weeks. An intervention period that lasts for a longer period of time might produce different results.

3. The sample size of this study was small. A larger number of students might produce different results.

4. The schools used in the study were chosen from a convenience sample. The findings may not generalize to other schools.

5. The teacher fidelity of implementation was lower during the online social skills intervention than during the traditional social skills intervention. Therefore, results may be indicative of the teacher familiarity with the technology and not the quality of the intervention.

6. Student attrition during maintenance assessment was high, due to it being the final week of school.

7. The self-contained classrooms selected had high levels of student behavioral problems that often inhibited the progress of instruction. The behaviors of students may have impeded the mastery of the targeted social skills.

8. The pre-, post-, and maintenance assessments used in this study captured holistic student mastery related to (a) naming the appropriate social skill, (b) identifying whether or not it was used appropriately, and (c) suggesting revisions to the targeted
social skill. The final data may not have been sensitive to mastery of each step of the intervention.
Mastery of effective social skills is an indicator of success in school and contributes to postsecondary transition (Konold et al., 2010; McClelland, Morrison, & Holmes, 2000). However, students with emotional and behavioral disorders (EBD), often exhibit problems in the implementation of appropriate social skills (Gresham, Sugai, & Horner, 2001; Maag, 2005; Miller, Lane, & Wehby, 2005). The problems with implementation are a result of deficits in two areas: (a) skills, in which students with EBD do not possess the foundational knowledge of concerning the implementation of appropriate social skills, or (b) performance, in which students with EBD may be able to implement the skill but are unmotivated to do so (Gresham et al., 2001). Inappropriate social skills have been linked to negative school outcomes, including peer and teacher rejection, academic struggles, and high rates of problem behaviors (Gresham, Elliott, Cook, Vance, & Kettler, 2010; Lane, Barton-Arwood, Nelson, & Wehby, 2008).

There are a variety of research-based interventions to teach social skills to students with EBD (Gresham, Sugai, & Horner, 2001; Maag, 2005). Common components of these interventions include direct and explicit instruction of the social skill, modeling of the skill for students, opportunities for practice, feedback, and generalization (Bullis, Walker, & Sprauge, 2001; Goldstein & Glick, 1994; Goldstein & McGinnis, 1997). The use of these strategies within the school setting has produced mixed results, primarily because the teaching methods and the specific skills being taught do not seem relevant to the students (Gresham et al.; Maag). Because social skill instruction typically
does not occur in a natural environment there is a lack of connection and application to the lives of students (Johns, Crowley, & Guetzloe, 2005; Maag).

Recently, participation in online social environments (OSE) has increased for all individuals, creating a new natural environment with its own set of social skills and rules (Brydolf, 2007; Klein, 2008; NSBA, 2007; USDOE, 2004). Unfortunately, within school settings, there is limited instruction related to the implementation of appropriate social skills in online environments. Currently, the majority of instruction related to computer technology exists to support academic instruction (Li, 2007; Judge, 2005).

Students with behavioral problems who exhibit social problems in the physical environment are more likely to display interpersonal problems in online environments, as well as to use the Internet for inappropriate reasons (Chak & Leung, 2004; Engelberg & Sjoberg, 2004; Harman, Hansen, Cochran, & Lindsey, 2005; Mitchell, Sabina, Finkelhor, & Wells, 2009). Limited research exists that focuses on technology to support the academic and social skills development of students EBD (Baker, Lang, & O’Reilly, 2009; Cumming et al., 2008; Xu, Reid, & Steckelberg, 2002). However, no research has focused on teaching online social skills to students with EBD. In order to provide access and appropriate use of online social environments (OSE), it is important to identify and teach targeted social skills to students with EBD.

Social Skills Instruction

Social skills within the school environment are defined as prosocial skills (e.g., hand-raising to ask a question, working well with peers, sitting quietly during instruction) used in order to access or complete a specific task related to learning or interactions with
others (Gresham, Sugai, & Horner, 2001; Gresham et al., 2010). Individuals who display an inability to implement social skills appropriately are more likely to be rejected by their peers, be academically behind in school, have higher rates of problematic behaviors, and have higher rates of psychological disorders, such as depression (Gresham et al., 2010; Lane, Barton-Arwood, Nelson, & Wehby, 2008; Mikami, Huang-Pollock, Pfiffner, McBurnett, & Hangai, 2007). Students with EBD often are characterized by deficiencies in their ability to apply these skills appropriately within a variety of environments (Cullinan & Sabornie, 2004; Lane, Carter, & Pierson, 2006). Instructional techniques and strategies have been developed to teach social skills (e.g., the \textit{Skillstreaming}, Goldstein & McGinnis, 1997) series, direct instruction, corrective feedback) (Goldstein & Glick, 1994; Gresham et al., 2001). Typically, specific skills related to school success are identified, task analyzed, and taught to students through modeling, role-playing, and corrective feedback (Goldstein & McGinnis, 1997; Johns, Crowley, & Guetzloe, 2005).

\textbf{Social Skills Instruction for Typical Students}

Social skills instruction for typical students is often embedded as a part of schoolwide positive behavior supports (PBS) or character education programs that are primarily focused at elementary school students (Parker, Nelson, & Burns, 2010; Snyder, Vuchinich, Acock, Washburn, & Flay, 2011). Through these programs, social skills are addressed as a part of schoolwide rules and norms that are implemented across all classrooms and school settings (Parker, Nelson, & Burns, 2010). Instruction in appropriate school social skills generally occurs at the beginning of the school year and then is revisited throughout the school year during discussions related to appropriate behavior or through indirect teaching moments (e.g., using literature as an opportunity to
teach social skills, redirecting behavior during class activities) (Leming, 2000; Parker, Nelson, & Burns, 2010; Snyder et al., 2011). Limited direct instruction of school-appropriate social skills occurs in the typical classroom environment.

Leming (2000) conducted a study designed to evaluate a literature-based character curriculum entitled *An Ethics Curriculum for Children* (Heartwood Institute, 1992). The purpose of the study was to measure post-intervention changes in: (a) student knowledge of the attributes of character, (b) ability to choose actions that meet the ethical principles established in the curriculum, (c) student ethnocentrism to individuals of other racial backgrounds, and (d) the ethical behavior of students in school. The study was conducted in four elementary schools in two different states. One school site was selected in each state to receive the intervention, and one school site was selected as the control group. A total of 426 students in grades 1-6 participated in this study; for comparison purposes, students were separated into lower elementary grades (1-3) and upper elementary (4-6). Nineteen teachers agreed to implement the curriculum and participate in the study. All intervention lessons occurred in the classrooms.

Leming (2000) implemented a pre-post, quasi-experimental design to ascertain the impact of the *Heartwood* (1992) curriculum. The intervention lasted for one academic school year (from September to May). A total of 14 character lessons were taught to students throughout the school year. The lessons were taught using the *Heartwood* curriculum (Heartwood Institute, 1992). Each curriculum set contained 14 multicultural children’s literature books that addressed one of seven character attributes. The lessons followed the same format: (a) introduction of the character attribute, (b) the reading of a story in which the attribute is addressed, (c) a discussion about the story and the character
attribute, (d) an activity designed to reinforce the concept, and (e) discussion about the story. Following the lesson, the teachers were encouraged to incorporate the ideals into other areas of instruction and send home activities for students to work with their parents (Leming, 2000).

Data were collected using a variety of formats. Students were assessed on their understanding of the attributes discussed in the Heartwood curriculum using a questionnaire in which they were asked a question and had to identify the attribute being addressed (forced choice) (Leming, 2000). In order to measure changes in the choices students made in specific situations, a questionnaire was used in which students were asked what they would do in a variety of different situations. To measure student ethnocentrism, students were shown a picture of individuals from different ethnic groups and were asked to think about whether or not they would want that person to be their friend. Teacher completed a behavior checklist to determine appropriateness of student behaviors. Finally, detailed classroom observations were conducted to measure teacher fidelity to the intervention and overall student behavior (Leming, 2000).

Data were analyzed using an analysis of covariance (ANCOVA) to measure any interaction between student understanding of ethical practices, their actions in specific situations, and their classroom conduct (Leming, 2000). Results showed that students in the Heartwood (1992) intervention had a significantly stronger understanding of the vocabulary of ethical behavior than students in the control group. However, there was no significant difference between the intervention group and the control group at Grades 1-3 in understanding appropriate ethical responses to situations, and the control group performed higher at Grades 4-6 than the Heartwood group on this measure (Leming,
2000). For measures of ethnocentrism, the data indicated that younger students were less ethnocentric after the intervention than the control group, but there was no significant difference for older students. On the teacher behavior checklists, the first through third teachers rated student behaviors lower than the control group and for older students, the teachers rated student behaviors higher. However, all teachers reported increases in appropriate behavior in the classroom.

Leming (2000) concluded that the intervention was successful in increasing all student understanding of the characteristics of ethical behavior, although measures of student implementation of ethical behaviors was not statistically significant across grade levels. He suggested that the older students had lower ethical implementation because the teachers reported they had negative perceptions of the curriculum. Follow-up interviews indicated that the teachers did not support the use of the curriculum, but did believe that it would be possible to incorporate the attributes of character into other components of the curriculum. Leming (2000) concluded that the infusion of character education throughout the school day was an effective method for teaching students appropriate social skills.

Parker, Nelson, and Burns (2010) conducted a study to examine differences in the behaviors of students enrolled in elementary schools that implemented schoolwide positive behavior supports (PBS) and schools that did not. Specifically, the purpose of the study was to determine if there was any relationship between the free and reduced lunch (FRL) status of schools, the class size of individual classrooms, and the problem behaviors in schools. Parker, Nelson, and Burns (2010) wanted to determine if they could predict the impact of PBS systems in schools that contained certain variables related to classroom disruptions. Observational data were collected over a period of one to two
years in 77 classrooms in 12 public elementary schools. Six of the schools were assigned to a PBS intervention group and the other six served as the control group. All observations were conducted during academic instructional activities in Grades 1-5.

The PBS implemented by the intervention schools was the *Smart Character Choices* (Vance & Stockwell, 2002) curriculum. The components of this curriculum include: (a) professional development of all faculty members, (b) supervision from an outside evaluator on the implementation of the curriculum, (c) teaching character examples through American History, (d) schoolwide classroom procedures, and (e) the teaching of specific social protocols to students (Parker, Nelson, & Burns, 2010). Data were collected through systematic direct observation of student behavior during academic instruction (Parker, Nelson, & Burns, 2010). Observations lasted for 20 minutes, and observers collected behavioral data in 15-second intervals. If a disruptive behavior occurred at any point during the interval, that interval was coded as being disruptive. Disruptions were defined as any behavior exhibited by students that disrupted the flow of academic instruction or that caused another student to turn away from their academic work for more than two seconds (Parker, Nelson, & Burns, 2010). Measures of physical or verbal aggression also were collected.

Data were analyzed using correlational analysis, specifically Fisher z-score transformations so that the coefficients could be compared. Following initial analysis, multiple regression analyses were conducted to determine the impact of the PBS intervention and the predictors of problem behavior (FRL and class size) (Parker, Nelson, & Burns, 2010). Descriptive statistics indicated that classroom disruptions were the most common behavioral problem in the classrooms, and aggressive actions occurred with low
frequency. Correlational analysis indicated that FRL and class size were related to behavioral problems in the control schools, but not in the intervention schools. Multiple regression analysis indicated that the only predictor of classroom behavior problems was whether or not the school implemented the PBS; schools that used PBS had fewer behavioral problems than schools that did not.

Parker, Nelson, and Burns (2010) concluded that the implementation of the PBS program influenced the behavioral problems in the classroom and limited the impact of other variables, especially FRL and class size. They suggested that, in PBS schools, behaviors occurred more randomly than in the control schools and cautioned that the study did not capture data related to more severe, individualized behavior. They suggested that future research focus on the impact of PBS interventions on students who display more severe behavioral problems. Parker, Nelson, and Burns (2010) maintain that PBS programs do support prosocial behavior, but many other variables may be interacting to determine student behavior on school campuses.

Snyder, Vuchinich, Acock, Washburn, and Flay (2010) conducted a study designed to measure the impact of school-wide PBS programs on overall school quality measures. Specifically, the study was designed to measure the impact of school-wide PBS on teacher, parent, and student perceptions of school quality compared to control schools. Data from twenty schools were analyzed in this study, with ten schools implementing PBS and ten schools serving as control groups. The schools were elementary schools serving culturally and linguistically diverse populations and each school had an average enrollment of 544 students.
Snyder et al. (2010) conducted a matched-pair, cluster-randomized, controlled trial analysis of archival survey data available through the state Department of Education. This methodology was chosen to ensure that the schools were matched on all other variables other than the implementation of school wide PBS. The PBS program implemented in these the treatment schools was the Positive Action (PA) program (Positive Action, 2009). The PA curriculum contains 140, 15- to 20-minute lessons per grade that were taught for a year (with curricula available for elementary school through high school). The curriculum covers six main topics including (a) self-concept, (b) physical and intellectual actions, (c) social and emotional actions, (d) getting along with others, (e) being honest, and (f) self-improvement (Snyder et al., 2010). Teachers and administrators were trained in the implementation of the program prior to implementation.

Data were collected using a school quality survey developed by the state, which measured nine areas of quality: (a) safety, (b) community involvement, (c) satisfaction of community members, (d) student supports, (e) sustained action, (f) responsiveness of administration to needs, (g) standards-based learning, (h) professionalism of staff, and (i) collaboration (Snyder et al., 2010). School-level data were available for teachers, parents, and students. The surveys asked questions related to school quality and asked each respondent to rank their feelings about the school on a Likert scale (with 1 being strongly disagree and 5 being strongly agree). Surveys were administered to each group from 2002 until 2007.

Data from each indicator of the survey were analyzed using a matched-paired t-test, a Hedges’ adjusted g for effect size, and the percent of relative improvement. To measure the resiliency of scores across time, data were analyzed using a random-effects
growth curve model. At baseline, there was no significant difference between treatment and control schools; after the first year of intervention, the treatment schools received significantly higher scores of school quality from all groups (Snyder et al., 2010). Snyder et al. (2010) concluded that the implementation of PA improved overall school quality for the treatment schools. They suggested that school-wide PBS was effective at increasing school quality for schools in low-income neighborhoods that educated culturally and linguistically diverse populations. They cautioned that the data were only available as the mean score for the school, and conclusions could not be drawn about individual students or classrooms (Snyder et al., 2010).

The National Center for Education Research (NCER) of the U.S. Department of Education (USDOE) commissioned a study on the impact of schoolwide PBS programs in elementary schools that focused on social and character development (2010). The purpose of the study was to determine if PBS programs that promoted character development had any impact on student achievement or behavior, as well as to determine the components of effective PBS programs. This study evaluated seven programs across the country on elementary school campuses (USDOE, 2010). Eighty-four schools were reviewed, with half of the schools serving as treatment schools and the other half as controls (USDOE, 2010).

Data were collected in four main domains: (a) social and emotional competence, (b) behavior, (c) academics, and (d) perceptions of school climate (USDOE, 2010). Survey data were collected from students, parents or guardians, and teachers (one survey focused on behavior in the classroom and one focused on academics). Survey data were collected in the fall semester for the three years of the study. A hierarchical linear model
(HLM) was used to analyze data across all seven programs to determine the impact of the implementation of schoolwide PBS. Data from each program were analyzed using an ANCOVA (USDOE, 2010).

Behavioral data from the treatment and control schools were analyzed to determine if there was any difference in student behavior. The data indicated that, when compared to control schools, teacher implementation of schoolwide PBS was higher and more integrated throughout the curriculum than the control schools (USDOE, 2010). The data also indicated that control schools did implement some social and character development into the curriculum independently. The data also indicated that teachers perceived student supports and behavior to be better in the experimental group than the control group. However, student perception data did not yield any statistical significance. Individual programs reported significance during some years of the study, but six of the seven did not maintain the statistical significance across all three years (USDOE, 2010). The data also showed that there was no significant pattern of individual student growth across any of the domains measured.

The NCER concluded that schoolwide PBS programs that focus on social and character development did not have a significant impact on student behavioral or academic outcomes, either when combined or as individual programs (USDOE, 2010). They suggested that this might reflect methodological problems in the design of the study. The NCER (USDOE, 2010) indicated that all of the data collected were from perception surveys and did not include direct observation of students. They also suggested that PBS programs focusing on social and character development may need to incorporate individual student instructional components.
Social skills instruction for typical students is generally embedded in schoolwide positive behavioral supports programs or in programs associated with character development (Parker, Nelson, & Burns, 2010; Snyder et al., 2010; USDOE, 2010). Additionally, social skills also are addressed through content-based instruction (Leming, 2000). These programs typically are comprised of global social skills themes (e.g., citizenship, respect, appropriate interaction) and teach students through a discussion methodology (Leming, 2000; Parker, Nelson, & Burns, 2010; Snyder et al., 2010). Data indicates that the impact of these programs is mixed, with some schools showing overall school quality growth, with data from individual students or classrooms being limited (Leming, 2000; Parker, Nelson, & Burns, 2010; Snyder et al., 2010).

**Social Skills Instruction for Students with Emotional and Behavioral Disorders**

Direct and explicit instruction in targeted social skills is the most accepted form of social skills instruction for students with EBD (Gresham et al., 2001; Maag, 2005). Students with EBD are able to increase their knowledge and application of targeted social skills following instruction (Lu, Loe, & Cartledge, 2002; Bierman, Miller, & Stabb, 1987). The direct teaching of social skills also results in fewer behavioral problems in the general education classroom, thus increasing access to general education for these students (Bierman et al., 1987). However, the size of the impact and the ability of this population to generalize targeted skills continues to be questioned (Maag, 2005).

Harrell, Mercer, and DeRosier (2009) conducted a study designed to determine the effectiveness of the *Social Skills Group Intervention-Adolescent* (S.S.GRIN-A) (Harrell & DeRosier, 2007) on the development of appropriate social skills for adolescent students with social skills deficits. The purpose of this study was to measure the efficacy
of the S.S.GRIN-A on decreasing internalizing and externalizing negative behaviors and increasing the positive self-perceptions of the students in social situations. The intervention was conducted in a clinical community center. Seventy-four adolescents participated, ranging in age from 13 to 16. They were randomly assigned to the treatment group or a no-treatment control group. The participants were divided into five groups.

Harrell et al. (2009) implemented an experimental design in which baseline and post-intervention data were collected over a 12-week period for the treatment and control groups. Students completed the Self-Efficacy Questionnaire for Social Skills (SEQSS) (Ollendick & Schmidt, 1987) and the Piers-Harris Youth’s Self-Concept Scale, Second Edition (Piers-Harris 2) (Piers & Herzberg, 2002) prior to the intervention. Parents completed the Parent Rating Scales (PRS) of the Behavior-Assessment System for Youth, Second Edition (BASC-2) (Reynolds & Kamphuas, 2004) for their child.

Two intervention group leaders were trained prior to the implementation of the study. Each leader had an educational background (Harrell et al., 2009). Group leaders were trained to use the materials and procedures, as well as on reporting fidelity data. The intervention was implemented with 40 students randomly assigned to the treatment or control groups; students assigned to the control group received no intervention during the study (Harell et al., 2009). Following the collection of posttest data with the treatment group, the control group received the intervention.

The intervention consisted of 12 social skills sessions (one per week) designed to provide training in appropriate social interactions and practice for student participants. All social skills were assigned to one of three sections: (a) impulse control and social skill building, (b) awareness of cognition and the impact of actions on others, and (c)
generalization of lessons (Harell et al., 2009). The intervention lessons contained direct instruction in the targeted social skill followed by student practice with implementation of the skill through role play, provision of feedback, and modeling. Each session lasted 60 minutes. Post-intervention data were collected at the conclusion of the 12-week intervention.

The data were analyzed using a multivariate test of differences, a variation of the chi-square goodness of fit measure, in order to determine the impact of the intervention on the student self-concept of their own behavior and the frequency of student internalizing and externalizing behavioral problems as measured by parents using the BASC-2 (2004). Results indicated a significant difference between the treatment and control groups in student perception of their internalizing behaviors, social self-efficacy, and global self-concept (Harrell et al., 2009). No significant difference was found in their perceptions of externalizing behaviors. Overall, students who participated in the social skills intervention had significantly higher perceptions of their ability to engage in social situations than students who received no treatment.

Harrell et al. (2009) concluded that the use of S.S.GRIN-A (2007) was an effective intervention for increasing student confidence in their own social abilities, and thereby increasing their implementation of appropriate social skills (as measured by parents) using the BASC-2. They suggested that the lack of increase in externalizing behaviors could be due to the fact that scores in this area were low in the preassessment, and since a large portion of the intervention was based on cognitive awareness of behavior, the results may not be displayed as clearly. They suggest that future research focus on the direct observation of social skill implementation in school over a period of time, as well
as measurement of student knowledge and awareness of social skill acquisition (Harell et al., 2009).

Lu, Loe, and Cartledge (2002) conducted a study to compare the effect of small-group social skills instruction in a segregated classroom to instruction in a segregated classroom paired with instruction in the general education classroom. The study involved five students enrolled in Grades 3 and 4 in general education. The students were identified as at-risk for classification as EBD due to: (a) teacher nomination, (b) a score in a problem area on the SRSS (e.g., cooperation, assertion, aggressive acts, sadness), or (c) exhibiting problem behaviors during the study. The study was conducted in the music room for the segregated component of the social skills instruction and within the general education classroom for the combined intervention.

An ABC multiple-baseline across-subjects design was used and consisted of: baseline, small-group instruction, small-group plus classroom instruction. During baseline, the frequency of antisocial behaviors (e.g., any poor social interaction, violation of classroom social rules, display of aggressive behaviors) exhibited by the students was counted using a 10-second partial-interval recording. Following baseline, the 20-minute small-group intervention was implemented. Each lesson involved the teacher using the Working Together: Building Children’s Social Skills Through Folk Literature (Cartledge & Kleefeld, 1994) curriculum, which consists of an introduction to the targeted social skill using a story, discussion of the story and the skill, the teacher modeling the social skill, role playing, feedback, homework (related to the skill), and a review of the skill (Lu, Loe, & Cartledge, 2002).
When five students mastered the skill, they moved to the next phase of the single subject design, in which the curriculum was incorporated into the general education classroom. The lessons taught the same social skills as the small-group segregated instruction and followed the same format, the only difference being that instruction occurred in general education. The frequency of antisocial behaviors exhibited by the students was measured during each phase of intervention (segregated instruction versus instruction in general education). The students also were observed in nonstructured classroom environments (e.g., the lunch room, recess) to ascertain if the social skills generalized across different settings.

The number of antisocial behaviors exhibited by students was analyzed by comparing the mean occurrences of problem behaviors in each phase of the study. An analysis of level and trend of the frequency of antisocial behaviors was conducted. Analysis of the graphs indicated that the antisocial behavior means decreased in the general education classroom environment following social skills intervention. However, antisocial behavior means of individual students increased following the conclusion of intervention, indicating that students could exhibit the behavior when receiving instruction and support, but reverted to the implementation of antisocial behaviors without support. The graphs also showed that the social skills increases did not generalize across settings.

Lu, Loe, and Cartledge (2002) concluded that there was a moderately positive impact on the antisocial behaviors of students at risk for EBD following social skills instruction. They also found that antisocial behaviors decreased in locations where the intervention was being implemented, but not in generalized settings throughout the
school day. Antisocial behaviors also increased for individual students during follow-up measures. They maintained that the differences in student data might have to do with the teacher management styles within the classroom environment.

Miller, Lane, and Wehby (2005) conducted a study to determine the effects of social skill training on the frequency of inappropriate behaviors (e.g., negative statements in the classroom, talking during inappropriate times, aggressive acts towards other students or the teacher) and the duration of time spent appropriately engaged in a lesson. The social skills training implemented during the study contained the following components: (a) instruction based on the specific skill deficits of the student participants, (b) coaching and modeling of the appropriate skill, (c) generalization practice, and (d) instruction within natural environments.

Seven students with high-incidence disabilities participated in the study (three with EBD, and four with learning disabilities (LD), intellectual disabilities (ID), and attention deficit hyperactivity disorder). Five of the students were male and two were female and ranged in age from 6- to 9-years of age. The study was conducted in a self-contained classroom.

The classroom teacher completed the Social Skills Rating System-Teacher Version (SSRS-T) (Gresham & Elliott, 1990) to identify the social skill needs for each student. The teacher-identified skills were used as the content for instruction in the study. The social skills lessons were taken from Social Skills Intervention Guide: Practical Strategies for Social Skills Training (Elliott & Gresham, 1991). Each lesson was taught three-to-four days per week for 30 minutes. The study lasted for six weeks. Following the fifth lesson, students completed a review lesson designed to reteach the previously taught
skills and assess for mastery. Direct observation data on the number of inappropriate classroom behaviors exhibited by each student and the number of individual behavior points earned within the classroom management plan were collected.

An ABA multiple-baseline, across-groups design was used. Students were split into two groups and received the same social skills training. However, lessons were staggered between the groups so students did not receive the same instruction at the same time (Miller et al., 2005). Analysis was conducted using visual inspection of the frequency line graphs, mean score comparison between baseline, intervention, and maintenance, as well as effect size. Analyses of the data indicated that the mean score for inappropriate classroom behavior across both groups decreased and the duration of engaged academic time increased (Miller et al., 2005). In the maintenance phase, the frequency of inappropriate classroom behaviors remained low, but the amount of time spent engaged in academics did not maintain the high levels found during the intervention phase. The teacher who implemented the intervention indicated that she felt the intervention was positive.

Miller et al. (2005) concluded that the classroom behavioral problems decreased, but noted that the effects of the intervention were stronger for some students than for others. They suggested that students with more severe behavioral problems (as indicated on the SSRS) displayed less response to the intervention than students with milder behavioral problems. They also suggested that the maintenance of the targeted social skills may have been lower than expected because the intervention was conducted over a short period of time. The researchers acknowledged the mixed outcome of the study, but maintained that the impact of the intervention was positive. They suggested that the study
should be replicated with other students to ascertain the effectiveness of social skills instruction for students with behavioral problems.

Evans and Stefanou (2009) conducted a study designed to ascertain the effectiveness of *Skillstreaming the Adolescent* (Goldstein & McGinnis, 1997) on the implementation of appropriate social skills and academic achievement. The purpose of this study was to measure the efficacy of a short-term social skills intervention to increase student use of prosocial skills as well as increase student academic achievement in the general education classroom. The intervention was conducted in a middle school during elective courses. Six, 13-year-old students who had been referred to the student intervention team for low academic skills and problems related to academic social skills participated in the study (Evans & Stefanou, 2009).

Evans and Stefanou (2009) implemented an experimental design in which pre- and posttest data were collected over a six-week period. Teachers and students completed the *Social Skills Rating System* (SSRS) (Gresham & Elliott, 1990) as it related to the student implementation of appropriate social skills. Academic achievement progress was measured by reviewing overall grade percentages in math and English (Evans & Stefanou, 2009).

The students participated in social skills instruction for 30-to-60 minutes per week (Evans & Stefanou, 2009). During these sessions, the social skills lessons from *Skillstreaming the Adolescent* were taught. The skills taught were determined through a review of the teacher responses to the SSRS (Gresham & Elliott, 1990). The six skills taught were vetted by the student participants (e.g., listening, asking for help, using self-control, following instructions, standing up for your rights, and dealing with accusation).
One skill was taught per week using the instructional guidelines of *Skillstreaming* (Goldstein et al., 1997).

Due to the small sample size, social skill and academic data were analyzed using nonparametric Friedman tests with follow-up Wilcoxon Signed Rank tests to determine the effect of time on student use of the social skills (Evans & Stefanou, 2009). Results of the data analysis indicated that students were significantly more cooperative at the mid-and-end of intervention when compared to the beginning. However, no significant difference was found on assertiveness, self-control, externalizing behaviors, or internalizing behaviors (Evans & Stefanou, 2009). No significant difference was found between pre- and posttest academic achievement scores.

Evans and Stefanou (2009) concluded that the use of *Skillstreaming* (Goldstein & McGinnis, 1997) may produce significant gains in social skills for students in a short-term intervention setting. However, the gains were not found across all social skills areas, because not all of the students had the same needs. Additionally, the small sample size impacted the significance of the intervention. Another factor impacting significance may be the short length of implementation time of the intervention. Evans and Stefanou (2009) suggested that future research include varying the length of time interventions are implemented, as shorter-term interventions are needed to make instructional and academic decisions about the targeted needs of students.

Brigman, Webb, and Campbell (2007) studied the impact of the *Student Success Skills* (SSS) (Brigman & Webb, 2004) program on the academic and social competence of students who were at-risk for academic failure. The purpose of the study was to measure student academic and behavioral progress in the classroom after the implementation of
the program. School counselors used the program with students in Grades 5-9 across six
schools. Six additional schools served as control groups (Brigman, Webb, & Campbell, 2007). A total of 220 students participated in the study.

An experimental design was used, with the independent variable being the SSS (2004) intervention. The dependent variable was student scores on a standardized achievement test and teacher ratings of student behavior on the School Social Behavior Scale (SSBS) (2004), found within the SSS. Data were collected prior to the implementation of the training.

Students in the experimental group received the intervention lessons from the SSS for 45-minutes once a week for eight weeks (Brigman, Webb, & Campbell, 2007). At the conclusion of the instructional period, students attended follow-up sessions for four months. These sessions reviewed the skills learned during initial instruction. Each session consisted of an assessment of student attitudes and review, modeling of the new skill, and a review of the skill at the end of the lesson (Brigman, Webb, & Campbell, 2007). The intervention focused on specific academic and social skills to improve student classroom performance (e.g., building relationships, goal setting, life skills).

Academic achievement data were analyzed using an analysis of covariance (ANCOVA). The data showed a significant difference with a moderate effect size in the math scores of students in the experimental group and students in the treatment group (Brigman, Webb, & Campbell, 2007). There was no significant difference in the reading scores of the two groups, although gains in reading were found in students in the treatment group. Descriptive statistics were used to analyze the teacher perception of the behavior scores. Brigman, Webb, and Campbell (2007) found that 60% of the students in
the experimental had improved behavior scores on the SSBS (Brigman, Webb, & Campbell, 2004).

Brigman, Webb, and Campbell (2007) concluded that the Student Success Skill program was successful at increasing the academic and behavioral scores of students. They suggested that longitudinal research is needed to determine the lasting impact of the social skill intervention, but believed that the results indicated that this type of instruction showed promise for supporting at-risk students.

Since students with emotional and behavioral disorders often have knowledge and performance deficits in the area of social skills, interventions in this area are imperative to improving student outcomes, both academically and behaviorally (Brigman, Webb, & Campbell, 2007; Harrell, Mercer, & DeRosier, 2009; Lu, Loe, & Cartledge, 2002). Effective social skills instruction for students with EBD typically consists of: (a) direct instruction of targeted skill, (b) modeling, (c) student role-play, (d) corrective feedback, and (e) generalization of the skill (Harrell, Mercer, & DeRosier, 2009; Miller et al., 2005; Lu, Loe, & Cartledge, 2002). The impact of social skills intervention has been moderate; students tend to learn the social skills during the instructional time, but do not generalize into other environments (Evans & Stefanou, 2009; Lu, Loe, & Cartledge, 2002). In order to increase effectiveness, targeted social skills must be taught to students in the natural environment in which they most commonly occur.

Skills Necessary to Interact in an Online Environment

The use of technology, both for educational and personal purposes, has increased greatly in recent years (Brydolf, 2007; Klein, 2008; NSBA, 2007; USDOE, 2004).
Currently, students are using technology to participate in online social environments (OSE) at increasing rates. Brydolf (2007) indicated that 50% of adolescents participate in some type of online social environment (OSE) either at school or at home. Even with this increasing rate of student participation in OSE, many school districts continue to view technology as a tool to support only academics and use technology sparingly (Judge, 2005; Li, 2007).

Research related to the online social skills needed for students to participate in online social environments is limited, as this is an emerging field of study. Most of the research conducted has been qualitative or descriptive in nature and has focused on explaining (a) the frequency of interaction of individuals in online environments, (b) the technological tools used to participate (e.g., messaging, chat, e-mail), and (c) the types of language or communication used (Cavarlee & Webb, 2008; Ducheneaut & Moore, 2005; Joinson, 2008; Golder, Wilkinson, & Huberman, 2006). Research also has been conducted regarding the use of inappropriate social behaviors in digital environments, primarily focused on cyberbullying (Juvonen & Gross, 2008; Li, 2006; Sontag, Clemans, Graber, & Lyndon, 2011; Walrave & Heirman, 2009; Varjas, Henrich, & Meyers, 2009). The findings of these studies begin to lay the groundwork for the targeted social skills needed by users participating socially in online social environment, as well as the need to adequately teach students how to engage with their peers in these environments.

**Types of Social Interaction in Online Social Environments**

Ducheneaut and Moore (2005) conducted a study to analyze the socialization of anonymous players into massively multiplayer online role-playing games (MMORPGs). This included the organization of players, interactions of players, and sociability of
The purpose of the study was to establish a framework of communication used within MMORPGs and identify the types of skills that could be taught to participants within these environments. A virtual ethnography using participant observation was used to collect and analyze data (Ducheneaut & Moore, 2005). Through this methodology, the researchers participated as active members of the MMPORG and collected data in a public digital setting from other anonymous users. A MMORPG was selected for use in the study and behaviors within the virtual environments were anonymously observed. The data observations focused on the interactions of players as well as their participation as a member of the online community. The researchers participated in both simple introductory tasks and more complex tasks within the environment in order to understand the full spectrum of socialization within the game. All of the sessions were videotaped for later analysis. The researchers participated in the MMORPG environment for over 100 hours (Ducheneaut & Moore).

Videos of the MMORPG sessions were analyzed using Conversation Analysis and open-ended coding to determine levels and types of participation (Ducheneaut & Moore, 2005). Four main areas of social interaction were identified: (a) communicating with others within the MMORPG, (b) learning in the online context, (c) introduction of self in the MMORPG, and (d) coordinating and cooperating with others while playing the game.

Ducheneaut and Moore (2005) found that it was essential for users to communicate with one another because many of the tasks to be completed within the game require teamwork and the assistance of other people. In order to become an integral part of the game, it was essential that the users learn to communicate effectively. The
observations revealed that participants who did not communicate using the rules of the online environment often were shunned by other users or removed from a group (Ducheneaut & Moore, 2005). The data showed that the gamers learned from the contextual set-up of the gaming environment as they had to participate in discussions to figure out what to do, observe and model the behaviors of more experienced players, and teach each other how to do specific things in the game. In short, relying on others to master the objective of the game was essential to success in the game (Ducheneaut & Moore, 2005).

The observation data also showed that the ability to introduce oneself to others in the MMORPG environment was essential as it was the only way to join a group of other players (Ducheneaut & Moore, 2005). Users had to understand how to introduce themselves properly to be accepted by other members of a group; failure to do so resulted in players not being allowed to join the game. Finally, the data showed that individuals in MMORPGs have to spend time figuring out how to collaborate in order to achieve a specific task. This involved users determining the different roles they might adopt, the best way to solve a problem, and how to secure resources necessary to achieve goals.

Ducheneaut and Moore (2005) concluded that MMORPGs have become complex social environments with their own set of social skills and systems required to support the development of users. They maintained that the findings produced a beginning description of the social interactions of online gaming environments and that future research should focus on how these environments can be used to support the social learning of users.
Joinson (2008) conducted a study to identify the motivating factors related to the use of Facebook. The purpose of this study was to determine specific reasons why individuals use Facebook as well as identify the reasons they continue to login and access the website. The goal was to determine if people used the environment in a socially connected manner. The study occurred in two stages. The first stage was exploratory in nature and designed to develop a list of relevant terms related to the use of Facebook and the second stage surveyed users based on the terms developed to determine usage patterns of Facebook. Stage one had 137 participants, with a mean age of 26 years old. Stage two had 241 participants, with a mean age of 25 years old.

During stage one of the study, participants were recruited through a post on the homepage of Facebook and asked to complete an online survey (Joinson, 2008). This survey asked general demographic information, information about the amount of time the individual used Facebook, and open-ended questions on their purpose for using Facebook. The results of the survey were reviewed and related responses clustered into groups. Theme titles were then applied to the clusters. The most frequent cluster groupings were keeping in touch, social surveillance, reconnecting with people, and communication.

During stage two of the study, new participants were recruited through a posting on the homepage of Facebook. They were asked to provide similar demographic and use information. These participants completed a survey rating the uses (from stage one) of Facebook on a seven point Likert scale (1 indicating that the targeted use of Facebook was very unimportant to the user and a 7 indicating that the targeted use was very important) (Joinson, 2008). Demographic data indicated that about half of the respondents had only been members of Facebook for less than six months. The data also
showed that the majority of participants use Facebook either daily (38%) or more than once per day (27.5%). Most respondents indicated that they used Facebook for one to two hours per day (33.3%) or two-to-five hours per day (32.5%). Results from the survey indicated that most people used Facebook to find out what their friends were doing and to learn about old friends (Joinson, 2008). It appeared that the majority of people using Facebook did so to reconnect with old friends rather than meet new people.

Joinson (2008) concluded that the results of the study laid the foundation for determining the reasons people use online social networking websites. He suggested that the reported motivational factors for use of Facebook are a prediction of how people interact with different components of the site (e.g., applications they may use, frequency of use, etc.). Overall, Joinson concluded that the use of online social networking matches many of the traditional motivating factors for engagement in other types of social relationships. He suggested that future research attempt to identify a wider variety of Facebook users and replicate the study (Joinson, 2008).

Golder, Wilkinson, and Huberman (2006) conducted a study designed to analyze the messaging behaviors of college students, as well as the times of day and the year that college students use Facebook. The purpose of the study was to explore the behaviors of college students on Facebook in order to determine the patterns of interactions of online social networking sites. Golder, Wilkinson, and Huberman accessed the Facebook data of 4.2 millions users across 496 colleges in North America. The information they analyzed was not restricted through privacy settings and was therefore public information. In order to determine patterns of behavior, 241 million communications on Facebook were analyzed.
Golder, Wilkinson, and Huberman (2006) used descriptive analysis to determine patterns of interactions for the users of Facebook, the times of the day that users accessed Facebook as a social environment, and the months of the year that users accessed the environment. The data showed that users of Facebook interacted more with each other through the messaging system if they were listed as friends (in other words, had already made a connection online) than if they had not already listed another user as a friend. Also, users only interacted with a small proportion of the users on their friend list, indicating that all connections made on Facebook do not necessarily lead to interaction (Golder, Wilkinson, & Huberman, 2006). They was found that students at the same school or region were more likely to interact than people from different schools or regions.

Once a message was “sent” on Facebook, Golder, Wilkinson, and Huberman (2006) found that the recipient of the message had only about 50% likelihood to respond; thus, not every message sent receives a response. The percentage of responses was higher between friends than non-friends. Usage was higher during the late morning hours and into the night, and lower during the early morning hours regardless of the day. However, usage was more frequent during week days than on the weekend. The data showed that students are more likely to send messages to their friends during the months of January, June, July, August, and December.

Golder, Wilkinson, and Huberman (2006) concluded that, although strong social connections occur through the use of Facebook, it was used more as a tool for academic connection among students then a social connection. They found that the limited interaction among users from different colleges and regions as well as the limited
response rate when a message was sent indicated that users did not rely on Facebook as
the primary method for communication. They suggested that this indicates an online
interaction pattern in which people connect with those they do already know but do not
necessarily respond in an active way once the connection has been established. They also
maintained that the use of Facebook indicates a clear schedule to student life, with
students using the system more during the typical school day.

Cavarlee and Webb (2008) conducted a study to describe the characteristics of
MySpace as well as of the primary users of it. The purpose of the study was to determine
the interactions among users, the demographic characteristics of users, and the language
of the users within MySpace. The goal was to determine if patterns existed between
common users of online social networking sites. MySpace profiles were analyzed through
two methods: random selection and relationship-based sampling. Profiles were selected
randomly using a web crawler software program over a period of a week. In total,
960,505 profiles were selected. After the random selection, another web crawler software
was used to review the profiles of the users connected to the first users from the random
sample. The number of profiles analyzed using this process was 891,167 (Cavarlee &
Webb).

Cavarlee and Webb (2008) used descriptive statistics to describe the socialization
and the demographic information of users. A language model analysis was used to
identify the language characteristics of MySpace users. Results indicated that a large
number of users had fewer 100 friends, while only a few users had more than 100 friends
(Cavarlee & Webb). Approximately 50% of the profiles reviewed had only one friend
and it was the default friend that is added upon the creation of a MySpace profile.
Cavarlee and Webb (2008) also found that a few number of the users participated in other social groups on the Internet (e.g., online spaces in which people with common interests interact).

The data analysis showed that 85% of all users of *MySpace* were under 30 years old, with a majority being in their late teens and early twenties. The randomly selected profiles showed that the majority of users were male. However, the connected profiles found during the second web crawl indicated that half of the profile users were male and half were female (Cavarlee & Webb, 2008). The analysis of the language models indicated that the primary types of language used by individuals changed based on gender, region of the country, and age. Male users of *MySpace* were more likely to use negative terms on the Internet than females and younger users were more likely to use inappropriate language or language related to their school environment than older participants.

Cavarlee and Webb (2008) concluded that the social behaviors of users on *MySpace* showed that most individuals connect with people they already know in the physical environment and spend their time online interacting with just those friends (Cavarlee & Webb, 2008). From the data on users with only one friend, Cavarelee and Webb hypothesized that these users may create an online social networking profile, but never use the profile once it is created. Based on the language analysis, the researchers concluded that there is a specific way to talk to users of different age groups when using *MySpace*, as the interactions tended to be based on age appropriate language and geographic location. They suggested that this study could be generalized to all users of the social networking site since it reviewed such a large number of profiles. They
suggested that research analyze the language models of users in more detail and depth (Cavarlee & Webb, 2008).

Li (2006) conducted a study focused on instances of cyberbullying among middle school students. The purpose of the study was to determine if there were differences between male and female students in terms of experiences with cyberbullying and their reactions to it. A total of 264 middle school students (Grades 7-9) participated in the study.

The students completed a 26-item survey concerning demographics and their experiences related to cyberbullying. The survey asked yes or no questions related to student experiences with cyberbullying and left space for open-ended responses in which students could more thoroughly describe the experiences. Data were analyzed using descriptive statistics (including demographic information and frequencies of cyberbullying) with chi-square tests used to measure any differences related to gender (Li, 2006). Approximately 50% of the students reported being the victim of face-to-face bullying on their school campuses and 25% of students reported being the victim of cyberbullying. Additionally, 34% of the students reported bullying other students either face-to-face or via the Internet (17%). Over 50% of students reported knowing someone else who had been cyberbullied. Of the students who reported being the victim of cyberbullying, 62% indicated that they had been bullied one to three times, and 37% reported being bullied more than three times. When comparing responses from males and females, the data showed no significant difference between genders. Li (2006) did find that males were more likely to be the perpetrator of cyberbullying than females.
Li (2006) concluded that the results of the study support the public argument that inappropriate interactions in online environments is a concern that should be addressed. Li (2006) maintained that educational professionals must begin to develop lessons and instructional strategies to directly teach appropriate online social skills to students. She also suggested that cyberbullying may differ across age groups.

Online social environments are becoming a preferred method of social engagement of adolescent as well as adults. With the development of these environments, a new set of social skills and rules for interaction are emerging (Ducheneaut & Moore, 2005). With the increasing use of online social networking and concerns for student safety within these environments (e.g., cyberbullying, use of inappropriate language), it is important to identify online social skills to teach students with behavioral problems to decrease the impact of negative behavior (their behavior and that of others) in online environments (Li, 2006). Additionally, teaching appropriate online social skills to students with EBD may increase their access to typical peers and the general education environment (Morgan, 2010).

The Use of Technology for Students with Emotional and Behavioral Disorders

Students with EBD are often disengaged from all instruction within the school environment (Fitzgerald, 2005; Lane et al., 2006). The incorporation of instructional mediums that these students find interesting has the potential to increase their overall academic achievement (Tyler-Wood, Cereijo, & Pemberton, 2004). Although there is limited research in the area of technology integration into the education of students with EBD, some researchers have found that technology may support the academic and social
development of students with EBD if integrated appropriately (Cumming et al., 2008; Fitzgerald, 2005; Kuiper et al, 2005; Mikami et al., 2007).

Blakenship, Ayres, and Langone (2005) conducted a study to measure the impact of a cognitive mapping software tool on the reading comprehension of students with EBD. Three high school freshmen participated in the study. All students had IQ scores within the average range and all experienced reading difficulties. Teacher reports indicated that these students struggled to work independently.

An AB multiple-probe design across behaviors was used to ascertain the effectiveness of concept mapping software, Inspiration (Inspiration Software Inc., 2000). The reading curriculum was chosen from the history textbook used in the general education curriculum. Students were taught to use the Inspiration curriculum and then work independently to read the academic material. The students read and mapped the concepts for each chapter for a 20-minute session daily. Chapter tests from the book served as the pretest and posttest measures as well as daily and chapter quizzes covering the major concepts (Blakenship et al., 2005). Once a student mastered 80% of the questions from the chapter quiz, they moved to the next chapter. The study covered three chapters of the textbook.

Data from the pretest and posttest were compared as well as data from the daily concept quizzes (Blakenship et al., 2005). Data from the chapter tests were analyzed using an analysis of trend and level of the graph and a percentage of concepts mastered following the intervention. Analyses showed that the intervention was effective at teaching students the concepts from the chapter, with chapter quiz scores from each session steadily increasing and each student scoring a 75% or higher on the end of
chapter test. During the intervention, the students spent a greater percentage of time engaged in independent work than prior to the intervention.

Blakenship, Ayres, and Lagone (2005) concluded that concept mapping was successful at teaching content-area material to students with EBD. They also maintained that the use of computer-based software to support concept mapping for students with EBD was an engaging alternative to typical independent reading instruction. They believe that the data indicated that the intervention was successful in showing that students with EBD that they could work independently and suggested that future research focus on incorporating corrective feedback for students during the intervention.

Mitchem, Kight, Fitzgerald, Koury, and Boonseng (2007) designed an electronic performance support system (EPSS) entitled StrategyTools. The purpose of this software was to support the development of self-regulation and learning strategies of secondary students with EBD. The software targeted skills in six areas: (a) getting organized, (b) learning new information, (c) demonstrating learning, (d) working on projects, (e) solving personal problems, and (f) moving into the future. The study focused on determining both teacher and student perceptions of the effectiveness of the software.

Four high school students and two teachers participated in the study. The study was conducted in a study skills class. The software was used by the students one to two times per week for a total of 10 weeks. The software contained 39 different tools designed to support students with EBD in the school environment (e.g., self-awareness tools to help students prepare for IEP meetings, academic support tools, records tools). Students using the software navigated different tools and learned how to apply them to the school environment (Mitchem et al., 2007).
The first phase of the study involved student exploration of the software. Following this phase, the teachers introduced different components of the software to the students, beginning with the easiest components and moving to more difficult components. Guided practice was used in which the teachers displayed the use of the software and allowed the students to complete a task. Following the initial instruction, the teachers provided individualized student support by answering student questions and providing further guidance in the use of the tools.

Data were collected using field notes and semi-structured interviews of the students and the teachers (Mitchem et al., 2007). Data were analyzed using qualitative research methods, including the transcription and coding of interview data and the triangulation of data using the interviews, student artifacts, and a student focus group. Following the data analysis, major themes were identified that appeared in both the student and teacher groups, as well as areas of concern noted by participants. The students indicated that the software had a positive impact on their academics and behaviors in their classrooms. They also indicated that it would be useful for all students, not just students with EBD. The major concern expressed by the students was that some of the program activities were not technology-based and they preferred that all instruction use the computer. The data did not indicate that the students generalized the skills learned to other classes.

The teachers reported that they found the software to be easy for students to use and that students were engaged while using it. Their major concern was that the students were unable to use the software independently and required a lot of teacher support to fully access the information. Mitchem, Knight, Fitzgerald, Koury, and Bounseng (2007)
concluded that *StrategyTools* should incorporate direct instruction of the components being taught, adequate access to the technology, and monitoring of student understanding.

They also maintained that the *StrategyTools* had a positive impact on student learning and that the use of educational software for students with EBD may be a useful intervention in helping them develop skills. They did, however, note that the small sample size used in the study limited the generalizability of the results (Mitchem et al., 2007). For future research, they suggested that fidelity to instruction should be measured to ensure teachers introduce the components correctly. Additionally, they suggested that specific data on student academic and behavioral performance be collected to determine the effectiveness of the software (Mitchem et al., 2007).

Although there is limited research related to the integration of technology into the academics of students with EBD (Fitzgerald, 2005), the findings of current research are promising. Technology integration may support student ability to work independently as well as their confidence in their academic abilities (Blankenship, 2005). The use of technology appears to increase the academic levels of students with EBD as well as student feelings toward school and their engagement with academic tasks (Mitchem et al., 2007).

**Social Skills Instruction with Technology**

Technology appears to assist in the facilitation of social skills instruction (Cumming et al., 2008). The use of technology during social skills instruction may increase student engagement with the task and decrease the off-task behaviors of students with EBD (Xu, Reid, & Steckelberg, 2002; Gulchak, 2008). Aside from using technology as a tool to support student engagement with social skills instruction, preliminary
research has indicated that students with EBD show deficits in the implementation of online social skills (Mikami et al., 2007).

Baker, Parks-Savage, and Rehfuss (2009) examined the use of virtual technology to teach social skills to elementary students. The virtual technology used in the study was *Whyville*, a multi-user virtual environment designed for students to participate in social gatherings and school-related activities. In *Whyville*, users create their own avatar to represent them in the virtual world and participate in a variety of online environments.

The virtual intervention took place on a rural elementary school campus (Baker, Parks-Savage, & Rehfuss, 2009). Sixteen students (age 7-10) participated in the study. The participants were selected through a peer nomination process in which students completed a survey and ranked students they wanted to be on their *team* and the student they did not want on their *team* (Baker, Parks-Savage, & Rehfuss). Two students with high scores and two students with low scores were selected randomly from each classroom to participate in the study.

Baker, Parks-Savage, and Rehfuss (2009) implemented a six-week experimental design in which pre- and posttest data were collected using the *Social Skills Rating System (SSRS)* (Gresham & Elliott, 1990). Data were collected from the classroom teachers, the parents of the students, and each of the students prior to the intervention.

During intervention, all students were divided into two groups of eight students (containing a mix of students rated high by their peers and students rated low by their peers). One group served as the control group while the other group received the virtual technology intervention. The intervention was implemented once a week over a period of six weeks, with each session lasting 45 minutes. The sessions targeted: (a) introducing
oneself, (b) starting a conversation with someone new, (c) continuing a conversation, (d) inviting someone else to join an activity, (e) asking for help, and (f) expressing feelings.

All sessions followed the same instructional format: (a) the targeted skill was identified and discussed with the students, (b) a discussion of successes and failures of using the skill appropriately, and (c) student modeling of the skill appropriately. Following discussion of the skill, the students in the intervention group logged onto Whyville and practiced the targeted skill of the week online. They began by implementing the skill with other users from their class. Once they attained mastery of the social skill in the intervention group, they began to interact with other users outside of the classroom. Two weeks following the last session, teachers, parents, and students were asked to complete the SSRS again.

The data were analyzed using a nonparametric Mann-Whitney U test due to the small sample size (Baker, Parks-Savage, & Rehfuss, 2009). Only data between the control group and the intervention group were compared due to the inequality of groups at the beginning of the study. The results showed that the intervention group made significantly more gains in the areas of problem behaviors, cooperation, responsibility, and self-control as measured by the SSRS. The effect size of the difference was moderate.

Baker, Parks-Savage, and Rehfuss (2009) concluded that the use of virtual technology was an effective method to teach social skills. The authors suggested that the use of virtual technology is advantageous because the leader of the intervention group can assign skills that the students should use and monitor their implementation and generalization in real time. In the virtual environment, intervention leaders can provide immediate corrective feedback to students if the social skill is implemented
inappropriately. Finally, the authors suggest that students were more engaged with the virtual technology intervention although they did not collect data to support this. The authors concluded that further research should be conducted with larger samples and with comparisons of interventions (Baker, Parks-Savage, & Rehfuss, 2009).

Blood, Johnson, Ridenour, Simmons, and Crouch (2011) implemented a study designed to assess the impact of using video modeling on an iPod touch on the off-task and disruptive behavior of a student with an emotional and behavioral disorder (EBD). The purpose of this study was to determine if video modeling using an iPod touch resulted in an increase in appropriate behavior during small group instruction. Additionally, Blood et al. (2011) wanted to determine if video modeling alone or in conjunction with self-monitoring was more effective at increasing appropriate behavior. The intervention was implemented in a special education classroom for students in Grades 4-6. One 10-year old student participated in the study.

Blood et al. (2011) implemented a single-subject changing conditions design. All behavioral data were collected during small-group instruction in math. A direct instruction math curriculum was used during small group instruction. Data were collected that related to the amount of time the student spent on-task (defined as following directions, listening to the teacher, using materials appropriately, and completing the assignment) as well as the frequency of disruptive behavior during small-group instruction. Behavioral data were collected using a 15-second interval momentary time-sampling procedure. After data were collected, the percentage of time on-task was calculated. Data collectors used an iPod touch with an earphone to determine the appropriate passage of 15 seconds.
Prior to the implementation of the intervention, baseline data were collected and the videos used for video modeling were recorded using two typical peers. The students in the video displayed appropriate on-task behavior and narration was included. The narration focused on the task analysis of appropriate behavior. Once the intervention phase began, the student was shown a 4-minute video prior to small group math instruction. The student was encouraged to watch the video during transition to small group instruction. Following the video-modeling phase, self-monitoring was added to the intervention. During this phase, the student was taught to monitor his behavior using images looped into a video of the student performing the appropriate and inappropriate behaviors. Following training, the student was given an iPod touch with an earphone during small group instruction. The iPod was programmed to make a noise in two-minute intervals; the student was to note on a self-management behavior chart whether he was on-task or disruptive.

Blood et al. (2011) analyzed the data by reviewing the trend and level of the behavioral data graph. The data indicated that video modeling alone resulted in an immediate improvement in the student’s behavior, but the improvement did not stabilize over the intervention period. When self-monitoring was added to the intervention, the data stabilized and the student displayed consistent improvement in on-task behavior. Mean percentages of time on-task and off-task were calculated and showed marked improvement between baseline and video modeling, and even more profound improvement between baseline and video modeling plus self-monitoring.

Blood et al. (2011) concluded that both interventions were successful, but video modeling plus self-monitoring was more effective at increasing on-task behavior and
decreasing disruptive behavior. They concluded that the use of an iPod touch is less intrusive than other modeling and monitoring interventions because it is portable and can be used without removing the student from the instructional setting. The authors also concluded that the intervention was generalizable as the iPod could be taken to different settings easily. The authors did note that the findings of the study have limited generalizability as it was a single-subject design and suggested that further research should include more students and different settings.

Cumming et al. (2008) designed a social skills intervention that paired traditional social skills instruction with the development of student-created multimedia examples of the targeted social skill. The purpose of the study was to compare the effectiveness of the paired social skills instruction (traditional and multimedia) with traditional instruction alone on perceptions of social skills acquisition (e.g., teachers, parents, and students) and student knowledge of individual skills. A total of 25, ranging in age from 11 to 14, students with EBD participated in this study. Three special education teachers and 25 parents also participated. The intervention was implemented within self-contained classrooms for students classified as having EBD.

The lessons incorporated Skillstreaming the Adolescent (Goldstein & McGinnis, 1997) social skills curriculum and were delivered during 50-minute social skills classes. For the first four weeks of the study, students received traditional social skills instruction that provided an introduction to the skill as well as opportunities to practice implementation of the skill. Student knowledge of the skill was assessed at the end of the week. Following a two-week maintenance period, the second four weeks of the study began which involved a combination of traditional social skill instruction and the
development of a role-play scenario focused on each social skill. The role-play was videotaped and shared with the class. At the end of each week, students shared their videos and were assessed on the steps on the skill.

Data related to teacher, parent, and student perception of acquisition and use of appropriate social skills were collected using a checklist. Each checklist focused on the eight skills targeted during intervention and asked the three participant groups to rank the frequency of student usage. Pretest, posttest, and maintenance measures of student knowledge of the social skills steps were collected through student work. Teacher, parent, and student perceptions were analyzed using a 2 x 3 (Intervention x Time) factorial ANOVA with repeated measures; student knowledge of the targeted social skills was measured using a paired $t$-test.

The data indicated that there was a significant main effect concerning teacher perceptions of student knowledge of the targeted social skills following the two interventions. The teachers perceived that the students had more knowledge of the social skills after the combined intervention then after the traditional intervention. No significant difference was found in teacher and student perceptions of student knowledge of the social skills between the two interventions. Analysis of the data from pretest and posttest measures indicated that student knowledge of the steps on the targeted social skills increased following implementation of both interventions (traditional instruction and the combined instruction) (Cumming et al., 2008).

Cumming et al. (2008) concluded that the study added to the research on the effectiveness of social skills instruction as well as the increased engagement of students with EBD when using technology. They maintained that the students appeared more
engaged with the combined instruction and had fewer behavioral problems. The teachers also indicated that the students enjoyed the combined social skills instruction more. This suggests that the pairing of social skills instruction with a technology component may be an effective method to meet the social skills needs of students with EBD.

Mikami, Huang-Pollock, Pfiffner, McBurnett, and Hangai (2007) conducted a study in which students with attention-deficit/hyperactivity disorder (ADHD) participated in online chat rooms with computer-simulated peers that were programmed to respond in specific ways. The study was designed to compare the social responses of students by subtype of ADHD (e.g., disruptive and aggressive behavior or inattentive) to students without disabilities. There were two main goals of the study: (a) to ascertain if there was any correlation between the behavior observed in the chat room environment with social behavior in the physical environment, and (b) to compare the social interactions of the three groups of students (e.g., ADHD characterized by disruptive behavior, ADHD characterized by inattentiveness, typical peers).

Participants in the study were 116 students between the ages of 7 and 12, including 33 students who were diagnosed as ADHD-C (combined), 45 students who were diagnosed as ADHD-I (inattentive), and 38 students without ADHD (Mikami et al., 2007). All of the student participants fell in the average range for IQ and reading achievement, ensuring that academic ability did not convolute the results. All students participated in a simulated online chat environment with four computer-simulated students who modeled appropriate online discussion. Each conversation lasted for approximately 20 minutes. Data from these conversations were coded based on the number of responses made by each of the students as well as the relevance of those
responses. Additionally, parents were asked to complete the 10 cooperation questions from the SRSS (Gresham & Elliott, 1990) and teachers completed the Peer Relations Scale (Gresham & Elliott, 1990) to determine student social skills in the natural environment for comparison.

A correlational analysis was implemented and data were analyzed in two ways. First, chat room performance and scores from the social skills scales completed by teachers and parents were analyzed using a correlation to see if there was any relationship between student behaviors and teacher or parent perceptions of student behavior. After any correlation was determined, an analysis of covariance (ANCOVA) was conducted to compare the different types of students within the chat room environment. The data indicated that on-topic chat room responses for the students were positively correlated with the social skills scales completed by parents and teachers, although not strongly. Analysis of covariance tests indicated that students with either type of ADHD (e.g., disruptive and aggressive or inattentive) were less likely to stay on-topic during chat room conversations. Additionally, students with ADHD-C were more likely to respond with hostility to their computer-simulated peers than students with ADHD-I or their typical peers and students with ADHD-I were less likely to remember the conversation they had than students with ADHD-C and the typical peers. All groups were found to be highly interested in the task.

Mikami et al. (2007) concluded that chat room behaviors of students with ADHD were closely related to their real-life social behaviors. They also noted that the antisocial behaviors exhibited by students in the chat room environment did not relate to lack of motivation or interest in the task, as all were engaged in the online chat room.
environment. Mikami et al (2007) maintained that the importance of the study lies in the data indicating that students with behavioral problems participated in the online environment at higher rates and assessments of their behavior while in this environment provided valuable information. They suggested that future research address skills needed by these students in all environments.

Limited research exists related to the impact of integrating technology into social skills instruction for students with EBD (Cumming et al., 2008). However, preliminary findings indicate that technology may increase student engagement with social skills instruction. Additionally, researchers have indicated that students with EBD tend to display problematic behaviors within technological environments, such as responding with hostility or not paying attention to the conversation (Mikami et al., 2007). As modern social environments change and become more connected, it is important to consider the engagement possibilities of using technology as well as the types of skills needed to participate in digital environments (Morgan, 2010).

**Summary**

The literature suggests that the mastery of social skills in the school environment is essential for academic and social success (Konold et al., 2010; McClelland, Morrison, & Holmes, 2000). Students who enter school exhibiting antisocial behaviors tend to have lower academic achievement rates, and poor social interaction skills, and this pattern persists over time if no intervention occurs (McClelland et al., 2000). Teachers indicate that students with emotional and behavioral disorders lack the social skills needed to interact with the general education environment (Cullinan & Sabornie, 2004; Lane,
Carter, Pierson, & Glaeser, 2006) and this causes lower academic achievement in the school setting and beyond.

The literature supports the use of direct instruction of appropriate social skills for students with EBD to increase student use of these skills in school (Harrell, Mercer, & DeRosier, 2009; Lu, Loe, & Cartledge, 2002; Miller, Lane, & Webby, 2005). Common components of social skills instruction include the identification and task analysis of the appropriate social skill followed by the teaching of the skill through modeling, role-play, and corrective feedback (Goldstein & McGinnis, 1997; Johns, Crowley, & Guetzloe, 2005). In order to maximize the effectiveness and generalizability of social skills instruction, the skills taught must be relevant to student life experiences and be taught in the natural environment (Lu, Loe, & Cartledge; Maag, 2005; Miller, Lane, & Webby, 2005).

Students frequently participate in online social environments, which have developed as a new type of social network that differs from face-to-face communication (Joinson, 2008). Although direct research has not been conducted to specify what social skills are used in online social environments, several studies have identified different types of skills that might be used through virtual communication. These include introducing yourself to someone new when playing a video game, sending messages to other people, understanding the rate of response in online social environments, the impact of cyberbullying, and the types of language used (Cavarlee & Webb, 2008; Ducheneaut & Moore, 2005; Golder, Wilkinson, & Huberman, 2006; Joinson, 2008; Li, 2006). In order to fully access online social environments, students must understand the complexities of social networks and the different skills needed for prosocial interaction.
Findings from the literature support the use of technology as a tool to support the academic and behavioral development of typical students and students with EBD (Baker, Parks-Savage, & Rehfuss, 2009; Blood, Johnson, Ridonour, Simmons, & Crouch, 2011; Blankenship, Ayres, & Langone, 2005; Cumming et al., 2008; Li, 2007; Mikami et al., 2007; Mitchem, Knight, Fitzgerald, Koury, & Boonseng, 2007). For students with EBD, the literature suggests that the use of technology increases student engagement and the amount of time spent on task (Blankenship, Ayres, & Langone; Mitchem et al., 2007). The use of technology can increase the amount of information that students with EBD learn, both related to academic and behavioral skills (Baker, Parks-Savage, & Rehfuss, 2009; Cumming et al., 2008; Mikami et al., 2007). Therefore, the integration of technology into school-based instruction may increase student engagement with academic material and social skills instruction.

This study was designed to develop a method for teaching online social skills to students with EBD in order to increase appropriate interaction within this natural environment. Based on the literature related to social skills instruction, a series of lessons were created to directly teach the online social skills and allow students the opportunity to practice in a natural environment. Two intervention methods were developed, one based on traditional social skills instruction and the other using technology to determine the most effective method to teach online social skills to this population. Additionally, behavioral data were collected to determine if the students with EBD were more engaged when using technology as the method of instructional delivery.
CHAPTER THREE

METHODOLOGY

Overview

Social skills instruction is a research-based practice for teaching appropriate social skills to students with emotional and behavioral disorders (EBD). Typically, this instruction is most effective when using explicit, systematic instructional sequences in the natural environment in which social skills are most likely to occur (Barton-Arwood, Morrow, Lane, & Jolivette, 2005; Bullis, Walker, & Sprague, 2001; Johns, Crowley, & Guetzloe, 2005; Goldstein & McGinnis, 1997; Gresham, 2001; Gresham, Sugai, & Horner, 2001). As online social networking becomes more prevalent (Brydolf, 2007; NSBA, 2007), the identification of appropriate online social skills for this population is important as they access and interact in this virtual natural environment. Although the literature indicates growing concern about the use of inappropriate online social skills (Lazo, 2005; Maag, 2007; NSBA, 2007; Potter & Potter, 2001; Stafford, 2006), no research has been conducted to determine the best method for teaching online social skills. The ultimate goal is to develop appropriate online social skills to increase safe interactions in the online environment.

This study compared the effectiveness of a traditionally-based online social skills instructional model (TOSSI), characterized by standard, teacher-led social skills lessons, to an online social skills instructional model (OSSI), in which students had access to an online environment to practice online social skills. The participants were middle school students with emotional and behavioral disorders. Although both interventions were designed to increase student knowledge of online social skills, the two interventions were
compared on three measures: (a) rate of student acquisition of online social skills, (b) teacher and student perceptions regarding the social skills instructional model, and (c) maintenance of online social skills over time.

Six self-contained classrooms for students with EBD were identified and randomly assigned to either the TOSSI or the OSSI groups. Three classrooms began the intervention with TOSSI, while the other three began the intervention with OSSI. Teachers and paraeducators were trained concerning the intervention prior to its implementation. Each intervention group was taught one new online social skill per week during a 50-minute period, 5 days a week for a total of 2 weeks. On day one of instruction, the teacher introduced the targeted online social skill. On day two, the teacher facilitated opportunities for students to practice the skill, and on the final day of instruction, students were assessed on their ability to use the targeted online social skill. Following post-test and maintenance, the two groups switched instructional mediums and received social skills training for an additional 2 weeks.

Data were collected using a scenario-based testing protocol, and the results were evaluated using a 2 x 2 (intervention x time) repeated measures ANOVA, calculating both within- and between-measure differences between the instructional groups. Teacher and student perception data were collected using a survey and evaluated a 2 x 2 (intervention x time) repeated measures ANOVA. Teacher and student beliefs about the importance of the targeted online social skills were collected pre- and post-intervention and were compared using a 2 x 2 (intervention x time) repeated measures ANOVA.
Research Questions

This research study was designed to answer six primary research questions. They were:

1. Does the knowledge of students with emotional and behavioral disorders related to appropriate online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

   It was predicted that online social skills instruction would result in increased student knowledge of online social skills when compared to the traditionally-based online social skills instructional model.

2. Do the student perceptions of the acquisition of knowledge related to appropriate online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

   It was predicted that students would report a higher acquisition of knowledge related to appropriate online social skills after participating in the online social skills instruction when compared to their participation in traditionally-based online social skills instruction.

3. Do the teacher perceptions of the acquisition of knowledge related to appropriate online social skills by students with emotional and behavioral disorders increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

   It was predicted that teachers would report a higher acquisition of student knowledge related to appropriate online social skills by students in the online social skills instruction when compared to traditionally-based online social skills instruction.
4. Is the knowledge of online social skills of students with emotional and behavioral disorders better maintained after the use of online social skills instruction when compared to a traditionally-based online social skills instructional model?

It was predicted that students would demonstrate improved knowledge maintenance of online social skills taught in the online instructional condition when compared to traditionally-based online social skills instruction.

5. Will teacher beliefs concerning the importance of the targeted online social skills change following the implementation of traditionally-based online social skills instruction and online social skills instruction?

It was predicted that teachers would report a more positive belief about the targeted online social skills at the end of the intervention, following the implementation of both the traditionally-based online social skills and online social skills instruction.

6. Will student beliefs concerning the importance of the targeted online social skills change following the implementation of traditionally-based online social skills instruction and online social skills instruction?

It was predicted that students would report a more positive belief about the targeted online social skills at the end of the intervention, following the implementation of both the traditionally-based online social skills and online social skills instruction.

Participants

The students in this study attended elementary, middle, or high school in a large urban school district in the Southwestern United States. The participants ranged in age from 11 to 18. Prior to participation in the study, parents signed an informed consent
form (see Appendix A) and students signed an informed assent form (see Appendix B). The readability of the consent form was at the 5.0 grade level. The readability of the assent form was at the 3.0 grade level.

**Students with Emotional Behavioral Disorders**

Students who participated in this study were identified by a multidisciplinary team as having an emotional/behavioral disorder and received services in a self-contained special education classroom for students with this classification. Six to sixteen students were educated in these classrooms. A total of 36 parent consent forms were distributed to students in the six classrooms; 24 students returned the signed consent forms and signed student assent forms. One student was expelled from school during the second round of intervention. Therefore, a total of 23 students participated in this study. The definition of emotional/behavioral disorder in the state is having a severe emotional disorder that is exhibited by a person for at least 3 months that negatively impacts academic performance and includes at least one of the following criteria: (a) an inability to build or maintain interpersonal relationships, (b) inappropriate behaviors or feelings under normal circumstances, (c) pervasive moods of unhappiness or depression, or (d) fears or a tendency to develop physical symptoms associated with personal or school problems (Nevada Administrative Code, 2007). Demographic information was collected for each student who participated in this study (see Table 1).
Table 1

*Demographic Information for Students*

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Students completed pre- and post-intervention surveys related to (a) their beliefs regarding the importance of the targeted online social skills and (b) their perceived acquisition of online social skills for each instructional phase of the study. Additionally, students completed pre-, post-, and maintenance assessments related to their knowledge of online social skills after participation in both traditional and online social skills instruction. Students were trained to use the Gaggle (2010) system that was used during the online social skills instruction.

Teachers

Seven special education teachers participated in this study. The teacher assigned to Classroom F did not want to participate in the study. However, the administrator of the school wanted the students to receive the intervention. In order to ensure fidelity to the intervention, a second special education teacher in the school delivered the lessons with the assigned teacher providing behavioral support.

The teachers taught in self-contained classrooms for students with emotional/behavioral disorders and were licensed to teach special education (see Table 2). The teachers signed informed consent forms to participate in the study (see Appendix C). and were assigned randomly to one of two groups (e.g., Group A or Group B) and, based on their assignment, began the intervention with traditional social skills instruction or online social skills instruction. The teachers attended a training session prior to the implementation of each instructional intervention. At this training, the teachers practiced teaching the lessons and received feedback in accordance with the teacher fidelity checklist used in the study (see Appendix D).
In addition to the training sessions, the teachers completed pre- and post-assessment surveys concerning their perceptions of student acquisition of online social skills for each instructional intervention in the study. They also completed surveys regarding their belief about the importance of the targeted online social skills prior to the beginning of the study and at the conclusion of intervention. Additionally, teachers had primary responsibility for setting up the video equipment to record student behavioral data. Teachers were responsible for collecting student worksheets on the skill taught during each session.

Table 2

Demographic Information for Teachers

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Gender</th>
<th>Age</th>
<th>Degree</th>
<th>Ethnicity</th>
<th>Years Teaching Emotional and Behavioral Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Female</td>
<td>50</td>
<td>M.Ed.</td>
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<td>3</td>
</tr>
<tr>
<td>B</td>
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<td>61</td>
<td>M.Ed.</td>
<td>Caucasian</td>
<td>2</td>
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<tr>
<td>C</td>
<td>Male</td>
<td>36</td>
<td>M.Ed.</td>
<td>Caucasian</td>
<td>9</td>
</tr>
<tr>
<td>D</td>
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<td>29</td>
<td>M.Ed.</td>
<td>Asian/Pacific Islander</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>Male</td>
<td>39</td>
<td>Bachelor’s</td>
<td>Caucasian</td>
<td>0.58</td>
</tr>
<tr>
<td>F</td>
<td>Male</td>
<td>73</td>
<td>MBA/M.Ed.</td>
<td>Caucasian</td>
<td>14</td>
</tr>
<tr>
<td>F</td>
<td>Female</td>
<td>32</td>
<td>Bachelors’</td>
<td>Caucasian</td>
<td>0.25</td>
</tr>
</tbody>
</table>
Paraeducators

Self-contained special education classrooms for students with emotional/behavioral disorders typically are assigned a full-time paraeducator (see Table 3). The primary responsibility of the paraeducator is to provide instructional and clerical support to the teacher as well as to assist with student behavioral problems. Five of the six paraeducators participating in this study signed an informed consent form (see Appendix E) and attended the two training session with their classroom teacher. In this study, the primary responsibility of the paraeducator was to assist the teacher with equipment set-up (e.g., the video camera, the student computers) and to assist students during independent work time.

Table 3

Demographic Information for Paraeducators

<table>
<thead>
<tr>
<th>Paraeducator</th>
<th>Gender</th>
<th>Age</th>
<th>Degree</th>
<th>Ethnicity</th>
<th>Years Working with Emotional and Behavioral Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Female</td>
<td>39</td>
<td>Bachelor’s</td>
<td>African American</td>
<td>6 months</td>
</tr>
<tr>
<td>B</td>
<td>Female</td>
<td>55</td>
<td>High School</td>
<td>African American</td>
<td>6</td>
</tr>
<tr>
<td>D</td>
<td>Female</td>
<td>23</td>
<td>High School</td>
<td>African American</td>
<td>4</td>
</tr>
<tr>
<td>E</td>
<td>Female</td>
<td>50</td>
<td>High School</td>
<td>Latino</td>
<td>4</td>
</tr>
<tr>
<td>F</td>
<td>Female</td>
<td>59</td>
<td>Associate’s Degree</td>
<td>African American</td>
<td>3 months</td>
</tr>
</tbody>
</table>
Teacher Fidelity Observers

Seven educators with experience working with students who have behavioral problems collected teacher fidelity data. Each teacher fidelity observer was assigned to a self-contained classroom placement; two of the observers split Classroom F, with one observer collecting data during the first round of intervention and the second taking over during the second round. The fidelity observers were responsible for observing the social skill lessons at the school site and completing the teacher fidelity checklists for each lesson. If a teacher’s fidelity score fell below 80%, the fidelity observer provided feedback to the teacher concerning the missing instructional components.

Teacher fidelity observers attended the two teacher training sessions to learn about the instructional materials and the delivery of the social skills lessons. Additionally, the teacher fidelity observers attended one training session focused on the use of the teacher fidelity checklist and collection of accurate data. Teacher fidelity was calculated using the following formula [(agreements)/(agreements + disagreements) x 100 = percent of teacher fidelity agreement)]. For the TOSSI instruction, teachers in Group A had 91.66% fidelity and the teachers in Group B had 87.83% fidelity. For the OSSI instruction, teachers in Group A had 85.85% fidelity and the teachers in Group B had 78.34% fidelity.

Interrater Observers

A doctoral student with experience working with students with behavioral problems conducted the reliability checks for data collected in the study. The interrater observer was assigned 25% of the pre-, post-, and maintenance measures and rescoring the assessments. The interrater observer was trained on the use of the data collection
instruments. The percentage of agreement was calculated using the following formula: 
\[
\text{percent agreement} = \frac{\text{agreements}}{\text{agreements} + \text{disagreements}} \times 100
\]

The percent agreement for the interrater observer was 94.8%.

**Setting**

This study was conducted in six self-contained special education classrooms in a large urban Southwestern school district. Three of the classrooms (A, E, and F) were on comprehensive middle school campuses. These schools provide instruction to students in grades six through eight and have general education classrooms as well as a continuum of placements for students with disabilities. The remaining three classrooms (B, C, and D) were located on a self-contained campus for students with EBD. One of the classroom was a 5th grade classroom, one was a middle school classroom, and one was a high school classroom. The schools in this district serve students from a wide range of backgrounds, including diversity of ethnicity, language, family, and economic status. The school principal of each participating school provided consent prior to the beginning of the study (see Appendix F).

**Classrooms**

The six self-contained special education classrooms used in this study provided educational services to students with emotional and behavioral disorders. The primary focus of instruction in these classrooms was behavior and social interactions. Students assigned to these classrooms spent more than 50% of their school day in the self-contained classroom setting. Classrooms were selected using convenience sampling. These classrooms have one period of social skills instruction daily that lasts for 50
minutes. The intervention took place at this time. Additionally, these classrooms had at least two computers assigned to them for student use. These computers were used during the online social skills instruction.

**Instrumentation**

In order to answer the research questions, assessment instruments were developed to capture appropriate data. These assessment instruments were used to collect data in the following areas: (a) pre-, post-, and maintenance measures of social skills knowledge, (b) teacher perception of student acquisition of online social skills, (c) student perception of their acquisition of online social skills, (d) teacher beliefs about the importance of the targeted online social skills, and (e) student beliefs about the importance of the targeted online social skills.

**Pretest, Posttest, and Maintenance Assessments**

For this study, pretest, posttest, and maintenance assessments were used to assess a student’s ability to (a) identify if there was a problem when given a scenario from an online situation, (b) identify the problem, (c) determine an appropriate replacement skill, and (d) describe what they would do in this situation (see Appendix G). Scenarios were developed for each of the eight identified online social skills (e.g., creating an online profile, introducing yourself to someone new, responding to requests for personal information, associating with groups on the Internet, letting someone know you like them, responding to cyberbullying, disagreeing with someone online, and understanding your audience) and presented to students. Their answers were scored using a rubric scale of 0
(unable to identify the problem in the scenario) to 5 (able to identify the problem, identify a replacement skill, and describe the steps to implement the skill) (see Appendix G).

For both instructional formats, the assessments were given to students in paper-and-pencil format. The scenarios presented to students were a screen shot of the implementation of an online social skill (see Appendix G). Students analyzed the screen shot in order to determine whether or not there was a problem in the situation. Following the screen shot, students answered a series of questions asking them to identify any problems and determine what they might do differently. The questions were read to the students, and they handwrote their responses to each of these questions.

All assessments contained online social skills scenarios in which students identified appropriate or inappropriate online social skills as well as the identification of possible replacement skills. Assessment scores were calculated using the following formula: \( \frac{\text{number of points student earned}}{\text{40 (total number of points)}} \times 100 = \text{percent of questions correct} \). An interrater observer reviewed 25% of each assessment to ensure accurate scoring.

**Teacher Perception of Student Acquisition of Online Social Skills Questionnaire**

Teachers completed a questionnaire concerning their perception of the acquisition of the online social skills by students after each intervention (TOSSI or OSSI) (see Appendix H). The questionnaire was designed to assess the (a) teachers’ general beliefs about how well the students learned the material and (b) teachers’ perceptions of individual mastery of the targeted social skills by the students. The questionnaires contained one question regarding general feelings about student mastery of the targeted online social skills, one question about student ability to use the skills in the natural
environment, and four questions about the specific skills taught. There were two versions of this questionnaire, specific to the skills targeted for TOSSI and for the OSSI. Teachers ranked their agreement with the statement on a Likert scale of 1-5, with 1 representing strongly disagree and 5 representing strongly agree. These questionnaires were administered twice during the study – once after the implementation of traditionally-based online social skills instruction and once after the implementation of online social skills instruction.

**Student Perception of Their Acquisition of Online Social Skills Questionnaire**

Students completed a questionnaire concerning their perceptions of their personal acquisition of online social skills taught (see Appendix I). The questionnaire was designed to assess (a) student general beliefs of their mastery of the targeted online social skills and (b) student perceptions of individual mastery of the targeted social skills. The questionnaires consisted of one statement regarding students’ beliefs about their individual mastery of the targeted online social skills, one question about their individual ability to use the skills in the natural environment, and four questions about the specific skills taught. There were two versions of this questionnaire, specific to the skills targeted for TOSSI and OSSI. Students ranked their agreement with the statement on a Likert scale of 1-5, with 1 representing strongly disagree and 5 representing strongly agree. These questionnaires were administered twice during the study – once after the implementation of traditionally-based online social skills instruction and once after the implementation of online social skills instruction.
Teacher Beliefs about the Importance of Targeted Skills Questionnaire

Teachers completed a questionnaire dealing with their beliefs concerning teaching online social skills at the beginning and at the end of the study (see Appendix J). This questionnaire was designed to ascertain teacher beliefs about the importance of the targeted online social skills before the study began and after they had implemented both instructional methods. The questionnaire consisted of eight statements regarding the importance of each of the targeted online social skills. Teachers ranked their agreement with the statement on a Likert scale of 1-5, with 1 representing strongly disagree and 5 representing strongly agree.

Student Beliefs about the Importance of Targeted Skills Questionnaire

Students completed a questionnaire dealing with their beliefs concerning learning online social skills at the beginning and at the end of the study (see Appendix K). This questionnaire was designed to ascertain student beliefs about the importance of the targeted online social skills before the study begins and after they had received both instructional methods. The questionnaire consisted of eight statements regarding the importance of each of the targeted online social skills. Students ranked their agreement with the statement on a Likert scale of 1-5, with 1 representing strongly disagree and 5 representing strongly agree.

Materials

Several materials were required for the implementation of this study. These materials were: (a) a simulated social networking website, (b) social skills lesson, (c) student computers, and (d) video cameras.
Simulated Social Networking Website

This study implemented the web-based social networking website Gaggle (Gaggle, 2010). Gaggle developed online environments for use in educational settings and guaranteed that the environments remained safe and controlled for student use during the school day. All services provided by Gaggle were in compliance with the Children’s Online Privacy Protection Act of 1998 (Gaggle). Site licenses were provided by Gaggle to each of the classrooms participating in the study. Students created an anonymous user name and password to access the Gaggle system. The teacher monitored student accounts throughout the study for appropriateness of usage. Additionally, the Gaggle system incorporated filters that monitor for the use of inappropriate language or content. If a student posted inappropriate messages or content, the system automatically removed the post and sent an e-mail to the student user describing why their action was inappropriate. The system also sent an e-mail to the teacher and system administrator that described the student’s actions.

The Gaggle tools used in this study were the social learning tools (Gaggle, 2010). This interface was similar to the natural digital environment that exists outside of school. The Gaggle system provided students access to (a) an area for the development of an individual profile, (b) a digital wall, where students could post messages to each other, (c) a place for students to upload pictures and materials, and (d) an electronic message service, in which students could communicate with one another. Appendix L contains screen shots from each of the Gaggle services used in the study.
Social Skills Lessons

Teachers delivered instruction related to online social skills in two formats: traditional social skills instruction (TOSSI) and online social skills instruction (OSSI). All students received both types of instruction during the study. Classrooms were assigned randomly to one of two groups. Group A began with TOSSI and received instruction for two weeks. After a one-week post-test and maintenance period, Group A implemented OSSI. Group B began the intervention with OSSI and received instruction for two weeks. After a one-week post-test and maintenance period, Group B implemented TOSSI. See Table 4 for a list of targeted online social skills as well as their research support.
Table 4

*Targeted Online Social Skills*

<table>
<thead>
<tr>
<th>Week</th>
<th>Online Social Skill</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Creating an online profile with appropriate content</td>
<td>Barnes, 2006; Harman et al., 2005; Potter &amp; Potter, 2001</td>
</tr>
<tr>
<td>2</td>
<td>Introducing yourself to someone new</td>
<td>Ducheneaut &amp; Moore, 2005</td>
</tr>
<tr>
<td>3</td>
<td>Responding to requests for personal information</td>
<td>Barnes, 2006; Mitchell, Wolak, &amp; Finkelhor, 2008; Potter &amp; Potter, 2001</td>
</tr>
<tr>
<td>4</td>
<td>Associating with groups on the Internet</td>
<td>Ducheneaut &amp; Moore, 2005</td>
</tr>
<tr>
<td>5</td>
<td>Letting someone know that you like them</td>
<td>Alapack, Blichfeldt, &amp; Elden, 2005</td>
</tr>
<tr>
<td>6</td>
<td>Responding to and refraining from cyberbullying</td>
<td>Li, 2006; Privitera &amp; Campbell, 2005</td>
</tr>
<tr>
<td>7</td>
<td>Disagreeing with someone online</td>
<td>Li, 2006; Tynes, 2007</td>
</tr>
<tr>
<td>8</td>
<td>Understanding your audience</td>
<td>Boyd, 2008</td>
</tr>
</tbody>
</table>

**Formative evaluation of lessons.** All lesson materials were formatively evaluated by professionals in the field of education, including professors, teachers, and students from the target age group. Additionally, the Gaggle website was provided to this panel of evaluators for review. Materials first were sent to two professors in the field of special education who have expertise in working with students with behavioral problems. Once feedback was solicited from the professors, changes to the materials were made.
Materials were then sent to two teachers who had expertise working with middle school students with emotional/behavioral disorders. Any suggestions for revision provided by the teachers were reviewed, and changes to the materials made. Following this stage in the formative evaluation, the materials were shown to middle school students with emotional/behavioral disorders. A focus group was held and the students were shown the materials and provided an opportunity to make suggestions to improve the material. Student suggestions were documented and final revisions to the materials were be made. Students who participated in the focus group did not participate in the study.

**Traditionally-based online social skills instruction lessons.** Four of the targeted online social skills were delivered using TOSSI. This instruction was modeled after standard social skills curriculum used in classrooms for students with EBD, such as *Skillstreaming the Adolescent* (Goldstein & McGinnis, 1997). The four online skills delivered using this method were dependent on the order in which the interventions were implemented. Group A received the first four skills using TOSSI and Group B received the last four skills using TOSSI (see Table 4). Traditionally-based online social skills instruction was delivered for 50-minutes per day during the period assigned to social skill instruction. One online social skill was introduced every three days (with the final skill in each round being a thought process skill that lasted for one day) with intervention lessons delivered every day. All lessons contained a teacher script, as well as a student worksheet on which students recorded their responses (see Appendices M and N).

All lessons in TOSSI followed a similar format, with one online social skill being taught every 3 days (see Appendix O). On Day One of instruction, the teachers introduced the online social skill to be taught during the week. During this time, teachers
provided: (a) a definition of the targeted online social skill, and (b) a task analysis of the skill implementation. Following the introduction, a scenario containing an inappropriate implementation of the targeted online social skill was provided. The example was read to students and they discussed the scenario and the appropriate or inappropriate actions that occurred. Students were asked to think about the different consequences of inappropriate implementation of the targeted online social skill and a rationale for use of the appropriate skill. Students wrote this information down in their student packets (see Appendix N) (Goldstein & McGinnis, 1997).

Following the introduction to the skill, students were guided through a sample implementation of the skill using projected screen shot samples from Gaggle. The teacher revisited the scenario discussed at the beginning of the class and asked students to identify all elements they believe were inappropriate and needed to be changed in the online environment. The teacher practiced the first two steps of the online social skill with the students and then they worked independently on revising the remaining steps of the skill. At the end of the practice, the teacher modeled a scenario that implemented all of the necessary changes to provide students with an appropriate model of a completed scenario. The end of the lesson was a review of the definition of the targeted social skill, as well as the rationale for learning the online skill.

On Day Two, the students wrote down the definition of the targeted online social skill discussed during the first day of instruction, as well as the steps involved in its implementation. The teacher reviewed the targeted social skill. Following this review, another online scenario was provided in which a student implemented the targeted social skill inappropriately. The students worked independently to identify the problem(s) in the
situation as well as what they might do differently. A review was conducted and the students worked independently to create two scenarios. The first scenario was an inappropriate implementation of the online social skill and the second concerned an appropriate implementation. These scenarios were shared with the class on Day Three. At the end of the period, the teacher collected these scenarios.

On Day Three, the students reviewed the targeted social skill. The student-created scenarios from Day Two were passed out and the class reviewed them and identified the problem in the situation, what they would do differently, and rewrote the scenario to incorporate a more appropriate online skill. Once the scenarios were rewritten, the students presented the original scenario and their revision to the class. This was followed by a class discussion and feedback. At the end of the presentations, the students wrote the definition of the targeted online social skill and reviewed a scenario to determine what needed to be altered. They made the appropriate revisions independently.

**Online social skills instruction.** Four of the online social skills were taught using OSSI (see Table 4). Many of the components of the OSSI were similar to the TOSSI, including the length of each the lessons, the days of implementation, and the inclusion of teacher and student scripts. The instructional difference between TOSSI and OSSI was that the scenarios and practice activities for students occurred online using Gaggle, a simulated social skills network rather than in a paper and pencil format.

All lessons in OSSI followed a prescribed instructional format. On Day One of instruction, the teacher introduced the targeted online social skill by providing new definitions related to the social skill, as well as a definition of the targeted social skill, a task analysis of the skill, and a model showing the implementation of the skill in the
Gaggle system. The students then logged-in to the Gaggle system (Gaggle, 2010) and accessed a specific component of Gaggle (e.g., a sample student wall, a sample student profile). The component represented an inappropriate implementation of the targeted social skill. Students were asked to review the Gaggle component and write their assessment of the actions taken by the fictitious student as well as why they believe there might be a problem. The teacher asked students to think about the consequences of inappropriate implementation of the targeted social skill. This was followed by a class discussion.

Following the introduction of the scenario, the teacher projected the component of Gaggle for students to view. Students reviewed the online scenario and identified the parts of the Gaggle component that needed to be changed to implement the targeted online social skill appropriately. The teacher guided students through the first two steps of the targeted social skill and then asked students to go to their profile page of Gaggle and work independently to implement the targeted online social skill appropriately. At the end of the lesson, the class reviewed the steps necessary to implement the targeted online social skill and the teacher modelled an example.

On Day Two, students wrote down the definition of the targeted social skill as well as the steps necessary to implement the skill. The class reviewed the targeted social skill and accessed their Gaggle accounts. In their account, another example of an inappropriate implementation of the social skill was posted. Students were asked to identify the problem as well as what they would have done differently on their student worksheet. The students implemented the targeted online social skill correctly. The
teacher assessed the student implementations and discussed the skill with the entire class using the Gaggle system projected for the entire class.

For practice, the students worked individually and created a Gaggle component that implemented the targeted online social skill inappropriately and also created a Gaggle component that implemented the targeted skill appropriately using the online system. These scenarios were used in Day Three. In the classrooms, there were enough computers available so students could work on this component at the same time.

On Day Three, the students reviewed the targeted online social skill. Each pair accessed a Gaggle component created by their peers that displayed an inappropriate implementation of the targeted social skill. Each pair of students identified the problem in the situation, what they would have done differently, and then implemented their plan within the online system. The students projected the original scenario, as well as their revised component, to the class. Students and the teacher discussed the various online implementations and provide feedback.

At the end of the presentations, the students wrote the definition of the targeted online social skill and reviewed a Gaggle component that implemented the targeted skill inappropriately on their computers. They made the appropriate revisions. Students were assessed on their ability to (a) identify if there was a problem in the situation, (b) identify what they would do differently, and (c) describe what they would do to make the skill more appropriate.

**Computers**

All classrooms in this study had between three to eight computers available for student use. In all of the classrooms, there were enough computers for students to work
independently. These computers were desktop personal computers (PC) and were connected to the Internet.

**Video Cameras**

Six digital video cameras were used in the study to record teacher implementation of the lessons. Classroom teachers and paraeducators were trained to set up and use the video cameras. The teacher, paraeducator, and parent consent and student assent forms contained a release to be videotaped (see Appendices A, B, C, and E). In Classroom E, the parents of the students provided consent for their child to be videotaped, however, one student had violent behavioral outbursts whenever the video camera was on. Therefore, limited video data was available for this classroom. In Classroom F, no parents agreed to allow their child to be videotaped. These cameras were assigned to classroom teachers and were left in their possession for the duration of the study.

**Training**

In order to ensure fidelity to the interventions, as well as maximize the effects of the intervention, all participants received training specific to their responsibilities. The special education teachers and paraeducators attended two trainings (each lasting two hours) held on campus. One training occurred before the first two-week intervention, and related to the first instructional group to which the classrooms are assigned (e.g., TOSSI, OSSI). Following the first phase of intervention, the teachers and paraeducators attended training concerning their second instructional intervention, either TOSSI or OSSI. Students attended training on the use of the Gaggle system prior to the implementation of OSSI. Teacher fidelity observers attended the teacher training sessions as well as one
additional session that was solely related to the collection of fidelity data. Interrater
observers were trained in the use of the teacher fidelity checklists and rubrics for scoring
student assessments.

**Teacher and Paraeducator Training**

Teachers and paraeducators were assigned to either Group A (implementation of
TOSSI for the first two weeks of intervention followed by implementation of OSSI for
second two weeks) or Group B (implementation of OSSI for the first two weeks of
intervention followed by the implementation of OSSI for the second two weeks).
Trainings for each of the instructional methods were provided prior to the implementation
of the intervention. At training sessions for both instructional methods, teachers and
paraeducators reviewed the curricular materials, practiced implementing the intervention,
and were provided feedback on the fidelity of their implementation.

**Traditional social skills instruction training (TOSSI).** Teachers and
paraeducators attended a two-hour training session to learn the steps involved in the
TOSSI. During the first hour of training, teachers and paraeducators were introduced to
the instructional materials (e.g., lesson plans, teacher scripts, student activities). Teachers
and paraeducators reviewed the materials and asked questions about the delivery of
instruction. The teachers and paraeducators also viewed a demonstration of a TOSSI
lesson being implemented. Following the demonstration, each of the teachers role-played
a portion of a lesson. They were scored using the teacher fidelity checklist (see Appendix
D) and given feedback concerning their adherence to the protocol. All teachers scored
100% accuracy for lesson implementation on this checklist. The formula used to calculate
accuracy was [(steps implemented correctly/total steps involved in implementation x 100 = percent of teacher fidelity)].

Following the role-play of the lesson, the teachers and paraeducators were trained on setting-up the digital video cameras for the lessons. Questions about the use of the video equipment were answered. At the conclusion of the training, teachers and paraeducators left with the lesson materials needed for the TOSSI.

**Online social skills instruction training.** Teachers and paraeducators attended a two-hour training session focused on the online social skills instruction (OSSI). The training was held on campus. During the first hour of the training session, teachers and paraeducators watched a demonstration of the Gaggle system. This involved a thorough overview of the components of the system and the security measures. Following the overview, teachers and paraeducators were taught the explicit steps of completing certain actions in the Gaggle system (e.g., creating a profile, posting content, posting student activities, monitoring student actions within the system). Teachers completed these steps with 100% accuracy by the end of the training session. Accuracy was calculated using the following formula [(components created correctly/total components involved x 100 = percent of accuracy in Gaggle system)].

Following Gaggle system training, teachers and paraeducators were given the lesson plans, teacher scripts, and student activities. Teachers and paraeducators reviewed all materials and asked questions about the lessons. Teachers and paraeducators watched a demonstration of an OSSI lesson.

Following the demonstration, teachers and paraeducators practiced role-playing a lesson, including the delivery of the introduction and the preparation of student activities.
in the Gaggle system. The role-play was scored using the teacher fidelity checklist (see Appendix D) and provided feedback about their adherence to the protocol. Teachers completed these steps with 100% accuracy by the end of the training session. Accuracy was calculated using the following formula \[\left(\frac{\text{steps implemented correctly}}{\text{total steps involved in implementation}} \times 100\right) = \text{percent of teacher fidelity}\].

Following the role-play of the lesson, the teachers and paraeducators learned the digital video camera set-up for each of the lessons. Questions about the use of the video equipment were answered. At the conclusion of the training, teachers and paraeducators left with the lesson materials needed for the OSSI and their Gaggle log-in information.

**Student Training**

A one-day online training session was held at the individual schools with the student participants prior to the beginning of OSSI. Students were provided with their login information to Gaggle and were taught to use the different components of Gaggle. The specific skills taught were: (a) turning the computer on and navigating to the Internet, (b) logging into the Gaggle site, (c) posting on another person’s wall, (d) updating profile information, (e) sending a message, and (f) uploading a picture. Students were prompted to complete specific actions within the Gaggle system to ensure understanding of the Gaggle system. Students reached a criterion of 100%. The formula used to establish this criterion was \[\left(\frac{\text{steps completed correctly}}{\text{steps completed correctly} + \text{steps completed incorrectly}}\right) \times 100 = \text{percentage of complete steps}\].

**Teacher Fidelity Observers**

Seven teacher fidelity observers attended a 1-hour training session that provided an overview of the teacher responsibilities during the lessons as well as use of the teacher
fidelity checklist. Questions concerning the checklist were answered. Additionally, teacher fidelity observers attended both the TOSSI and the OSSI trainings with the teachers and paraeducators to ensure familiarity with the protocols being implemented in the study. During the teacher and paraeducator role-play, the teacher fidelity observers completed the teacher fidelity checklist. These checklists were reviewed at the conclusion of the training and corrective feedback provided to the teacher fidelity observers. An interrater agreement of 100% was met on the teacher fidelity checklists during training within observers. This was calculated using the following formula 

\[
\frac{(agreements)}{(agreements + disagreements)} \times 100 = \text{percent of teacher fidelity agreement}
\]

**Interrater Observers**

One interrater observer was used in this study. The interrater observer rescored 25% of the pretest, posttest and maintenance measures. The interrater observer attended a 1-hour training session. The pretest, posttest, and maintenance assessments were reviewed with the interrater observer. The rubric for scoring these assessments was reviewed and questions answered. The interrater observer reviewed a demonstration of scoring a pretest answer using the rubric. Following this demonstration, the interrater observer scored two of each of the assessments. The interrater observer’s scores were compared to data collected during the pretesting phase. Training concluded after interrater agreement with the original pretest data had reached 100% as calculated by the following formula 

\[
\frac{(agreements)}{(agreements/disagreements)} \times 100 = \text{percent of interrater agreement}
\]

The interrater reliability for the resoring of assessments was 94.8%.
Social Skills Instruction

The social skills lessons (TOSSI and OSSI) were developed using the research-based components of effective social skills curriculum (Goldstein & McGinnis, 1997). These components include: (a) direct instruction of the new skill, (b) guided practice implementing the skill, (c) role-playing the skill, and (d) an opportunity to receive feedback regarding implementation of the skill. Additionally, the social skills lessons provided students an opportunity to apply the skill in given situations as well as determine the consequences of using inappropriate social skills. Both the TOSSI and the OSSI followed similar lesson frameworks. The instructional difference between the two is that the TOSSI took place in the classroom using paper and pencil, while the OSSI allowed students to practice with the targeted skills in the natural online Gaggle environment.

The targeted online social skills chosen for inclusion in this study were determined after a review of the relevant research concerning social skills needed for participation in online environments. The targeted online social skills to be taught were based on research concerning social interactions in online environments. The order of instruction of the online social skills followed a chronological format of the type of behaviors students might engage in when participating in an online social networking environment (Boyd, 2008). Group A used TOSSI as the instructional method for the first four targeted online social skills and Group B began with OSSI; after posttest and maintenance, the groups switched to the alternative instructional method for the final four targeted online social skills. Table 5 contains the order of the targeted online social skills,
as well as the instructional methodology to be used by each group (e.g., Group A and Group B).
Table 5

*Instructional Order of Targeted Online Social Skills*

<table>
<thead>
<tr>
<th>Week</th>
<th>Targeted Online Social Skill</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Creating an online profile with appropriate content</td>
<td>TOSSI</td>
<td>OSSI</td>
</tr>
<tr>
<td>2</td>
<td>Introducing yourself to someone new</td>
<td>TOSSI</td>
<td>OSSI</td>
</tr>
<tr>
<td>3</td>
<td>Responding to requests for personal information</td>
<td>TOSSI</td>
<td>OSSI</td>
</tr>
<tr>
<td>4</td>
<td>Associating with groups on the Internet</td>
<td>TOSSI</td>
<td>OSSI</td>
</tr>
<tr>
<td>5</td>
<td>Letting someone know that you like them</td>
<td>OSSI</td>
<td>TOSSI</td>
</tr>
<tr>
<td>6</td>
<td>Responding to and refraining from cyberbullying</td>
<td>OSSI</td>
<td>TOSSI</td>
</tr>
<tr>
<td>7</td>
<td>Disagreeing with someone online</td>
<td>OSSI</td>
<td>TOSSI</td>
</tr>
<tr>
<td>8</td>
<td>Understanding your audience</td>
<td>OSSI</td>
<td>TOSSI</td>
</tr>
</tbody>
</table>

*Traditionally-based Online Social Skills Lessons*

Teachers were provided with a series of three scripted lesson plans (one for each day of instruction) as well as a student worksheet for each of the targeted online social skills. The first day of instruction for each targeted social skill was an introduction to the targeted online social skill (e.g., providing the definition and task analysis for the targeted skill as well, discussing the consequences for not implementing the targeted social skill appropriately). In order to determine these consequences, the teacher asked questions such as “What might happen if you post inappropriate pictures on the Internet?” The
second day of instruction provided an opportunity for students to practice using the targeted social skill. Students reviewed a scenario written in paragraph format provided by the teacher, identified the problem in the situation, and provided a more appropriate implementation of the targeted social skill. Additionally, students wrote their own scenarios (both an example and a nonexample) of appropriate implementation of the targeted social skill. On the last day of instruction for the week, students presented their examples to the class and received feedback from the teacher and their peers regarding their social skill scenarios. Students completed a final worksheet reviewing the steps in the appropriate social skill and applying those steps to a final written scenario.

Each lesson was 50 minutes in length, and implemented during class time allocated for social skills instruction in each classroom. Students were provided with three opportunities to review inappropriate implementation of the targeted online social skill throughout these lessons before moving on to the next skill. A total of four targeted online social skills were taught using TOSSI, with the order dependent on the group the classroom is assigned to (e.g., Group A or Group B). See Table 5 for the online social skill taught using this methodology for each group.

**Online Social Skills Instruction**

Online social skills instruction contained many of the same steps and procedures as TOSSI. Teachers were provided with the same materials for OSSI as TOSSI, and the sequence of lesson activities was the same (e.g., day one was an introduction to the targeted skill, day two was practice and application of the targeted skill, day three was provision of feedback regarding implementation of the targeted skill). However, the practice environment was different for OSSI. On day one of instruction, when students
ere provided a scenario to examine, the scenario was located in the Gaggle environment. Students logged-in to Gaggle, were directed to a component of the system, and reviewed the implementation of the skill in the natural environment. On day two, students reviewed a new scenario in the Gaggle environment. Additionally, when they were asked to create an example and a nonexample of appropriate implementation of the targeted online social skill, they did so within Gaggle. Finally, on day three, students presented their created Gaggle component to the class for feedback.

Each lesson was 50 minutes in length, and implemented during class time allocated for social skills instruction in each classroom. Students were provided with three opportunities to review inappropriate implementation of the targeted online social skill throughout these lessons before moving on to the next skill. A total of four targeted online social skills were taught using OSSI, with the order dependent on the group the classroom was assigned to (e.g., Group A or Group B). See Table 5 for the online social skills taught using this methodology for each group.

**Design and Procedures**

This study was conducted over an 8-week period, and consisted of three phases. These phases included formative evaluation of intervention materials, recruitment and training schedule A, intervention schedule A, training schedule B, and intervention schedule B. See Figure 1 for a diagram of the phases.

**Phase One**

Phase one of this study consisted of the formative evaluation process for the traditional social skills instruction (TOSSI) lessons, the online social skills instruction
(OSSI) lessons, and the Gaggle interface used during OSSI. A timeline of the study is provided in Appendix P.

Figure 1

Phases of the Study

<table>
<thead>
<tr>
<th>Phase One</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Formative evaluation of traditional social skills lessons.</td>
</tr>
<tr>
<td>• Formative evaluation of online social skills lessons.</td>
</tr>
<tr>
<td>• Formative evaluation of Gaggle system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Identification of classrooms for participation.</td>
</tr>
<tr>
<td>• Informed consent/assent (students, parents, teachers, paraeducators).</td>
</tr>
<tr>
<td>• Training A (TOSSI for Group A; OSSI for Group B and technology training for students assigned to Group B.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-test of first instructional method.</td>
</tr>
<tr>
<td>• Intervention for two weeks.</td>
</tr>
<tr>
<td>• Posttest of first instructional method.</td>
</tr>
<tr>
<td>• First student and teacher surveys.</td>
</tr>
<tr>
<td>• Training B (OSSI for Group A; TOSSI for Group B and technology training for students assigned to Group A.</td>
</tr>
<tr>
<td>• Pretest of second instructional method.</td>
</tr>
<tr>
<td>• Intervention for two weeks.</td>
</tr>
<tr>
<td>• Posttest of second instructional method.</td>
</tr>
<tr>
<td>• Maintenance.</td>
</tr>
<tr>
<td>• Second teacher and study surveys.</td>
</tr>
</tbody>
</table>

**Traditional social skills instruction.** One lesson plan (targeting the skill of creating a profile with appropriate content) using TOSSI was designed for the purpose of conducting the formative evaluation (see Appendix M). The beta-lessons underwent formative evaluation. Following the formative evaluation, the other lessons were developed according to the feedback received during this stage. Lesson plans were developed for three days of instruction and served as the model for the creation of the four lessons in this instructional condition. The lesson structure was as follows: (a) day one, the targeted online social skill was introduced and defined, a scenario was presented and students discussed the consequences of inappropriate implementation of the skill, (b)
day two, the steps in the targeted social skill were reviewed and its implementation modeled and practiced, and (c) day three, students independently practiced the implementation of the targeted social skill using paper and pencil and student mastery of the skill was assessed.

**Online social skills instruction.** A lesson plan targeting the skill of creating a profile with appropriate content was created using OSSI. This was designed for the purpose of formative evaluation (e.g., experts, teachers, students) (see Appendix M). The OSSI lessons followed a similar structure to the TOSSI lessons (e.g., skill steps taught on specific days). However, the modeling, guided practice, independent practice, and assessment of the targeted social skill occurred within the online Gaggle system during OSSI as opposed to a paper-and-pencil format. Students were presented with a scenario within Gaggle, asked to identify the inappropriateness in the situation, make the changes to their Gaggle profiles accordingly, and respond to the scenario presented using the targeted social skill. This lesson plan was used as the model for all of the other lesson plans taught using OSSI.

**Gaggle interface.** The Gaggle interface was created for student use with the online scenarios used in the first lesson for formative evaluation. The components of Gaggle that used in this study were: (a) the user’s profile, (b) status updates, (c) wall posts, (d) e-mail, (e) chat rooms, and (f) blogs (see Appendix L). Screenshots of the Gaggle screens were formatively evaluated using the same procedures as the TOSSI and OSSI (e.g., experts, special education teachers, and students).
Phase Two

In Phase Two, schools were recruited for participation in the study. Meetings were arranged with the director of special education in the northern region of the school district to explain the study and get support for the research. Once support was received at the district level, school principals were contacted to solicit school sites. Middle schools with self-contained programs for students with emotional and behavioral disorders were the focus of the study and the principals of these schools were contacted via e-mail, telephone calls, and personal meetings. Six classrooms were secured for participation. Consent was obtained from participants (e.g., teachers, students, paraeducators).

Student participants. Students in this study were: (a) identified as having an emotional or behavioral disorder by a multidisciplinary team, (b) had individualized education plan (IEP) in the state of Nevada, and (c) attended a self-contained program for students with EBD for a social skills class. The study was reviewed with students and assent for participation obtained (See Appendix B).

Consent. Informed consent forms were distributed to teachers, paraeducators, and the parents of students with EBD (See Appendices A, C, and E). A letter describing the study, a consent form, and a postage-paid envelope was sent home with the students. All students in the classrooms participated in the study; however, only the data from students whose parents provide a signed consent form were analyzed. Once parent consent forms were returned, student assent forms were gathered from the students. A meeting with students was held to answer questions prior to solicitation of their assent. Consent from the teachers and paraeducators was obtained at their first round of training.
Teacher and paraeducator training. Three of the classrooms were randomly assigned to intervention Group A (four skills taught using TOSSI), and three were randomly assigned to intervention Group B (four skills taught using OSSI). Based on their group assignment, teachers attended training where they reviewed all of the materials to be used during their assigned phase of intervention. Teachers implemented a sample 10-minute lesson, and were scored on the teacher fidelity checklist. Performance feedback regarding teacher adherence to the protocol was provided.

Teacher fidelity observers attended a one-hour training. At this training, they were introduced to the teacher fidelity checklist and the components of the TOSSI and OSSI lessons as well as practiced using the checklist while viewing sample videos of the lessons. Additionally, they attended both teacher and paraeducator trainings and practiced using the fidelity checklists during teacher implementation of the sample lessons.

The interrater observer attended a 1-hour training. At this training, the observer was introduced to the pretest, posttest, and maintenance assessments. Practice opportunities were provided for the interrater observer to score sample assessments.

A training session for students assigned to Group B was scheduled at the school. Students were introduced to the Gaggle system and practiced completing specific actions within the Gaggle system. Student training lasted for two days, with one day focused on the introduction to Gaggle and day two on practicing with the different components (e.g., how to create a profile, write on someone else’s wall, sending messages).

Phase Three

This phase of the study lasted for 8 weeks. During this phase, pretests of the initial four online social skills were administered (see Appendix G) as well as pretest
measures for teacher and student beliefs about the importance of the targeted online social skills. The two interventions were implemented, with students in Group A receiving TOSSI for four targeted online social skills and students in Group B receiving OSSI for the same four targeted social skills. The posttest for the initial four skills was administered at the conclusion of instruction.

Following the first intervention, additional training was conducted for teachers and paraeducators (with Group A receiving OSSI training and Group B receiving TOSSI training) and technology training for students in Group A. Pretests for the second phase of intervention were administered, followed by the implementation of the intervention. Posttest and maintenance assessments were administered following the second intervention. At the end of both interventions, posttest questionnaires for teacher and student beliefs about the importance of the targeted skills were administered.

**Pre-test.** Students were administered pretests during the first week of phase one. Students were presented with a series of scenarios that take place in an online environment using screen shots from the Internet. Students were asked to perform four tasks: (a) to identify if there was a problem in the situation, (b) state what the problem is, (c) state an appropriate skill to help overcome the problem, and (d) describe what they would have done differently. Student responses were scored using a rubric, ranging from 0 to 5 (see Appendix G). Data were entered into SPSS for later analysis.

**Teacher and student belief questionnaires.** Prior to the implementation of either intervention, teachers and students completed a questionnaire regarding their belief about the importance of the targeted online social skills (see Appendices K and L). These questionnaires were comprised of all eight targeted social skills addressed in this
intervention. Teachers and students were asked to rate their belief of the importance of the skill on a Likert scale of 1 (strongly disagree) to 5 (strongly agree). The data from the questionnaire were collected, scored, and entered into SPSS for analysis.

**Lesson implementation.** Teachers in both conditions (TOSSI, OSSI) introduced one targeted online social skill every three days (with instruction related to the final skill lasting for one day), for a total of two weeks. On the first day of instruction, teachers provided students with a context for the targeted skill, as well as a definition of the skill. On the second day of instruction, students practiced implementing the targeted online social skill as well as provided examples and nonexamples of the online social skill. On the third day of instruction, students presented their responses to inappropriate examples of the online social skill and received feedback from their peers and the teacher. Students were assessed on the last day of instruction for the week using the student worksheet. Teacher fidelity checklists were completed by the observers during each day of instruction to ensure that the intervention was being implemented appropriately.

**Posttest.** After the 4 weeks of lessons, students completed a posttest. The posttest was present students with a screen-shot of a situation in an online environment. Students (a) identified if there was a problem in the situation, (b) determined what the problem was, (c) stated an appropriate replacement behavior, and (d) described how they would change the behavior. The student responses were scored using a rubric (see Appendix G). The posttest data were collected, scored, and entered into SPSS for later analysis.

**Maintenance.** A 1-week period of no instruction followed the two intervention phases. During this phase, teachers did not implement any lessons related to online social skills. At the end of the 1-week period, a maintenance test was administered and student
responses were scored. The maintenance assessment data were collected, scored, and entered into SPSS for later analysis.

**Teacher and student perception questionnaires.** Following the posttest, teachers and students completed questionnaires regarding their perception of student acquisition of the targeted online social skills, as well as their overall mastery of the material (see Appendices H and I). These questionnaires provided a series of questions to which teachers and students rated their beliefs about the statement on a Likert scale of 1 (strongly disagree) to 5 (strongly agree). The data from the questionnaires were collected, scored, and entered into SPSS for analysis.

**Teacher and paraeducator training.** Following the initial implementation of intervention, Group A moved from TOSSI to OSSI, and Group B moved from OSSI to TOSSI. Each group of teachers attended a training for their new mode of instruction. Students assigned to Group A were trained on the Gaggle system. A refresher training was provided for teacher fidelity observers.

**Lesson implementation.** Following training, the second implementation of intervention occurred. Students in Group A received TOSSI for four new online social skills. Students in Group B received OSSI for the same four new online social skills. The same routine for pretest, lesson implementation, posttest, maintenance assessment, and questionnaire data collection was used.

**Teacher and student belief questionnaires.** After the implementation of both interventions and the collection of all related data, teachers and students were asked to complete a post questionnaire regarding their belief about the importance of the targeted
online social skills. These questionnaires were in the same format as the pre-questionnaire.

**Data Collection**

Data were collected throughout the study in order to answer the research questions. Data collection forms were created to collect information related to pretest, posttest, and maintenance assessment, teacher and student perceptions of the acquisition of online social skills, teacher and student beliefs about the importance of online social skill instruction, and teacher fidelity to the intervention.

**Pre-, Post-, and Maintenance Assessments**

*Traditional social skills instruction.* The pretest, posttest, and maintenance data were collected for both instructional groups (Group A and Group B). These data were entered into SPSS for analysis.

*Online social skills instruction.* The pretest, posttest, and maintenance data were collected for both instructional groups (Group A and Group B). These data were entered into SPSS for analysis.

**Teacher Perceptions of Skill Acquisition**

Teacher perceptions of student skill acquisition were collected at the end of both instructional methods. Responses were entered into SPSS analysis.

**Student Perceptions of Skill Acquisition**

Student perceptions of their skill acquisition were collected at the end of both instructional methods. Responses were entered into SPSS analysis.
**Teacher Beliefs about the Importance of the Online Social Skills**

Data regarding teacher beliefs about the importance of the targeted online social skills were collected prior to the implementation of any intervention and at the end of the study. These data were entered into SPSS for analysis.

**Student Beliefs about the Importance of the Online Social Skills**

Data regarding student beliefs about the importance of the targeted online social skills were collected prior to the implementation of any intervention and at the end of the study. These data were entered into SPSS for analysis.

**Teacher Fidelity Data**

Teacher fidelity data were collected using a teacher fidelity checklist. At the end of each lesson, teacher fidelity were determined using the following formula \[
\text{percent of teacher fidelity} = \left( \frac{\text{lesson components implemented appropriately}}{\text{lesson components implemented appropriately} + \text{lesson components implemented inappropriately}} \right) \times 100
\]

The fidelity observers communicated this information to teachers daily.

**Interrater Reliability**

Interrater reliability for the scoring of the pre-, post-, and maintenance assessments was calculated. Interrater reliability was calculated by comparing the original data collection with the interrater observers’ data collection using the following formula \[
\text{percent of reliability} = \left( \frac{\text{agreements}}{\text{agreements} + \text{disagreements}} \right) \times 100
\]
Treatment of Data

Data from the pretest and posttest measures were used to answer the following question:

Research Question 1: Does the knowledge of students with emotional and behavioral disorders related to appropriate online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

Analysis: In order to determine if there was a significant difference in a student’s ability to identify and implement appropriate social skills when using online social skill instruction compared to a traditional social skills instructional model, a 2 (group) x 2 (time) repeated measures ANOVA was used to analyze the data. An alpha level of .05 was set.

Data from the teacher and student questionnaires regarding perceptions of social skill acquisition were used to answer the following research questions:

Research Question 2: Do the student perceptions of the acquisition of knowledge related to appropriate online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

Analysis: In order to determine if there was a significant difference in a students’ perceived acquisition of appropriate social skills, a 2 (group) x 2 (time) repeated measures ANOVA was used to analyze the data. An alpha level of .05 was set.

Research Question 3: Do the teacher perceptions of the acquisition of knowledge related to appropriate online social skills by students with emotional and behavioral
disorders increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

Analysis: In order to determine if there was a significant difference in teachers’ perceptions of student acquisition of appropriate social skills, a 2 (group) x 2 (time) repeated measures ANOVA was used to analyze the data. An alpha level of .05 was set.

Data from the maintenance assessments was used to answer the following question:

Research Question 4: Is the knowledge of online social skills of students with emotional and behavioral disorders better maintained after the use of online social skills instruction when compared to a traditionally-based online social skills instructional model?

Analysis: In order to determine if there was a difference in student maintenance of online social skills following each type of intervention, a 2 (group) x 2 (time) repeated measures ANOVA was used to analyze the data. An alpha level of .05 was set.

Data from the teacher and student questionnaires regarding their beliefs about the importance of the targeted online social skills were used to answer the following questions:

Research Question 5: Will teacher beliefs concerning the importance of the targeted online social skills change following the implementation of traditionally-based online social skills instruction and online social skills instruction?
Analysis: In order to determine if there was a difference in teacher beliefs about the importance of the targeted online social skills prior to implementation and at the end of the study, a 2 (group) x 2 (time) repeated measures ANOVA was used to analyze the data. An alpha level of .05 was set.

Research Question 6: Will student beliefs concerning the importance of the targeted online social skill change following the implementation of traditionally-based online social skills instruction and online social skills instruction?

Analysis: In order to determine if there was a difference in student beliefs about the importance of the targeted online social skills prior to implementation and at the end of the study, a 2 (group) x 2 (time) repeated measures ANOVA was used to analyze the data. An alpha level of .05 will be set.
CHAPTER 4

RESULTS

The use of effective and appropriate social skills by students in school environments can lead to positive outcomes, including higher academic achievement, feelings of connectedness to the school community, and successful post-secondary transition (Cumming et al., 2008; Herbert-Myers et al., 2006; Konold et al., 2010). Inappropriate social skills have been linked to a variety of negative outcomes, including peer rejection, lower academic achievement, increased behavior problems, and negative interactions with teachers (Gresham et al., 2010; Lane et al., 2008; Mikami et al., 2007). The direct and explicit instruction of targeted social skills appears to be an effective intervention for teaching appropriate social skills to students with emotional and behavioral disorders (EBD) (Bullis, Walker, & Sprague, 2001; Gresham, Sugai, & Horner, 2001).

In order for social skills intervention to be most effective, instruction should occur within the natural environment (Johns, Crowley, & Guetzloe, 2005; Maag, 2005). In recent years, participation in online social environments (OSE) has increased dramatically (Brydolf, 2007; Klein, 2008; NSBA, 2007). These environments have a specific set of skills that guide social interactions (e.g., using appropriate language, introducing yourself to someone new, responding to requests for personal information) (Ducheneaut & Moore, 2005; NSBA, 2007; Valkenberg & Peter, 2008). No published research has been found related to the use of social skills by students with EBD in an OSE, or the best method to teach these skills.
The purpose of this study was to determine if students with EBD learned targeted online social skills more effectively using a traditional social skills instructional intervention in which students practiced the implementation of skills using paper-and-pencil scenarios or through the use of an online social skills intervention. This study also measured student and teacher perceptions of the importance of online social skills and their perceptions of student acquisition of online social skills. Lesson materials for each intervention were developed, formatively evaluated, and revised according to feedback provided by experts and teachers prior to the implementation of the intervention. Twenty-four students with EBD and seven special education teachers participated in the study (see Tables 1 and 2).

Classrooms were assigned randomly to one of two groups (Group A or Group B). Group A received traditionally-based online social skills instruction (TOSSI) for the first two weeks of instruction and Group B received online social skills instruction (OSSI). Following the first two weeks of intervention, the groups switched interventions for the final two weeks of instruction, with Group A receiving OSSI and Group B receiving TOSSI. Prior to the implementation of the study, the students completed a pretest that contained a series of screenshots from an online social environment. The pretest was designed to measure their knowledge of the first four online social skills (e.g., creating an online profile, introducing yourself to someone new, responding to requests for personal information, associating with groups on the Internet). Four questions contained online social skills that were implemented appropriately and four contained online social skills that were implemented inappropriately. The pretest measured: (a) student ability to name the online social skill being used in the situation, (b) if the student could identify if the
skill was used appropriately or inappropriately, and (c) if the student could identify the parts of the scenario that were inappropriate and state how they might change them.

Students and teachers also completed a perception survey related to the importance of the online social skills.

Half of the students \((n = 10)\) were assigned to Group A and received TOSSI for the first two weeks of the study. The remaining students \((n = 13)\) were assigned to Group B and received OSSI for the first two weeks of the study. Fidelity observations were conducted during every day of the intervention. Following the first two weeks of the intervention, the students completed a posttest that contained screenshot implementations of the first four online social skills (e.g., creating an online profile, introducing yourself to someone new, responding to requests for personal information, associating with groups on the Internet). Teachers and students completed surveys that measured the perceived acquisition of online social skills by the students. No instructional intervention occurred for one week.

Students in Group A who received TOSSI for the first two weeks of instruction participated in OSSI for the second two weeks of instruction. Students in Group B who received OSSI for the first two weeks of instruction participated in TOSSI for the second two weeks of instruction. Pretests related to the second four online social skills (e.g., letting someone know that you like them, responding to and refraining from cyberbullying, disagreeing with someone online, understanding your audience) were administered prior to the implementation of intervention. Fidelity observations were conducted during every day of the intervention. Following the second round of intervention, students completed a posttest. Again, teachers and students completed
surveys that measured the perceived acquisition of the second set of online social skills by the students. The students also completed a post-survey related to their perceptions of the importance of the online social skills was conducted one week after the conclusion of the study. A maintenance assessment focused on student knowledge of the eight online social skills. Due to student behavioral problems during the last week of school, only 5 students from Group A and 9 students from Group B completed the maintenance assessment.

All student participants (a) were diagnosed with EBD, (b) were eligible for special education according to the Nevada Administrative Code (2005) and (c) were receiving educational services in a self-contained classroom for students with behavioral problems. Students ranged in age from 11 to 18, with the average age of Group A being 12.6 and the average age of Group B being 14.4 (see Table 1).

**Teacher Fidelity to Interventions**

Teacher fidelity checklists were developed to measure teacher adherence to the intervention script during both instructional conditions (see Appendix D). Seven educators with experience working with students with behavioral disorders served as the teacher fidelity observers during the study. These observers were present for each lesson and scored teacher fidelity to the intervention using the checklist. Fidelity was calculated using the following formula: 
\[
\frac{(\text{number of steps implemented correctly})}{(\text{total number of steps in lesson})} \times 100 = \text{percent fidelity for each lesson}
\]
The average of all lessons was calculated to determine the fidelity to intervention for each teacher (see Table 6). Overall fidelity measures for each intervention group were determined by calculating the fidelity
averages for all of the teachers assigned to a group during TOSSI and OSSI (see Table 7).
During the TOSSI, Group A had a fidelity percentage of 91.66% and Group B had a fidelity percentage of 87.83%. During the OSSI, Group A had a fidelity percentage of 85.85% and Group B had a fidelity percentage of 78.34. These data indicate that teachers had a higher level of fidelity to the intervention during the traditional social skills intervention then during the online social skills intervention. Group A had a higher fidelity to intervention during both phases than Group B.

Table 6

*Individual Teacher Fidelity to Intervention Scores*

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Group</th>
<th>TOSSI Percent of Fidelity</th>
<th>OSSI Percent of Fidelity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>89.3%</td>
<td>81.4%</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>99.2%</td>
<td>87.6%</td>
</tr>
<tr>
<td>C</td>
<td>B</td>
<td>91.8%</td>
<td>99.2%</td>
</tr>
<tr>
<td>D</td>
<td>B</td>
<td>69.2%</td>
<td>84.1%</td>
</tr>
<tr>
<td>E</td>
<td>B</td>
<td>74.1%</td>
<td>80.2%</td>
</tr>
<tr>
<td>G</td>
<td>A</td>
<td>86.4%</td>
<td>88.6%</td>
</tr>
</tbody>
</table>
Table 7

*Group Fidelity to Intervention Scores*

<table>
<thead>
<tr>
<th>Group</th>
<th>TOSSI Percent of Fidelity</th>
<th>OSSI Percent of Fidelity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>91.7%</td>
<td>85.9%</td>
</tr>
<tr>
<td>B</td>
<td>87.8%</td>
<td>78.3%</td>
</tr>
</tbody>
</table>

In order to determine if the mean difference of fidelity between intervention types was significant, group fidelity scores were analyzed using a 2 x 2 (time x group) repeated measures ANOVA. The F test of within-subjects effects related to the intervention type was not significant \(F(1,4) = 10.175, p = .498\). This indicates that, overall, there was no significant difference between teacher fidelity to the intervention across all groups. The F test of within-subjects effects between intervention type and group was significant \(F(1,4) = 9.547, p = .037\) (See Table 8). This indicates that there was a significant difference between the teacher fidelity for one of interventions in one of the groups. The F test of between-subjects effects was not significant \(F(1,4) = .725, p = .442\). This indicates that there was no significant difference between the fidelity scores of teachers in Group A or Group B (see Table 9).
Table 8

Tests of Within-Subject Effects for Teacher Fidelity to the Intervention

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>10.175</td>
<td>1</td>
<td>10.175</td>
<td>.553</td>
<td>.498</td>
</tr>
<tr>
<td>Intervention x Group</td>
<td>175.644</td>
<td>1</td>
<td>175.644</td>
<td>9.547</td>
<td>.037*</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>694.338</td>
<td>21</td>
<td>33.064</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *p < .05.

Table 9

Tests of Between-Subject Effects for Teacher Fidelity to the Intervention

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>96.503</td>
<td>1</td>
<td>96.503</td>
<td>.725</td>
<td>.442</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>532.127</td>
<td>4</td>
<td>133.032</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Follow-up paired samples $t$-tests were conducted in order to determine which group had a significant difference in fidelity to intervention. The tests indicated that there was no significant difference between the fidelity scores of teachers in Group A [$t(2) = 1.408$, $p = .294$], but there was a significant difference between the fidelity scores of teachers in Group B [$t(2) = -3.464$, $p = .037$] (see Table 10). This indicates that there was no significant difference in the teacher fidelity scores of teachers in Group A during TOSSI and OSSI, but there was a significant difference in teacher fidelity scores of
teachers in Group B during the two interventions. For teachers in Group B, fidelity during the OSSi intervention was significantly lower than during the TOSSi intervention.

<table>
<thead>
<tr>
<th>Table 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Samples Test of Teacher Fidelity Scores</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>5.810</td>
<td>4.123</td>
<td>1.408</td>
<td>2</td>
<td>.294</td>
</tr>
<tr>
<td>Group B</td>
<td>-9.493</td>
<td>2.740</td>
<td>-3.464</td>
<td>2</td>
<td>.037*</td>
</tr>
</tbody>
</table>

*Note. p < .05.*

**Analysis of Student Knowledge of Online Social Skills**

The students who participated in this study were administered an assessment that consisted of a series of screenshots reflecting the implementation of a targeted online social skill (see Appendix G). Students were assessed on their ability to: (a) name the online social skill being highlighted, (b) identify whether or not the social skill was implemented appropriately, and (c) determine the components of the scenario that were implemented inappropriately. Students completed this assessment five times throughout the intervention: (1) prior to the implementation of the first two weeks of instruction (TOSSi for Group A, OSSi for Group B) as a pretest, (2) upon completion of the first two weeks of intervention as a posttest, (3) prior to the implementation of the second two weeks of intervention (OSSi for Group A, TOSSi for Group B) as a pretest, (4) upon completion of the second two weeks of intervention as a posttest, and (5) after a one-
week maintenance period without instruction. Each question was scored on a 5-point rubric (see Appendix G). These were added together to determine the overall scores. The scores were analyzed to compare the relative effectiveness of the TOSSI and the OSSI at increasing the knowledge of online social skills of students with EBD. Descriptive and inferential statistics were used to compare scores on these assessments. Descriptive statistics are presented in Table 11.
Table 11

*Summary of Means and Standard Deviations for Assessments*

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1 Pretest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>7.9</td>
<td>3.8</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>10.0</td>
<td>3.8</td>
<td>13</td>
</tr>
<tr>
<td>Round 1 Posttest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>10.7</td>
<td>5.5</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>11.6</td>
<td>6.4</td>
<td>13</td>
</tr>
<tr>
<td>Round 2 Pretest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>9.1</td>
<td>3.8</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>9.3</td>
<td>3.3</td>
<td>12</td>
</tr>
<tr>
<td>Round 2 Posttest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>12.2</td>
<td>8.8</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>11.1</td>
<td>7.4</td>
<td>12</td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>14.4</td>
<td>6.1</td>
<td>5</td>
</tr>
<tr>
<td>Group B</td>
<td>20.7</td>
<td>8.3</td>
<td>9</td>
</tr>
</tbody>
</table>

Data from the pretests, posttests, and maintenance assessments were used to answer the following questions:

1. Does the knowledge of students with emotional and behavioral disorders related to online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?
4. Is the knowledge of online social skills of students with emotional and behavioral disorders better maintained after the use of online social skills instruction when compared to a traditionally-based online social skills instructional model?

It was predicted that online social skills instruction would result in increased student ability to use online social skills when compared to the traditionally-based online social skills instructional model. It also was predicted that students who first received online social skills instruction would demonstrate a higher ability to use online social skills after maintenance.

Individual student pretest and posttest scores from the first two weeks of intervention (Group A received TOSSI; Group B received OSSI) were combined to determine the group means and a 2 x 2 (time x group) repeated measures ANOVA was conducted to test for significant change across time and for significant differences between the groups. The F test of within-subjects effects was not significant \[F(1, 21) = 1.666, p = .211\] (see Table 12). This indicates that there was no significant difference between the scores related to student knowledge of online social skills between the pretest and posttest. The F test of between-subjects effects was also not significant \[F(1, 21) = 1.350, p = .258\]. This indicates that there was no significant difference between the posttest scores of students in Group A when compared to Group B (See Table 13). This means that one intervention was not significantly better at teaching the first four online social skills.
Table 12

*Tests of Within-Subject Effects for Student Knowledge of Online Social Skills Following First Two Weeks of Intervention*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>55.096</td>
<td>1</td>
<td>55.096</td>
<td>1.666</td>
<td>.211</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>694.338</td>
<td>21</td>
<td>33.064</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* p < .05.

Table 13

*Tests of Between-Subject Effects for Student Knowledge of Online Social Skills Following First Two Weeks of Intervention*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>25.696</td>
<td>1</td>
<td>25.696</td>
<td>1.350</td>
<td>.258</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>399.738</td>
<td>21</td>
<td>19.035</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* p < .05.

Individual student pretest and posttest scores from the second two weeks of intervention (Group A received OSSI; Group B received TOSSI) were combined to determine the group means and a 2 x 2 (time x group) repeated measures ANOVA was conducted to test for significant change across time and for significant differences between the groups. The F test of within-subjects effects was not significant [F(1, 20) = 2.186, p = .155] (see Table 14). This indicates that there was no significant difference between the scores related to student knowledge of online social skills between pretest
and posttest. The F test of between-subjects effects was not significant \[F(1, 20) = .054, p = .818\] (see Table 15). This indicates that there was no significant difference between the posttest scores of students in Group A when compared to Group B, meaning that one intervention was not significant better at teaching the second four online social skills.

Table 14

*Tests of Within-Subject Effects for Student Knowledge of Online Social Skills Following Second Two Weeks of Intervention*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>66.376</td>
<td>1</td>
<td>66.376</td>
<td>2.186</td>
<td>.155</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>607.283</td>
<td>20</td>
<td>30.364</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* \(p < .05\).

Table 15

*Tests of Between-Subject Effects for Student Knowledge of Online Social Skills Following Second Two Weeks of Intervention*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>2.548</td>
<td>1</td>
<td>2.548</td>
<td>.054</td>
<td>.818</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>942.383</td>
<td>20</td>
<td>47.119</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* \(p < .05\).

In order to determine if there was a significant difference on the posttest scores of each group following the two interventions (TOSSI or OSSI), individual pretest and posttest scores for each group (A or B) were combined to determine group means and an
independent samples $t$-test was conducted to test for significance across time. For Group A, the $t$-test was not significant [$t(9) = -.435, p = .674$] (see Table 16). This indicates that there was no significant difference between the posttest scores of students in Group A following the TOSSI or the OSSI. For Group B, the $t$-test was not significant [$t(11) = -.579, p = .574$] (see Table 17). This indicates that there was no significant difference between the posttest scores of students in Group B following the TOSSI or the OSSI.

This means that one intervention was not significantly better than the other at maintaining the online social skills.

Table 16

| Independent Samples Test of Posttest Assessment of Student Knowledge of Online Social Skills for Group A |
|----------------------------------|----------|----------|---------|---|---------|
| Mean Difference | Std. Error Difference | t | df | Sig. (2-tailed) |
| Posttests | -1.500 | 3.449 | -.435 | 9 | .674 |

*Note.* $p < .05$.

Table 17

| Independent Samples Test of Posttest Assessment of Student Knowledge of Online Social Skills for Group B |
|----------------------------------|----------|----------|---------|---|---------|
| Mean Difference | Std. Error Difference | t | df | Sig. (2-tailed) |
| Posttests | 1.333 | 2.304 | .579 | 11 | .574 |

*Note.* $p < .05$. 
Individual student scores from the maintenance assessment were combined to determine group means and an independent samples t-test was conducted to test for significant difference between groups. The t-test was not significant \[ t(12) = -1.466, p = .168 \] (see Table 18). This indicates that there was no significant difference between the scores within the groups on the maintenance assessment measure. This means that the order of teaching the skills did not have a significant impact on student maintenance.

Table 18

*Independent Samples Test of Maintenance Assessment of Student Knowledge of Online Social Skills*

<table>
<thead>
<tr>
<th></th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>-6.267</td>
<td>4.276</td>
<td>-1.466</td>
<td>12</td>
<td>.168</td>
</tr>
</tbody>
</table>

*Note.* p < .05.

**Interrater Agreement for Assessment Scoring**

A doctoral student with knowledge of research protocol was selected to rescore 25% of the assessments administered (e.g., pretest, posttest, maintenance). The interrater scorer rescored three assessments from each group. The scores were compared and interrater agreement was calculated using the following formula:

\[ \frac{\text{agreements}}{\text{agreements} + \text{disagreements}} \times 100 = \text{percent of agreement}. \]

Overall interrater agreement for assessment scoring was 94.8%. These findings indicate a high level of interrater agreement related to the scoring of the assessments used in this study. Interrater agreement scores for student assessment data are found in Table 19.
Table 19

**Interrater Reliability for Student Assessment Scores**

<table>
<thead>
<tr>
<th>Source</th>
<th>Agreements</th>
<th>Disagreements</th>
<th>Total</th>
<th>Percent of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Assessment</td>
<td>182</td>
<td>10</td>
<td>182/192</td>
<td>(182/192) x 100 = 94.8%</td>
</tr>
</tbody>
</table>

Interrater Reliability for Student Assessment Scores = 94.8%

**Analysis of Teacher and Student Perceptions Concerning the Acquisition of Targeted Online Social Skills**

Teacher and student participants completed a survey designed to assess their perceptions about student acquisition of targeted online social skills (see Appendix H for the teacher perception survey and Appendix I for the student perception survey). The survey contained five questions related to teacher and student perceptions of student learning of the targeted social skills during the two interventions. The teacher survey asked teachers to rate their perception of student learning of the targeted online social skills during the two interventions; the student survey asked students to rate their perception of their own learning. Teachers and students ranked each question on a 5-point Likert scale, with 1 being strongly disagree and 5 being strongly agree. An average score of 1 (minimum score) indicated the most negative perception of student learning and an average score of 5 (maximum score) indicated the most positive perception of student learning of the targeted skills. Teachers and students completed this survey twice during the study, once after the first two weeks of intervention (Group A received TOSSI; Group
B received OSSI) and once after the second two weeks of intervention (Group A received OSSI; Group B received TOSSI). Descriptive and inferential statistics were used to compare the scores on the teacher and student perception surveys. Descriptive statistics are presented in Table 20.

Table 20

*Summary of Means and Standard Deviations for Teacher and Student Perceptions of the Acquisition of Skills*

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Perceptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Round 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>3.7</td>
<td>1.1</td>
<td>4</td>
</tr>
<tr>
<td>Group B</td>
<td>4.1</td>
<td>.8</td>
<td>3</td>
</tr>
<tr>
<td>Teacher Perceptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Round 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>3.8</td>
<td>.9</td>
<td>4</td>
</tr>
<tr>
<td>Group B</td>
<td>3.8</td>
<td>.4</td>
<td>3</td>
</tr>
<tr>
<td>Student Perceptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Round 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>3.6</td>
<td>1.3</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>3.7</td>
<td>1.1</td>
<td>13</td>
</tr>
<tr>
<td>Student Perceptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Round 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>4.1</td>
<td>.9</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>4.3</td>
<td>.9</td>
<td>13</td>
</tr>
</tbody>
</table>

Data from teacher and student survey responses were analyzed to answer the following two questions:
7. Do the student perceptions of the acquisition of knowledge related to appropriate online social skills increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

8. Do the teacher perceptions of the acquisition of knowledge related to appropriate online social skills by students with emotional and behavioral disorders increase with the use of online social skills instruction when compared to traditionally-based online social skills instruction?

It was predicted that the student perceptions of the acquisition of appropriate online social skills would be higher following online social skills instruction then the traditionally-based online social skills instruction. It also was predicted that teacher perceptions of the acquisition of appropriate online social skills by students with EBD would be higher following online social skills instruction.

Survey data from teachers in each group were combined and a 2 x 2 (time x group) repeated measures ANOVA was conducted to test for significant change across time and for significant differences between groups. For the test of within-subjects effects, the F test was not significant \(F(1,5) = .377, p = .566\) (see Table 21). This indicates that there was no significant difference across time in teacher perceptions concerning the acquisition of online social skills by students with EBD. For the test of between-subjects effects, the F test was not significant \(F(1,5) = .087, p = .780\) (see Table 22). This indicates that there was no significant difference between the groups related to teacher perceptions of the acquisition of online social skills by students with EBD. This indicates that teachers did not think one intervention was significantly better at teaching the online social skills.
Table 21

Tests of Within-Subject Effects for Teacher Perceptions of the Acquisition of Online Social Skills

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>.016</td>
<td>1</td>
<td>.016</td>
<td>.377</td>
<td>.566</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>.215</td>
<td>5</td>
<td>.043</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. p < .05.

Table 22

Tests of Between-Subject Effects for Teacher Perceptions of the Acquisition of Online Social Skills

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>.127</td>
<td>1</td>
<td>.127</td>
<td>.087</td>
<td>.780</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>7.287</td>
<td>5</td>
<td>1.457</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. p < .05.

Survey data from students for each group were combined and a 2 x 2 (time x group) repeated measures ANOVA was conducted to test for significant change across time and for significant differences between the groups. For the test of within-subjects effects, the F test was not significant [F(1,21) = 3.486, p = .076] (see Table 23). This indicates that there was no significant difference across time in student perceptions of their acquisition of online social skills. For the test of between-subjects effects, the F test
was not significant [F(1,21) = .273, p = .607] (see Table 24). This indicates that there was no significant difference between the groups related to student perceptions of their acquisition of online social skills. This indicates that the order of intervention implementation did not have a significant impact on student perception of their acquisition of the online social skills.

Table 23

*Tests of Within-Subject Effects for Student Perceptions of the Acquisition of Online Social Skills*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>3.839</td>
<td>1</td>
<td>3.839</td>
<td>3.486</td>
<td>.076</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>23.123</td>
<td>5</td>
<td>1.101</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*N*ote. *p* < .05.

Table 24

*Tests of Between-Subject Effects for Student Perceptions of the Acquisition of Online Social Skills*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>.283</td>
<td>1</td>
<td>.283</td>
<td>.273</td>
<td>.607</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>21.818</td>
<td>21</td>
<td>1.039</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*N*ote. *p* < .05.
Analysis of Teacher and Student Beliefs Concerning the Importance of Targeted Online Social Skills

The teacher and student participants completed a survey designed to assess their beliefs about the importance of the online social skills used during the two interventions (see Appendix J for the teacher survey and Appendix K for the student survey). The survey contained eight statements related to the importance of the targeted online social skills (teacher surveys asked if they thought the skill was important for students to learn; student surveys asked if they thought the skill was important for them to learn). Teachers and students ranked their agreement on a 5-point Likert scale, with 1 being strongly disagree and 5 being strongly agree with the statement. An average score of 1 (minimum score) indicated the most negative perception of the importance of the targeted skill and an average score of 5 (maximum score) indicated the most positive perception of the targeted skills. Descriptive and inferential statistics were used to compare the scores on teacher and student belief surveys. Descriptive statistics are presented in Table 25.
Table 25

*Summary of Means and Standard Deviations for Teacher and Student Beliefs*

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Beliefs Pretest</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>4.47</td>
<td>0.764</td>
<td>4</td>
</tr>
<tr>
<td>Group B</td>
<td>4.96</td>
<td>0.069</td>
<td>3</td>
</tr>
<tr>
<td><strong>Teacher Beliefs Posttest</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>4.81</td>
<td>0.375</td>
<td>4</td>
</tr>
<tr>
<td>Group B</td>
<td>4.96</td>
<td>0.069</td>
<td>3</td>
</tr>
<tr>
<td><strong>Student Beliefs Pretest</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>3.40</td>
<td>0.736</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>3.75</td>
<td>0.667</td>
<td>13</td>
</tr>
<tr>
<td><strong>Student Beliefs Posttest</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group A</td>
<td>3.65</td>
<td>0.989</td>
<td>10</td>
</tr>
<tr>
<td>Group B</td>
<td>4.56</td>
<td>0.763</td>
<td>13</td>
</tr>
</tbody>
</table>

Data from teacher and student survey responses were analyzed to answer the following questions:

5. Will teacher beliefs concerning the importance of the targeted online social skills change following the implementation of traditionally-based online social skills instruction and online social skills instruction?

6. Will student beliefs concerning the importance of the targeted online social skills change following the implementation of traditionally-based online social skills instruction and online social skills instruction?
It was predicted that teacher beliefs concerning the importance of the targeted online social skills would be higher following the implementation of both interventions (TOSSI and OSSI). It also was predicted that student beliefs concerning the importance of the targeted online social skills would be higher following the implementation of both interventions (TOSSI and OSSI).

Survey data from the teachers for each intervention group were combined and a 2 x 2 (time x group) repeated measures ANOVA was conducted to test for significant change across time and for significant differences between groups. For the test of within-subjects effects, the F test was not significant \([F(1,5) = 1.870, p = .230]\) (see Table 26). This indicates that there was no significant difference across time in teacher beliefs about the importance of the targeted online social skills. For the test of between-subjects effects, the F test was not significant \([F(1,5) = .906, p = .385]\) (see Table 27). This indicates that there was no significant difference between the groups related to teacher beliefs about the importance of the targeted online social skills following either intervention. This indicates that the intervention did not have a significant impact on teacher beliefs about the importance of the online social skills.

Table 26

*Tests of Within-Subject Effects for Teacher Beliefs of the Importance of Online Social Skills*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>.101</td>
<td>1</td>
<td>.101</td>
<td>1.870</td>
<td>.230</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>.269</td>
<td>5</td>
<td>.054</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* \(p < .05\).
Survey data from the students from each intervention group were combined and a 2 x 2 (time x group) repeated measures ANOVA was conducted to test for significant change across time and for significant differences between groups. For the test of within-subjects effects, the F test was significant \([F(1,21) = 5.103, \ p = .035]\) (see Table 28). This indicates that all students viewed the targeted online social skills as more important at the conclusion of the intervention. For the test of between-subjects effects, the F test also was significant \([F(1,21) = 7.223, \ p = .014]\) (see Table 29). This indicates that students in Group B (who received OSSI first) viewed the targeted online social skills as more important than Group A (who received TOSSI first).
Table 28

*Tests of Within-Subject Effects for Student Beliefs of the Importance of Online Social Skills*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>3.162</td>
<td>1</td>
<td>3.162</td>
<td>5.103</td>
<td>.035*</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>13.010</td>
<td>21</td>
<td>.620</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *p < .05.

Table 29

*Tests of Between-Subject Effects for Student Beliefs of the Importance of Online Social Skills*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>4.470</td>
<td>1</td>
<td>4.470</td>
<td>7.223</td>
<td>.014*</td>
</tr>
<tr>
<td>Error (Time)</td>
<td>12.997</td>
<td>21</td>
<td>.619</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *p < .05.
CHAPTER 5

DISCUSSION

Students with emotional and behavioral disorders (EBD) often have deficits in the use of appropriate social skills (Gresham et al., 2010; Maag, 2005; Miller, Lane, & Wehby, 2005). Research indicates that failure to use appropriate social skills in school environments may lead to low rates of academic achievement, peer rejection, high rates of behavioral problems, and negative interactions with teachers and administration (Gresham et al., 2010; Lane et al., 2008; Mikami et al., 2007). Direct instruction of targeted social skills has been found to be an effective methodology when working with students with EBD (Gresham, Sugai, & Horner, 2001; Maag, 2005). In order to ensure maximum benefit from instruction, social skills instruction should include: (a) discussion of the inappropriate social skill, (b) direct instruction of appropriate skills, (c) modeling of the appropriate implementation of the skill, (d) student role-play, and (e) generalization tasks that allow students to practice the skill in a natural environment (Goldstein & McGinnis, 1997; Gresham, Sugai, & Horner, 2001; Lane et al., 2008; Maag, 2005). Failure to use skills in the natural environment has led to mixed research findings concerning the use of social skills interventions (Maag, 2005).

Research indicates that students participate in online social environments (OSE) at higher rates for a variety of different reasons (e.g., connecting with peers, discussing educational work, meeting new friends), they learn the social norms of the environment from their peers, who often teach inappropriate social skill behavior (NSBA, 2007). Additionally, the emerging research shows that students who display inappropriate social skills in the physical environment also exhibit these problems in the online environment.
This early research demonstrates the importance for educators to explicitly teach appropriate online social skills to students with EBD to ensure that they: (a) have access to environments being used by their typical peers, (b) refrain from engaging in inappropriate behaviors, and (c) have the proactive skills needed in this new environment (Berson, Berson, & Ferron, 2002; Harman et al., 2005; Hinduja & Patchin, 2009; Li, 2006). Unfortunately, no research has been conducted that: (a) identifies specific online social skills to teach students with EBD, or (b) determines the best methodology for teaching these skills.

The purpose of this study was to determine if students with EBD learn to identify appropriate and inappropriate online social skills (OSS) more efficiently using traditionally-based online social skills instruction (TOSSI) or online social skills instruction (OSSI). It was predicted that students would exhibit a higher knowledge of appropriate online social skills following the OSSI intervention when compared to TOSSI.

Teacher and student beliefs concerning the importance of the targeted online social skills also were measured prior to intervention implementation and at the conclusion of the study. It was predicted that both teacher and student beliefs of the importance of the skills would increase following intervention. Teacher and student perceptions of the acquisition of online social skills by the students were measured following each intervention (TOSSI or OSSI) to determine if there was a difference between the interventions in the perceived learning of students. It was predicted that both
teachers and students would perceive that students with EBD learned the skills better during OSSI when compared to TOSSI.

This study involved 24 students with EBD from six self-contained classrooms for students with behavioral problems on three school campuses. Student participants ranged in age from 11 to 18, were from diverse backgrounds, and were identified as having behavioral problems in the school setting. Seven teachers participated in the study.

Prior to the beginning of the study, students completed the pretest and the beliefs survey and teachers completed the beliefs survey. Classrooms were assigned randomly to two groups (A or B). Classrooms assigned to Group A were taught the first four online social skills using TOSSI for two weeks; classrooms in Group B were taught the first four online social skills using OSSI for two weeks. Following the first round of intervention, students completed posttests and the students and teachers completed the perception of acquisition survey for the first intervention. No instruction occurred for one week. After this period the two groups switched instructional formats, with classrooms in Group A were taught the second four online social skills using OSSI; classrooms in Group B were taught the second four online social skills using TOSSI. All instruction lasted for two weeks. At the conclusion of instruction, the students completed posttests and the teachers and students completed the perception of acquisition survey for the second intervention and the beliefs survey that focused on all eight online social skills. Students received no instruction for one week and then completed the maintenance assessments.
Acquisition and Maintenance of Student Knowledge of Online Social Skills

Prior to each intervention (TOSSI or OSSI), the students completed a pretest that contained eight screenshots of the targeted online social skill being implemented. Four of the screenshots represented an appropriate implementation of the online social skill and four represented an inappropriate implementation of the skill. The pretest measured student ability to: (a) identify the online social skill being used, (b) indicate whether the skill was being implemented appropriately or inappropriately, and (c) identify components of the skill that were inappropriate. Following two weeks of instruction, the students were administered a posttest that measured their knowledge of the first four online social skills taught. Following a one-week period of no instruction, the students completed a pretest that measured their knowledge of the second four online social skills. The groups switched intervention formats for the second two weeks of intervention and completed a posttest at the end of this instructional period. One week of no instruction followed both interventions and, at the end of the intervention period, students completed a maintenance assessment that measured mastery of all eight online social skills taught during both interventions.

Following the first intervention period (Group A received TOSSI, Group B received OSSI), the student mean scores increased from pretest to posttest (Group A increased by 2.8 points, Group B increased by 1.6 points). The data indicated, however, that there was no significant difference in the scores across time or between the two groups. This indicates that neither intervention was significantly effective at increasing student scores over time, and that neither intervention was more effective at teaching the online social skills than the other. Following the second intervention period (Group A
received OSSI, Group B received TOSSI), student mean scores increased from pretest to posttest (Group A increased by 3.1 points, Group B increased by 1.6 points). Again, analysis of the data indicated that there was no significant difference in student scores across time or between groups. The t-test analysis of posttest data for each group indicated that there was no significant difference between the posttest scores. This indicates that neither intervention was significantly effective at teaching the online social skills to either group of students. Finally, the t-test analysis of maintenance assessment scores indicated that there was no significant difference between Group A or Group B. This indicates that neither group outperformed the other after a period of maintenance.

This lack of significance between intervention scores could be explained by a number of factors. First, data related to teacher fidelity of intervention indicated that teacher fidelity scores were lower for both groups (A and B) when using OSSI (85.9% and 78.3%) than TOSSI (91.7% and 87.8%). Data analysis indicated that teachers in Group B had significantly lower fidelity during OSSI than during TOSSI. This finding is similar to previous research that indicates lower academic achievement when using technology often is impacted by lower rates of teacher fidelity while using the technology (Fitzer et al., 2007). Anecdotal notes from the teacher fidelity observers indicated that when the teachers used the OSSI intervention, they did not have the students work independently on the computers to practice the targeted online social skills. Instead, the instruction mirrored the traditional instruction in which the teacher grouped students around one computer, led a discussion, and modeled the implementation of the skill in the online environment. Thus, turning the online instruction into a teacher-led lesson.
Anecdotal notes also indicated that when teachers encountered difficulty with a component of the technology, student behavioral problems increased. This observation is supported by the work of Sutherland, Lewis-Palmer, Stichter, and Morgan (2008) in which they found that effective teacher implementation of an instructional technique is correlated to student academic and behavioral outcomes. When teachers struggle with instruction, academics suffer and misbehavior occurs. Findings from this study support the argument that teachers are the central variable in any intervention for ensuring student academic and behavioral success.

Another factor related to the lack of significance may be student behavior during the intervention. The students in the study were identified as having emotional and behavioral disorders (EBD) and were being educated in self-contained classrooms. Students with EBD have higher rates of behavioral problems and higher rates of inappropriate behaviors that interfere with their academic success (Cullinan & Sabornie, 2004). Student behavior relates to the overall academic achievement of individual students and when a group behaves poorly, individual academic achievement scores do not increase (Preece & Mellor, 2009). Anecdotal records from the teacher fidelity observers indicated that there were times, for both interventions, when instruction stopped due to student behavioral problems (e.g., students being insubordinate with the teacher, fighting with each other, displaying off-task behaviors). Thus, the lessons were not completed properly. Additionally, several students refused to complete assessments or simply circled answers in order to complete the task, which may have skewed the data lower on the assessments.
Follow-up discussion with the teachers indicated that they felt the intervention lessons were too long. Each lesson lasted for approximately 55 minutes, which was the length of time allotted to social skills instruction within the self-contained program. The teachers felt that the length of the lessons increased the frequency of off-task behavior. This indicates that the optimal instruction time for this population may be 20 minutes per lesson. The timing for instructional format should be investigated further.

The increase in mean scores, as well as the performance of individual students, indicates that learning of the components of the online social skills did occur. However, the rubric used to score assessments was a holistic rubric, measuring a student’s overall ability to determine the appropriateness or inappropriateness of the scenario presented. In order to earn a high number of points (5) on the rubric, students had to identify: (a) the online social skill being used in the scenario, (b) whether the skill was being used appropriately or inappropriately, and (c) what was incorrect about the implementation. If students could not identify the online social skill being used, the highest score they could achieve on the rubric was a 2 (which was close to the mean increase of scores for each group across time). The lack of significance in results could be due to students not having the language or ability to write the name of the online social skill that was being addressed in the intervention, even if they were able to determine whether skills implementation was inappropriate. However, anecdotal observations indicated that the students discussed the skills during intervention (e.g., naming the skills, talking about the steps for each skill), but this did not translate to the posttest or maintenance assessments in which they had to write.
Finally, achievement scores following each intervention may be related to the type of language being used in the lessons and the scenarios presented to students. The scenarios and Gaggle components were written in an attempt to mirror the natural environment of middle school students. A middle school student reviewed the components and scenarios, and felt that they were accurate. However, during implementation, the teacher fidelity observers indicated that several students felt that the language was not connected to the type of language they would use in an online environment. One student was overheard saying, “We would never talk like this.” This lack of connection between the language used in the lessons and the actual language used by adolescent students with EBD could have impacted academic achievement. Maag (2005) indicated that social skills instruction should mirror the social environments of adolescent students so that generalization can occur. Although best efforts were made to mirror the online adolescent environment, there may have been a disconnect between the language used in the online interventions and the actual language used by students.

**Teacher and Student Perceptions Concerning the Acquisition of Targeted Online Social Skills**

In order to determine if there was a difference in teacher and student perceptions concerning student acquisition of the targeted online social skills, teachers and students completed a survey following each intervention (TOSSI or OSSI). This survey asked teachers and students to rank their beliefs about student learning of the targeted social skills.
Teacher Perceptions Concerning the Acquisition of Targeted Online Social Skills

Mean scores for teachers in Group A were slightly higher following OSSI then following TOSSI (3.8 and 3.7 respectively). Mean scores for teachers in Group B were higher following OSSI then following TOSSI (4.1 and 3.8 respectively). For both interventions, teachers indicated they agreed that the intervention was effective for teaching the targeted online social skills (all means close to a 4 on the Likert scale). However, the results of the teacher responses indicated that there was no significant difference in their perceptions of student learning between the two interventions. This indicates that teachers felt the students learned the targeted online social skills using both interventions, and that one intervention was not significantly better than the other.

Two teachers wrote additional comments on their final survey that indicated they believed both interventions were good at teaching the skills, and that student behavior during lessons had a greater impact on whether the class learned the skills than did the intervention. One teacher wrote, “It really depended on how students felt that day.” This supports the conclusion that student behavior may have impacted acquisition of the targeted online social skills.

Although not significant, it was interesting that the teachers believed students learned the targeted online social skills better when using the OSSI than when using the TOSSI, even though fidelity to instruction was higher when using the TOSSI. Informal conversations with teachers indicated that they thought the students were more engaged and excited about using the technology than they were about the paper-and-pencil intervention. This perceived excitement and engagement led teachers to suggest that the technology-based intervention was better at teaching the skills than the traditional
intervention, although this conclusion was not supported by student achievement scores on the pretest, posttest, and maintenance measures.

Student Perceptions Concerning the Acquisition of Targeted Online Social Skills

Mean scores for student perceptions of acquisition surveys were higher following the second two weeks of intervention then the first two weeks of intervention, regardless of the intervention used during that time period (for Group A, the mean scores were 3.6 and 4.1 respectively; for Group B, they were 3.7 and 4.3). This indicates that students believed they learned about online social skills at the end of instruction, regardless of the order of the interventions (with mean scores at the end of intervention close to a 4 on the Likert scale). Although not statistically significant, the analysis of student perceptions of their acquisition of skills approached significance across time; there was no significant difference between groups. This indicates that at the end of the two intervention periods, all students believed that they learned the skills better than at the end of the first two weeks of instruction. Additionally, this indicates that the type of intervention did not impact the student perception of learning.

Data from the student perception of learning survey indicates that after more instruction and practice with the online social skills, they felt that they learned the skills better than after a shorter period of time. This supports the work of Evans and Stefanou (2009) in which they found that longer periods of social skills instruction may increase student learning of the targeted skill due to increased opportunities for practice and provision of corrective feedback by teachers and peers. Although student acquisition scores on the pre-, post, and maintenance assessments did not support this conclusion, student beliefs about their own learning did. More practice led to higher student beliefs
about their knowledge of social skills. The first two weeks of instruction may have been too short to provide students adequate opportunity to practice and learn the online social skills.

The lack of significance between intervention types (TOSSI or OSSI) may have been related to student engagement with the content of the interventions. Anecdotal records indicate that students were interested in the novelty of instruction for both interventions (talking about online social skills). During observations, students shared personal information and stories about their use of online social environments, and appeared to be engaged and interested in talking about the impact of these types of social skills. This indicates that the topics chosen were timely and connected to student lives outside of school.

Teacher and Student Beliefs about the Importance of Targeted Online Social Skills

In order to determine if there was a difference between teacher and student beliefs about the importance of the eight online social skills targeted for instruction during this study, teachers and students completed a beliefs survey twice during the study, prior to the implementation of any intervention and at the end of both interventions. These surveys asked teachers and students to rank their beliefs about the importance of the targeted online social skills.

Teacher Beliefs about the Importance of Targeted Online Social Skills

Mean scores on the teacher beliefs survey of teachers in Group A were higher at the end of intervention then at the beginning (4.81 and 4.47); mean scores for teachers in
Group B were the same before and after intervention (4.96). At the end of intervention, all teachers felt that the targeted online social skills were important for students to learn with overall means close to a 5 on the Likert scale. This indicates that teachers felt the skills were important prior to the implementation of intervention and maintained that belief throughout the intervention period. Additionally, regardless of which intervention teachers implemented first, teachers felt that the online social skills were important for students to learn.

The National School Board Association (NSBA, 2007) indicated that the majority of teachers surveyed believed that discussion of online environments was not important to discuss in school due to a lack of relevance and safety issues while in the school environment. Findings from teacher surveys in this study countered that finding, indicating that teachers believed the skills were important to learn from the outset of the intervention. As participation in online social environments increases, the perceived importance of discussing these skills within school may also increase.

**Student Beliefs about the Importance of Targeted Online Social Skills**

Mean scores for student beliefs surveys of students in Group A were higher at the end of intervention then at the beginning (3.65 and 3.40); mean scores for students in Group B were also higher at the end of intervention then at the beginning (4.56 and 3.75). Data analysis indicated that student beliefs about the importance of the targeted online social skills were significantly higher at the end of intervention. Additionally, data analysis indicated that there was a significant difference between groups, with Group B ranking the importance of the targeted skills significantly higher than students in Group A. This indicates that all students viewed the online social skills as more important at the
end of intervention then at the beginning. Additionally, students who began the intervention with the OSSI viewed the online social skills as more important than students who began with the TOSSI.

These findings indicate that with exposure to and practice with the online social skills, students believed they were important to learn. At the beginning of intervention, students could not identify the skills when completing the importance survey. After instruction, students maintained that the skills were important to learn. Students who began the intervention using the OSSI viewed the skills as more important to learn. This could be due to the technology being engaging at the beginning of the study, which may have increased student engagement with the targeted online social skills throughout the entire study. Maag (2005) indicated that the most successful social skills intervention programs were those that target skills relevant and important to students with EBD. These findings are encouraging in that students view them as necessary to learn, which could lead to increased acquisition and generalization in natural online environments.

Conclusions

Eight conclusions may be drawn from this study. These conclusions are based on the quantitative and anecdotal data that were collected, and must be viewed in light of the limitations of the study.

1. Although student mean scores on pre, post, and maintenance assessments increased following both the TOSSI and the OSSI interventions, there was no significant difference between the two interventions at increasing student
knowledge of online social skills meaning that one intervention was not more effective than the other at teaching the online social skills to students.

2. There was no significant difference between student assessment scores over time following either intervention as measured by pretest, posttest, and maintenance assessments meaning that neither intervention was significantly more effective at teaching the online social skills to students with EBD.

3. Teacher fidelity to intervention was lower during the OSSI intervention then during the TOSSI intervention as measured by the teacher fidelity checklist. For teachers in Group B, this difference was statistically significant indicating lower fidelity during the OSSI intervention meaning that the intervention lessons involving technology were not implemented appropriately.

4. The data indicated that the teachers did not perceive a difference between interventions related to student acquisition of the targeted online social skills as measured by the teacher acquisition survey indicating that they did not believe one intervention was significantly better than the other at teaching the online social skills.

5. The data indicated that students did not perceive a difference between interventions related to their acquisition of the targeted online social skills as measured by the student acquisition survey. However, data analysis approached significance. This indicates that they may believe they learned the skills after more instruction and practice.

6. The data did not indicate a difference between teacher beliefs about the importance of the targeted online social skills after the intervention as measured
by the teacher beliefs questionnaire. Teachers believed that the targeted online social skills were important from the outset of the study.

7. Students perceived the targeted online social skills as more important after both interventions then they did at the beginning of the study as measured by the student beliefs questionnaire. This indicates that the instruction impacted student beliefs about the importance of the eight online social skills.

8. Students who received the OSSI first perceived the targeted online social skills as more important than students who received the TOSSI first as measured by the student beliefs questionnaire. This indicates that students who participated in technology at the beginning of the intervention believed the skills were more important the students who participated in the traditional intervention.

**Recommendations for Future Research**

Research indicates that the use of appropriate social skills has an impact on academic achievement, feelings of connectedness to school and the community, and successful postsecondary transition (Cumming et al., 2008; Herbert-Meyers et al., 2006; Konold et al., 2010). Students with emotional and behavioral disorders often lack appropriate social skills (Gresham et al., 2010; Lane et al., 2008; Mikami et al., 2007). This lack of social skills can lead to many negative outcomes, including peer rejection, lack of academic achievement, and increased behavioral problems. In order to be effective, research suggests that social skills instruction occur within the natural environment (Gresham, Sugai, & Horner, 2001; Maag, 2005). As participation in online social environments increases, a new natural environment with its own social rules and
expectations is emerging (Brydlof, 2007; Ducheneaut & Moore, 2005; NSBA, 2007). Research is needed to determine the best method for teaching these online social skills to students with EBD, as well as research that provides a description of the social interactions of students with EBD in online environments. Based on the results of this study, the following areas are suggested for further study.

1. A replication of the present study should be conducted that includes a larger number of participants in order to determine if a larger sample size produces different results.

2. A replication of the present study should be conducted focusing on different groups of students (e.g., other disability groups, typical learners, language groups, age groups, gender, types of behavioral problems) to determine if there is a difference between the acquisition of online social skills by different subgroups of students.

3. Further analysis of student work products (e.g., workbooks, pretest, posttest, and maintenance assessments) from the present study should be conducted to determine if there was a significant difference between student mastery of specific skills and of specific components of the intervention.

4. Further research should focus on determining the optimal length of a social skill lesson to target high levels of student achievement and low levels of behavioral problems.

5. Further research should focus on different student response types (e.g., written response, oral response) when implementing assessments to determine the best
method for assessing student knowledge of and ability to implement online social skills.

6. Further research should focus on the interactions and behaviors of students with EBD in online social environments (e.g., types of language used, objectives of using the online environment, social interactions) in order to develop interventions specifically designed to address student needs.

7. Further research should be conducted that compares the perceived importance of teaching online social skills for different groups (e.g., administrators, general education teachers, special education teachers, students with disabilities, typical learners, parents).

8. Further research should be conducted concerning the training and support of special education teachers (e.g., length of professional development, location of professional development, amount of follow-up support) when integrating technology into classroom instruction to ensure high levels of fidelity to the intervention.

Summary

This study contributes to the research base in that it appears to be one of the first studies designed to measure the impact of direct and explicit instruction of online social skills for students with emotional and behavioral disorders. As individuals participate in online environments at higher rates for fun, education, and work related activities, determining the appropriate skills to teach and the best method for teaching becomes increasingly important (NSBA, 2007; Valkenberg & Peter, 2008). The findings of this
study are supported by previous research that indicates the difficulty of producing a statistically significant difference in the social skills of students with EBD (Gresham, Sugai, & Horner, 2001; Maag, 2005). Because the mastery of these skills is so important to student outcomes, determining the reasons behind this lack of significance is important (e.g., behavioral supports in place in the classroom, teacher training to implement intervention, optimal length of a social skills lesson) (Cumming et al., 2008; Herbert-Myers et al., 2006; Konold et al., 2010; Maag, 2005).

The present study lays the foundation for further research into providing access to this natural environment for students with emotional and behavioral disorders. As participation in online social environments occurs more often for students with emotional and behavioral disorders, understanding the complexities of social interaction within these environments becomes essential to determining the best method for teaching the skills through direct and explicit instruction. The determination of the optimal technique for teaching students appropriate online citizenship is essential to providing access to this environment for students with emotional and behavioral disorders. This access will allow students with emotional and behavioral disorders to integrally participate in a globalized and technologically connected world.
APPENDIX A

PARENT CONSENT FORM
INFORMED CONSENT
Department of Special Education and Early Childhood Education

TITLE OF STUDY: Teaching Online Social Skills to Students with Emotional and Behavioral Disorders

INVESTIGATOR(S): Joseph Morgan and Kyle Higgins

CONTACT PHONE NUMBER: 895-3205

Purpose of the Study
Your child is invited to participate in a research study. The purpose of this study is to research the learning and behavioral effects of traditionally-based online social skills instruction and online social skills instruction on the knowledge of appropriate online social skills with middle school students with emotional and behavioral disorders.

Participants
Your child is being asked to participate in the study because he or she fit this criteria: Your child has been identified as having an emotional and behavioral disorder by a multidisciplinary team and is receiving educational services in a self-contained classroom for students with emotional and behavioral disorders.

Procedures
If you volunteer your child to participate in this study, he or she will be asked to do the following: (a) be videotaped while involved in traditionally-based online social skills instruction and online social skills instruction (half of the students will receive traditionally-based online social skills instruction first for four week and the other half will receive online social skills instruction, then both groups will switch to the other method of instruction; A 50-minute lesson will be delivered 3 days per week), (b) participate in the assessment of their knowledge of the targeted online social skills before and after each phase of the intervention as well as two weeks following each intervention, as well as a survey regarding their beliefs about the importance of the targeted online social skills, (c) participate in a secure online social networking site designed for student-use in school, and (d) receive one day of training in the basic use of a computer and the secure online social networking site prior to the beginning of online social skills instruction. The special education staff in your child’s classroom will conduct the lessons for both interventions. The teacher will also set up a video camera to record students when the lessons are being given. The research team will view the videos to measure student behaviors. It is anticipated that the study will last for 15 weeks.

Benefits of Participation
There may be direct benefits to your child as a participant in this study, such as an increase in their knowledge of online social skills. However, we hope to learn which type of instruction
increases student knowledge of online social skills, produces better student behavior, and maintains student acquisition of the targeted online social skills.

**Risks of Participation**
There are risks involved in all research studies. This study may include only minimal risks. The incorporation of accepted teaching approaches will ensure access to online social skills instruction for all students. This study involves the unobtrusive observation of students via videotapes. Because of this, there are minimal risks to the students from participation. Minimal risks include breach of confidentiality, however numerous steps will be taken to prevent this.

**Cost /Compensation**
There will be no financial cost for your to participate in this study because instruction will occur in your child’s classroom during the typical school day. The study will take 50 minutes per day, three days a week, and the study will last for fifteen weeks. Your child will not be compensated for his or her time.

**Contact Information**
If you have any questions or concerns about the study, you may contact Dr. Kyle Higgins or Joseph Morgan at 895-3205. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.

**Voluntary Participation**
Your agreement for your child to participate in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

**Confidentiality**
All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for three years after completion of the study. After the storage time the information gathered will be destroyed.

**Participant Consent:**
I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

______________________________  ______________________________
Signature of Participant Date

______________________________
Participant Name (Please Print)

*Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.*
APPENDIX B

STUDENT ASSENT FORM
Teaching Online Social Skills to Students with Emotional and Behavioral Disorders

1. My name is Joseph Morgan.

2. We are asking you to take part in a research study because we are trying to learn more about how to teach you to use appropriate online social skills when you participate in online environments. We are looking to compare two types of teaching, a traditional method with paper and pencil, and an online method.

3. If you agree to be in this study you will: (a) be videotaped while involved in both types of instruction, (b) complete small tests about how much you know about the online social skills we will be talking about, as well as about how you feel about the skills we are teaching, (c) use a safe online social skills network, (d) be trained on how to use the computer material, and (e) participate in three lessons per week that will last for 50-minutes during your school day.

4. There are minimal risks involved in participation of this study. Since we are videotaping you, there is a chance that you might not remain confidential, but we are doing several things to make sure that does not happen.

5. As a result of these lessons, you may have an increase in your knowledge of online social skills and your ability to use them, giving you an opportunity to use these sites on your own.

6. Please talk this over with your parents before you decide whether or not to participate. We will also ask your parents to give their permission for you to take part in this study. But even if your parents say "yes" you can still decide not to do this.

7. If you don’t want to be in this study, you don’t have to participate. Remember, being in this study is up to you and no one will be upset if you don’t want to participate or even if you change your mind later and want to stop.

8. You can ask any questions that you have about the study. If you have a question later that you didn’t think of now, you can call me at 895-3329 or ask me next time. You may call me at any time to ask questions. If I have not answered your questions or you do not feel comfortable talking to me about your question, you or your parent can call the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794.

9. Signing your name at the bottom means that you agree to be in this study. You and your parents will be given a copy of this form after you have signed it.

Print your name ___________________________ Date ___________________________

______________________________
Sign your name
TITLE OF STUDY: Teaching Online Social Skills to Students with Emotional and Behavioral Disorders

INVESTIGATOR(S): Joseph Morgan and Kyle Higgins

CONTACT PHONE NUMBER: 895-3205

Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to research the learning and behavioral effects of traditionally-based online social skills instruction and online social skills instruction on the knowledge of appropriate online social skills with middle school students with emotional and behavioral disorders.

Participants
You are being asked to participate in the study because you fit this criteria: You are a licensed special education teacher in a self-contained classroom for students with emotional and behavioral disorders.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: (a) be videotaped while involved in traditionally-based online social skills instruction and online social skills instruction (half of the teachers will receive traditionally-based online social skills instruction first for four week and the other half will receive online social skills instruction, then both groups will switch to the other method of instruction; a 50-minute lesson will be delivered 3 days per week), (b) participate in the assessment regarding your beliefs about the importance of the targeted online social skills, (c) participate in two training meetings for a total of five hours to learn how to administer the lessons and set up the video camera, (d) set up the video camera to record students during the lesson, and (f) conduct the lessons for both interventions. The research team will view the videos to measure student behaviors. It is anticipated that the study will last for 15 weeks.

Benefits of Participation
There may not be direct benefits to you as a participant in this study. We hope to learn which type of instruction increases student knowledge of online social skills, produces better student behavior, and maintains student acquisition of the targeted online social skills.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks. The incorporation of accepted teaching approaches will ensure access to online social skills instruction for all students. This study involves the unobtrusive observation of students via
videotapes. Because of this, there are minimal risks to the teachers from participation. Minimal risks include breach of confidentiality, however numerous steps will be taken to prevent this.

**Cost /Compensation**
There will be no financial cost to you to participate in this study because instruction will occur in your classroom during the typical school day. The study will take 50 minutes per day, three days a week, and the study will last for fifteen weeks. Your will not be compensated for your time. If the instructional methods are found to be effective, your classroom will receive a free copy of the lesson materials as an expression of our gratitude.

**Contact Information**
If you have any questions or concerns about the study, you may contact Dr. Kyle Higgins or Joseph Morgan at **895-3205**. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the **UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.**

**Voluntary Participation**
Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

**Confidentiality**
All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for three years after completion of the study. After the storage time the information gathered will be destroyed.

**Participant Consent:**
I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

_________________________________________  ____________________________
Signature of Participant                      Date

_________________________________________
Participant Name (Please Print)

*Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.*
APPENDIX D

TEACHER FIDELITY CHECKLIST
**Teacher Fidelity Checklist – Traditional Social Skills.**

Teacher ID: ____________________

Class ID: ____________________

Session ID: ____________________

Rater Name: ____________________

Date Rated: ____________________

**Day One – Introduction to Social Skill**

<table>
<thead>
<tr>
<th>The teacher…</th>
<th>Yes</th>
<th>No</th>
<th>Rater notes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turned on the video camera for behavioral data collection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read the opening scenario to students, as well as posted the scenario on the board for students to read.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to discuss the meaning of the scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the anticipatory set.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduced new vocabulary and had students write definitions down.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to brainstorm consequences of not learning the social skill and wrote list on the board.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrote task analysis of the social skill on the board and had students write it down.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the introduction to the social skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reread the scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to identify the parts of the scenario that were inappropriate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guided students through two revisions of the scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action</td>
<td>Outcome 1</td>
<td>Outcome 2</td>
<td>Outcome 3</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Asked students to revise the rest of the scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Showed an example of the revised scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of guided practice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed the definition of the targeted online social skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Day Two – Practice with Social Skills

<table>
<thead>
<tr>
<th>The teacher…</th>
<th>Yes</th>
<th>No</th>
<th>Rater notes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turned on the video camera for behavioral data collection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to write down the definition of the targeted online social skill, as well as the steps involved in implementation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed the skill and consequences for inappropriate use of the skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the anticipatory set.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gave students copies of a new scenario that uses the targeted online social skill inappropriately.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructed students to identify the problems and revise the scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed the scenario with students.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of independent practice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placed students in groups of two.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to create a scenario that involves inappropriate implementation of the targeted online social skill, as well as write an appropriate version of their scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed student scenarios and assisted when needed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of independent practice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collected scenarios from students and told them they will be reading each other’s scenarios on the next day.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Day Three - Assessment

<table>
<thead>
<tr>
<th>The teacher...</th>
<th>Yes</th>
<th>No</th>
<th>Rater notes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turned on the video camera for behavioral data collection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had students review targeted social skill and the steps involved in implementing the skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduced the scenario rewrite activity.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the anticipatory set.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broke students into groups and had them rewrite their peers’ scenario including the inappropriate implementation of the targeted online social skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed student scenarios and assisted when needed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of the scenario rewrite activity.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had each group present their rewrite of the scenario and encouraged feedback from peers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provided feedback to the group presentations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of the presentation activity.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handed out copies of the assessment and read the directions to students.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitored students as they completed the assessment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of the assessment.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Teacher Fidelity Checklist – Online Social Skills.

<table>
<thead>
<tr>
<th>The teacher…</th>
<th>Yes</th>
<th>No</th>
<th>Rater notes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turned on the video camera for behavioral data collection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructed students to log-in to the Gaggle system.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directed students to the appropriate Gaggle component to review the scenario.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructed students to take notes on what they thought about the situation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the anticipatory set.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduced new vocabulary and had students write definitions down.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to brainstorm consequences of not learning the social skill and wrote list on the board.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrote task analysis of the social skill on the board and had students write it down.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modeled how to implement the targeted online social skill in the Gaggle system.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the introduction to the social skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed the scenario within the Gaggle system.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Teacher ID:** ________________

**Class ID:** ________________

**Session ID:** ________________

**Rater Name:** ___________________________________

**Date Rated:** ________________

**Day One – Introduction to Social Skill**
<table>
<thead>
<tr>
<th>Action</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asked students to identify the parts of the scenario that were inappropriate.</td>
<td></td>
</tr>
<tr>
<td>Modeled how to revise the online profile to incorporate the targeted online social skill for students.</td>
<td></td>
</tr>
<tr>
<td>Instructed students to follow along on their computers and guided students through two revisions of the targeted online social skill.</td>
<td></td>
</tr>
<tr>
<td>Asked students to revise the rest of the Gaggle scenario.</td>
<td></td>
</tr>
<tr>
<td>Showed an example of the revised Gaggle scenario.</td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of guided practice.</td>
<td>✔️</td>
</tr>
<tr>
<td>Reviewed the definition of the targeted online social skill.</td>
<td></td>
</tr>
</tbody>
</table>
Day Two – Practice with Social Skill

<table>
<thead>
<tr>
<th>The teacher…</th>
<th>Yes</th>
<th>No</th>
<th>Rater notes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turned on the video camera for behavioral data collection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to write down the definition of the targeted online social skill, as well as the steps involved in implementation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed the skill and consequences for inappropriate use of the skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the anticipatory set.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructed students to log-in to the Gaggle system and directed them to the component where the scenario is.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructed students to identify the problems and revise the Gaggle component.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed the Gaggle scenario with students.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of independent practice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placed students in groups of two.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asked students to create a Gaggle component that involves inappropriate implementation of the targeted online social skill, as well as write an appropriate version of their Gaggle component.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed student scenarios and assisted when needed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of independent practice.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Told students that they will be reading each other’s scenarios on the next day.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Day Three - Assessment

<table>
<thead>
<tr>
<th>The teacher...</th>
<th>Yes</th>
<th>No</th>
<th>Rater notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turned on the video camera for behavioral data collection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had students review targeted social skill and the steps involved in implementing the skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduced the Gaggle rewrite activity.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within time limit of the anticipatory set.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broke students into groups and had them rewrite their peers’ Gaggle components including the inappropriate implementation of the targeted online social skill.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed student scenarios and assisted when needed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of the scenario rewrite activity.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had each group present their rewrite of the Gaggle component and encouraged feedback from peers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provided feedback to the group presentations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of the presentation activity.</td>
<td></td>
<td></td>
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<tr>
<td>Handed out copies of the assessment and read the directions to students.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitored students as they completed the assessment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed within the time limit of the assessment.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

PARAEDUCATOR CONSENT
INFORMED CONSENT
Department of Special Education and Early Childhood Education

TITLE OF STUDY: Teaching Online Social Skills to Students with Emotional and Behavioral Disorders

INVESTIGATOR(S): Joseph Morgan and Kyle Higgins

CONTACT PHONE NUMBER: 895-3205

Purpose of the Study
You are invited to participate in a research study. The purpose of this study is to research the learning and behavioral effects of traditionally-based online social skills instruction and online social skills instruction on the knowledge of appropriate online social skills with middle school students with emotional and behavioral disorders.

Participants
You are being asked to participate in the study because you fit this criteria: You are a paraeducator in a self-contained classroom for middle school students with emotional and behavioral disorders.

Procedures
If you volunteer to participate in this study, you will be asked to do the following: (a) be videotaped while involved in traditionally-based online social skills instruction and online social skills instruction (half of the teachers will receive traditionally-based online social skills instruction first for four week and the other half will receive online social skills instruction, then both groups will switch to the other method of instruction; a 50-minute lesson will be delivered 3 days per week), (c) participate in two training meetings for a total of five hours to learn how to administer the lessons and set up the video camera, and (d) assist the teacher in setting up the video camera and delivering instruction. The research team will view the videos to measure student behaviors. It is anticipated that the study will last for 15 weeks.

Benefits of Participation
There may not be direct benefits to you as a participant in this study. We hope to learn which type of instruction increases student knowledge of online social skills, produces better student behavior, and maintains student acquisition of the targeted online social skills.

Risks of Participation
There are risks involved in all research studies. This study may include only minimal risks. The incorporation of accepted teaching approaches will ensure access to online social skills instruction for all students. This study involves the unobtrusive observation of students via videotapes. Because of this, there are minimal risks to the teachers from participation. Minimal risks include breach of confidentiality, however numerous steps will be taken to prevent this.
Cost /Compensation
There will be no financial cost to you to participate in this study because instruction will occur in your classroom during the typical school day. The study will take 50 minutes per day, three days a week, and the study will last for fifteen weeks. Your will not be compensated for your time.

Contact Information
If you have any questions or concerns about the study, you may contact Dr. Kyle Higgins or Joseph Morgan at 895-3205. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.

Voluntary Participation
Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Confidentiality
All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for three years after completion of the study. After the storage time the information gathered will be destroyed.

Participant Consent:
I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

Signature of Participant ___________________________ Date ________________

Participant Name (Please Print) ___________________________

Participant Note: Please do not sign this document if the Approval Stamp is missing or is expired.
APPENDIX F

LETTERS OF SUPPORT FROM PRINCIPALS
Clark County School District
Research Department – 581
4260 Eucalyptus Ave., Annex C
Las Vegas, NV 89121-5207

Subject: Letter of Acknowledgement of a Research Project at a CCSD Facility

Dear Dr. Campbell and Members of the CCSD IRB Team:

This letter will acknowledge that I have reviewed a request by Joseph Morgan, M. Ed. From the University of Nevada, Las Vegas to conduct a research project entitled, Teaching Online Social Skills to Students with Emotional and Behavioral Disorders at Findlay Middle School.

I understand that this project has already received IRB approval from UNLV and the CCSD research department, and I am writing this letter stating that I agree to allow access to my school campus for the approved research project.

If we have any concerns or need additional information, the project researcher will be contacted or we will contact the UNLV Office of Research Integrity – Human Subjects or the CCSD research department.

Sincerely,

Authorized Facility Representative Signature 3/31/11

Ken Sobaszek, Principal
Print Representative Name and Title

333 West Tropical Parkway  •  North Las Vegas, Nevada 89031  •  Telephone (702) 799-3160 Fax (702) 799-3169
Clark County School District  
Miley Achievement Center  
245 N. Pecos Rd.  
Las Vegas, NV 89101  
(702)799-5631

Clark County School District  
Research Department – 581  
4260 Eucalyptus Ave., Annex C  
Las Vegas, NV 89121-5207

Subject: Letter of Acknowledgement of a Research Project at a CCSD Facility

Dear Dr. Campbell and Members of the CCSD IRB Team:

This letter will acknowledge that I have reviewed a request by Joseph Morgan, M. Ed.  
From the University of Nevada, Las Vegas to conduct a research project entitled,  
Teaching Online Social Skills to Students with Emotional and Behavioral Disorders at  
Miley Achievement Center, Las Vegas Nevada.

I understand that this project has already received IRB approval from UNLV and the  
CCSD research department, and I am writing this letter stating that I agree to allow  
access to my school campus for the approved research project.

If we have any concerns or need additional information, the project researcher will be  
contacted or we will contact the UNLV Office of Research Integrity – Human Subjects or  
the CCSD research department.

Sincerely,

[Signature]  
Authorized Facility Representative Signature

[Date]

Cheryl Joyce, Principal  
Print Representative Name and Title
March 25, 2011

Clark County School District
Research Department – 581
4260 Eucalyptus Ave., Annex C
Las Vegas, NV 89121-5207

Subject: Letter of Acknowledgement of a Research Project at a CCSD Facility

Dear Dr. Campbell and Members of the CCSD IRB Team:

This letter will acknowledge that I have reviewed a request by Joseph Morgan, M. Ed. from the University of Nevada, Las Vegas to conduct a research project entitled, *Teaching Online Social Skills to Students with Emotional and Behavioral Disorders* at Saville Middle School.

I understand that this project has already received IRB approval from UNLV and the CCSD research department, and I am writing this letter stating that I agree to allow access to my school campus for the approved research project.

If we have any concerns or need additional information, the project researcher will be contacted or we will contact the UNLV Office of Research Integrity – Human Subjects or the CCSD research department.

Sincerely,

[Signature]

Authorized Facility Representative Signature

3-25-11

Date

Dr. Joy J. Lea, Principal
Clark County School District  
Research Department – 581  
4260 Eucalyptus Ave., Annex C  
Las Vegas, NV 89121-5207  

Subject: Letter of Acknowledgement of a Research Project at a CCSD Facility

Dear Dr. Campbell and Members of the CCSD IRB Team:

This letter will acknowledge that I have reviewed a request by Joseph Morgan, M. Ed. From the University of Nevada, Las Vegas to conduct a research project entitled, Teaching Online Social Skills to Students with Emotional and Behavioral Disorders at Swainston MS.

I understand that this project has already received IRB approval from UNLV and the CCSD research department, and I am writing this letter stating that I agree to allow access to my school campus for the approved research project.

If we have any concerns or need additional information, the project researcher will be contacted or we will contact the UNLV Office of Research Integrity – Human Subjects or the CCSD research department.

Sincerely,

[Signature]

Authorized Facility Representative Signature

[Signature]

Print Representative Name and Title

4/9/11

Date
APPENDIX G

PRETEST, POSTTEST, AND MAINTENANCE SCENARIOS
A. Which online social skills is being implemented in this scenario?
B. Is the online social skill being implemented appropriately? Circle one.
   Yes  No
C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

<table>
<thead>
<tr>
<th>Inappropriate section.</th>
<th>Suggested revision.</th>
</tr>
</thead>
</table>

Alex Test's Personal Profile

Contact Info
My Home Page:

South Middle School Schedule
- English (7:00 - 7:55 AM)
- Math (8:00 - 8:55 AM)
- Science (9:00 - 9:55 AM)
- Social Studies (10:00 - 10:55 AM)
- PE (11:00 - 11:55 AM)

Interests
- Playing Xbox after school while parents work for a few hours.
- Having the house to myself after school.
- Chilling.
- Anyone with something good to drink and party!
2.

Hey! My name is Juan. I love collecting baseball cards, and several of my friends and the shop owners have told me about your collection. I thought it might be cool if we could chat every once in a while about rare finds we come across. If you are interested, send me a note on here! Quick question - what is the coolest card you have?

A. Which online social skills is being implemented in this scenario?
B. Is the online social skill being implemented appropriately? Circle one.
   Yes __________ No ________
C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

| Inappropriate section. | Suggested revision. |
A. Which online social skills is being implemented in this scenario?
B. Is the online social skill being implemented appropriately? Circle one.
Yes
No
C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

<table>
<thead>
<tr>
<th>Inappropriate section.</th>
<th>Suggested revision.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A. Which online social skills is being implemented in this scenario?
B. Is the online social skill being implemented appropriately? Circle one.
   Yes        No
C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

<table>
<thead>
<tr>
<th>Inappropriate section</th>
<th>Suggested revision</th>
</tr>
</thead>
</table>

*** This Email was sent by a student in Clark County School District. 
From: Terrell Smith <terrell.smith@gaggle.net> 
Sent: Sun Apr 10 20:36:57 PDT 2011 
To: Terrell Smith <terrell.smith@gaggle.net> 
Subject: (No subject specified) 

Members:

We created a group so we can talk about the next schools that we are going to hit with our spray paint and paint balls! Click here and keep all of our information secret! Looking forward to the pictures we will put on the sides of buildings!

www.joinourgroup.com/taggers123
A. Which online social skills is being implemented in this scenario?
B. Is the online social skill being implemented appropriately? Circle one.
   Yes          No
C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

| Inappropriate section. | Suggested revision. |
6.

A. Which online social skills is being implemented in this scenario?
B. Is the online social skill being implemented appropriately? Circle one.
   Yes          No
C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

| Inappropriate section. | Suggested revision. |
A. Which online social skills is being implemented in this scenario?
B. Is the online social skill being implemented appropriately? Circle one.  
Yes  No
C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

<table>
<thead>
<tr>
<th>Inappropriate section.</th>
<th>Suggested revision.</th>
</tr>
</thead>
</table>
A. Which online social skills is being implemented in this scenario?

B. Is the online social skill being implemented appropriately? Circle one.

Yes  No

C. If the skill is not being implemented appropriately, identify the parts that make it inappropriate and provide suggestions for what you might do differently in the table below.

<table>
<thead>
<tr>
<th>Inappropriate section.</th>
<th>Suggested revision.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>• Student indicated that there was a problem in the situation, and was able to accurately state what it was.</td>
<td>• Student indicated that there was a problem in the situation, and was able to accurately state what it is.</td>
</tr>
<tr>
<td>• Student was able to identify an appropriate online social skill to be used in this situation.</td>
<td>• Student was able to identify an appropriate online social skill to be used in this situation.</td>
</tr>
<tr>
<td>• Student accurately described three things they would do differently: <strong>not posting personal contact information</strong>, <strong>not posting a schedule of where I am</strong>, and <strong>not indicating when I might be alone</strong>.</td>
<td>• Student described <strong>two out of three things</strong> that they would do differently in this situation.</td>
</tr>
</tbody>
</table>
APPENDIX H

TEACHER PERCEPTION OF STUDENT ACQUISITION OF ONLINE SOCIAL SKILL QUESTIONNAIRE
Teacher Perception Survey Following First Two Weeks of Intervention

Read through each of the following statements related to online social skills instruction, ranking them from a 1 (strongly disagree) to a 5 (strongly agree).

I. Perception of Student Acquisition of Online Social Skills

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 (strongly disagree)</th>
<th>2 (disagree)</th>
<th>3 (neutral)</th>
<th>4 (agree)</th>
<th>5 (strongly agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel that my students learned the selected online social skills to mastery.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel that my students are prepared to participate in online environments (i.e., Facebook, Myspace).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I feel that my students know how to create an online profile containing appropriate information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I feel that my students know how to introduce themselves to someone new on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I feel that my students know how to post appropriate content on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I feel that my students know how to respond appropriately to requests for personal information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Teacher Perception Survey Following Second Two Weeks of Intervention

Read through each of the following statements related to online social skills instruction, ranking them from a 1 (strongly disagree) to a 5 (strongly agree).

I. Perception of Student Acquisition of Online Social Skills

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 (strongly disagree)</th>
<th>2 (disagree)</th>
<th>3 (neutral)</th>
<th>4 (agree)</th>
<th>5 (strongly agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel that my students learned the selected online social skills to mastery.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel that my students are prepared to participate in online environments (i.e., Facebook, Myspace).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I feel that my students know how to let someone know that they like them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I feel that my students know how to respond to and refrain from cyberbullying.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I feel that my students know how to appropriately disagree with someone online.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I feel that my students understand their online audience.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX I

STUDENT PERCEPTION OF THEIR ACQUISITION OF ONLINE SOCIAL SKILLS
# Student Perception Questionnaire Following First Two Weeks of Intervention

Read through each of the following statements related to online social skills instruction, ranking them from a 1 (strongly disagree) to a 5 (strongly agree).

## I. Perception of Individual Acquisition of Online Social Skills

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 (strongly disagree)</th>
<th>2 (disagree)</th>
<th>3 (neutral)</th>
<th>4 (agree)</th>
<th>5 (strongly agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I learned the skills that were taught to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I know what to do in an online environment (e.g., Facebook, Myspace).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I know how to create an online profile with appropriate information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I know how to introduce myself to someone new on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I know what content is appropriate to post on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I know how to respond to requests for my personal information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Student Perception Survey Following Second Two Weeks of Intervention

Read through each of the following statements related to online social skills instruction, ranking them from 1 (strongly disagree) to 5 (strongly agree).

## I. Perception of Individual Acquisition of Online Social Skills

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 (strongly disagree)</th>
<th>2 (disagree)</th>
<th>3 (neutral)</th>
<th>4 (agree)</th>
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<tbody>
<tr>
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<td></td>
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<tr>
<td>3. I know how to let someone know that I like them on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I know how to respond to and refrain from cyberbullying on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I know what disagree with someone one the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I know how to understand my audience on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX J

TEACHER BELIEFS ABOUT THE IMPORTANCE OF TARGETED ONLINE SOCIAL SKILLS QUESTIONNAIRE
Teacher Beliefs about the Importance of Targeted Skills

Read through each of the following statements related to online social skills instruction, ranking them from a 1 (strongly disagree) to a 5 (strongly agree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 (strongly disagree)</th>
<th>2 (disagree)</th>
<th>3 (neutral)</th>
<th>4 (agree)</th>
<th>5 (strongly agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think it is important for students to learn how to create an online profile containing appropriate information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I think it is important for students to learn how to introduce myself to someone new on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I think it is important for students to learn how to respond to requests for personal information on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I think it is important for students to learn how to associate with groups appropriately on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I think it is important for students to know how to tell someone that I like them on the Internet.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I think it is important for students to learn how to disagree with someone online.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I think it is important for students to learn how to understand my audience on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX K

STUDENT BELIEFS ABOUT THE IMPORTANCE OF TARGETED ONLINE
SOCIAL SKILLS QUESTIONNAIRE
## Student Beliefs about the Importance of Targeted Skills

Read through each of the following statements related to online social skills instruction, ranking them from a 1 (strongly disagree) to a 5 (strongly agree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 (strongly disagree)</th>
<th>2 (disagree)</th>
<th>3 (neutral)</th>
<th>4 (agree)</th>
<th>5 (strongly agree)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I think it is important for me to learn how to create an online profile containing appropriate information.</td>
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<tr>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>6. I think it is important for me to learn how to respond to and refrain from cyberbullying.</td>
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<tr>
<td>7. I think it is important for me to learn how to disagree with someone online.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I think it is important for me to learn how to understand my audience on the Internet.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Joseph Morgan's Personal Profile

Contact Info
Room: [Redacted]
Phone: [Redacted]
Email: joseph.morgan.me@gaggle.net
Best Contact Times: [Redacted]
My Home Page: [Redacted]

Shared Files
- No files to display

Web Sites
- No Links to display

Favorite Books
- No Elements to display

Favorite Music
- No Elements to display
Wall Posts

Posted by Joseph Morgan Wed 12:54 PM

hanging out in school. text me.
Status update.
Email.

We are excited you have joined the team of millions of students and teachers who are using Gaggle's Safe Online Learning Environment to enhance curriculum and information literacy skills for the 21st century learner!
Blog.
Chat rooms.

<table>
<thead>
<tr>
<th>Category</th>
<th>Members</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educator Chat Rooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gaggle Wide Chat Rooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>0</td>
<td><a href="mailto:chatadmin@gaggle.net">chatadmin@gaggle.net</a></td>
</tr>
<tr>
<td>Sports</td>
<td>0</td>
<td><a href="mailto:chatadmin@gaggle.net">chatadmin@gaggle.net</a></td>
</tr>
<tr>
<td>Movies and Television</td>
<td>0</td>
<td><a href="mailto:chatadmin@gaggle.net">chatadmin@gaggle.net</a></td>
</tr>
<tr>
<td>Kds Age 10 or less</td>
<td>0</td>
<td><a href="mailto:chatadmin@gaggle.net">chatadmin@gaggle.net</a></td>
</tr>
<tr>
<td>Advice - Get Some and Give Some</td>
<td>0</td>
<td><a href="mailto:chatadmin@gaggle.net">chatadmin@gaggle.net</a></td>
</tr>
<tr>
<td>Teens Aged 14+</td>
<td>6</td>
<td><a href="mailto:chatadmin@gaggle.net">chatadmin@gaggle.net</a></td>
</tr>
<tr>
<td>Kds Aged 10-13</td>
<td>0</td>
<td><a href="mailto:chatadmin@gaggle.net">chatadmin@gaggle.net</a></td>
</tr>
</tbody>
</table>

| Specified User Rooms             |         |                        |


## Lesson One

**Title:** Creating a Profile with Appropriate Information

**Grade:** 6-8

**Class:** Middle School Students with Emotional/Behavioral Disorders assigned to self-contained special education program

<table>
<thead>
<tr>
<th>Evaluation/Monitoring</th>
<th>1. As a class, students will be able to develop a list of possible consequences of posting personal or inappropriate information on the Internet.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Students will be able to highlight the inappropriate steps on the identified scenario, as well as write suggested information on the Internet.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Daily Objectives</th>
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<tbody>
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<td>1. Given a teacher prompt, students will be able to identify at least 5 possible consequences of posting personal or inappropriate information.</td>
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<tr>
<td>2. Given a scenario, students will be able to identify the steps that violate the steps of creating a profile with appropriate information and then write a suggested revision with 80% accuracy.</td>
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<table>
<thead>
<tr>
<th>Instruction</th>
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<tbody>
<tr>
<td>According to Beveridge (2006), the advent of online social networking has changed the way that society views privacy. Many users of online social networking sites reveal personal information to a large extent, and could put students at risk for harassment, discrimination, and other social issues. Issues like online social networking site usage and posting information with the wrong type of audience can change the way middle-class families view the need for privacy.</td>
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<table>
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<tr>
<th>Research Citation</th>
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<td>According to Beveridge (2006), the advent of online social networking has changed the way that society views privacy. Many users of online social networking sites reveal personal information to a large extent, and could put students at risk for harassment, discrimination, and other social issues. Issues like online social networking site usage and posting information with the wrong type of audience can change the way middle-class families view the need for privacy.</td>
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<table>
<thead>
<tr>
<th>Population of Students: Middle School Students with Emotional/Behavioral Disorders assigned to self-contained special education program</th>
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<tbody>
<tr>
<td>Description:</td>
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<table>
<thead>
<tr>
<th>Lesson Components</th>
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<tbody>
<tr>
<td>Procedure:</td>
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<table>
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<tr>
<th>Modifications in Graphic Organizer</th>
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<table>
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<tr>
<th>Understanding what is and is not acceptable to post</th>
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<tr>
<th>Evaluation/Reinforcement</th>
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</thead>
<tbody>
<tr>
<td>1. Students will be able to identify at least 5 possible consequences of posting personal or inappropriate information on the Internet.</td>
</tr>
<tr>
<td>2. Students will be able to highlight the inappropriate steps on the identified scenario, as well as write suggested information on the Internet.</td>
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</table>

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</table>
Creating a profile with appropriate information.

Lesson One.

Teacher says, “Now, can anyone tell me the definition of a conjecture?”

Teacher says, “Again, very good answers. I want you to write this definition down.”

Teacher says, “Would anyone like to share their examples of things that are inappropriate to post in an online environment?”

Teacher will make a list of the inappropriate things on the board.

Teacher makes a list of the appropriate things on the board.

Appropriate pictures only.

Teacher says, “Pictures are fine to share, and tell others a lot about you when we are people.”

Appropriate pictures only.

Limit personal contact information.

1. Limit personal contact information.
2. Appear pictures only.
3. Do not be needles.
4. Use school-friendly language.

Teacher says, “Theres are four important things that we have to remember in order to create a profile with appropriate information.

Teacher says, “Very good. These are all great examples of consistencies of posting inappropriate

negative comments on the board.

Students will share any ideas.

Students will respond with a conjecture.

They have about negative comments.

Students will share any ideas.

They have about negative comments.

Students will share any ideas.

They have about negative comments.
	  

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I want to work with your partners to identify the other five things that are inappropriate.

Independent Practice:

- Not everyone on the Internet knows what she is doing at every point of the day.

Encourage her friends to come hang out with her.

Teacher will randomly select responses from students about a different way April could use to interact with someone.

Teacher says, "Exactly! April is letting everyone on the Internet know when she is going to be available."

Appropriate step: the teacher can move back into the lesson.

Teacher will call on a student, "Looking for the skill of not being predictable. Once a student says the word "hangout," the teacher will respond, "Yes, April. Any of those pictures would be better than the ones that April currently uses.

Teacher says, "Very good. Any of those pictures would be better than the ones that April currently uses."

students will use their hands to show their ideas in the lesson. Students will turn their heads to show their ideas."

Independent Practice:

I want you to work on your partner to complete the activity."

Discuss what you might suggest to your partner to do differently. List it to write everything down.

Students will be working in pairs. Students will not know what they are supposed to do.

Lesson One.

Creating a profile with appropriate information.

Teacher will randomly select responses from students about more appropriate pictures that could be used in the lesson.

Teacher says, "Great! You have filled out the activity."

Teacher asks, "What did you learn from this activity?"
Creating a profile with appropriate information.

Lesson One:

Situation: as well as creating our own situations that we will use to test our classmates.

Tomorrow, we will practice with the implementation of this skill again by reviewing another.

Remember, our profiles online tell other people a lot about us, and using inappropriate information

1. Use school-friendly language.
2. Do not use personal or sensitive information.
3. Do not include photos or videos.
4. Do not include inappropriate information.

Suggested revisions:

1. Remove all personal sensitive information.
2. Do not include photos or videos.
3. Do not include inappropriate information.

Teacher says, “Very good, you all really did a great job of identifying the things that need to be

Suggested revisions:

Students will share their

Teacher, please discuss responses from students who raised their hands before calling on different

Inappropriate about April’s profile, as well as now you might like it?”

Teacher says, “Right! I want someone to raise their hand and share one thing that they found

Closing:

Suggested revisions:

Students should encourage students to identity the final steps that need to be revised in this

completed.

on their worksheets.

Suggested revision to the step

Teacher will walk around the room and ensure that students are on task and completing the

Information. The remaining things that are inappropriate about this profile are:

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### Lesson One

<table>
<thead>
<tr>
<th>Accommodations and Modifications</th>
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</thead>
<tbody>
<tr>
<td>Several accommodations and modifications could be made for student's include:</td>
</tr>
<tr>
<td>1. Using different ways that a student could develop a more appropriate chart.</td>
</tr>
<tr>
<td>2. Sharing perspectives on the students' experiences of finding an appropriate online profile and</td>
</tr>
<tr>
<td>sharing perspectives on the definitions of terms.</td>
</tr>
</tbody>
</table>

### Diversity

The overall content of the lesson is relevant to students in middle school. As the use of online social networking is currently relevant to this age group. Additionally, students are asked to share their own perspectives and opinions in several parts of the lesson.

### Repetition

Creating a profile with appropriate information. Student workbook, day plane makes, highlights for each student.

### Materials/Equipment

Creating a profile with appropriate information. Scenario, creating a profile with appropriate information. PowerPoint, creating a profile with the appropriate information.

### Assistive Technology

The scenarios for this lesson will be posted for all students using an LCD projector, document camera, or overhead projector. So that students can follow along while the teacher reads the information. Additionally, all of the information found in the introduction to new material will be provided in a PowerPoint presentation and will be delivered using one of these technologies. This will allow students to follow along with the new information.
APPENDIX N

STUDENT WORKSHEET
Creating a profile with appropriate information.

Student ID: _______________________________

Date: _______________________

**DEFINITIONS**

<table>
<thead>
<tr>
<th>TARGET WORD</th>
<th>DEFINITION</th>
</tr>
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<tbody>
<tr>
<td>Appropriate:</td>
<td></td>
</tr>
<tr>
<td>Inappropriate:</td>
<td></td>
</tr>
<tr>
<td>Consequence:</td>
<td></td>
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</table>

**CONSEQUENCES**

CONSEQUENCES FOR POSTING INAPPROPRIATE INFORMATION
Day One: Creating a profile with appropriate information.

**STEPS**

<table>
<thead>
<tr>
<th>STEPS IN CREATING A PROFILE WITH APPROPRIATE INFORMATION</th>
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<tbody>
<tr>
<td>1)</td>
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<tr>
<td>2)</td>
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<td>3)</td>
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<td>4)</td>
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**REWRITE**

<table>
<thead>
<tr>
<th>INAPPROPRIATE SECTION</th>
<th>STEP VIOLATED</th>
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<tbody>
<tr>
<td>1) Inappropriate clothes and behavior in profile picture.</td>
<td>1</td>
</tr>
<tr>
<td>2)</td>
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<td>3)</td>
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<td>7)</td>
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APPENDIX O

OUTLINE OF SOCIAL SKILLS LESSONS
Traditional Social Skills Lesson Outline.

Day One

I. Anticipatory scenario (10 minutes).
   a. Teacher will present a situation involving the targeted online social skill to
      students and ask them to think about what is going on in the scenario. The
      scenarios will be written in paragraph form, and will involve in inappropriate
      implementation of the target social skill.
   b. Teacher and students will discuss the scenario, and teacher will provide an
      advanced organizer of the lesson.

II. Introduction to the social skill (15 minutes).
   a. Teacher will present any new definitions that are related to the targeted
      social skill. Students will write the definition of these terms in their student
      packet.
   b. Students will brainstorm a list of possible consequences for not
      implementing the targeted social skill appropriately. The class will discuss
      their lists in order to show students that actions in an online environment
      have real world consequences.
   c. Teacher will tell students what the targeted social skill is. The teacher will:
      i. Provide a definition of the targeted social skill.
      ii. Provide a task analysis of how to use the targeted social skill.
   d. Students will write the definition and the task analysis down in their student
      packet.

III. Guided practice (20 minutes).
   a. Teacher will reread the scenario introduced at the beginning of class. With
      the knowledge of the new social skill, students will be asked to review the
      scenario and identify all of the parts of the situation that were inappropriate.
   b. Teacher will then guide students through the implementation of the social
      skill, and how they might revise the actions in the scenario in order to make it
      more appropriate.
   c. Teacher will guide students through two revisions of the scenario, and then
      will ask them to work independently to make the rest. All of these changes
      will be written in the student packet.
   d. The class will discuss their revisions and the teacher will show them another
      example of the scenario that is appropriate for participation in an online
      environment.

IV. Closing (5 minutes).
   a. Teacher will review the definition and steps in the targeted social skill, and
      will also review the rationale for learning the appropriate social skill.
   b. Teacher will tell students that the next day they will be practicing with the
      implementation of this social skill.
Day Two

I. Anticipatory set (5 minutes).
   a. Teacher will ask students to write down the definition of the targeted online social skill, as well as the steps involved in implementing the targeted social skill.
   b. The class will review the targeted social skill, and also the real-world consequences for inappropriate implementation of the skill.

II. Independent practice (15 minutes).
   a. The teacher will provide students with a new scenario that highlights an inappropriate implementation of the targeted social skill.
   b. Students will be responsible for working independently to:
      i. Identify the problem(s) in the scenario.
      ii. State what they would do differently.
      iii. Rewrite the scenario to include the appropriate social skill.
   c. Teacher will review an appropriate version of the scenario with students.

III. Scenario development (25 minutes).
   a. Students will be placed in groups of two, and will be tasked with creating a scenario that involves inappropriate implementation of the targeted social skill.
   b. Additionally, students will be asked to write an appropriate version of the scenario using the targeted social skill.

IV. Closing (5 minutes).
   a. Teacher will collect the scenarios developed by the students.
   b. Teacher will tell students that they will be sharing the scenarios on the next day, and other groups will be working on developing a more appropriate version of the target scenario in response to their classmates.
Day Three

I. Anticipatory set (5 minutes).
   a. Teacher will break students into their groups and have them review the targeted social skill and the steps involved in implementing the targeted skill.
   b. Teacher will tell students that today they will be reviewing each other’s scenarios and developing a more appropriate version. The students will share their rewrites with the class and will provide feedback to each other regarding their rewrites.

II. Scenario rewrite (15 minutes).
   a. In their groups, students will rewrite the scenarios provided by their peers. They will be asked to:
      i. Identify the problem in the situation.
      ii. Identify what they would do differently.
      iii. Rewrite the situation to incorporate the more appropriate skill.

III. Presentations (15 minutes).
   a. Each group will present the original scenario they were provided, as well as their rewrites.
   b. Teacher and classmates will provide feedback to the students about how well they identified the problem behavior, chose an appropriate replacement skill, and implemented it in the scenario.

IV. Assessment (15 minutes).
   a. Students will be provided an assessment. The assessment will be a series of scenarios that ask them to:
      i. Determine if there is a problem in the situation.
      ii. Define the problem (if there is one).
      iii. State what they would do differently.
      iv. Describe what they would do in this situation.

V. Closing (5 minutes).
   a. Teacher will close the learning for the week and tell students that they will move on to a new online social skill the following week.
Online Social Skills Lesson Outline

Day One

I. Anticipatory scenario (15 minutes).
   a. Teacher will have students go to the computers and log-in to the Gaggle system. Teacher will direct students to a specific component of Gaggle (i.e., one of their friends profiles) where a scenario has been created that targets the inappropriate behavior to be discussed in class.
   b. Teacher will ask students to review the part of Gaggle and take notes about what they think might be the problem in the situation, as well as why it might be a problem. Students will write their ideas down.

II. Introduction to the social skill (15 minutes).
   a. Teacher will present any new definitions that are related to the targeted social skill. Students will write the definition of these terms in their student packet.
   b. Students will brainstorm a list of possible consequences for not implementing the targeted social skill appropriately. The class will discuss their lists in order to show students that actions in an online environment have real world consequences.
   c. Teacher will tell students what the targeted social skill is. The teacher will:
      i. Provide a definition of the targeted social skill.
      ii. Provide a task analysis of how to use the targeted social skill.
      iii. Model how to implement the targeted social skill in Gaggle, using an LCD projector.
   d. Students will write the definition and the task analysis down in their student packet.

III. Guided practice (15 minutes).
   a. Teacher will project the component of Gaggle that students looked at during the beginning of class. With the knowledge of the new social skill, students will be asked to review the scenario and identify all of the parts of the situation that were inappropriate.
   b. Teacher will then guide students through the implementation of the social skill, showing them on Gaggle how they would change the inappropriate information to make it more appropriate.
   c. Teacher will guide students through two revisions of the scenario. Then the teacher will ask the students to go to their own Gaggle profile and create a new component that is similar to the scenario, but that incorporates the targeted social skill appropriately.
   d. The class will discuss their revisions and the teacher will show them a model completed example of the Gaggle component.

IV. Closing (5 minutes).
   a. Teacher will review the definition and steps in the targeted social skill, and will also review the rationale for learning the appropriate social skill.
b. Teacher will tell students that the next day they will be practicing with the implementation of the social skill.
Day Two

I. Anticipatory set (5 minutes).
   a. Teacher will ask students to write down the definition of the targeted online social skill, as well as the steps involved in implementing the targeted social skill.
   b. The class will review the targeted social skill, and also the real-world consequences for inappropriate implementation of the skill.

II. Independent practice (15 minutes).
   a. The teacher will direct students to a new component of Gaggle that displays the targeted social skill implemented inappropriately.
   b. Students will be responsible for working independently to:
      i. Identify the problem(s) with the component of Gaggle.
      ii. State what they would do differently.
      iii. Revise the component of Gaggle in order to incorporate what they have learned about the targeted social skill.
   c. Teacher will review an appropriate version of the Gaggle component with students.

III. Scenario development (25 minutes).
   a. Students will be placed in groups of two, and will be tasked with creating a Gaggle component that involves inappropriate implementation of the targeted social skill.
   b. Students will also be asked to complete a Gaggle component that involves the appropriate implementation of the targeted social skill.

IV. Closing (5 minutes).
   a. Teacher will tell students that they will be reviewing each other’s Gaggle components to determine the inappropriate skill being used in the situation and identifying ways that they can change them.
Day Three

i. Anticipatory set (5 minutes).
   a. Teacher will break students into their groups and have them review the targeted social skill and the steps involved in implementing the targeted skill.
   b. Teacher will tell students that today they will be reviewing each other’s Gaggle profiles and developing more appropriate versions. The students will share their rewrites with the class and will provide feedback to each other regarding their rewrites.

ii. Scenario rewrites (15 minutes).
   a. In their groups, students will review the Gaggle components of their peers. They will be asked to:
      i. Identify the problem in the situation.
      ii. Identify what they would do differently.
      iii. Rewrite the Gaggle component to incorporate the more appropriate skill.

iii. Presentations (15 minutes).
   a. Each group will present the original Gaggle component they were provided, as well as their rewrites.
   b. Teacher and classmates will provide feedback to the students about how well they identified the problem behavior, chose an appropriate replacement skill, and implemented it in the scenario.

iv. Assessment (15 minutes).
   a. Students will be provided a Gaggle component for assessment. They will be asked to review the component and:
      i. Determine if there is a problem in the situation.
      ii. Define the problem (if there is one).
      iii. State what they would do differently.
      iv. Edit the Gaggle component to reflect the more appropriate skill.

v. Closing (5 minutes).
   a. Teacher will close the learning for the week and tell students that they will move on to a new online social skill the following week.
APPENDIX P

TIMELINE OF STUDY
Timeline of Study

Phase I
January 2011
- Formative evaluation of traditionally-based online social skills lessons.
- Formative evaluation of online social skills lessons.
- Formative evaluation of Gaggle system.

Phase II
February - March 2011
- Recruit and solicit participants, teacher fidelity observers, and interrater observers.
- Obtain informed consent from parents, teachers, and paraeducators.
- Obtain assent from students.
- Conduct initial training of teachers and paraeducators (TOSSI for Group A; OSSI for Group B).
- Conduct teacher fidelity observers and interrater observer training.

Phase III
April - June 2011
- Pretest for initial instructional methodology.
- Initial instructional intervention (TOSSI for Group A; OSSI for Group B).
- Posttest for initial instructional methodology.
- Second training of teachers and paraeducators (OSSI for Group A; TOSSI for Group B).
- Pretest for second instructional methodology.
- Second instructional interveniton (OSSI for Group A; TOSSI for Group B).
- Posttest for second instructional methodology.
- Maintenance for second instructional methodology.
REFERENCES


investigation of the social skills improvement system-rating scales. *Psychological Assessment, 22*, 157-166.


Richardson, W. (2007). From Myspace to schoolspace: Teaching kids the social networking skills they need. District Administration, 68.


Rosen, J. (2010, July 24). In a digital era, how can you forgive and forget? The International Herald Tribune.


Joseph John Morgan  
Curriculum Vitae  

University of Nevada, Las Vegas  
4505 S. Maryland Parkway, Box 453014, Las Vegas, NV 89154  
(702) 895-3329, joseph.morgan@unlv.edu  

Current Position  

2009-present  
Visiting Lecturer, College of Education, Department of Educational and Clinical Studies, University of Nevada, Las Vegas.  

2010-present  
Co-project coordinator for U.S. Department of Education, Office of Special Education Programs 325T program improvement grant, Department of Educational and Clinical Studies, University of Nevada, Las Vegas.  

2010-present  
Co-project coordinator for Nevada System of Higher Education, NeCoTIP Project, Project Grow: Making Data-Based Decisions in the Science Content Area.  

Degrees Awarded  

Doctor of Philosophy, Special Education  
University of Nevada, Las Vegas  
Disability Areas: Learning Disabilities and Emotional/Behavioral Disorders  
Leadership Area: Technology  
GPA 4.0/4.0, passed comprehensive exams with distinction  

Master of Education, Special Education, 2007  
University of Nevada, Las Vegas  
Area of Emphasis: Mild/Moderate Disabilities  
GPA: 4.0/4.0  

Bachelor of Arts, English Literature and Psychology, 2005  
University of Illinois at Chicago  
Graduated Magna Cum Laude with College Honors and Highest Distinction  
Member of the Honors College  
GPA: 3.78/4.0
Certification

Board Certified Behavior Analyst (anticipated completion date June 2012)

Special Education Generalist K-12, State of Nevada, Mild/Moderate Disabilities

Honors and Awards

President’s Graduate Fellowship, University of Nevada, Las Vegas, 5/2011
• Awarded to three doctoral students across the university for high quality dissertation research.
• Serve as an advocate and spokesperson for education in the State of Nevada.

Outstanding Graduate Student of the Year (nominated), Council for Exceptional Children, 10/2010.

Doctoral Student Scholar, Council for Exceptional Children Division of Research, 2009 - 2010 (one of ten selected through blind review of dissertation research proposal)
• Participated in a series of webinars and discussions about conducting high quality research in special education.

Member of the Honor Society of Phi Kappa Phi, 5/2009-present

Member of the Phi Beta Kappa Society, 5/2005-present

Professional Experience

University Experience

University of Nevada, Las Vegas, 2009-present
Visiting Lecturer, Department of Educational and Clinical Studies

University of Nevada, Las Vegas, 2010-present
Co-project coordinator, Highly Qualified, High Quality (HQ³) 325T project improvement grant.

University of Nevada, Las Vegas, 2008-2009
Teaching Graduate Assistant, Department of Educational and Clinical Studies
Grant Affiliations

Co-project coordinator with Nancy Brown, M.Ed. and Kyle Higgins, Ph.D, **Highly Qualified, High Quality (HQ₂) Special Educators**, CFDA 84.325T: Special Education Pre-Service Training Improvement Grants, funded by the U.S. Department of Education, Office of Special Education Programs, 2008-2013, $499,867.

Coordinator, **Teaching Online Social Skills to Students with Emotional and Behavioral Disorders**, funded by Gaggle, Inc. 2009-2010, $500.00 (In-progress)

Co-coordinator with Kyle Higgins, Ph.D., **Project Grow: Making Data-Based Decisions in the Science Content Area**, Nevada System of Higher Education, NeCoTIP Projects, funded, $115,376.

Public School Experience

Andre Agassi College Preparatory Academy, Las Vegas, Nevada, 8/2009-9/2010
• Intervention specialist for struggling readers at a district funded charter school.
  Collected assessment data and designed interventions to support learners.

Cheyenne High School, Clark County School District, North Las Vegas, Nevada, 2007-2009
• Special Education Instructional Facilitator, which is the coordinator of instructional practices for students with disabilities on the high school campus.

Cheyenne High School, Clark County School District, North Las Vegas, Nevada, 2005-2007
• Resource English teacher for students with learning disabilities, emotional and behavioral disorders, and other high incidence disabilities.

• Technical supporter for New Special Education Teacher Training.

Editorial Boards

Editorial Board Member, **Intervention in School and Clinic**, 2011-present.
• Ranked in the top 30 journals in the field of special education by Thomson Reuter.

Research and Scholarship

Publications

Refereed Articles


In preparation


Invited Book Chapters

Presentations

Brown, N. & Morgan, J. J. (2011, July). Developing quality and effective collaboration. Poster session presented at the annual meeting of the Office of Special Education Programs Project Directors’ Meeting in Washington, DC.

Hsiao, Y. J. & Morgan, J. J. (2011, November). Training teachers to implement tiered positive behavior supports in early childhood education settings. Poster session to be presented at the annual meeting of the Teacher Education Division of the Council for Exceptional Children in Austin, TX.

Hsiao, Y. J. & Morgan, J. J. (2011, April). Implementing positive behavior support models in early childhood settings. Poster session presented at the annual meeting of the Association for Childhood Education International in New Orleans, LA.

Morgan, J. J. (2010, November). Integrating technology into teacher preparation with ease. Interactive paper presented at the annual meeting of the Teacher Education Division of the Council for Exceptional Children in St. Louis, MO.

Morgan, J. J. (2010, March). Creating safe environments for GLBT students with disabilities. Poster session presented at the annual meeting of the Graduate Research in Preparation Symposium at the University of Nevada, Las Vegas in Las Vegas, NV.


Morgan, J. J. (2009, April). Teaching social skills in “modern” natural environments. Poster session presented at the annual meeting of the Graduate Research in Preparation Symposium at the University of Nevada, Las Vegas in Las Vegas, NV.

Morgan, J. J., Brown, N., & Gunderson, J. (2011, November). Integrating professional learning communities into the practicum experience. Session to be presented at the annual meeting of the Teacher Education Division in Austin, TX.

the annual meeting of the Council for Exceptional Children in National Harbor, MD.


Sayeski, K., Morgan, J., & Brown, N. (2010, November). Online modules to facilitate special educator content-area knowledge and pedagogy: Moving from highly-qualified to highly effective. Session presented at the annual meeting of the Teacher Education Division of the Council for Exceptional Children in St. Louis, MO.

Participation in Large Data-Collection Projects

The Fremont Middle School Project: Alienation, Social Skills, Resilience, and Problem Solving

The same research team will collect data at Fremont Middle School in Las Vegas, NV. Fremont is a large urban middle school. The majority of students are Latino students.

The project is in discussion with the principal and the IRB is in preparation.

Data will be collected spring 2012. Target journal: Multiple Voices.

The Miley Achievement Project: Alienation, Social Skills, Resilience, and Problem Solving (Clark County School District, n=300 students with emotional and behavioral disorders, grades 4-12).

Member of a research team comprised of university faculty from New Mexico State University, University of North Carolina Greensboro, California State University Fullerton, and University of Nevada, Las Vegas.

Project is in the process of being approved by the IRB at the University of Nevada, Las Vegas.

Data will be collected early spring 2010 and analyzed. Target journal Journal of Emotional and Behavioral Disorders.

The Piñon Unified School District #4 Project: Alienation, Social Skills, Resilience, and Problem Solving (Piñon, AZ, n=1000 Navajo students grades 4-12).

The same research team will collect data on the Navajo Reservation in Piñon Unified School District #4.
Will travel with three other members of the research team to Piñon, AZ November 30-December 4, 2012 to meet and work with the teachers and administrators.

Teaching

University Courses Developed

**Undergraduate**

EDSP 411 *Special Education Techniques in Inclusive Settings*

Working with a design team to create an online version of the introduction to special education course for general education teachers. Course covers history of special education, laws and processes, characteristics of learners, and strategies for supporting students with disabilities in classroom environments.

EDSP 465 *Student Growth Models and Data-Based Instructional Decision Making*

Course designed to introduce students to the data-based decision making process, teach them how to develop a data collection system in their classrooms, develop assessments based on standards, and then make instructional decisions based on data. Approved by College of Education Curriculum Committee Fall 2011.

**Graduate**

ESP 701 *Introduction to Special Education and Legal Issues*

Working with a design team to create an online version of the introduction to special education course. Course covers history of special education, laws and processes, characteristics of learners, and strategies for supporting students with disabilities in classroom environments.

ESP 763Q *Seminars in Selected Special Education Topics: Student Growth Models*

Course designed to introduce students to the data-based decision making process, teach them how to develop a data collection system in their classrooms, develop assessments based on standards, and then make instructional decisions based on data. Approved by College of Education Curriculum Committee Fall 2011.
## University Courses Taught

### Undergraduate

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Course Description</th>
<th>Semester(s) Taught</th>
<th>Evaluation Average (out of 5.0 scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 431: Teaching Communication Skills to Young Children</td>
<td>Course designed to examine early language and literacy development for young children, as well as provide methods for teaching these skills.</td>
<td>Fall 2010</td>
<td>4.69</td>
</tr>
<tr>
<td>EDSP 411: Special Education Techniques in Inclusive Settings</td>
<td>Course designed to provide general education preservice teachers an overview of special education, including legal aspects, characteristics of disabilities, accommodations for learning, and collaborative skills.</td>
<td>Summer 2009</td>
<td>Not available for summer classes.</td>
</tr>
<tr>
<td>EDSP 423: Collaborative Consultation in Special Education</td>
<td>Course designed to provide an introduction to collaborative skills required when working with other professionals in a school environment.</td>
<td>Fall 2009</td>
<td>4.85</td>
</tr>
<tr>
<td>EDSP 491: Student Teaching in Special Education</td>
<td>Provided field experience supervision to student teachers in both traditional and alternative route to licensure settings.</td>
<td>Summer 2009, Fall 2009, Spring 2010, Fall 2010</td>
<td>Not available for field experience courses.</td>
</tr>
</tbody>
</table>
### EDSP 491: Student Teaching Seminar

**Course Description:** Course designed to provide a forum for student teachers to brainstorm, problem-solve, and share information related to their field experience.

**Semester(s) Taught:** Summer 2010

**Evaluation Average (out of 5.0 scale):** Not available for summer classes.

### Graduate

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Course Description</th>
<th>Semester(s) Taught</th>
<th>Evaluation Average (out of 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ESP 719:</strong> Advanced Oral and Written Language for Students with Disabilities</td>
<td>Course designed to provide an overview of the impact of disability on language development, as well as specific strategies in identifying oral and written language difficulties and methods for teaching language to this population.</td>
<td>Fall 2010, Spring 2011, Fall 2011</td>
<td>4.36</td>
</tr>
<tr>
<td><strong>ESP 722:</strong> Multicultural Perspectives in Special Education</td>
<td>Course designed to introduce students to trends and issues in special education relative to students who come from culturally and linguistically diverse backgrounds.</td>
<td>Summer 2010, Fall 2010, Summer 2011, Fall 2011</td>
<td>4.71</td>
</tr>
<tr>
<td><strong>ESP 724:</strong> Math Methods for Students with Mild Disabilities</td>
<td>Course designed to provide effective classroom methods and strategies for assessing, teaching, and monitoring the mathematical performance of students with learning difficulties.</td>
<td>Spring 2010, Fall 2011</td>
<td>4.52</td>
</tr>
<tr>
<td>Course Number and Title</td>
<td>Course Description</td>
<td>Semester(s) Taught</td>
<td>Evaluation Average (out of 5)</td>
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<tr>
<td>ESP 733: Management and Modification of Students with Special Needs</td>
<td>Course designed to provide an introduction to applied behavior analysis as it applies to teaching and managing students with special needs, as well as an introduction to the development of quality classroom management programs.</td>
<td>Spring 2010, Summer 2010</td>
<td>4.91</td>
</tr>
<tr>
<td>ESP 735: Advanced Behavior Management Techniques</td>
<td>Course designed to provide students with skills to apply behavioral, psycho-educational, and other approaches used to address the behavior of students with disabilities, with an emphasis on functional assessment and positive behavior support.</td>
<td>Spring 2011</td>
<td>Not available.</td>
</tr>
<tr>
<td>ESP 737i: Resource Room Practicum</td>
<td>Course designed to provide students with an overview of the resource room including developing classroom systems, writing high quality lesson objectives and plans, acquiring materials for the classroom, developing strategies and techniques for instruction students with disabilities, and writing individualized education plans (IEPs).</td>
<td>Fall 2010, Spring 2011, Fall 2011</td>
<td>4.65</td>
</tr>
<tr>
<td>Course Number and Title</td>
<td>Course Description</td>
<td>Semester(s) Taught</td>
<td>Evaluation Average (out of 5)</td>
</tr>
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<tr>
<td>ESP 764: Characteristics and Inclusive Strategies for Students with Emotional Disturbance, Learning Disabilities, and Mild Mental Retardation</td>
<td>Course designed to provide students with an overview of the characteristics of students with mild disabilities, as well as strategies and methods for teaching this population.</td>
<td>Fall 2009</td>
<td>4.45</td>
</tr>
</tbody>
</table>

**Service**

**National**

Council for Learning Disabilities, Social Media Co-Coordinator, 2011-present

Guest reviewer, *Intervention in School and Clinic*, 2010-2011

Guest reviewer, *Psychology in Schools* 2011

Proposal reviewer, Council for Exceptional Children, 2010

**University**

UNLV Chapter of the Council for Exceptional Children, 2008-present
  • Served as President-elect, President, and Past-President.
  • Developed doctoral mentorship program (D2D).

UNLV Graduate and Professional Student Association, 2009
  • Elected as the student representative from the Department of Special Education.

**Department of Educational and Clinical Studies**

Nevada, Partnership for Inclusive Education, 10/2009-present
  • Served as a member of the site team selection committee.
Doctoral Development Committee, Department of Educational and Clinical Studies, University of Nevada, Las Vegas, 8/2009-present

State of Nevada

Downtown Project: Revitalizing Downtown Las Vegas, December 2011-present
- Member of an exploratory committee for a partnership between Zappos, Inc. and Teach for America Las Vegas Valley designed to work on the revitalization of downtown Las Vegas.

Teach for America, 2005-present
- Corps member in the field of special education
- Professional developer
- Member of the alumni involvement committee

Nevada Economic Summit on Early Childhood Investment, February 2010

Clark County School District

Liberty High School, Henderson, Nevada, 2011-present

Cheyenne High School, North Las Vegas, Nevada, 2005-2007
- Attendance Mentorship Coordinator
- Empowerment Design Team
- Inclusive Schools Practices Coordinator
- New Teacher Induction Co-Coordinator
- Proficiency Committee Coordinator
- Reading Committee Member
- Student Intervention Team Coordinator
- School Improvement Team Member

Professional Organizations

Council for Exceptional Children
- Council for Children with Behavioral Disorders
- Division for Research
- Division of International Special Education and Services
- Division for Learning Disabilities
- Technology and Media Division

Council for Learning Disabilities
International Society for Technology in Education