Analysis of Socialization between Students with Mild Disabilities and Middle School Peers

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THESIS

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LIST OF ABBREVIATIONS

TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
EST	Ecological Systems Theory
MODE	Motivation and Opportunity and Determinants Model
SCT	Social Cognitive Theory

SUMMARY

In many of today's middle schools, students with disabilities are educated in the same classrooms alongside their typically developing peers. Although these inclusive classrooms provide a context for students to socialize and interact, the mere placement of students with disabilities in general education classrooms does not ensure they will be socially included or have meaningful opportunities to socialize with their peers without disabilities. In fact, studies indicate that despite the greater number of opportunities presented by an inclusive context (Buysse & Bailey, 1993; Guaralnick, Connor, Hammond, Gottman, & Kinnish, 1996; Helmstetter, Peck, & Giangreco, 1994; Peck, Odom, & Bricker, 1993), students with disabilities are more likely to experience less social acceptance, fewer positive social interactions, and be socially rejected relative to their classmates without disabilities (Evans, Salisbury, Palombaro, & Goldberg, 1994; Frederickson & Furnham, 2001; Kennedy, Cushing, & Itkonen, 1997b; King, 2006; Lyons, 2004; Odom et al., 2004; Swanson & Malone, 1992). The extent to which students with disabilities are socially included within and outside of school is, to a large extent, dependent upon whether students without disabilities make an effort to socialize with them. Unfortunately, few studies have examined factors associated with typical students' choices to socialize with their peers with disabilities.

The primary purpose of this study was to better understand the factors that contribute to students' intentions to socialize, as well as actual socializing behavior towards peers with mild/moderate disabilities. The sample consisted of 76 seventh grade students with and without disabilities from two middle schools in a suburban Midwestern city. Direct observations of students without disabilities positive social behavior towards students with and without

SUMMARY (continued)

disabilities, a student questionnaire and classroom context rating scale were utilized to understand associations between student attitudes, norms, efficacy, and behavior. The results from the study revealed that students without disabilities' views of their peers with disabilities and perceptions regarding socializing were uniformly positive. They held positive attitudes, and believed that their friends and family would want them to engage with peers with disabilities. They also had great confidence in their ability to initiate socializing behaviors. Students' intentions to initiate socializing behavior were also high. However, despite high stated intentions, observed behavior of students without disabilities towards students with mild disabilities was more variable. No associations were found between intentions and observed initiations. Implications for understanding the factors that contribute to students' intentions to socialize, and socializing behavior towards students with disabilities, as well as suggestions for future research are presented.

I. INTRODUCTION

Statement of the Problem

In many of today's middle schools, students with disabilities are educated in the same classrooms alongside their typically developing peers. Most often, these included students are those with high incidence disabilities ("Individuals with Disabilities Education Act Data," 2013; McLeskey, Henry, & Axelrod, 1999; McLeskey, Landers, Williamson, & Hoppey, 2010). Though these inclusive classrooms provide a context for students to socialize and interact, the mere placement of students with disabilities in general education classrooms does not ensure they will be socially included or have meaningful opportunities to socialize with their peers without disabilities. In fact, studies indicate that despite the greater number of opportunities presented by an inclusive context (Buysse & Bailey, 1993; Guaralnick et al., 1996; Helmstetter et al., 1994; Peck et al., 1993), students with disabilities receive fewer social bids and have smaller social networks than their peers without disabilities (Farmer et al., 2011; Pearl et al., 1998). Additionally, research findings suggest that students with disabilities are more likely to experience less social acceptance, fewer positive social interactions, and be socially rejected relative to their classmates without disabilities (Evans et al., 1994; Frederickson & Furnham, 2001; Kennedy, Cushing et al., 1997b; King, 2006; Lyons, 2004; Odom et al., 2004; Swanson & Malone, 1992). The extent to which students with disabilities are socially included within and outside of school is, to a large extent, dependent upon whether students without disabilities make an effort to socialize with them. Unfortunately, few studies have examined factors associated with typical students' choices to socialize with their peers with disabilities. Such research may help schools take proactive steps to ensure that students with disabilities are both socially, as well as academically, included in the fabric of middle school.

A widely held perspective contends that difficulties related to socializing stem from deficits in the social skills of students with disabilities. The response to this conclusion has been to implement interventions designed to improve social skills and competencies of students with disabilities (Beelmann & Pfingsten, 1994; Gresham, Sugai, & Horner, 2001; Nowicki, 2003). While teaching social skills can increase the frequency and duration of students' socializing, training alone does not address potential uncertainty by students without disabilities to socialize with peers that have disabilities. Peer relations are determined not only by social competence, but also by similarity to peers (Gifford-Smith & Brownwell, 2003; Kalymon, Gettinger, & Hanley-Maxwell, 2010; Pearl et al., 1998). Thus, adolescents are more likely to establish and maintain social connections with others who not only exhibit appropriate social skills, but are similar to themselves in other ways as well (Farmer & Farmer, 1996; Gifford-Smith & Brownwell, 2003; Kalymon et al., 2010).

Multiple factors impact the likelihood that social interactions will occur among students. In adolescence, choices regarding with whom to socialize are often largely based upon homophily, or perceived similarity. Middle school students are more likely to initiate interactions and socialize with peers they believe have similar characteristics to their own (Gifford-Smith & Brownwell, 2003; Kalymon et al., 2010; Killen, Rutland, & Jampol, 2009). Thus, students who are perceived as different face a higher risk of exclusion from frequent and typical socializing with their peers.

Yet, there are some students who have positive histories of exposure, experiences, and beliefs about individual differences and these factors have been shown to transcend boundaries of adolescent homophily (Brown, Kuntz, Lysaght, & Burge, 2011; Bunch & Valeo, 2004; Hamm, 2000; Helmstetter et al., 1994; Kalymon et al., 2010). Contexts, such as schools, present

differing expectations or norms that can impact student behavior (Bronfenbrenner, 1979; Carter, Sisco, Brown, Brickham, & Al-Khabbaz, 2008; Downing, Morrison, & Berecin-Rascon, 1996; Evans, Salisbury, & Palombaro, 1992; Kennedy, Shukla, & Fryxell, 1997) School contexts and ecologies that are inclusive in nature can facilitate positive relations between differing students. Family values and norms are also known to influence the beliefs and attitudes of children (Boyum & Parke, 1999; Halle, Costes, & Mahoney, 1997; Maddock, Friel, & Friel, 2009). In addition, individual personal experiences and association with persons with disabilities have been shown to have an effect on both attitudes and actions of children (Allport, 1968; Kennedy, Cushing et al., 1997b; Krajewski & Flaherty, 2000; Maras & Brown, 1996).

The inclination to socially engage with someone who is different from oneself is neither a linear, nor simplistic event. Multiple forces play a role in the formation of the attitudes, beliefs, expectations and intentions to engage. Unfortunately, little research has approached the study and examination of socializing from a multi-dimensional perspective. Often studies have documented the presence or absence of socializing behaviors or examined a single variable and its relationship with behavior. Consequently, an extensive descriptive research literature has examined the social interactions of students with disabilities and their peers without disabilities in general education classrooms, but remarkably little is known about the factors that contribute to social overtures towards students with disabilities, by their peers, particularly in middle school. This study focused specifically on those factors that appear to most directly influence students' intentions to socialize and their actual engagement with peers who have mild disabilities in middle school. This specific group of students was selected because they are the group most commonly present within the general education classroom, and thus most directly affected by their peers without disabilities socializing choices ("Individuals with Disabilities

Education Act Data," 2013; McLeskey et al., 1999; McLeskey, Hoppey, Williamson, & Rentz, 2004).

Developmental Influences

Middle school is a time when students focus much of their energy on fitting in socially, developing a sense of identity and purpose separate from what has been nurtured within their family (Ladd, 2005; Rubin, Bukowski, & Parker, 1998). Socializing among students becomes far more prevalent during middle school in comparison to the elementary years. Peers become a primary referent for middle school students, creating a normative group that provides affirmation, feedback, and a context for the emergence of the middle school student's social self (Brown & Dietz, 2009; Ladd, 2005; Rubin et al., 1998).

The middle school is a context in which students' socializing with others occurs. The extent to which adolescents socialize with peers can produce both positive and negative consequences. Positive interactions and engagement with peers can influence self-esteem, stimulate intellectual growth, and increase academic achievement. (Bishop & Inderbitzen, 1995; Bunch & Valeo, 2004; Cutts & Sigafoos, 2001; Forest & Lusthaus, 1989). Negative repercussions can occur when social interactions with peers are limited or harmful. Students with restricted social experiences, networks, and engagement are deprived of opportunities to learn normal, adaptive modes of social conduct in comparison to their peers. (Cutts & Sigafoos, 2001; Fisher, 1999).

Focus of the Study: Socializing and Social Initiations

This study focused on the construct of socializing. Socializing among adolescent children involves a context, such as an activity, setting, or circumstance. Within that context, children engage in actions designed to capture peers' attention and engage socially using

behaviors that differ in form and function. Those actions begin with an intention to engage with another student, the actual behavior of initiating an interaction, and receipt of a response from the person to whom the overture was made. This sequence is what some have termed "social interactions" (Delano & Snell, 2006; Guralnick, Neville, Hammond, & Connor, 2007; Yirmiya et al., 2006) In this study, I was specifically interested in the positive social overtures or initiations made by students without disabilities towards their peers with mild disabilities, and the factors that bring the student to want to make those overtures. Social initiations can be measured in terms of their form (verbal or gestural communication, facial expression, or physical contact), frequency, and valence (positive or negative). Examples of form might be talking with a peer, smiling, waving, or hugging. Socializing has an inherently positive connotation and is not typically used to describe interactions that are negative, harmful, or destructive (Eisenberg et al., 1997; Masten & Coatsworth, 1998; Rothbart & Bates, 1998). The differential influence of contextual, attitudinal, and experiential factors needs to be examined to truly understand the complex nature of social engagement.

Theoretical Frameworks

Various theories and models have been developed to explain how different factors determine and affect various forms of social behavior, including socializing and engagement. Within the field of education, research focused on understanding child development within social contexts also addresses the role of behavior and interactions relative to social contexts. Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1977, 1992), is a social-ecological model developed to explain how various components of a child's environment affect growth and development. Ecological Systems Theory (EST) suggests that a combination of influences exist in nested layers and that these influences impact the child's development. The

layer closest to the individual contains structures with which there is direct contact. At this level, bi-directional influences are the strongest and have the greatest impact. However, interactions that occur at outer levels still have the capacity to influence inner structures. In addition, as an individual develops, the more distant systems will have increasing influence. EST also acknowledges and incorporates influences of internal systems such as biology and cognition. Thus, an individual's development and behavior is determined by both environmental and internal factors (Berk, 2000; Bronfenbrenner, 1992; Bronfenbrenner & Ceci, 1994).

Another theory that is pertinent to the study of socializing behavior and engagement is Social Cognitive Theory (SCT) (Bandura, 1986). SCT is a triadic model that utilizes interactive processes to explain human functioning and behavior. This theory emphasizes interactions between behavior, cognition, and environmental influences. These factors are not independent of each other, but rather, interact in a dynamic and reciprocal manner. Similar to Bronfenbrenner's model, SCT argues that behavioral patterns are the result of both environmental influences and personal factors such as cognition and biology that make different contributions for each individual and circumstance (Bandura, 1986).

More recently, Fazio's MODE (Motivation and Opportunity and Determinants) model (Fazio, 1990) has emerged as the leading framework describing the processes by which general attitudes may influence the performance of specific behaviors. Unlike the previous theories, this framework was specifically developed to examine the relationship between attitudes and behavior. Fazio proposes that one of two processes, deliberate or spontaneous, occur before an individual engages in a behavior. In the deliberate process, motivation and opportunity factors allow the individual time to engage in reasoning before choosing to perform or not perform a behavior. The spontaneous process is more likely to occur when the motivation or the

opportunity is lacking. When individuals are not highly motivated and do not have the opportunity to carefully deliberate, they behave in a manner that is based primarily upon their global attitudes. According to Fazio, these global attitudes are highly accessible from memory upon observation of an attitude object and play a critical role in spontaneous behavior (Fazio, 1990; Fazio & Roskos-Ewoldsen, 2005).

Finally, the theories of Reasoned Action and Planned Behavior (Ajzen, 1991; Fishbein & Ajzen, 1975) have also been used to understand and predict various social behaviors. The Theory of Planned Behavior (TPB) posits that intentions are the best single predictor of a clearly identified behavior. According to this theory, intentions to act in a particular manner are governed by three constructs: attitudes toward performing the behavior, normative pressure perceived to perform the behavior, and the control a person believes they have to perform the behavior (Fishbein & Ajzen, 2010). Measuring the components of the model provides inferences about the likelihood of an individual performing a specific behavior.

Each of these theories is similar, yet each also presents a unique perspective of social behavior. The TPB, however, represents the most comprehensive and appropriate framework for the proposed investigation and the rationale for its selection will be detailed in a subsequent section of the next chapter.

Limitations of Extant Research on Socializing and Engagement

Studies from both general education and special education literatures affirm that multiple factors influence the various types of social behavior, including socializing and engagement. Factors such as attitudes (Diamond, 2001; Kalymon et al., 2010; Litvack, Ritchie, & Shore, 2011; Nabors & Keyes, 1997), elements and perceptions of the environment (Bunch & Valeo, 2004; Buysse & Bailey, 1993; Diamond & Hong, 2010; Kennedy, Shukla et al., 1997;

Matsumura, Slater, & Crosson, 2008), demographics (Plata, Trusty, & Glasgow, 2005), and intentions (Holtz & Tessman, 2007; Roberts & Smith, 1999) can play a role in the types of behaviors individuals choose to engage in. However, there are three major limitations to this body of literature. First, most of these studies focused on a single factor (e.g., attitudes or context) and its relationship to socializing or engagement. Even though these studies were similar in their approach to examining a factor and its potential relationship to socializing, there was considerable variability in the participants, and settings. For example, research participants ranged in age from preschool (e.g. Diamond, 2001; Nabors & Keyes, 1997) through high school (e.g. Plata et al., 2005), and the study settings included academic classes (Diamond, 2001; Jacques, Wilton, & Townsend, 1998; Kennedy, Cushing, & Itkonen, 1997a; Matsumura et al., 2008; Nabors & Keyes, 1997), lunch (e.g., Kennedy, Cushing et al., 1997a), hallways (e.g., Kennedy, Cushing et al., 1997a), the playground (e.g., Diamond & Hong, 2010; Favazza, Phillipsen, & Kumar, 2000), and non-academic classes (e.g., Kalymon et al., 2010).

However, while there was variability in settings and samples, the method of data collection was often similar. In instances where observation did not occur, surveys and interviews were most often carried out during non-specified times within the school day. These instruments were administered either to the whole class or individually and queried students about their attitudes towards classmates with disabilities (Diamond, 2001; Kalymon et al., 2010; Litvack et al., 2011; Nabors & Keyes, 1997), acceptance of students with disabilities (Diamond, 2001), and play or activities preferences with students with disabilities (Nabors & Keyes, 1997; Plata et al., 2005). A key finding from these studies was the low level of observed or reported interactions between students with and without disabilities (Diamond, 2001; Litvack et al., 2011; Nabors & Keyes, 1997; Plata et al., 2005). In addition, higher levels of reported acceptance,

interactions, and positive relationships were found in settings that were integrated versus segregated (Bunch & Valeo, 2004; Buysse & Bailey, 1993; Diamond, 2001; Kennedy, Shukla et al., 1997).

Few studies examined the relationships among multiple factors to any form of social behavior towards students with disabilities in a school setting. It is noteworthy that even fewer studies have attempted to explore multiple factors in the context of a theoretical framework. Only one study was found that did both. In that study, Roberts and Smith (1999) examined the relationships among attitudes, behavioral control, behavioral intentions and reported behavior of elementary students without disabilities towards their peers with physical disabilities in a metropolitan area of Western Australia. Questionnaires completed during the school day were used to assess general attitudes towards students with disabilities, behavioral control, intentions and behavior. Results revealed that reported interactions with students with disabilities were predicted solely by intentions. General attitudes toward students with disabilities and perceptions of control were found to be related to intentions, but not reported behavior. In addition, perceptions of control had a stronger relationship with intentions than attitudes towards students with disabilities. These findings are important because much of the literature on social behavior and acceptance is predicated on the assumption that attitudes play a substantial role in determining and changing behavior.

Thus, despite the interdependent nature of variables described in prevailing theories of social behavior, studies to date have not attempted to explore them simultaneously. Indeed, little is known about the specific contributions these factors make in regards to behavior directed towards students with disabilities in general education classrooms. Much of the existing literature related to acceptance and behavior towards students with disabilities fails to identify a

theoretical framework and often measures only one factor. This narrow, linear treatment of a complex interdependent construct is a distinct limitation in the present evidence base.

Application of TPB to the Study of Socializing Behavior and Engagement

The Theory of Planned Behavior provides a recognized theoretical framework from which to examine socializing behavior and engagement towards students with disabilities (Armitage & Conner, 2001)(see Figure 1.1). This theory has specific benefits over SCT, EST, and the MODE model. Although the theories of SCT and Ecological Systems Theory can address issues related to behavior, they are not specifically constructed to examine the determinants of behavior. In addition, their complex structure makes it difficult to implement in total and many factors are not clearly defined or easily measured. Further they posit a dynamic interaction between the individual and contextual factors, and assume that an individual's actions are largely determined by their situation. However, behavior has been found to be more consistent, and changes in environment do not readily lead to changes in behavior (Pervin & John, 1999).

Fazio's MODE model, like TPB, is concerned with the specific factors that contribute to behavior. However, within MODE, behaviors are grouped under two processes. Only one process, spontaneous, differs from what is proposed in the TPB. In this process, general attitudes play a more substantial role in determining behavior. Currently, little empirical evidence exists to substantiate the behavioral processes proposed in the spontaneous process of MODE (Fazio & Roskos-Ewoldsen, 2005; Fishbein & Ajzen, 2010). In addition, it has been argued that if attitudes are sufficiently strong they may affect normative and control beliefs and thus influence perceived norms and perceptions of control, similar to what is proposed in the TPB.

The TPB offers a useful framework for understanding potential influences on children's social behavior generally, and factors that might influence socializing and engagement between students with and without disabilities specifically. Across a variety of fields, it is considered the dominant theoretical framework and considerable evidence has emerged to support its tenets. However, few studies utilizing TPB have been conducted that examine behaviors towards students with disabilities. Fishbein and Ajzen (2010) state that the weight of the individual constructs varies by behavior, and it is important to conduct research that can aid in determining the unique contributions of various constructs. While some research has been conducted to examine specific forms of social behavior using multiple factors in educational settings, few studies have occurred in classrooms involving students with and without disabilities. It is, therefore, important to conduct research to better understand the associations between multiple factors for socializing behaviors, and engagement with students with disabilities. Additionally, the few studies conducted within this context have narrowly investigated intentions to act or relied on self-reports of behavior, and did not include observations of the behavior itself (e.g., Roberts & Smith, 1999). No study to date has examined the weight multiple determinants in classrooms that contain students with and without disabilities. The current study addressed this significant gap by assessing each of the hypothesized determinants of socializing behaviors by students without disabilities in a sample of middle school classrooms and directly observing students without disabilities socializing behavior towards students with disabilities.

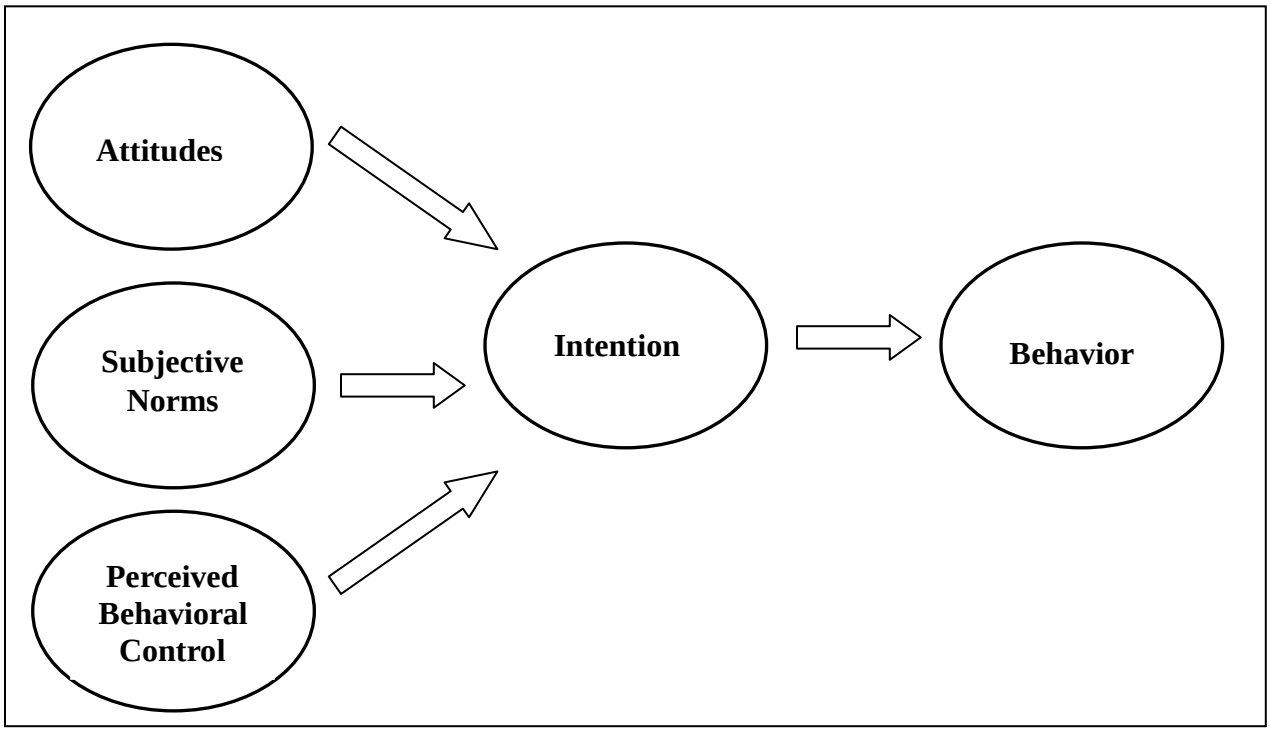

Figure 1. Theory of Planned Behavior

This study adopted TPB as a conceptual framework in examining the relative contributions of attitudes, perceived norms, and behavioral control in relation to students without disabilities intentions to act and their actual socializing behavior towards peers with mild disabilities. The investigation addressed the following research questions:

1. To what extent is socializing behavior evident in middle school classrooms between students with and without disabilities?
    a. To what extent does the frequency of socializing behavior directed towards students with disabilities differ from socializing behavior directed towards students without disabilities?

   b. To what extent does the inclusive context influence socializing initiations by students without disabilities towards peers with disabilities?

2. How do attitudes, perceptions of norms, and perceived efficacy (behavioral control) of students without disabilities influence their intentions to engage with and initiate socializing behavior towards their peers who have disabilities?
3. Which of these factors is most strongly associated with intention and observed socializing behavior initiated by students without disabilities towards students with disabilities?

II. REVIEW OF LITERATURE

In order to better understand socializing behavior and engagement of middle school-age students towards classmates with mild disabilities in school settings, the following chapter reviews relevant definitions, theoretical frameworks, and research related to socializing and engagement. It will begin with definitions of socializing behavior and engagement. Next, preceding the review of literature is a discussion of the broad conceptual foundations for social behavior, and more specifically socializing and engagement, and how the theoretical framework for this study was selected. Four theories--- Ecological Systems Theory (EST), Social Cognitive Theory (SCT), Motivation and Opportunity and Determinants (MODE), and the Theory of Planned Behavior (TPB), were considered. The Theory of Planned Behavior was chosen to guide design, measurement, and analysis in the proposed study and a rationale for this decision is presented in this chapter. Finally, this chapter concludes with an examination of empirical literature related to socializing behavior and engagement of students without disabilities towards peers with disabilities in school settings and the identification of the limitations and gaps that support the need for this investigation.

Socializing Behavior Defined

The present study focused on socializing behavior, a construct within the larger category of social behavior. The term social behavior refers to observable actions that occur within social contexts towards another individual (Rummel, 1976). Social behavior consists of various types of interactions, contact, and engagement and is a component of social relationships. **Socializing** involves a particular subset of social behaviors that occur within a context, such as a physical or activity setting. Within in this study, I was specifically interested in the origin of socializing, not the process of socializing, and thus have focused on positive social overtures or initiations made

by middle school students without disabilities towards their peers with mild disabilities in the classroom setting. The reciprocal responses of students with disabilities in response to their peers initiations were not examined in this study.

The measurement of social initiations often includes form (verbal or gestural communication, facial expression, or physical contact), frequency, and valence (positive or negative). Examples can include initiating conversations, offering affirming verbal statements, and providing academic or physical assistance. Socializing has an inherently positive connotation and is not typically used to describe interactions that are negative, harmful, or destructive (Eisenberg et al., 1997; Masten & Coatsworth, 1998; Rothbart & Bates, 1998). Similar to many behaviors, socializing and engagement are multi-dimensional in nature. This means that multiple factors influence the occurrence or non-occurrence of the behavior.

TABLE I

Socializing and Social Initiation Defined

Socializing	Exchange of positive social actions, or interactions, that occur within a context, such as a physical or activity setting.
Social Initiation	Verbal or gestural behavior directed toward a peer that is designed to evoke a social response, attention, or access. These behaviors may vary in their form, frequency, focus, and duration.

Conceptual Foundations of Social Behavior, Socializing and Initiation

Social behaviors, including specific forms such as socializing, significantly influence people's lives and society at large. They are a large component of daily life and substantially contribute to causing or solving social problems. The number of behaviors that people engage in

daily makes the task of understanding and explaining them daunting. Behavior is complex and comprised of multiple determining factors. This could potentially mean that that each class of behavior, or potentially each behavior, needs its own set of explanatory constructs. Domain-specific factors, demographic variables, personality characteristics, and situational factors would need to be taken into consideration when attempting to understand and explain particular behaviors.

However, even though investigation of particular domain-specific factors and demographic variables has occurred (Plata et al., 2005), many of the prevailing, accepted frameworks utilize approximately the same small number of constructs (Bandura, 1986; Eisenberg & Mussen, 1989; Epstein, 1979; Fazio & Roskos-Ewoldsen, 2005; Fishbein & Ajzen, 2010). Reviews of research over the past 40 years in various behavior domains show that general personality traits, demographic characteristics, and attitudes can explain broad patterns, but are generally poor predictors of specific behaviors (Ajzen, 2005; Epstein, 1979; Fishbein & Ajzen, 2010; Plata et al., 2005). Eisenberg and Mussen (1989) suggest that this is because these variables, such as age, gender and socioeconomic class cannot be considered process variables and thus do not directly influence actions. These variables are functionally connected to process variables, the components within accepted frameworks that directly influence behavior. Researchers argue that various social behaviors are approached largely in the same way, and thus, a limited set of similar constructs can be applied to understand and predict any social behavior.

Socializing Behavior in Adolescence

Adolescence is often characterized as a time of growth and development, especially in regards to children's identity and self-concept. During the transition from childhood, adolescents

begin to examine who they are, and how they fit in the social world that they live. They often focus much of their energy on fitting in socially, and this impacts their social choices and behavior. For example, during adolescence, there is an increasing amount of time spent with friends, and a decrease in the time spent with parents (Larson & Richards, 1991). However, despite these changes in time allocation, the literature indicates that adolescents' interactions with peers are influenced by their relationship with their parents (B. B. Brown, Mounts, Lamborn, & Steinberg, 1993; Steinberg & Morris, 2001). In fact, adolescents bring qualities to their relationships and interactions with peers that have developed earlier in life as a result of experiences in the family (Gauze, Bukowski, Aquan-Assee, & Sipola, 1996; Lieberman, Doyle, & Markiewicz, 1999).

As children move into adolescence, their social relationships change. Most often there are increases in the quality and quantity of communication, as well as the support and intimacy (Goodwin, Mrug, Borch, & Cillessen, 2012; Levitt, Guacci-Franco, & Levitt, 2001; Steinberg & Morris, 2001). Despite these changes, adolescent relationships are fairly unstable (Chan & Poulin, 2007; Degirmencioglu, Urberg, Tolson, & Richard, 1998). Friendships are constantly formed, lost, and maintained. Studies indicate that adolescent maintain many of their friendships for extended periods of time. Studies also show that the constant fluctuations in friendship statuses are more pronounced in early adolescence (Eccles, Lord, & Buchanan, 1996).

The middle school creates a context within which students' engagement with others occurs. The extent to which adolescents socialize with peers can produce both positive and negative consequences. Positive interactions and engagement with peers can influence self-esteem, intellectual growth and development, academic achievement, and behavior. (Bishop & Inderbitzen, 1995; Bunch & Valeo, 2004; Cutts & Sigafoos, 2001; Forest & Lusthaus, 1989).

Socializing and engaging with peers can also lead to the development of relationships, such as friendship, that are seen as critical to successful adolescent adjustment and growth (Carter et al., 2008; Sheridan, Buhs, & Warnes, 2003).

Limited social interactions with peers can also have negative repercussions for the child. Students with restricted social experiences, networks, and engagement are deprived of opportunities to learn normal, adaptive modes of social conduct in comparison to their peers. Social-emotional, as well as academic growth and functioning, can be affected, resulting in both short- and long-term negative consequences (Cutts & Sigafoos, 2001; Fisher, 1999). In addition, these students with limited social experiences may struggle to develop positive social relationships as adults (Bagwell, Newcomb, & Bukowski, 1998; Cutts & Sigafoos, 2001; East et al., 1992; Kalymon et al., 2010). Consequently, the climate fostered both at home and in the school plays an important role in students' social behavior choices.

The middle school context also influences adolescents' social opportunities and choices. As we have discussed, adolescence is a time of change and development that includes increased independence from parents, and increased intimacy with peers (Goodwin et al., 2012; Levitt et al., 2001; Steinberg & Morris, 2001). Additionally, adolescence includes change in the form school contexts. This first transition typically occurs as students leave elementary school. As students enter middle school, they encounter a context that is structurally and curricularly different. These differences include shifts from a single-teacher to a multiple-teacher environment. In addition, teachers are often less personal, require lower cognitive skills, and are stricter in their grading (Chung, Elias, & Schneider, 1998; Eccles et al., 1993). Within the school itself, studies report increased anonymity, decreased staff support and less opportunity for student decision-making (Barber & Olsen, 2004; Eccles et al., 1993; Lynch & Cicchetti, 1997).

All of these changes can affect students social behavior, and it is important that students find support socially, as they navigate these transitions.

Theoretical Perspectives

Four theoretical perspectives that can be used to examine social behavior and engagement were considered as frameworks for this study: Ecological Systems Theory (EST) (Bronfenbrenner, 1979, 1992), Social Cognitive Theory (SCT) (Bandura, 1986), Motivation and Opportunity and Determinants (MODE) (Fazio, 1990), and the Theory of Planned Behavior (TPB) (Fishbein & Ajzen, 2010). Following is a brief explanation of each, as well as a review of their use within the area of student socializing behavior in schools. Finally, a defense of the chosen framework is presented.

Ecological systems theory. Ecological Systems Theory (Bronfenbrenner, 1977, 1992) explains socializing behavior and engagement through the use of a developmental perspective. It is a social-ecological model developed to explain how various components of a child's environment affects growth and development. It recognizes that a combination of influences at various levels and contexts interact to facilitate development and produce specific behavior. Each of these layers contains different structures and relationships which are bi-directional in nature. The form, content, intensity, and direction of interactions also impact development. This framework has been used to identify sources of environmental influence on development and in understanding relationships between influences that operate at various levels.

Ecological Systems Theory (EST) is broad in scope and can be applied to various stages of life and development. The various levels of the model are labeled as systems and include the microsystem, the meosystem, the exosystem, and the macrosystem. The microsystem, the immediate environment of the child, includes all of their immediate relationships. This includes

interactions between their caregivers as well as individuals within all other social organizations such as school. At this level, interactional and relational influences are often the strongest and have the greatest, most direct impact on an individual. The second layer within the model is the mesosystem. It involves interactions between the various contexts within the microsystem. An example might include examining the influence of both teachers and parents in a student's learning. Thirdly is the exosystem, a layer that surrounds both the microsystem and mesosytem. It connects an individual with social settings outside of their immediate experience. Structures within the exosystem can include more formalized institutions such as local government or work environments of family members. The next outer layer is the macrosystem. This layer incorporates the broad patterns of a culture which can include the laws, customs, policies and values that this group holds (Bronfenbrenner, 1977, 1992). Finally, the chronosystem captures environmental events and transitions over time. These temporal changes in environments can be either internally or externally imposed and thus both environmental and biological factors exert influences on development and behavior.

Much of the research related to socializing that has utilized the framework of EST broadly examines multiple facets of the inclusion and integration of children with disabilities primarily at the preschool level and focused on the microsystem (Bronfenbrenner & Ceci, 1994; Odom et al., 2004; Peck et al., 1993). Although, not always explicitly mentioning EST as a framework, researchers have examined various components of the microsystem. This has included examining children's perceptions of and contact with children with disabilities in the context of an inclusive program (Diamond, 2001), the quality of classroom inclusive environments (Dunn, 1993) , children's participation and engagement (Jolivette, Stichter, Sibilsky, Scott, & Ridgley, 2002), as well as children's social relationships with peers (Buysse &

Bailey, 1993). However, there is substantially less research that explicitly examines socializing and engagement between children with and without disabilities that utilizes EST as a framework, especially outside the preschool age range (Odom et al., 2004).

Social cognitive theory. Social Cognitive Theory (SCT) is a triadic model that utilizes interactive processes to explain human functioning and behavior (Bandura, 1986). This theory highlights interactions between behavior, personal factors and environmental influences. It posits that factors interact in a dynamic, reciprocal manner to influence behavior. Personal factors comprise cognitive, affective, and biological events while environmental factors include contexts, as well as events such as modeling and observational learning that occur within it. In addition, a number of basic capabilities are also integrated within the three broad factors (e.g., categories of capabilities and efficacy). As with Bronfenbrenner's model, SCT argues that behavioral patterns are the result of both environmental influences and various personal factors. However, according to the SCT, the relative influence exerted by the factors will vary for different activities, different individuals, and different circumstances. Thus, behavioral outcomes are seen as individualistic and difficult to predict (Bandura, 1986). A search of multiple databases yielded various research studies that utilized SCT as a theoretical model and these studies were most often conducted in relation to health related behaviors (e.g., Martin & Kulinna, 2005; Resnicow et al., 1997; Rinderknecht & Smith, 2004). Studies in educational settings are reported, however, they involve improving the social competence of students whose skills are deficient or examining negative, delinquent, and anti-social behavior. My search failed to locate any studies that examined socializing behaviors towards students with disabilities using SCT as the theoretical framework.

Motivation and opportunity determinants. More recently, Fazio's (1990) Motivation and Opportunity and Determinants (MODE) model has emerged to study determinants of social behavior. Unlike EST and SCT, MODE was developed to examine behavior, specifically the relationship between attitudes and behavior. MODE integrates Fazio's earlier, Attitude-to-Behavior Process model with aspects of another established theory, Ajzen and Fishbein's (1975, 2010) Theory of Planned Behavior (TPB). Fazio proposes that one of two processes occur, deliberate or spontaneous, before an individual engages in a behavior. These processes differ in function and form. In the deliberative process, motivation and opportunity factors allow an individual to engage in a reasoning process before choosing whether to perform a behavior. This process is very similar to the TPB. The spontaneous process is more likely to occur when motivation or opportunity factors are lacking. When an individual is not highly motivated and does not have the opportunity to carefully deliberate, they behave in a manner that is based more upon their global attitudes. These global attitudes are highly accessible and play a critical role when behavior is spontaneous (Fazio, 1990, 2005).

Empirical studies of the MODE model have all focused on validating the framework and were less concerned with particular forms or classes of behavior. This theory is focused on investigating the role that attitudes make in decisions, and thus much of the research is related to examining attitudes and their accessibility, or ease of retrieval from memory. MODE is also more interested in understanding how and when each process is chosen and less interested in the type of behavior being studied. Thus, no studies involving behavior towards students in school settings were found. The majority of research conducted has been related to consumer, political, and racial attitudes and choices (Posavac, Sanbonmatsu, & Fazio, 1997; Sanbonmatsu & Fazio, 1990; Shiv & Fedorikhin, 2002). Thus, while MODE offers an explanation of the processes and

conditions under which general attitudes may or may not influence the performance of specific behaviors, its applicability to the study of socializing and engagement behavior in heterogeneously constituted classrooms is limited.

Theory of reasoned action and planned behavior. The theories of Reasoned Action and Planned Behavior (Ajzen, 1991; Fishbein & Ajzen, 1975) have also been used to understand and predict various social behaviors. The Theory of Planned Behavior (TPB) is a revised version of the Theory of Reasoned Action, with the addition of a behavioral control component. TPB posits that intentions are the best single predictor of a clearly identified behavior. According to this theory, intentions to act in a particular manner are governed by three constructs: attitudes toward performing the behavior, normative pressure perceived to perform the behavior and the control a person believes they have to perform the behavior (Fishbein & Ajzen, 2010) (see Figure 1.1). Measuring the components of the model provides inferences about the likelihood of an individual carrying out a specific behavior.

TPB is considered the dominant theoretical framework within the domain of attitude-behavior research and has been extensively applied in a variety of contexts (Armitage & Conner, 2001; Olson & Zanna, 1993) where it has successfully been used to predict a range of social intentions and behaviors (Armitage & Conner, 2001; Fishbein & Ajzen, 2010). However, its use within educational contexts has been largely restricted to health-related behaviors such as exercise and teacher-related behaviors. Research involving students and their actions towards their peers has only received minimal attention

Rationale for Selection of TPB

For this study, TPB was selected for two reasons to guide the design, measurement, and analysis activities. First, of the theories considered, TPB was the framework deemed most

appropriate and relevant to the study of socializing and engagement by students without disabilities towards peers with disabilities in school settings. Second, it was the theory that has accumulated the largest empirical base in support of social behavior prediction.

TPB has distinct advantages over SCT and MODE for use in my study. Despite the ability of SCT and MODE to address factors related to behavior, they were not specifically constructed for this purpose. Also, their complex structure and broadly defined constructs makes it difficult to implement in total. SCT emphasizes dynamic interactions between individuals and contextual factors. This perspective maintains that the actions of individual people are largely determined by the situation and context encountered at that time. However, behavior has been found to be more consistent and changes in environment do not readily lead to changes in behavior (Fishbein & Ajzen, 2010; Pervin & John, 1999). Fazio's MODE model, like TPB, is concerned with the specific factors that contribute to behavior. However, within MODE, behaviors are grouped under two processes and general attitudes play a more substantial role within the spontaneous process. Little empirical evidence exists to substantiate the spontaneous process, which is the process that differs from TPB. In addition, it has been argued that in the spontaneous process, when general attitudes are particularly strong, they may affect normative and control beliefs, thus creating a model similar to what is proposed in the TPB.

Relevant Empirical Work on Socializing Behavior

Very few studies have examined multiple factors' relationships to socializing behaviors of students without disabilities towards peers with disabilities in a school setting. The literature often examines attitudes and acceptance of students with disabilities in school settings, but less frequently addresses behavior and its related factors. Even more rare are studies conducted on behavior towards students with disabilities grounded in a theoretical framework. In this section

of the literature review, I have specifically excluded studies focused only on behaviors characterized as negative, such as bullying. In addition, studies conducted on assessing or improving social competence and skills of students with disabilities were not included as these studies do not explicitly address the social and interactional components of socializing behavior. Finally, studies examining social behavior of young children, even though prevalent in the literature, were excluded as the developmental stages of young children and adolescents are considerably different.

I first examine descriptive investigations in school settings, and then focus specifically on component variables (attitudes, norms and context, behavioral control and efficacy, and intentions) that form the construct of socializing behaviors and examine the methods and measures that have been used in these studies. I then examine the intervention research specifically related to social initiations and interactions between students with and without disabilities. Finally, I discuss the limitations present in the current empirical literature base.

Descriptive Research

Studies based on TPB. Empirical studies utilizing the framework of TPB to examine behavior towards students with disabilities has focused on two different groups of individuals- teachers and students without disabilities. In Jones (2009) and Thousand and Burchard (1990), the focus was on teacher behaviors while in Roberts and Smith (1999), students without disabilities were the focus. Thousand and Burchard utilized the earlier version of TPB, the Theory of Reasoned Action (TRA) to examine its applicability in predicting the implementation of student integration opportunities by special education teachers. TRA differs from TPB in that it does not include the component of behavioral control. Approximately 40 special education teachers completed survey measures assessing attitudes, norms, behavioral intentions and

behavior. Results indicated that both attitude and subjective norms were related to an intention to implement integration opportunities. However, self-reports of actual behavior were only weakly related to these factors.

The dissertation study of Jones (2009) examined pre-service teacher intentions toward including students with disabilities in general education classrooms. Participants were enrolled in education programs at two universities. They completed a survey instrument based upon TPB that sought to identify attitudes, norms, and perceived behavioral control towards the inclusions of students with disabilities in general education environments. Intentions to facilitate inclusive strategies were also measured. Overall responses to all constructs were positive. In addition, many aspects of attitudes were significantly related to intentions. However, fewer aspects of norms and behavioral control were statistically significant. Jones concluded that pre-service teachers were positive overall about inclusion and felt that it was good practice. Their attitudes about inclusive settings were the best indicator of their stated intentions to implement inclusive practices.

Roberts and Smith (1999) conducted a study that investigated the determinants of students without disabilities behavior towards peers with disabilities in elementary schools in a metropolitan area of Western Australia. In this study, an adaptation of Fishbein and Azjen's Theory of Planned Behavior (TPB) was utilized to examine relationships between attitudes, behavioral control, intentions and behavior towards students with physical disabilities during academic and non-academic periods during the school day. The TPB component of norms was not assessed. Students completed multiple rating scales that assessed their attitudes, perceived behavioral control, intentions and behavior. Results showed evidence of multiple relationships. As predicted by TPB, a correlation between intention and behavior was found. In addition, both

behavioral control and attitudes were correlated with intentions, but not behavior. However, the strength of the relationships differed greatly. A strong relationship was found between behavioral control and intentions whereas attitudes were shown to be a relatively weak predictor of intentions. The authors indicated that an interpretation of these results suggests that students do not feel that their behavior towards classmates with disabilities is entirely volitional.

Studies that did not involve TPB. Descriptive studies have been reported in which the relationship between forms of social behavior towards students with disabilities and one variable have been examined. Most often the variable of interest was related to attitudes, context, or efficacy. However, a few studies have focused on demographic characteristics such as ethnicity and academic standing. Ethnicity and academic standing were examined because of their hypothesized connection to social groups. Both factors have been identified as characteristics that unite social groups (Hamm, 2000; Lee, 2001; Wentzel & Caldwell, 1997). For example, Plata, Trusty, and Glasgow (2005) investigated African American and Caucasian high school students' willingness to participate in a range of activities with students with learning disabilities. The activities were both in school and outside of school and included behaviors that occurred in academic and social contexts. In the presence of a researcher, students individually completed a 5-minute, Likert-type survey that solicited information on their stated willingness to allow students with disabilities to participate in various activities. Differences were found in their willingness to participate in certain activities. Activities that carried little performance risk showed higher levels of acceptance than activities that required cognitive abilities or intimate relationships. However, findings suggested that neither academic standing nor race played a role in stated willingness to allow students with learning disabilities to participate.

Attitude. A sizeable body of research exists on global attitudes and their relationship to forms of social behavior, including social contact, interactions, and socializing. Research findings indicate that attitudes are one factor that is often associated with various social behaviors. However, very little research examines the attitudes of students without disabilities towards specific types of social behavior with peers with disabilities. Studies included in this section explicitly examined a form of social behavior and its relationship to attitudes towards students with disabilities.

Siperstein, Parker, Bardon, and Widaman (2007) selected a random sample of middle school students from throughout the nation to participate in a study examining multiple aspects of student attitudes towards peers with intellectual disabilities. Attitudes toward students with intellectual disabilities were conceptualized as perceptions of and intentions to interact with students with intellectual disabilities. Also, expectations for inclusion and beliefs about participation in academic and nonacademic classes were included. More than 5,000 seventh and eighth grade students completed surveys administered to them by one of their teachers during the school day. Students reported little past and present contact with peers with disabilities. However, the large majority of students reported having exposure to information about intellectual disabilities through secondary sources such as the media or adults they are close to. In addition, students without disabilities perceived students with intellectual disabilities to have basic capabilities, but did not believe them to be competent in many more complex tasks. Not surprisingly, results also showed a lack of support for including students with intellectual disabilities in academic classes. However, the majority of students surveyed did support inclusion in nonacademic classes. These findings indicate that both the perceptions that students without disabilities hold of students with intellectual disabilities as well as their expectations of

how inclusion will affect them influences their attitudes towards inclusion. Additionally, examining social aspects such as willingness or intentions to interact with students with disabilities was also important in understanding attitudes towards students with disabilities and inclusion.

Fichten, Robillard, Tagalakis, and Amsel (1991) examined attitudes and behavior of young adults. In their study, students with and without disabilities from four Canadian colleges were asked to disclose their thoughts, feeling and hypothetical behavior towards their peers. Participants completed Likert-type surveys as well as answered open-ended questions after reading brief descriptions of hypothetical interactional situations between students with and without disabilities. Results showed that students without disabilities were less at ease with their peers with disabilities than their peers without disabilities. Students without disabilities thoughts about interacting with peers with disabilities were also less positive than their thoughts about interacting with peers without disabilities. Findings suggest that thoughts and feelings of students without disabilities are likely to interfere and hinder positive interactions between students with and without disabilities.

A recent study set in an inclusive school conducted by Litvack, Ritchie, and Shore (2011) examined attitudes of late elementary aged children towards peers with mostly mild or moderate disabilities, as well as behaviors towards and relationships with students with disabilities using both quantitative and qualitative methods. The *Attitudes Toward Disabled Persons Form-Scale* (ATDP; Yuker, Block & Young, 1966) was used to examine attitudes in this sample. In addition, semi-structured interviews that included questions on relationships and experiences with students with disabilities, as well as perceived benefits and challenges to the presence of students with disabilities, were also conducted. Results showed that attitudes towards disability

did not differ significantly between the high and average achieving students without disabilities. Results also indicated that children had some concerns about feeling comfortable with classmates with disabilities. Less than half of the participants reported having a friendship or acquaintance with a classmate with a disability and one third of participants also reported minimal or no interactions with their classmates with disabilities. Researchers concluded that interventions aimed at addressing attitudes are needed. However, differentiating groups based upon achievement levels may not be necessary if ability is not a key predictor of student attitudes.

Researchers have often used rating scales and surveys administered in written or interview format to gather data on attitudes of older students. However, in a small number of cases, researchers decided upon a more qualitative approach to examining attitudes. For example, Kalymon and colleagues' (2010) study utilized a grounded theory approach with semi-structured in-depth interviews to gain an understanding of the factors that contribute to positive peer relationships in middle school students. Eight 7th grade male students from diverse peer groups were selected with the help of a school counselor. Interviews were conducted individually during study halls in a quiet conference room at the school. Results indicated that multiple cognitive and affective variables were contributing factors for intergroup contact and that affective factors appeared to have a larger influence. Additionally, participant responses revealed that the effects of social contact may differ based upon disability type. Social contact may strengthen perceptions of congruence and mutuality for students with mild or "invisible" disabilities while having the opposite effect for students with more severe disabilities.

Norms and context. There is general agreement that social environments can strongly influence people's behavior (Bronfenbrenner, 1977; Fishbein & Ajzen, 2010). This influence is often described as a social norm. Social norms generally refer to what is deemed as acceptable

behavior within a group, society or specific context. These can be communicated in various ways such as explicit strict rules or more implicit general guidelines. Social norms exert pressure on individuals to perform or not perform particular behaviors within the specified context. In the review of literature, no studies were found that explicitly examined relationships between social norms and student behavior in school contexts. However, numerous studies were found that examined the broader related concept of context and student behaviors towards others. In these studies, researchers were interested in understanding behavior within a particular context or differences in behavior across multiple contexts, such as inclusive and segregated school classrooms. Implied in this body of work is the notion that each context contains a different set of norms.

Context is a known factor that impacts students' social behavior and interactions, as evidenced by the substantial body of literature. In the following section, studies most relevant to examining the influence of context on the social behavior of students without disabilities towards peers with disabilities are discussed. In the first cluster of studies, context was investigated as the independent variable and compared student social behavior in inclusive versus segregated settings. For example, Bunch and Valeo (2004), explored reported attitudes and behaviors towards students with disabilities through interviews with students aged 6-18 in both inclusive and special education schools in Canada. A total of 51 students were randomly selected from class lists at the schools. Semi-structured interviews were conducted followed by a qualitative analysis of the data that included coding and the development of categories of interest. Various differences in friendship, levels of advocacy and acceptance of school inclusion model were found. Differences between contexts largely favored inclusive settings. The authors argued that the context, not individual students, accounted for the positive findings in inclusive schools.

Kennedy, Shukla, and Fryxell (1997) explored context and various components of social relationships for a small sample of intermediate students with severe disabilities. Sixteen students (8 who were placed full time in general education classrooms and 8 who were educated in self-contained special education classrooms) were involved in the study. Social interactions, social support behaviors, and friendship networks were measured using direct observation and interviews in a posttest-only control group design with matched comparisons. Results indicated considerable social benefits for students in the general education group, compared to the group of students receiving instruction in special education classrooms. Specifically, findings included higher frequency of interactions with peers without disabilities, higher proportions of social support and larger, stronger networks of peers both with and without disabilities. Authors concluded that their findings were indicative of substantial social benefits for students with disabilities in inclusive educational settings.

Social acceptance, friendship, and social skills were compared among children with and without learning disabilities for 4 settings in a study conducted by Wiener and Tardif (2004). Interviews and questionnaires from students in 9 schools were utilized to assess whether acceptance and friendship varied by disability status and context. Results indicated that students with learning disabilities had lower social acceptance, quality of friendship, and number of friends. However, there were few differences within the sample of children with learning disabilities on these variables as a function of context.

Other studies that examined the impact of different contexts on social behavior include those conducted by Downing, Morrison, and Berecin-Rascon (1996), Heiman (2000), Saint-Laurent, Fournier, and Lessard (1993), and Vaugh, Elbaum, and Schumm. In addition, these studies' examined the number of social opportunities available (Saint-Laurent et al., 1993), or

social benefits of transition to an inclusive environment (Downing et al., 1996) and utilized measurement of various forms of social behavior to demonstrate social benefits for students with disabilities in inclusive environments. All of the studies used direct observation to identify trends and themes within inclusive settings. In some studies, interviews with students and staff were conducted. The general findings of this body of work were that social benefits and opportunities to interact, as well as differences in levels of participation and engagement with peers, improved when students were educated in inclusive contexts.

Another group of studies choose to focus on social behavior within a single context. For example, Carter, Sisco, Brown, Brickham, and Al-Khabbaz (2008) described social behavior and engagement of middle school students in inclusive academic and elective classrooms. A small sample of middle and high school students with developmental disabilities between 12 and 18 years of age participated in the study. Data were collected on social, academic, and contextual variables through the use of natural observation in both academic and elective classes for a period of 10 weeks. Social interactions between students with and without disabilities, as well as the academic engagement of students with disabilities, were highly variable, and were influenced by instructional format, curricular area, and the proximity of educators. Peer interactions often occurred in elective classes, within small groups and when students with disabilities were not receiving direct support from staff. Findings indicate that sufficient opportunities for interaction and engagement are available; however, the extent that students with disabilities access these opportunities is inconsistent. These results provide further evidence of the important role that contextual factors play in influencing the social behavior of students with disabilities.

Kennedy, Cushing, and Itkonen (1997b) also looked at the effects of inclusion on the social development and behavior of students with disabilities in general education classes. In

their study, the social interactions between a student with disabilities and their peers without disabilities were observed in general education contexts. Two students, one elementary and one high school, with severe disabilities participated in observations and an interview regarding their social contacts and friendships with students without disabilities. In addition, an interview was conducted with the students' special education teacher and one other support provider. A multiple baseline design across classes was used to examine the observational data. Baseline consisted of the student's typical routines structured by special education staff members while general education participation constituted the independent variable. Students participated in the study for a minimum of a semester and results showed increases across all categories when students participated in general education classes. This included increases in the frequency of contact with students without disabilities, the number of peers participating in social contacts, the number of new peers met, the number of peers regularly nominated as friends and the total number of peers nominated as friends. These results indicated that the effects of systematic and structured participation in general education classes can be positive socially for students with severe disabilities.

Carter, Hughes, Guth, and Copeland (2005) utilized direct observation to examine the level of integration and proximity of a general education Peer Buddy to determine their influence on social interactions between students with and students without disabilities in high school settings. Sixteen high school students with moderate or severe intellectual disabilities participated. Twenty-seven hours of direct observation of social interactions were conducted in various school settings. Characteristics of the setting, participants and their interactions were identified and recorded. The authors concluded that naturally occurring social interactions between students with and without disabilities happened only moderately. The frequency of

interactions increased when students with disabilities were in proximity to a Peer Buddy. This study also found more positive peer affect and higher frequency of social interactions in less integrated settings. The authors suggested that the supports available in settings, such as Peer Buddies, are more important than the level of integration in promoting positive social interactions.

Salisbury, Galucci, Palombaro, and Peck (1995) examined strategies utilized by elementary teachers to promote positive behavior and relationships between students with and without disabilities in inclusive classrooms. Individual interviews were conducted along with direct observations of students and teachers to corroborate and inform interpretation of interview data. Approximately one month later, focus-group interviews of the original teacher participants, as well as the remaining teachers from the initial pool of potential participants, were conducted to evaluate the analysis of the original interview and observation data. Five broad categories of strategies emerged from the analyses: active facilitation of social interactions, giving students increased responsibility for making decisions and solving problems, building community, modeling acceptance, and creating organizational supports. The authors noted a convergence between the strategies discussed in their study and those being identified within the field as best practice.

Finally, in a study conducted by Masumura, Slater, and Crosson (2008) specific components' of classroom context and teacher behavior were examined to determine possible relationships to student behavior. A sample of urban middle school students were observed in English language arts and mathematics classes over a 2 week period. Disability status of the students was not reported. Raters coded lessons for quality of classroom environment, rigor of academic tasks, and quality of teacher-student verbal exchanges in order to explore relationships

between these factors and student behavior towards each other. Results indicated that teacher behavior toward students significantly predicted the how students interacted and behaved towards each other. Their results add support to research that suggests the teachers serve as powerful models for the students they teach.

Taken together, the findings indicate support for increased opportunities and positive contact between students with and without disabilities in inclusive contexts. Although, many studies also found that factors within contexts can affect the social behavior and relationships of students with and without disabilities. For example, individual characteristics of the setting, such as teacher behavior, students without disabilities ideas about equity and fairness, as well as the social competence of students with disabilities, were all found to be related to the quantity and quality of social contact and behavior.

Behavioral control and efficacy. Despite literature documenting a relationship between behavioral control, or a sense of efficacy, and social behavior inside and outside of educational settings, (Bandura, 1986; Fishbein & Ajzen, 2010; Roberts & Smith, 1999), few studies were found that investigated this construct as it was applied to student behavior toward each other. In a previously discussed study conducted by Roberts and Smith (1999), findings indicated that behavioral control was significantly related to intentions to interact with students with disabilities, but not actual behavior. The absence of research may reflect an underlying belief in the field that behavioral control is not a factor that impacts social behavior of students or that its measurement poses particular challenges to researchers.

Other studies that examined behavioral control utilized TPB as their framework but did not examine student behavior. For example, the dissertation study by Jones (2009), examined pre-service teacher intentions to include students with disabilities in general education

classrooms. Participants completed a survey that included a component that assessed their perception of control towards facilitating inclusive strategies. Findings indicated that behavioral control was not highly correlated with stated intentions to implement inclusive practices.

Intentions. TPB posits a direct relationship between intentions to perform a behavior and actual performance of the behavior. Although much evidence exists to validate this relationship, most of the findings stem from research conducted in domains outside of education. However, a few studies were found that explored the construct of intentions to perform a behavior within school settings. As mentioned earlier in this chapter, a study by Roberts and Smith (1999), found that intentions to interact with a peer with physical disabilities was the only factor directly correlated with actual interactions between students with and without disabilities. In addition, the study by Siperstein (2007) also included a measure of intentions to interact with peers with intellectual disabilities inside and outside of school in their attitudinal survey. They found high levels of expected interactions in school settings; however, these levels were restricted to impersonal forms of contact such lending a peer a pencil.

A study conducted by Holtz and Tessman (2007) examined intentions to interact with a peer with Tourette Syndrome after watching an informational video. However, no assessment of actual behavior took place. Results indicated that positive changes occurred in intentions after students watched the informational video. Changes in behavioral intentions was significantly greater in students exposed to the informational video versus students who weren't. Other studies taking place in school settings that examined intentions that were previously discussed addressed teacher behavior, but not student behavior towards other students (e.g., Jones, 2009; Thousand & Burchard, 1990).

Intervention Research

Research documents that peer support interventions can improve social initiations and interactions between students with and without disabilities (Carter & Hughes, 2005; Carter, Hughes et al., 2005; Jacques et al., 1998; Kennedy, Cushing et al., 1997a; Shukla, Kennedy, & Cushing, 1999). However, the success of the intervention and sustainable behavioral changes are dependent on selection of variables that are effective in affecting change. Within the literature related to this study, most reported interventions were aimed at improving the competence, skills, or initiations of students with disabilities. The social behavior of students without disabilities in heterogeneously constituted classrooms was not often addressed.

However, in a study conducted by Hughes, Carter, Hughes, Bradford and Copeland (2002), the behavior of both students with and without disabilities was examined. The social interactions of three pairs of high school students were observed. Each pair was composed of one student with a disability and one student without, where the student without a disability was designated as the conversational partner. An alternating-treatments design was used to examine the effects of an instructional versus non-instructional role condition on initiations, responses, as well as topics and quality of conversations for both students. Results demonstrated that students discussed a wider range of topics and had higher ratings of quality during the non-instructional condition. They also found that initiations by students with disabilities were higher during the non-instructional condition. The authors concluded that the roles played by general education students when interacting with peers with disabilities influenced the range, quality, and quantity of interactions with students with disabilities.

Another intervention study implemented a cooperative learning program with classrooms of elementary students in New Zealand (Jacques et al., 1998). Twenty-four students with mild

intellectual disabilities were identified through case records. These students, as well as their classmates without disabilities, participated in the study. All students completed a sociometric measure that assessed social acceptance with a behavioral probe. Students with disabilities also completed a measure assessing their self-esteem. Teachers completed ratings of social adjustment of the students with disabilities in their class plus three other randomly chosen students. Classrooms were then assigned to either a cooperative learning program for 6 weeks or their regular classroom program (control condition). At the completion of six weeks, all measures were once again completed by students and teachers. The measures were given an additional time at five weeks post intervention. Researchers found that social acceptance of students with disabilities significantly increased after the intervention, and maintained five weeks later. No increases were found with the children in the control group. The results indicate that cooperative learning programs can enhance the social acceptance of students with mild disabilities educated in integrated settings.

Carter, Cushing, Clark, and Kennedy (2005) conducted a study to examine peer support systems in middle and high school general education classrooms. The purpose of the intervention was to evaluate the social and academic impact of altering the number of participating students in the support intervention. Three adolescent students with moderate to severe disabilities and six general education students took part in the study. After training, observations of student engagement, instructional format, and social interactions were conducted two or three times per week during one 45-minute class period. Results indicated that changes in the number of students participating in the support intervention affected student outcomes. Higher levels of social interaction and contact with the general curriculum were observed when students with disabilities worked with two peers. However, social interaction was confined to

peers within the support intervention. Few interactions were seen with classmates outside the peer support intervention.

A study conducted by Holtz and Tessman (2007) examined intentions to interact with a peer with Tourette Syndrome after watching an informational video. Elementary school students from 6 schools participated, composed of an experimental and intervention group. All students completed pre- and post surveys soliciting their attitudes, intentions, and behavior towards a peer with Tourette Syndrome. The experimental group viewed the informational video and were given the opportunity to ask questions at the conclusion of the viewing. Results indicated that change in behavioral intentions was significantly greater in the group of students exposed to the informational video versus students in control group.

Limitations of Extant Research and Implications for the Current Study

Additional research is needed to address limitations associated with the existing literature. First, much of the recent research related to the socializing behavior of students with disabilities does not explicitly address social behavior between students with and without disabilities. Instead, extant research largely addressed the ways in which the social competence and skills of students with disabilities can improve, or utilized constructs and instruments other than behavioral observations to measure various types of social behavior in school.

Within the literature that does address socializing behavior towards students with disabilities there are several areas where additional research is needed. First, studies often examined only one factor and its relationship to behavior. Regardless of theoretical perspective, the general consensus and empirical evidence demonstrates that social behavior is multidimensional in nature and multiple factors need to be taken into account to understand it. Further, many variables that have a relationship to behavior are not necessarily directly related.

Therefore, it is important to identify the relationships between variables and specific social behaviors so that interventions are most effective.

Second, few studies of socializing behavior of students rely upon a theoretical framework. This is problematic because it fails to provide an examination of or evidence to support the proposed factors and relationships that impact socializing behavior. Additionally, in the few studies that explicitly utilized a framework, none of them observed actual behavior, but instead relied on self report. It is also important to note that these studies also failed to include all critical components of the framework, instead choosing only to measure some of the identified factors.

Finally, additional research is needed to examine social behavior, and more specifically, socializing, in middle school environments. Previous descriptive and interventional research on attitudes, acceptance, and behavior towards students with disabilities has often focused on early childhood (Diamond & Hong, 2010; Favazza et al., 2000) and elementary environments. Few descriptive studies have been conducted on factors related to socializing behavior towards and engagement of students with disabilities at the middle school level. Middle school environments differ from elementary school in their class schedule and rotation, amount of student independence, and emphasis on academics. Unlike in many primary schools were students spend all or most of their day in a single classroom with the same group of peers, middle students rotate classes numerous times per day and are amongst many more peers. These academic and social contexts serve as a critical stepping stone to high school and adulthood.

However, despite the opportunity for increased contact and interactions, middle schools have also been shown to have increased segregation between students with disabilities and their general education peers in comparison to elementary schools (U.S. Department of Education,

2006). This is problematic because peer interactions are particularly significant during adolescence (Carter et al., 2008; Sheridan et al., 2003; Zarbatany, Ghesquiere, & Mohr, 1992). Social interactions and resulting friendships have a strong and lasting influence on adolescent student lives (Hartup & Stevens, 1997; Larson & Richards, 1991). Intellectual development, academic and behavioral functioning, self-esteem, and skill acquisition can all be affected by students' social interactions and relationships (Bishop & Inderbitzen, 1995; Bunch & Valeo, 2004; Cutts & Sigafoos, 2001; Ryan, 2000). In addition, adolescents who engage in limited interactions with peers during middle and high school may face significant difficulty in developing positive social relationships as adults (Bagwell et al., 1998; Kalymon et al., 2010) because social experiences have also been shown to be a reliable predictor of adult psychopathology (Bagwell et al., 1998; East et al., 1992). Difficulties associated with peer interactions during adolescence may contribute to long-term negative consequences.

In conclusion, guided by a recognized theoretical framework, the current study identified current gaps in the literature by measuring multiple factors related to socializing and social initiations towards middle school students with disabilities by their peers without disabilities. Measurement of student attitudes, perceived norms, perceived behavioral control, and intentions to initiate social contact with a peer with a mild disability were gathered. In addition, direct observations of initiated behavior by students without disabilities towards students with mild disabilities were also obtained, along with data on the classroom and school context. Data analysis included the assessment of multiple factors' relationships and interdependencies with the intentions and behavior towards students with disabilities in middle school.

III. METHOD

This investigation was designed to determine the contributions of context, attitudes, behavioral control and perceived norms to adolescent students without disabilities' intentions and actual socializing behavior towards peers with mild disabilities. Fishbein and Ajzen's (1975) Theory of Planned Behavior (TPB) was adopted as the conceptual framework for this investigation. In this chapter, I describe the design of the study, including recruitment of study participants, instruments, and the analysis plan.

Research Design

Early adolescent attitudes, perceived subjective norms, and feelings of behavioral controls' impact on student intentions to act, and actual actions towards students with disabilities were examined using a mixed method design. Direct observations of students without disabilities positive social initiations, a student questionnaire and classroom context rating scale were employed to ascertain the extent of socializing behavior as well as associations between factors, intent and behavior. The independent variables of interest in this investigation were inclusiveness of the classroom context, student characteristics, student attitudes, perceived social pressure, and perceived control over performance of the behaviors. Behavioral intentions and observed socializing behavior were designated as the dependent variables.

District and Classroom Contexts

District. This investigation occurred in a racially diverse community in Illinois. The district included 5 elementary schools, 2 middle schools, and a high school, and served approximately 7,200 students in grades K-12. The average class size in this district was 21 students per class at the middle school level. More than two-thirds of the district's students were Hispanic (70%), with Caucasian students comprising approximately 20% and African-American

students consisting of just over 5% of the district's population. Asian-American and multi-racial/ethnic students each made up about 1.5% of the student population. Students with Individual Education Plans (IEPs) represented approximately 13% of the total population, and students who were eligible for bilingual education comprised about 25% of the total enrollment. Almost 70% of students in the district were from low income homes and were eligible to receive free or reduced lunch (i.e., ("Illinois Interactive Report Card," 2012).

Classrooms. In this study, seventh grade, general education classrooms were the primary setting. The participating classrooms consisted of an average of 25.8 students (range = 20 to 29, SD = 2.96) which was higher than the district average. Classes had an average of 20.5% students with disabilities (range = 3% to 35%, SD= 13.04), and three of the eight classrooms included both general and special education teachers. The special education teacher maintained a full-time presence in the classrooms with a 25% or higher rate of students with disabilities. The observed role of the special education teacher consisted primarily of providing individual assistance to students with disabilities.

All participating classrooms represented content area subjects. For this study, there were three Math classrooms, three Language Arts/Reading classrooms, one science classroom, and one Life Skills classroom. Observations were completed in seven of the eight participating classrooms. A student with a disability in the Life Skills classroom transferred prior to completion of the observations and this prevented his observational data from being included in the study. Instruction within the participating classrooms most often consisted of whole class or individual student tasks. Students were engaged in collaborative or cooperative tasks during less than 20% of the total observed time during the study. This limited time to engage in

collaborative tasks influenced the amount of opportunities for social engagement between students.

Classroom observations took place during five 50-minute class periods over the course of 10 weeks in the spring semester. All observations were conducted between the hours of 8:55am and 3:15pm. While observations of students occurred on different days of the week across the study, they occurred during the same 50-minute class period each time.

Participants

Inclusion criteria. The inclusion criteria for participants in this study were: 1) assented students enrolled in 7th grade classrooms; 2) the child's parent provided consent; and 3) the classroom included at least one student with an IEP. A total of 171 seventh grade students gave their assent to participate. Of these students, 84 also returned parental consent forms. The final participant sample consisted of 68 students without disabilities (SWOD) and 8 students with mild/moderate disabilities. A total of 76 students (68 SWOD, 8 SWD) completed all study activities. Seven of the eight students with disabilities were classified as having a mild learning disability. The remaining student's disability was identified as autism, and classified as moderate. In regards to students without disabilities, over one-third of students indicated that they had either a friend or family member with a disability that they had known for at least three years. The large majority of these students indicated that they had known their friend or family member with a disability for all of their life. Approximately two-thirds of the sample of SWOD indicated no prior significant contact with a SWD. Additional demographic data for the participating students are presented in Table 2.

TABLE II

Student Demographics

	Students with Disabilities		Students without Disabilities	
n	8	10.5%	68	89.5%
Gender				
Male	3	37.5%	23	33.8%
Female	5	62.5%	45	66.2%
Age				
12	6	75%	42	61.8%
13	2	25%	26	38.2%
Disability Type				
Mild Learning Disability	7	87.5%	---	---
Autism	1	12.5%	---	---
Relationship with a Person with a Disability				
None	---	---	44	64.7
Family	---	---	15	22.1%
Friend	---	---	6	8.9%
Unknown	---	----	3	4.4%

Recruitment, Consent of Participants, and Sampling Strategy

Prior to recruitment and starting data collection, approval for this study was obtained from the University of Illinois-Chicago Institutional Review Board (IRB). A copy of the approval letter can be found in Appendix A. After securing permission from the IRB, public district administrators throughout the greater Chicago area were contacted by the Principal Investigator via email with a summary of the project and requirements for participation. One district administrator indicated interest, and after additional materials (consent forms and data collection documents) were supplied, the Principal Investigator was provided with written

approval and permission to approach middle school principals. The Principal Investigator met with both principals to explain the study in detail, discuss inclusion criteria and answer questions. All seventh grade general education classes that included a minimum of one student identified with an identified disability were eligible to participate. Principals were also provided with a packet at the meeting that contained the research study overview, consent and data collection forms. After the meeting, each principal approached teachers whose classrooms met inclusion criteria about the study. The principals then supplied the principal investigator with the names and contact information of four teachers who expressed interested and stated that they would allow their classrooms to participate. Dates were scheduled with the teachers for a meeting to introduce the study to students.

During the meetings with students in each participating classroom, the principal investigator described the study purpose, procedures, and incentives. All students were given an assent form to sign that documented their willingness to participate and their understanding of the research purpose and procedures. Parent consent forms were sent home with all students on the day of the student informational meeting and assent. The parent form also explained study aims, procedures, risks and benefits. A copy of the IRB-approved student assent and parent consent forms can be found in Appendices B and C.

In total, 171 students gave their assent to participate. Of these students, 89 returned signed parent consent forms. A total of 84 signed parent forms indicated permission for their child to participate, while 5 forms did not give permission for the student to participate. All of these students received a small packet of school supplies and were entered into a classroom raffle for a $25 Target gift card as incentives.

In order to participate in all study activities, students needed to have an assent, as well as a parent consent on file with the principal investigator. Students who gave assent, but whose parents did not return a signed consent, were eligible for the observational component of the study only. The observational component consisted of recording frequency counts of student initiated behaviors anonymously. After student assent was obtained and two waves of parent consents were sent home, dates for observations and administration of the student questionnaire were scheduled with each teacher of the participating classrooms.

Procedures

Study activities consisted of classroom observations and a student questionnaire. Half of the participating classrooms were randomly assigned to begin with observations, while the remaining half were assigned to begin with the student questionnaire. This was done to eliminate the possible effects of presentation order for the study activities. After all classes completed the survey and observational components of the study, the quality of inclusion of students with disabilities of each classroom was assessed through the Program Quality Measurement Tool (PQMT).

Observations were conducted to determine the frequency and form of behavioral initiations towards student with and without disabilities in each of the participating classes. Prior to the start of the observations in each classroom, the principal investigator (PI) utilized a photo seating chart given to her by the classroom teacher to determine the target students (those with and without IEPs who were assented participants in the study). This was done by identifying the largest cluster of participating students. A cluster was defined as students seated in direct proximity to each other- directly beside, behind, in front or diagonal to the target student. Students in direct proximity were most able to initiate contact. Target students were kept

constant for the duration of the study, except for rare occasions when they were absent from class on the day of the observation. In those instances, an alternate target was chosen.

On the day of each observation, the PI positioned herself in an unobtrusive location on the side or in the back of the classroom where she could see both targets clearly. The Social Initiation Observation Form was used to record initiations for the entire length of the class period with the observer's focus alternating between the target student with disabilities and the target student without disabilities every two minutes. For example, in the first observation, the observer collected data in an A-B-A-B pattern. The observation started with observing the target student with a disability (A) for 2 minutes, and then the target student without a disability (B) for the next 2 minutes and so on until the end of the 45 minute observation session. During the next observation of that classroom, this order reversed (B-A-B-A), with the observer beginning data collection on the target student without a disability (B) for 2 minutes, followed by the target student with a disability (A) for 2 minutes, and so on until the end of the observation session. The order in which students were observed rotated between an A-B-A-B and a B-A-B-A pattern through the duration of the study. All initiations were entered onto a recording form as they occurred throughout the class period. A copy of the recording form can be found in Appendix E.

The student questionnaire was administered once to participating students in each class at the beginning of the class period. It took approximately 15 minutes for students to complete and asked them to report their attitudes, perceived norms, behavioral control, and intentions to interact with peers with disabilities. The PI presented the questionnaire introduction to students and answered any remaining questions they had. After the introduction was complete, surveys were distributed to all students who agreed to participate and returned a parent consent form. Students who did not assent, or receive parental consent, were asked to work quietly on other

work at their seat during this time. Students with disabilities who provided assent completed a similar, adapted questionnaire, approved by the classroom teacher, assessing their attitudes and intentions to interact with their peers in general. The data from these latter questionnaires were not analyzed. Once students completed the questionnaire, it was collected by the researcher.

Finally, after completion of behavioral observations and the student questionnaire, the PI completed the PQMT to assess the classroom environment. Familiarity with the environment was necessary to accurately complete the instrument as it takes into account behaviors and practices that occur in the classroom setting.

Instruments

Student questionnaire. A questionnaire assessing multiple factors was utilized to examine possible relationships among the independent and dependent variables. It was administered once to each participating student by the principal investigator. To minimize the possible influence of order effects, one-half of the classrooms were administered the questionnaire prior to observations, while the other half of classrooms were administered the student questionnaire after the completion of all observation sessions. The student questionnaire consisted of five sections that solicited demographic information, student attitudes, perceived norms, perceived behavioral control and behavioral intentions towards various socializing behaviors directed at peers with disabilities. The four scales included in the questionnaire were subscales or adapted scales from published, validated measures. The Chedoke-McMaster Attitudes Towards Children with Handicaps (CATCH) Scale (Rosenbaum, 1986) measured the attitudinal and subjective norm components while the Children's Self-Efficacy Scale (Bandura, 1989), and Perceived Social Efficacy (Patrick, Hicks, & Ryan, 1997), measured the perceived behavioral component. The Behavioral Intentions Scale (Siperstein et al., 2007) was utilized to

measure the intentions component. Each section and corresponding scale is described in detail below. This questionnaire was supplemented with direct observations in seventh grade, general education classrooms. The full version of the measure, as well as the observation manual, are located in Appendix D and E, respectively.

Intention measure. Intention indicates an individual's expressed readiness to perform or engage in a behavior. The intention scale for this study was an adapted version of the *Friendship Activity Scale* used by Siperstein, Parker, Bardon, and Widaman (2007) in their study examining youth's attitudes toward the inclusion of students with intellectual disabilities. The full scale consists of 12 questions that assess intentions to interact with peers with an intellectual disability. Six items assess activities at school, while the remaining six items assess activities in non-school settings. A coefficient alpha of 0.93 was the scale's reported reliability.

For the purposes of this study, only the six items related to school activities were used and the term, "student with an intellectual disability" was replaced with "student with a disability". Items were measured on a 4- point Likert-type scale with a range consisting of (1) Yes, (2) Probably Yes, (3) Probably No, and (4) No to measure students without disabilities intentions to socialize with their peers with disabilities. Individual item responses were summed and averaged to create an overall index of the construct. Higher scores indicate increased intention to perform the behaviors. A coefficient alpha of 0.84 was calculated for this scale's reliability using responses in this study. This indicates a high level of internal consistency, and is evidence that all the items within this scale measure a single construct. A copy of this scale is included in Appendix D.

Attitude measure. Within the literature, attitude is defined as an internal psychological tendency expressed in an evaluative form toward a particular entity with a degree of favor or

disfavor. Most often, the expressive response is directed towards an object, person, or group (Ajzen, 1991; Eagly, 1992; Eagly & Chaiken, 1993; Olson & Zanna, 1993; Rillotta & Nettelbeck, 2007; Zimbardo & Ebbesen, 1970). In this study, students' without disabilities attitudes towards classmates with disabilities were measured using an abbreviated version of the Chedoke-McMaster *Attitudes Towards Children with Handicaps* (CATCH) scale. This instrument was chosen due to its wide use within the literature (e.g., McDougall, DeWit, King, Miller, & Killip, 2004; Rosenbaum, Armstrong, & King, 1988; Vignes et al., 2009). This scale is seen as an established, validated tool for measuring the attitudes of children without disabilities towards peers with disabilities. The CATCH has been used in multiple descriptive and intervention studies carried out by researchers involved in the original development of the instrument, as well those who were not. In addition to reporting acceptable reliability and validity, including a coefficient alpha of 90, a detailed description of the initial validation process is also available (Rosenbaum, 1986; Rosenbaum et al., 1988; Vignes, Coley, Grandjean, Godeau, & Arnaud, 2008).

The CATCH consists of 36-items measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). There are twelve items devoted to each of the three dimensions of attitudes: affective (e.g.- "I would enjoy being with a student with a disability"), cognitive, (e.g.- "Students with a disability don't like to make friends"), and behavioral (e.g.- "I would talk to a student with a disability that I didn't know"), divided equally into positive and negatively worded statements. Negatively worded items are recoded before scoring. The CATCH is targeted towards children aged 9 through 14, and the full, 36-item version takes less than 20 minutes to complete.

For this study, an abbreviated version of CATCH was used. Items chosen for selection were included because they were most closely associated with thoughts, beliefs or behaviors related to socializing with students with disabilities within the school day. In addition, the phrase “handicapped child” was replaced with “student with a disability” for all of the items. The abbreviated version utilized for this study included 18 total items, six from each of the dimensions: affective, cognitive, and behavioral. Items included positive and negatively worded statements, with negatively worded items recoded prior to scoring. Individual item responses were summed and averaged. The mean of summed dimensional and total scores were taken as a measure of the student’s attitude about initiating and engaging with peers who have disabilities. Higher scores indicate a more favorable attitude towards students with disabilities. The calculated coefficient alpha for the attitude scale in my study was 0.76. A copy of this modified scale is included in Appendix D.

Subjective norm measure. Behavioral social norms generally refer to acts that are deemed acceptable or permissible in a group or society. In order to obtain an aggregate assessment of perceived norms with respect to socializing with students with disabilities, this scale was comprised of items that examined students’ perceived social pressure to perform socializing behavior from others who are important to them (injunctive norms) and whether important others engage in these behavior (descriptive norms).

No standardized measure of this variable was available for the behaviors of interest. Therefore, the six items from the behavioral component of the CATCH scale were altered for use with this construct. To assess whether peers perform the behaviors, the stem “My friends would”, was inserted at the beginning of each item. Similarly, to assess social pressure from important others, the stem “My parents or teacher would want me to”, was also added to each of

the six items. Twelve total items comprise this section of the student questionnaire with a Likert-type scale ranging from 1 (Never) to 5 (Always). Individual item responses were summed for both domains (injunctive and descriptive). Higher scores on the descriptive norm items indicate that the respondent perceived the behaviors to be more prevalent among his or her peers, whereas higher scores on the injunctive norm items indicate a belief that the people who are important to them would favor more engagement in this behavior. The coefficient alpha for this scale was 0.78. This set of items is represented in Appendix D.

Perceived behavioral control measure. Perceived behavioral control refers to a person's perception of the perceived ease or difficulty of performing a particular behavior (Ajzen, 1988). It is assumed that an individual takes into account factors such as skills, opportunities, and other resources needed to perform the behavior as well as potential barriers. This construct reflects both internal and external factors that may facilitate or impede performance of a behavior (Fishbein & Ajzen, 2010). Perceived behavioral control originates from self-efficacy; a concept from Bandura's (1997) Social Cognitive Theory. Bandura defines perceived self-efficacy as "beliefs in one's capabilities to organize and execute the course of action required to produce given attainments" (Bandura, 1997, p. 3). Perceived behavioral control and self-efficacy are conceptually very similar. Some researchers, such as Fishbein and Cappella (2006), state that the two concepts are in fact the same. Recognizing their similarity, I chose established self-efficacy scales for use but adopted the term perceived behavioral control within my study to preserve consistency with the Theory of Planned Behavior.

Perceived behavioral control was measured using the social self-efficacy subscale of Bandura's *Children's Self-Efficacy Scale* (1989), as well as Patrick, Hicks, and Ryan's (1997) *Social Efficacy* scale. Items in this section of the questionnaire utilized a Likert-type scale

ranging from 1 (Not at all true) to 5 (Very true). Both scales measure general social self-efficacy, thus items utilize general terms such as student, peer, or friend in regards to social behaviors with others. In order for items to be applicable to my study, the phrase "with a disability" was appended to the general terms used. In addition, to maintain uniformity between the two scales, items presented as a question were rephrased as statements. For example, "How well can you carry on a conversation with a student with a disability?" was changed to "I can carry on a conversation with a student with a disability". Eight items comprised this section of the questionnaire. Items included positively and negatively worded statements with negatively worded items recoded before scoring. Similar to the attitude scale, individual item responses were summed and averaged to create an overall index of the construct. Higher scores indicate greater confidence in the ability to perform socializing behaviors. This scale had a coefficient alpha of 0.72. These scale items are included in Appendix D.

Demographics. The student questionnaire contained six demographic questions. Participants were asked to report their first name and last initial, age, gender, and previous experience with a person who has a disability before beginning the content related subsections of the form. For purposes of this study, classmates with disabilities were defined and presented to the students without disabilities as the following:

"Disability" means:

- *Classmates who have physical, social, or academic problems .*
- *They may have difficulty paying attention or often need extra directions or help with tasks.*
- *They may have trouble talking, use communication devices or have an interpreter to help them talk and learn.*

- *They may use a wheelchair or walker to help them get around.*
- *People might also say they have "handicaps" or "special needs"*.

Participants were asked to indicate whether they have or have not had previous experience with a person with a disability by indicating yes or no. A set of 3 additional free response questions requested information about their relationship with this individual(s). Students' names and a classroom identifier were used to match the questionnaire with participants' data collected during the observation component of the study. The demographic section of the student questionnaire is included in Appendix D.

Classroom observation measures.

Characterizing the school context. The participating classrooms' inclusive environment was assessed in the study utilizing the 12-item Best Practices of Classroom Instruction component of the *Program Quality Measurement Tool* (PQMT) (Cushing, Carter, Clark, Wallis, & Kennedy, 2009). The PQMT is an evaluation instrument developed to assess the degree of implementation of research-based practices for students with disabilities. It measures the presence, as well as the degree, of implementation for various instructional and support components recommended in educational programs that include students with disabilities. PQMT also provides quantitative results that allow for objective comparisons.

Students' socializing initiations. Selected components of two observational tools, the *Social Interaction Observation Form* (SIOF) (Storey & Knutson, 1989), and the *Adapted Individual Social Behavior Scale* (ISBS) (Guralnick et al., 2007), were utilized in this study to identify the frequency and context of various socializing behaviors initiated by students with disabilities during selected academic time periods throughout the school day.

The *Social Interaction Observation Form* (SIOF) was originally developed by Storey and Knutson (1989) and consists of 18 categories of social interactions between individuals with and without intellectual disabilities. For this study, five categories of behavior that could be considered initiations and socializing in nature were selected for use. The *Adapted Individual Social Behavior Scale* (ISBS-A) is an observation scale that has been used to observe the social interactions of young children with and without disabilities (e.g., Doyle, Connolly, & Rivest, 1980; Guralnick & Groom, 1987; Guralnick et al., 2007). The scale is composed of 25 categories that record the frequency and valence (positive and negative) of social initiations and responses of a focal child. For this study, four categories of initiation that were relevant to middle school students were selected for use. The operational definitions of the categories from both tools are presented in Table III. Examples provided within the categories have been modified to match behaviors present during the school day for middle school students.

The frequency, type, and context of behavior initiated by students without disabilities were recorded during scheduled observations by the principal investigator (PI) and a second observer across seven classrooms for a minimum of five class periods. Observations were conducted using continuous recording with coding schema that included operational definitions and examples. Students were observed for 5 class periods in order to be included in analyses. This amount of time is considered sufficient to obtain a representative sample. Each observation spanned approximately 45 minutes of continuous recording, rotated between a student with disabilities and a student without disabilities target every 2 minutes. This rotation allowed for comparisons of initiation occurrences towards students with disabilities versus students without disabilities. The social initiations observation and instructions manual is located in Appendix E.

Analysis

Preparation of data. Statistical Package for the Social Sciences (SPSS) v18 software was utilized to enter and analyze data. Following data entry, negatively worded items were reverse coded and the data was checked for plausible ranges, means and standard deviations. All values were found to be within range, and all means and standard deviations were plausible.

Next, responses collected from the students in each class were reviewed for missing data. None of the questionnaires were missing more than 3% of the data, thus it was not necessary to remove subjects due to incomplete data. The missing data also needed to be checked for the presence of patterns as this can affect the generalizability of results. Little's Missing Completely at Random (MCAR) test obtained a chi-square = 397.65 (df= 387; $p < .344$) indicating no systematic relationship or identifiable pattern in the missing values. This allowed for the use of a method to impute values for the data that was missing. The Expectation-Maximization (E-M) method was used to replace missing values before analysis (Buhi, Goodson, & Neilands, 2008; Mertler & Vannatta, 2005).

TABLE III

Operational Definitions for Social Initiations towards Students with Disabilities

1. **Providing assistance (A)**: Giving any help to Target Student to complete a task. This can be verbal or physical in nature. For example, Mike opens the classroom door for Target Student.
2. **Providing social amenities (SA)**: Giving any verbal or nonverbal behaviors that are associated with social amenities, such as saying "Hey, how are you doing?"
3**. Providing social compliments (SC)**: Giving any verbal or nonverbal behaviors that are positive and reinforcing to others. For example, Mike says to Target Student, "Great job today".
4. **Non-school related conversation (NSC)**: Initiation of a verbal exchange beyond social amenities that is non-school related. For example, Mike asks Target Student what s/he did last weekend or if s/he saw a new movie.
5. **Joins peer engaged in activity (JP)**: SWD is engaged in a specific activity and is deliberately joined by SWOD in that activity. For example, Mike sees SWD in the library section of the classroom looking for a book and joins student in this task.
6. **Attempts to gain attention of peer (GA)**: Any attempt to gain the attention of a peer in a neutral or positive manner. An attempt may be verbal, nonverbal or physical in nature. For example, Mike taps the Target Student sitting in front of him on the shoulder.
7. **Other (O)**: Any positive social behavior initiation that cannot be classified to the categories described above.
8. **Unknown (U)**: Unable to hear initiation or clearly distinguish what happened.
9. **Teacher directed (TD)**: Any of the above categories, but done in the context of a request by the teacher. For example, Teacher asks Mike to provide assistance to Target Student and Mike then does this.

Once these procedures were complete, scale scores for each construct and initiations were computed by summing the individual item scores for that construct. Z scores were calculated for each construct's scale score because constructs were measured on either a 5-point or 4-point Likert scale. The data set was next evaluated for outliers utilizing the z scores as well visual inspection of histograms and box plots. One score on the intention scale ($z = -4.53$), and one score on the initiation scale ($z= 3.65$) were identified. It was determined that these scores were having an undue effect on the skewness of the sample, thus the process of winsorizing was employed. The process of winsorizing modifies one or more data points at the tails of the distribution to the next highest or lowest values in the distribution that are not suspected to be outliers. Winsorizing data points which account for less than 5% of the data does not greatly

affect the accuracy of the *p* value and preserves the power of the sample, unlike truncation (Duan, 1997; Wilcox, 2010). Truncation, another option for dealing with outliers, is often utilized when outliers are typographical errors, measurement error, or from a contaminated distribution (Hawkins, 1980) and involves the actual removal of the data. Prior to winsorizing the two data points, skewness for the intent and initiation scales were statistically significant. To determine this, the skewness statistic was divided by the standard error. Values greater than ±1.96 are considered significant (Duan, 1997; Hawkins, 1980). The value for the intent scale prior to winsorizing was -5.42, and for initiations was 4.68. After modification, the values were found to be acceptable at -1.82 for intent and 1.62 for initiations.

Finally, homoscedasticity needed to be tested because of my plan to utilize multiple linear regression analyses. One assumption of the regression model is equal variance. It is important that the variability in scores for the independent variables is roughly the same at all values of the dependent variables. When this assumption is seriously violated, it can weaken the analysis and increase the possibility of a Type 1 error. To test for homoscedasticity, I visually inspected pairwise plots as well as conducted the Koenker test (Koenker & Bassett, 1982; Lyon & Tsai, 1996). Results were not significant when utilizing intent (2.55, p=.47) or initiations (2.96, p= .38) as the dependent variables, thus homoscedasticity was confirmed.

Reliability. Forms of reliability were calculated for both the survey and observational components of the study.

Survey. Cronbach's Alpha, a measure of internal consistency, was computed for each construct in the student questionnaire. In order for a participant's responses to be included in the calculation of internal reliability, the participant must have responded to all survey items in the category scale. Individual scale results for each section of the student questionnaire were

previously presented. The coefficient alpha of the entire student questionnaire was .92, with 57 complete cases used. All of the subscales and the questionnaire as a whole were considered to be sufficiently internally consistent because the coefficient alphas exceeded .70 (Nunnally & Bernstein, 1994; Tabachnick & Fidell, 2007).

Observations. Reliability for the observational component of the study was ascertained using interobserver agreement. Kappa coefficients were calculated to document the amount of agreement between observers for the training component as well as study observations (Tabachnick & Fidell, 2007; Thompson, Felce, & Symons, 2000). Percent of occurrence agreement was calculated by dividing the number of intervals during which both data collectors agreed on the occurrence of a behavior by the sum of the number of intervals during which either one or both of the data collectors recorded the occurrence of the behavior and then multiplying the dividend by 100%. Percentage of nonoccurrence agreement was calculated similarly. The number of intervals during which both data collectors agreed that a behavior did not occur was divided by the sum of the total number of intervals during which one or both of the data collectors indicated that the behavior did not occur and then multiplied the dividend by 100.

The co-observer for this study was a veteran teacher and current doctoral student with experience in observational data collection on educational grants. The co- observer was trained prior to going into participating classrooms. Training consisted of several steps. First, she was provided with the observation tool, definitions, and literature to read. Second, a discussion occurred where both the PI and the co-observer talked about each code, the observation process, and procedures. Following the discussion, both observers took time to independently code classroom videos randomly selected by the PI. Overall occurrence agreement for the 185

minutes of training was 83%, while overall non-occurrence agreement for the training sessions was 93%.

Study observations were conducted by the PI and the co- observer in the classrooms. The co-observer concurrently, but independently, coded initiations toward the target students for 27% of the observations for the study. Each classroom was co-observed at least once. Total interobserver occurrence agreement for all 10 classroom observations was 87.3%. Interobserver non-occurrence agreement for all 10 classroom observations was 98.7%. Total overall interobserver agreement averaged of 93%.

Analysis of Research Questions. The multiple forms of data collected in this study allowed for various means of analysis as described in the following sections. Three major questions guided the design, implementation, and interpretation of the data collected for this study.

Research question 1. In order to determine the extent of socializing behavior evident in middle school classrooms between students with and without disabilities, descriptive comparisons of the frequency of socializing initiations towards students with and without disabilities across the nine types of behavior were evaluated. To determine if the level of classroom inclusiveness of students with disabilities was related to, or predicted socializing initiations by students without disabilities towards their peers with disabilities, correlational and regression analyses were performed.

Research question 2. Descriptive statistics, correlational analyses and analysis of variance were conducted to determine if gender, previous experience with an individual with a disability, attitudes, perceptions of norms, and perceived behavioral control were associated with intentions or actual behavior of students without disabilities towards students with disabilities.

Research question 3. In order to determine the factors most strongly associated with observed socializing behavior initiated by students without disabilities, multiple linear regression was employed. Regression analyses were conducted to determine if attitudes, perceptions of norms, and perceived behavioral control predicted the intention or actual behavior of students without disabilities towards their peers with disabilities. Logistic regression was used to determine if attitudes, perceptions of norms, and perceived behavioral control could predict whether a student without disabilities would or would not initiate socializing behavior towards a peer with a disability during any of the observations. These analyses helped determine the contributions of each individual factor in predicting intention and behavior of students without disabilities.

IV. RESULTS

The purpose of this study was to better understand socializing behavior initiated by students without disabilities towards their peers with disabilities in school. The Theory of Planned Behavior was utilized as the conceptual framework in examining the relative contributions of attitudes, perceived norms, and behavioral control in relation to students without disabilities' intentions to act and their actual socializing behavior towards peers with disabilities. This chapter begins with overall descriptive statistics and then presents findings related to each research question examined in the study.

Descriptive Statistics

The sample consisted of 76 seventh grade students with and without mild/moderate disabilities from two middle schools in a suburban Midwestern city (see Table 2). Almost two-thirds of the sample were female (n=50; 65.8%) and twelve-years of age (n=48; 63.2%). All other students reported their age as 13. Students with disabilities made up approximately 10% of the sample (n=8, 10.5%). Racial/ethnic background information for the sample was not collected.

Only surveys collected from students without disabilities were analyzed for the current study. A total of 76 surveys were completed by students with and without disabilities. Students without disabilities completed 68 surveys, while 8 students with disabilities completed surveys. The attitude, perceived behavioral control, and subjective norm components had a 5 point range (1-5), while the intention component had a 4 point range (1-4). Average scores for the 18 item attitude component ranged from 2.94 to 4.61, with an overall mean of 3.77 (*SD* = .40). Average scores for the 8 item perceived behavioral control component ranged from 2.25 to 5.0, with an overall mean of 3.71 (*SD* = .62). Average scores for the 12 item subjective norm component

ranged from 2.33 to 5.0, with an overall mean of 3.96 (*SD* = .56). Intention average scores ranged from 1.50 to 4.00, with an overall mean of 3.50 (*SD* = .44).

In addition, a total of 37 observations were completed in seven classrooms. One classroom did not participate in observations due to a transfer of the one student with a disability before observations could be completed. However, because all students in this class were enrolled in other classes with students with disabilities, these students participated in the questionnaire component of the study.

Research Question 1

The first question framing this study has three components. The first two components inquire about the extent, or overall frequency of socializing behavior towards students with disabilities and whether initiations towards students with disabilities differ from the initiations towards students without disabilities. To answer this question, frequency counts and type of initiation towards students with and without disabilities were gathered across seven classrooms for a minimum of five class periods per classroom.

Classrooms averaged a rate of 2.8 positive initiations towards students with disabilities per class period, with a range from 0 to 12 (*SD*= 3.11). The average rate of positive initiations towards students without disabilities in the same classrooms, during the same time, was slightly higher. The average number of initiations per class period towards students without disabilities was 3.5, with a range of 0 to 10 (*SD*= 2.80). An independent - samples t-test was conducted to compare the frequency of initiations towards students with disabilities and students without disabilities across classroom observations. Results indicated no significant difference in the frequency of initiations between the two groups (t (58) = .87 , p = .39).

In addition to overall frequency, nine specific types of behavior were recorded during observations in this study. Similarities and differences were found between initiations towards students with disabilities and without disabilities by behavior type. For example, the category of gain attention had the highest frequency of occurrence during the study, followed by non-school related conversation. Both of these categories had a large percentage of initiations towards students with and without disabilities. However, gain attention initiations occurred much more frequently towards students without disabilities, than towards students with disabilities. Students without disabilities received almost twice as many initiations in comparison to their peers with disabilities. The frequency of non-school related conversation initiations was very similar for students with and without disabilities with only a small difference between the two groups. The same trend was also seen for the category of providing assistance.

Initiations towards students with disabilities were spread more evenly across categories. All categories had at least one occurrence except for social compliments. Initiations towards students without disabilities had three categories that failed to be observed (Social Amenities, Social Compliments, and Joins Peer in Activity), and most of their initiations (82% of total) were concentrated in three categories. Providing assistance was relatively equal for both groups and was spread across 5 of the 7 classes. Frequencies and percentages of initiations for each group are reported in Table IV.

TABLE IV

Total Frequency and Percent of Initiations by Behavioral Category

	SWD		**SWOD**	
	Frequency	Percent	Frequency	Percent
Assistance (A)	8	9.5%	7	6.7%
Social Amenities (SA)	1	1.2%	0	0%
Social Compliments (SC)	0	0%	0	0%
Non-school Conversation (NSC)	20	23.8%	22	21.2%
Joins Peer in Activity (JP)	2	2.4%	0	0%
Gain Attention (GA)	33	39.3%	47	45.2%
Other (O)	5	6%	3	2.9%
Unknown (U)	9	10.7%	16	15.4%
Teacher Directed (TD)	6	7.1%	9	8.7%

Pearson Product correlations were computed for the sample in regard to total number of initiations made towards students with disabilities and classroom inclusive context score. No relationship was found between these two variables (r (26) = .17, p = .42).

Total number of initiations and classroom context variables were transformed into dichotomous Yes/No and High/Low variables in order to run additional analyses that could substantiate the preliminary findings. The range for the summed scores of inclusive classroom context was 25 to 38. To create the categorical variable, scores that were less than 31.5 were coded as low inclusive context and scores that were greater than 31.5 were coded as high inclusive context. Slightly more than half of the students who were observed were in high inclusive context classrooms (n= 15; 57.7%). To create the categorical variable for initiations, students who initiated at least once during the 5 observations were coded as Yes, and students who did not initiate at least once during the 5 observations were coded as No. The majority of

students did initiate at least once (71%). Fisher's exact test of the binary context and initiation variables was computed. It failed to yield significance (p = .693), thus initiations did not differ by context.

Research Question 2

The student questionnaire asked students to report their attitudes, perceived behavioral control (efficacy), and perceived subjective norms in regards to initiating socializing behavior towards students with disabilities. These variables were measured using a 5-point Likert scale with higher numbers representing more favorable or positive responses. As shown in Table 5, which presents descriptive statistics for student responses, all means and standard deviations were very similar for the entire sample. Responses from students were slightly higher in the area of subjective norm in comparison to attitudes and behavioral control. Additionally, all three constructs were highly correlated with each other. The correlation between perceived behavioral control and subjective norm (r (68) = .680, p <.001) was slightly stronger than the nearly identical correlations between attitude and perceived behavioral control (r (68) =.664, p <.001) and attitude and subjective norm (r (68) =.663, p <001). One-sample t-tests were also conducted on the scale scores for each construct (attitude, perceived behavioral control, and subjective norm) to evaluate whether their mean was significantly different from three, the score representing neutral attitudes, feelings of control and norms. All mean scores were significant for attitude, t (67) = 15.88, p <.001, perceived behavioral control, t (67) = 9.52, p < .001, and subjective norm, t (67) = 14.20, p < .001. This indicates that overall, students had positive attitudes towards their classmates with disabilities, great confidence in their ability to perform socializing behaviors, and positive beliefs that that their family and friends would favor their engagement in these socializing behaviors.

TABLE V

Descriptive Statistics for TPB Predictor Variables

	Minimum	**Maximum**	**Mean**	**Std. Deviation**
Attitude	2.94	4.61	3.77	.40
Behavioral Control	2.25	5.00	3.71	.62
Subjective Norms	2.33	5.00	3.96	.56

Bivariate pearson correlations were calculated in order to examine the relations between each of the Theory of Planned Behavior constructs (attitude, perceived behavioral control, and subjective norm) in regard to intention to initiate and observed initiated behavior. Attitude, perceived behavioral control and subjective norm were all positively correlated with intention. All constructs' correlations to intention were very similar. However, none of the correlations between the constructs and initiations were statistically significant. Additionally, the correlation between intent and observed initiations was not significant, *r* (26)=.04, p=.85.

TABLE VI

Correlations between TPB Predictor Variables, and Outcome Variables

	Intent to Initiate			**Observed Initiations**		
	n	Pearson Correlation	Sig. (2 tailed)	n	Pearson Correlation	Sig. (2 tailed)
Attitude	68	.630**	.000	26	.337	.092
Behavioral Control	68	.621**	.000	26	.207	.311
Subjective Norm	68	.626**	.000	26	.124	.547

**p value <.001

Finally, two one-way multivariate analyses of variance (MANOVA) were performed to examine whether differences existed on four dependent variables in relation to gender and previous experience. Specifically, the analyses sought to identify whether gender or previous experience with a person with a disability affected students attitudes, perceived behavioral control, subjective norms, or intention to initiate. Findings revealed non-significant associations between the dependent variables and gender.

The MANOVA for previous experience was significant with a Wilks' Λ of .82, F (4, 62) = 3.50, $p < .05$, $\eta^2 = .18$ indicating a difference in the four dependent variables between students who had previous experience with a person with a disability and students who didn't. Table VII contains the *z*- score means and standard deviations for the dependent variables for the two groups of previous experience. Follow-up univariate analyses indicated significant differences between students with and without experience for attitude, $F = 9.34$, df = (1,65), $p < .05$, $\eta^2 = .13$; subjective norm $F = 6.57$, df = (1,65), $p < .05$, $\eta^2 = .09$, perceived behavioral control, $F = 10.95$, df = (1,65), $p < .05$, $\eta^2 = .14$, and intentions, $F = 10.70$, df = (1,65), $p < .05$, $\eta^2 = .14$.

Research Question 3

It was hypothesized that attitudes, perceived behavioral control, and subjective norms would each contribute to the prediction of students' intent to initiate socializing behavior towards peers with disabilities. In order to determine this, attitudes, a multiple regression analysis was conducted. This procedure adds all independent variables and ascertains the size of the overall relationship to the dependent variable, as well as how much each predictor variable uniquely contributes to the relationship.

TABLE VII

Means and Standard Deviations of the Dependent Variables for Prior Experience

	Prior Experience n = 24	**No Prior Experience** n = 43
Attitude Mean	M = .46 SD = 1.04	M = -.28 SD = .88
Perceived Behavioral Control Mean	M = .48 SD = .91	M = -.30 SD = .93
Subjective Norm Mean	M = .40 SD = 1.03	M = -.23 SD = .93
Intentions Mean	M = .45 SD = .72	M = -.22 SD = .85

A multiple linear regression analysis was performed to determine the magnitude of the overall relationship to intention to initiate socializing behavior as well as associations between intention and attitude, perceived behavioral control and subjective norm. The regression analysis was run with and without the demographic variable of previous experience due to its association with the constructs. However, because it did not add to the model, the analysis reported here does not include it. For the analysis, intention as a continuous variable was utilized as the dependent variable. Table VIII displays the unstandardized regression coefficients (*B*) and error, the standardized regression coefficients (Beta), the *F*-statistic and adjusted *R* squared. Using the enter method, it was found that the linear combination of all three constructs was significantly related to the intention index, $F(3, 64) = 21.51$, $p < .001$. The multiple correlation coefficient was .71, indicating that approximately 50% of the variance of intentions to initiate socializing

behavior towards students with disabilities can be accounted for by the linear combination of attitudes, perceived behavioral control, and subjective norm. The regression equation for predicting intentions was: Intention to initiate socializing behavior = .230 × Attitude + .232 × Subjective norm – (-.045). The analysis shows that attitude significantly predicted intention, $\beta = .29$, $p < .05$, as did subjective norm, $\beta = .26$, $p < .05$. Perceived behavioral control ($\beta = .25$, $p = .06$) did not contribute significantly to the prediction of intentions

TABLE VIII

Regression Analysis for Intention

Variable	***B***	***SE B***	**β**
Attitude	.25	.11	.29*
Perceived Behavioral Control	.22	.11	.25
Subjective Norm	.23	.11	.26*

Notes: $R^2 = .50$, $F = 21.51$* (*$p < .05$)

It was hypothesized that attitudes, perceived behavioral control, and subjective norm would not be predictive of observed initiations due to a lack of associations in earlier bivariate analyses. However, in order to confirm this hypothesis, two additional regression analyses were conducted. A multiple linear regression was conducted with initiations as a continuous dependent variable. Additionally, a logistic regression was conducted with initiations as a dichotomous (yes, no) dependent variable. Both analyses failed to yield significant results.

V. DISCUSSION

The primary purpose of this study was to better understand the intentions of students without disabilities to socialize, as well as their actual socializing behavior towards peers with mild/moderate disabilities. To date, no other studies have examined the multi-dimensional influence of attitudes, subjective norms, and perceived control on typical students' positive intentions and behavior towards students with disabilities in middle school. Data were collected via a student questionnaire and classroom observations over a 10 week period in eight classrooms and analyzed using descriptive and inferential statistics. Three primary findings emerged from this investigation. In the following sections, the study's primary and secondary findings are described and interpreted. The chapter concludes with a discussion of the limitations of this investigation and recommendations for practice and future research.

Primary Findings

Positive student perspectives of peers with disabilities. Students without disabilities' views of their peers with mild/moderate disabilities, as well as their perceptions regarding socializing, were uniformly positive. They held positive attitudes, and believed that their friends and family would want them to engage with peers with disabilities. They also had great confidence in their ability to initiate socializing behaviors. These results were somewhat unexpected, as traditionally, research findings have revealed neutral or negative perspectives of students with disabilities by their peers (Fichten et al., 1991; Litvack et al., 2011; Nowicki & Sandieson, 2002; Siperstein et al., 2007). For example, Litvack's (2011) research findings indicated that students without disabilities had concerns about feeling comfortable with classmates who had disabilities. Also, in the meta-analysis of school-age children's attitudes towards individuals with disabilities, findings across the majority of studies revealed that

children had more favorable attitudes toward students without disabilities as compared to students with a physical or intellectual disability (Nowicki & Sandieson, 2002). It is unknown what factors contributed to the highly positive ratings for all of the constructs in my study. However, it is plausible to believe that the reasons could include greater exposure to various forms of diversity and a community with norms that foster positive perspectives of people with disabilities.

Positive student perspectives and intentions, but not actions. Analyses of the student data collected in this study revealed that students indicated favorable attitudes, norms, and high perceived behavioral control. As predicted by the theory, students' intentions to initiate socializing behavior were also high. The central factor of the Theory of Planned Behavior is student intention. The theory also posits that intention is a function of three determinants: attitude, perceived behavioral control, and subjective norm. More favorable attitudes and subjective norm, along with greater perceived behavioral control, should be related to higher levels of intention to perform the behavior. This presumed relationship was confirmed by the data collected on the middle school sample in this study. These findings, in conjunction with the moderate correlations between each of the constructs and intentions, indicate that when students held more positive attitudes, they were more likely to express intentions to socialize with peers with disabilities. Additionally, but to a lesser extent, the findings illustrated that students who perceived more positive norms from their family and friends were more likely to have higher expressed intentions to socialize, and students who perceived socializing behavior to be mostly volitional, more readily expressed intentions to initiate socializing behavior towards a peer with a disability.

Although each of the constructs was associated with intentions, none of the constructs was associated with observed initiations. The lack of a relationship between constructs and observed behavior is not surprising as the TPB states that these variables are mediated by intention. Other literature within the field of social behavior towards students with disabilities has also found similar results.

A unique finding in this investigation was the absence of a relationship between intentions and behavior. Within the TPB framework, intention is posited as the sole variable directly related to behavior. Stronger intention should increase the likelihood of actual performance of the behavior. However, this did not occur in this study. Despite students' strongly stated intentions, there was no association between intentions and observed initiations. This finding was unexpected because there is ample support of a relationship between intent and actual behavior in the larger literature on social behaviors. Within the smaller subset of studies on social behavior towards students with disabilities in a school setting, none have found a strong relationship between intentions and actual or self-reported behavior. Nonetheless, two studies did find a relationship. For example, Roberts and Smith (1999) found a modest relationship between intentions and actual behavior of students, and Thousand and Burchard's (1990) study that focused on teacher's implementation of inclusive activities resulted in a weak association between intention and self-reports of behavior.

More in-depth inspection of the data revealed that student responses on the intention measure clustered at the maximum possible rating, limiting the extent to which they could co-vary with observed behavior which was more variable from student to student. It is possible that the student questionnaire, specifically the very direct measures of intent, elicited high socially desirable responses from students. It is also possible that students had true high intentions but

did not follow through on them. This could be due to various factors including a lack of opportunity, or a change in their intentions. Even though students were observed for five entire class periods, this may not have been representative of their behavior in general. Other possible contributors to these findings are discrepancies between the measure of intentions and the observation measure. The context in which the behaviors were observed was constrained to academic classes, whereas the behaviors referenced in the intention scale of the student questionnaire were not necessarily confined to academic classes and could be performed throughout the school day. It is reasonable to believe that students may have responded to the intention items in a more global manner than their actual observed behavior implied.

There may have also been a discrepancy between students' perceptions of a student with a disability and actual students with disabilities that were observed. As seen in Kalymon's (2010) study, students of this age were not able to discriminate between students without disabilities and students with mild disabilities; however, they were able to differentiate between students without disabilities and students with moderate or severe disabilities. Students with mild disabilities were not recognized as students with disabilities despite explicit prodding by the researchers. In the present study, only students with mild disabilities were included in the classrooms observed; however, students with more moderate and severe disabilities were enrolled in the school. It is unknown what students participants envisioned while completing the questionnaire.

Finally, it is possible that in some instances, initiations towards students with disabilities may have been impacted by outside factors such as teacher instructions or classroom procedures. For example, during certain time periods, such as individual seatwork or assessments, teachers gave explicit instructions for students not to interact with each other. However, some students

disregarded these instructions and choose to interact. Circumstances like these did not allow for a true representation of student willingness to initiate due to the introduction of additional extraneous factors such as compliance.

Factors that predict student intentions. The findings from this study indicate that student's attitudes towards peers with disabilities and their perception of subjective norms predicted their intentions to interact with their peers with disabilities. Even though perceived behavioral control, or efficacy and prior experience were both related to student intentions, when considered in conjunction with student attitudes and norms, their effect no longer played a significant role in predicting student intentions. Student attitudes and norms emerged as more powerful variables. This makes sense, as early adolescence is a developmental period characterized by the development of personal beliefs and identity using influential others as primary referents.

Secondary Findings

Initiations towards students with disabilities. The results from the study observations revealed that students with mild/moderate disabilities experienced fewer positive initiations from their peers than students without disabilities. Overall, these results are consistent with previous findings from the literature that indicate students with disabilities receive less frequent positive social initiations and are less often a part of positive social interactions (Buysse & Bailey, 1993; Farmer et al., 2011; Guaralnick et al., 1996; Helmstetter et al., 1994; Peck et al., 1993). However, it is worth noting that while students with mild/moderate disabilities received fewer initiations than their peers without disabilities, these differences were small and analyses did not reveal statistically significant differences between the frequency of initiations towards students with disabilities and students without disabilities. .

The pattern of fewer social initiations may be related to more negative perceptions of students with disabilities such as attributing characteristics to students with disabilities that were different from themselves and less socially desirable (Fichten et al., 1991; Gifford-Smith & Brownwell, 2003; Killen et al., 2009). Thus, the social difficulties of students with mild/moderate disabilities may be partially due to misconceptions by other students that constrain their willingness to interact with classmates who receive special education services. As homophily, or seeking out and affiliating with peers similar to yourself, is especially prevalent in adolescence, it can be expected that students without disabilities might limit their contact with classmates with disabilities who they presume to be dissimilar. These are potential contributors to why students with disabilities experienced fewer initiations than their peers without disabilities in the current study. However, due to the study's research design, it is not possible to determine the exact reasons why students with disabilities experienced less overall positive initiations.

In examining specific types of behavior, not all behavioral categories displayed larger frequencies of initiations towards students without disabilities over students with disabilities. One category with a large percentage of initiations for students with and without disabilities was non-school related conversations. However, unlike the overall frequency, the rates of initiations for non-school related conversations were very similar for students with and without mild/moderate disabilities. Developmental psychosocial theories and recent research provides insight into why these rates might be similar. Newman and Newman's (1976) model offers a stage of development early in adolescence wherein criteria for social status, relationships and interactions, begin to develop based on perceived congruence, such as common sports, hobbies and interests. Research has corroborated this perspective indicating that students prefer to spent

time and associate with peers who they believe are more like themselves (Farmer & Farmer, 1996; Gifford-Smith & Brownwell, 2003; Kalymon et al., 2010; Killen et al., 2009). Recent qualitative research, such as the study by Kalymon and colleagues (2010), provides even more insight relative to peers with disabilities. In their study, they found that students felt less inhibited and more comfortable interacting with students with disabilities when they believed they shared common interests such as hobbies, sports, movies or music. These findings were especially true for students with mild disabilities. However, student participants stated that they did not feel as comfortable with students who had more severe disabilities, and did not believe they would have common interests or abilities. This could be an indicator of why non-school related conversations within academic classes is high for both groups, especially for the current sample that contained students with mild/moderate disabilities. If students without disabilities are aware of similar interests shared with other students, then they may be more likely to initiate discussion of these topics regardless of students' ability level.

Classroom context as a less powerful influence. It was hypothesized that the level of inclusiveness within classrooms would be associated with initiations towards students with disabilities. However, despite differences in the number of initiations towards students with and without disabilities, as well as between and within classrooms, no relationship was found linking initiations towards students with mild/moderate disabilities and the rated level of inclusiveness for each classroom. One explanation for this result is that the small differences in classroom level inclusiveness were not significant enough to override larger shared similarities in inclusiveness between classrooms. Support for this premise has been published in the literature. For example, Bunch (2004) found that larger structural differences, such as methods of educational service delivery, needed to be present in order to detect differences in interactions

between students with and without disabilities. There is evidence that the classrooms in this study shared structural features. Specifically, all observed classrooms had multiple students with mild disabilities enrolled full time, and students primarily received services and modifications within the general education classroom. Second, to a large extent, curricular and instructional choices, as well as grouping, did not vary between classes. For example, classroom activities that could be classified as collaborative or cooperative in nature (explicit partner or small group work, shared learning) were observed in less than 20% of the observations, whereas whole group and individual tasks occurred more than 80% of the time. This pattern was evident across all of the classes except one, illustrating that overall, instructional formats were similar for all of the participating classrooms. The opportunity to include classrooms from other districts or communities with different context structures might have introduced enough variability at the classroom or school level to corroborate previous research findings that demonstrated a relationship between inclusive context and student social behavior.

Limitations of the Study

The results of the current study need to be interpreted in light of several limitations. First, the use of convenience sampling to recruit students from two schools within a single district contributed to a context, as well as a sample that was narrow, and restricted. For example, classroom instruction was largely teacher centered, limiting the opportunity for students to interact. Also, although students with a wide range of disabilities attended these schools, the majority of included students with disabilities in the participating classrooms had mild learning disabilities. These factors limited the ability to generalize results to other populations. Second, the survey component of the study relied on student self-report. Self-report data has a high risk for inaccuracy due to its reliance on participants' to convey honestly

and accurately their own thoughts and beliefs. It is possible that students may have been inclined to answer survey items with responses they believed to be more socially desirable, regardless of whether it was accurate and truthful. Thirdly, observer accuracy presented threats to the validity of the collected data as well as inferences made. To limit the impact of these threats, the coding scheme was designed from two established systems (Storey & Knutson, 1989; White & Watts, 1973) that have been used in recent studies with students (Guralnick et al., 2007; Mu, Siegel, & Allinder, 2000). The scheme was also reviewed and approved by multiple faculty members with expertise in behavioral observation research and was piloted by the PI prior to use within the study. In addition to observer accuracy, there was the potential for observer effects wherein students modified their behavior to gain attention from the researcher or to fit what they believed the observing researcher wanted to see. To minimize the impact of the observer effects, the observer(s) sat in the back or far side of the room, out of the students' direct line of sight. Additionally, the PI spent time in the classroom prior to the observations which may have de-sensitized students to her presence.

Lastly, the study was conducted over a relatively short period of time, thus making it difficult to determine the degree to which the observed social behavior was typical. Furthermore, only academic settings could be secured and therefore, during various activities such as individual seat work and teacher lectures, students were asked not to interact with other students. While some students heeded these directions, others did not. Thus, during these times, what was observed might not be a true representation of how all students would behave without restriction. It is unknown how these environmental restrictions affected individual and overall student behavior.

Implications for Practice

This study focused on the socializing behavior of middle school students without disabilities toward their peers with disabilities. Contrary to literature that portrays students without disabilities as having negative perspectives of peers with disabilities, the current study found students to hold positive attitudes. Additionally, students had great confidence in their ability to initiate socializing behavior as well as perceived positive norms from friends and family in regards to engaging with peers with disabilities. However, students' attitudes and their perceived norms were the only two factors predictive of their intention to initiate socializing behavior. The small number of published studies utilizing the Theory of Planned Behavior to examine behavior towards students with disabilities in educational contexts provided additional support and insight into my findings. Werner and Gayzman's (2011) study results were quite similar to my own. They found that attitudes and subjective norm were predictive of students' behavioral intentions to work with individual with intellectual disabilities and that perceived behavioral control and prior acquaintance with individuals with disabilities were not predictive of intentions. Roberts (1999) also found that attitudes were predictive of intentions to interact with classmates with disabilities. These studies' results, in conjunction with mine, suggest that both the attitudes of students, as well as the perspectives and behaviors of friends and family, are the most influential in their decision to initiate socializing behavior. Thus, it appears that it is not only the attitudes of students, but the attitudes of others that impact their decisions to socialize.

This finding may be attributable to the fact that young adolescents in this developmental stage of their life are still likely to be influenced in their decision-making process by the perceptions and behavior of friends, family members, and other influential adults. It seems that peers and family members do influence students' behavior, and this influence should be attended

to in the implementation of change efforts. To this end, it may be important to include not only students, but families in change efforts. Likewise, intervention strategies that bring families, teachers, and administrators together and assist them in acquiring a better understanding and respect for inclusive environments and differences among students, may have similar positive effects on students intentions and actual behavior.

Another promising finding was students' high intentions to initiate socializing behavior towards peers with disabilities. However, there appeared to be a disconnect between students stated intentions to socialize and actual behavior. Even though students indicated that they had high intentions to initiate socializing behavior towards students with disabilities, their actual observed behavior was more variable. It is quite possible that students have strong intentions toward initiating, but only with additional opportunities are they able to follow through on these intentions. Thus, identifying strategies and materials to help teachers provide opportunities for students with and without disabilities to have meaningful, reciprocal and equal-status interactions in the classroom seems to be an important implication for practice. This can be done through cooperative and collaborative activities such as shared learning tasks, small group arrangements, and inquiry projects. Additionally, integrating forms of technology into the curriculum can further support collaborative activities. The use of computers, iPads, and other technology, especially within team-based or group work activities, provide an additional avenue for students to exchange information, foster a mutual interest, and feel a sense of belonging. These are approaches that can provide substantial increases in interaction opportunities. Administrators can also assist teachers in the implementation of more cooperative and collaborative learning environments by providing ongoing support, resources, and training. Administrators might also work to foster positive social climates within their schools through the implementation of

programs that help cultivate norms that enhance the integration of all students into the social and academic fabric of the school.

Recommendations for Future Research

The focus of this study was on the multidimensional influence of attitudes, perceived behavioral control, and subjective norm on the intentions and observed behavior of students without disabilities towards their peers with mild disabilities in middle school classrooms. To date, no other studies have examined the influence of these three factors on the positive intentions and behavior of students without disabilities towards students with disabilities in middle school. This is a unique contribution of this work to the research literature in special education. There are several areas in which future research is needed that link to the primary findings of this investigation. First, future research should be conducted with larger sample sizes, across multiple grade levels, school contexts and with more extended observations. This study was limited to two schools within one district in the Midwestern United States. As a result, the findings cannot be generalized to other populations. Secondly, it is not possible to determine the reasons students with mild/moderate disabilities in this sample experienced less positive initiations. Future research should include an element that explores students' thoughts and beliefs about why they might choose to interact less with students with disabilities. Similarly, although discrete initiations offer one indicator of students' interactions and potential relationships with one another, additional information should be collected regarding the extent to which initiations contribute to social acceptance, belonging, and friendships. Such information may help in the development of interventions that enhance the school social experiences of students with milder disabilities. It has been established that school social experiences can affect longer term social and academic outcomes (Cutts & Sigafoos, 2001; Wentzel & Caldwell, 1997;

DeRosier, Kupersmidt, & Patterson 1994). Thus, it is important to examine how interactions between students with and without disabilities are related to other measures of school outcomes such as retention, graduation, higher education, and job placement. Finally, this investigation focused on students with mild/moderate disabilities in general and did not examine social initiations for distinct disability categories. Because students without disabilities were only observed initiating towards students with mild disabilities, findings are limited to this specific group of referent students. This study provides a general view of student attitudes and perceptions of norms in regards to students with mild/moderate disabilities, but these findings cannot be used to make inferences about potential overtures towards students with moderate and severe disabilities. The field could benefit from additional research that focuses on students with a range of disabilities and the extent to which social intentions and behavior vary with level or type of disability.

Conclusion

Despite advances in the social and academic integration of students with disabilities in general education classrooms, the social acceptance of students with disabilities in schools remains an area of significant concern. This study illustrates that multiple factors impact the likelihood that social interactions will occur among students. My investigation sought to better understand the factors related to students' without disabilities decisions to initiate socializing behaviors towards peers with disabilities. The primary findings, in particular, have several tangible implications for improving school level policies and practices. They also suggest several important areas in which future research should occur to better understand the social inclusion and acceptance of students with disabilities within the general education classroom. A collaborative effort between students, families, and schools to create environments that value

diversity and differences in every student will provide students with and without disabilities with meaningful experiences that can improve student social outcomes.

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APPENDICES

APPENDIX A

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Approval Notice
Initial Review (Response To Modifications)
REVISED

November 19, 2012

Alicia Wyche, BA
Special Education
Chicago, IL 60653

RE: Protocol # 2012-0624
"Analysis of Socializing Behaviors of Students without Disabilities towards their Peers with Disabilities at the Middle School Level"

Dear Ms. Wyche:

Your Initial Review (Response to Modifications) was reviewed and approved by the Expedited review process on August 13, 2012. You may now begin your research

Please note the following information about your approved research protocol:

Protocol Approval Period: August 13, 2012 - August 12, 2013
Approved Subject Enrollment #: 105
Additional Determinations for Research Involving Minors: The Board determined that this research satisfies 45CFR46.404, research not involving greater than minimal risk. Therefore, in accordance with 45CFR46.408, the IRB determined that only one parent's/legal guardian's permission/signature is needed. Wards of the State may not be enrolled unless the IRB grants specific approval and assures inclusion of additional protections in the research required under 45CFR46.409.
Performance Sites: UIC
Sponsor: None
PAF#: Not Applicable

APPENDIX A (continued)

Research Protocol(s):

a) Analysis of Socializing Behaviors of Students Without Disabilities Towards their Peers with Disabilities at the Middle School Level; Version 1; 07/19/2012

Recruitment Material(s):

a) Teacher Screen & Contact Form; Version 2; 07/30/2012
b) Student Script; Version 2; 07/30/2012
c) Teacher Script; Version 2; 07/30/2012
d) Announcement; Version 1; 08/06/2012

Consent(s):

a) Waiver of Informed Consent 45 CFR 46.116(d) for recruitment purposes only ***REVISED***

Assent(s):

a) Assent Form; Version 2; 07/30/2012

Parental Permission(s):

a) Parent Permission; Version 3; 08/06/2012

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific category:
(7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the Review History of this submission:

Receipt Date	Submission Type	Review Process	Review Date	Review Action
07/23/2012	Initial Review	Expedited	07/24/2012	Modifications Required
07/30/2012	Response to Modifications	Expedited	08/02/2012	Modifications Required
08/06/2012	Response to Modifications	Expedited	08/13/2012	Approved

Please remember to:
→ Use your **research protocol number** (2012-0624) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure,
"**UIC Investigator Responsibilities, Protection of Human Research Subjects**"

Please note that the UIC IRB has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your

APPENDIX A (continued)

research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact OPRS at (312) 996-1711 or me at (312) 996-9299. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Marissa Benni, M.S.
IRB Coordinator, IRB # 2
Office for the Protection of Research Subjects

Enclosure(s):

1. **UIC Investigator Responsibilities, Protection of Human Research Subjects**
2. **Assent Document(s):**
   a) Assent Form; Version 2; 07/30/2012
3. **Parental Permission(s):**
   a) Parent Permission; Version 3; 08/06/2012
4. **Recruiting Material(s):**
   a) Teacher Screen & Contact Form; Version 2; 07/30/2012
   b) Student Script; Version 2; 07/30/2012
   c) Teacher Script; Version 2; 07/30/2012
   d) Announcement; Version 1; 08/06/2012

cc: Elizabeth Talbott, Special Education, M/C 147
Christine Salisbury, Special Education, M/C 628

APPENDIX A (continued)

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Approval Notice
Amendment to Research Protocol and/or Consent Document – Expedited Review
UIC Amendment # 1

November 19, 2012

Alicia Wyche, BA
Special Education
Chicago, IL 60653

RE: Protocol # 2012-0624
"Analysis of Socializing Behaviors of Students without Disabilities towards their Peers with Disabilities at the Middle School Level"

Dear Ms. Wyche:

Members of Institutional Review Board (IRB) #2 have reviewed this amendment to your research and/or consent form under expedited procedures for minor changes to previously approved research allowed by Federal regulations [45 CFR 46.110(b)(2)]. The amendment to your research was determined to be acceptable and may now be implemented.

Please note the following information about your approved amendment:

Amendment Approval Date: November 13, 2012
Amendment:

Summary: UIC Amendment #1, dated November 5, 2012, submitted 11/8/2012, is an investigator-initiated amendment to [1] increase the enrollment number from 105 to 200; [2] add Round Lake Area School District (approval letter 11/6/12, Appendix K); [3] submit Spanish translation of the parental permission on request of [redacted] district (Parent Permission 3 11/5/12, stamped English copy, translator's statement of back translation). Included revised Protocol version 2 11/6/12

APPENDIX A (continued)

Approved Subject Enrollment #: 200
Performance Sites: UIC, [redacted] School District
Sponsor: None
Research Protocol(s):

a) Analysis of Socializing Behaviors of Students Without Disabilities Towards their Peers with Disabilities at the Middle School Level; Version 2, 11/06/2012

Informed Consent(s):

a) Parent Permission [spanish]; Version 3, 11/19/2012

Please note the Review History of this submission:

Receipt Date	Submission Type	Review Process	Review Date	Review Action
11/08/2012	Amendment	Expedited	11/13/2012	Approved

Please be sure to:

→ Use your research protocol number (2012-0624) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure,
"**UIC Investigator Responsibilities, Protection of Human Research Subjects**"

Please note that the UIC IRB #2 has the right to ask further questions, seek additional information, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact the OPRS at (312) 996-1711 or me at (312) 413-1835. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Kathleen Loviscek, M.S.
IRB Coordinator, IRB # 2
Office for the Protection of Research Subjects

APPENDIX A (continued)

Enclosure(s):

1. **UIC Investigator Responsibilities, Protection of Human Research Subjects**
2. **Informed Consent Document(s):**
   a) Parent Permission [spanish]; Version 3, 11/19/2012

cc: Christine Salisbury (faculty advisor), Special Education, M/C 628
Elizabeth Talbott, Special Education, M/C 147

APPENDIX B

Leave box empty - For office use only

STARTS APPROVAL EXPIRES

AUG 1 3 2012 T O AUG 1 2 2013

UNIVERSITY OF ILLINOIS AT CHICAGO
INSTITUTIONAL REVIEW BOARD

University of Illinois at Chicago

ASSENT TO PARTICIPATE IN RESEARCH
Social Behaviors of Students in Middle School Project

1. My name is Alicia Wyche. I am a student at the University of Illinois at Chicago.

2. I am asking you to take part in a research project because I want to learn more about what middle school students think about classmates with and without disabilities or special needs. I also want to learn more about how students with and without disabilities get along at school.

3. If you agree to be in this project, I will ask you to fill out a brief survey that will ask questions about socializing between students with and without disabilities. It will take you about 20 minutes to answer all of the questions. I will also spend some time in your classroom observing you and your classmates.

4. All of the information you provide will be kept confidential. That means that I will not share your answers to the questions on the survey. Your parents, teachers, principal, or anyone else will not see your responses to the questions. Also, they will not see any of the notes I take while observing in your classroom. When I tell other people about the study, I will not use your name, and no one will be able to tell who I'm talking about. Participating in the project or deciding not to will not affect your grades in any way.

5. Your mom or dad may give permission for you to be in this project, but you don't have to be in the project if you don't want to. Remember, being in this project is up to you and no one will be upset if you don't want to participate. You can even change your mind later and stop participating if you want.

6. To thank you for returning the parental permission form, you will receive a small school supply and your name will be placed into a raffle for a gift card. One student from each participating class will win a $25 Target gift card.

7. You can ask me any questions that you have about the project. If you have a question later that you didn't think of now, you can ask me later.

8. Signing your name at the bottom means that you agree to be in this project. You and your parents will be given a blank copy of this form for your records.

_____ _____
Name of Participant Date

_____ _____ _____
Signature Age Grade in School

Social Behaviors of Students in Middle School Project Assent Form, v. 2, 7/30/2012

APPENDIX C

Leave box empty - For office use only

STARTS APPROVAL EXPIRES

AUG 1 3 2012 T O AUG 1 2 2013

UNIVERSITY OF ILLINOIS AT CHICAGO
INSTITUTIONAL REVIEW BOARD

University of Illinois at Chicago
Parent Consent Letter and Permission Form
Social Behaviors of Students in Middle School Project

Principal Investigator Name and Title:	Alicia J. Wyche, Graduate Student
Department and Institution:	College of Education, University of Illinois at Chicago
Address and Contact Information:	1040 West Harrison Street, Chicago, IL 60607

Why is my child being asked to participate in this research?

You are being asked to give permission for your child to participate in a research study about social behavior in middle school because he or she is enrolled in a classroom that is participating in the project. We are interested in learning more about social interactions between students with and without disabilities in middle school. This permission form is being provided to tell you about the research, to explain that your child's participation is voluntary, to describe the risks and benefits of his/her participation, and to help you make an informed decision. Please feel free to contact Alicia Wyche, the principal investigator, about any questions you may have.

Your child's participation in this research is voluntary. Your decision whether or not to give permission will not affect your current or future dealings with the University of Illinois at Chicago or with your child's school. **If you decide to provide permission, you are free to withdraw your child at any time without affecting these relationships.**

What is the purpose of this research?

Our purpose is to better understand how students with and without disabilities think about and interact with each other. Very little is known about the social interactions of students with and without disabilities at the middle school level. If we can learn about what their interactions are like, it may improve relations between students.

What procedures are involved?

This research will be performed at your child's school and will involve completing a brief survey and 5 observations of typical student interactions during class sessions.

If you agree to have your child in this research, he or she will be asked to complete a survey about their attitudes, perceptions and interactions with peers in their class. The survey will take approximately 20 minutes. Students who do not take the survey will be asked to work on other work at their desk during this time. The observations will last less than an hour, will take place during regular classroom instruction and will not interrupt scheduled classroom activities. The

APPENDIX C (continued)

focus of the observations will be on characterizing the type of interactions that occur between students in the class. The principal investigator will have a seating chart of students participating in the study. Only the interactions between these students will be coded.

What are the potential risks and discomforts?

To the best of our knowledge, the tasks that your child will be involved in have no more risk of discomfort than what is experienced in everyday school life. All of your child's responses and any observational data collected will be kept strictly confidential. However, there is a risk of a breach of privacy (others will know your child is participating in research) and confidentiality (accidental disclosure of identifiable data) that could occur.

Are there benefits to taking part in the research?

There are no direct benefits to your child participating in this research; however, their participation may help us learn more about interactions between students with and without disabilities in middle school.

What other options are there?

You have the option to not participate in this study.

What about privacy and confidentiality?

The people who will know that your child is a research subject are members of the research team. No information about your child, or provided by your child during the research, will be disclosed to anyone else without your written permission, except:

- if necessary to protect your child's rights or welfare (for example, when the UIC Institutional Review Board or State of Illinois Auditors) monitors the research or consent process); or
- if required by law.

When any of the results of the research are published or discussed in conferences, no information will be included that would reveal your child's identity. Teachers and other school officials will not see your child's responses and no information collected will become a part of your child's permanent school record. All identifiable information collected will be destroyed at the end of the project.

What are the costs for participating in this research?

There are no costs to you or your child for participating in this research.

Will my child receive compensation for participating in this project

No monetary compensation will be given to participants involved in this project. All children who return a signed consent form indicating yes or no, will receive their choice of a small school

APPENDIX C (continued)

supply (pen, highlighter, eraser) as well as be entered into a raffle for a $25 Target gift card. The odds of winning the gift card are approximately 1 in 25 but it is dependent on the number of students who return signed consent forms in your child's class. The identity of your child will be retained until the raffle is complete, and then destroyed.

Can I change my mind later?

If you provide permission for your child to be in this study, you may withdraw him/her at any time without consequences. Even if you give permission now, you will be able to take back your permission later. If you decide not to give us permission, or if you want to withdraw your permission later, the status and position of your child will not be affected in any way.
If you sign the permission form now, but decide that you do not want your child to participate at a later time, you may contact Alicia Wyche at [redacted] to withdraw your child from the project. In addition, if your child does not want to participate, he or she may withdraw from the project at any time without penalty.

Who should I contact if I have questions?

Contact the researcher, Alicia Wyche, graduate student, at [redacted] You may also contact the faculty sponsor, Dr. Christine Salisbury at [redacted] or [redacted] if you have any questions about this project or your part in it.

What are my rights as a research subject?

If you feel you or your child have not been treated according to the descriptions in this form, or if you have any questions about your rights as a research subject, including questions, concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 312-996-1711 or 1-866-789-6215 (toll-free) or e-mail OPRS at uicirb@uic.edu.

We hope that you are willing to have your child participate in our project. Please sign and return all three pages of this form to your child's teacher. Keep the second copy provided for your records. All children who return a signed permission form will be entered into a classroom raffle for a Target gift card whether or not you give your permission for your child to participate in the project.

Remember:

Your child's participation in this research is voluntary. Your decision whether or not to have your child participate will not affect your current or future relations with the University or your child's school. If you decide to participate, you are free to withdraw him or her at any time without affecting that relationship.

APPENDIX C (continued)

Signature of Parent/Guardian

I have read and understand the above information. I have been given an opportunity to ask questions and my questions have been answered to my satisfaction. I will be given a blank copy of this form for my records.

☐ **YES**, I give permission for my child to participate in the Social Behaviors of Students in Middle School Project. I understand that my child's identity will be kept confidential and that I can withdraw my child from the project at any time.

Name of child (print): _____ _____
First Name Last Name

_____
Printed name of parent or guardian

_____ _____
Signature of parent or guardian Date

☐ **NO**, I do not give permission for my child to participate in the Social Behaviors of Students in Middle School Project.

Name of child (print): _____ _____
First Name Last Name

_____
Printed name of parent or guardian

_____ _____
Signature of parent or guardian Date

APPENDIX D

Middle School Socializing Survey

Winter 2013

APPENDIX D (continued)

SECTION 1: Introduction **Name** _____

Hello!

Thank you for agreeing to help me! The purpose of the study is to understand some of your thoughts and experiences about being in classes that include students with disabilities.

• There are no right or wrong answers. Please answer each question as honestly as possible.

• Your answers are **confidential**. None of your answers will be shared with others. The questionnaire will be not be looked at by anyone at your school.

• You can answer only the questions you want to, but I hope you'll answer all of them.

This questionnaire will help me understand how students in your class interact with classmates with disabilities. By "disabilities" I mean:

- Classmates who have physical, social, or academic problems .
- They may have difficulty paying attention or often need extra directions or help with tasks.
- They may have trouble talking, use communication devices or have an interpreter to help them talk and learn.
- They may use a wheelchair or walker to help them get around.
- People might also say they have "handicaps" or "special needs".

Do you have a friend or family member that has a disability? Yes or No (circle one)

If you answered **YES**:

What is your relationship to this person? _____

How long have you known this person?_____

What is their disability? _____

APPENDIX D (continued)

SECTION 2

In this section, I am interested in learning about how you feel about being in classrooms that include students with disabilities. Please read each statement. Then fill in the circle that is most like how you feel. An example is shown below.

	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
Example: I try to do well in school.	❍	❍	❍	●	❍
Example: I ride roller coasters every day.	●	❍	❍	❍	❍

	Strongly Disagree	Disagree	Can't Decide	Agree	Strongly Agree
1. I would enjoy being with a classmate with a disability.	❍	❍	❍	❍	❍
2. Students with a disability don't like to make friends.	❍	❍	❍	❍	❍
3. I would talk to a student with a disability I didn't know.	❍	❍	❍	❍	❍
4. I would feel good doing a school project with a student with a disability.	❍	❍	❍	❍	❍
5. Students with a disability can make new friends.	❍	❍	❍	❍	❍
6. I wouldn't know what to say to a student with a disability.	❍	❍	❍	❍	❍
7. I would not like a friend with a disability as much as my other friends.	❍	❍	❍	❍	❍
8. Students with a disability can do lots of things for themselves.	❍	❍	❍	❍	❍
9. In class I wouldn't sit next to a student with a disability.	❍	❍	❍	❍	❍
10. I feel upset when I see a student with a disability.	❍	❍	❍	❍	❍
11. Students with a disability are interested in a lot of things.	❍	❍	❍	❍	❍

APPENDIX D (continued)

12. I would stick up for a student with a disability who was being teased.	❍	❍	❍	❍	❍
13. I wouldn't worry if a classmate with a disability sat next to me in class.	❍	❍	❍	❍	❍
14. Students with a disability know how to behave properly.	❍	❍	❍	❍	❍
15. I would try to stay away from a student with a disability.	❍	❍	❍	❍	❍
16. Being near someone who has a disability scares me.	❍	❍	❍	❍	❍
17. Students with a disability need lots of help to do things.	❍	❍	❍	❍	❍
18. I would not introduce a student with a disability to my friends.	❍	❍	❍	❍	❍

SECTION 3

This section is meant to help me get a better understanding of the kinds of things that are difficult for students. Please read each statement and fill in the circle that best tells me your opinion.

	Not all true	**Rarely True**	**Sometimes True**	**Often True**	**Very true**
1. I find it easy to start a conversation with students with disabilities in my class.	❍	❍	❍	❍	❍
2. I often don't know what to say when students with disabilities in my class talk to me.	❍	❍	❍	❍	❍
3. I can explain my point of view to students with disabilities in my class.	❍	❍	❍	❍	❍
4. I cannot get along with students with disabilities in my class.	❍	❍	❍	❍	❍
5. I can work well with students with disabilities in my class.	❍	❍	❍	❍	❍
6. I can make and stay friends with a student with disabilities.	❍	❍	❍	❍	❍

APPENDIX D (continued)

7. I can't carry on a conversation with a student with a disability.	❍	❍	❍	❍	❍
8. I can work well in a group that includes a student with a disability.	❍	❍	❍	❍	❍

SECTION 4

In this section I am interested in knowing what you think your friends, family, and teachers would do or want you to do in different situations. Please fill in the circle that best illustrates what you think.

	Never	**Rarely**	**Sometimes**	**Often**	**Always**
1. My friends would **not** introduce a student with a disability to others.	❍	❍	❍	❍	❍
2. My friends would **not** know what to say to a student with a disability.	❍	❍	❍	❍	❍
3. My friends would stick up for a student with a disability who was being teased.	❍	❍	❍	❍	❍
4. My friends would talk to a student with a disability they didn't know.	❍	❍	❍	❍	❍
5. My friends would try to stay away from a student with a disability.	❍	❍	❍	❍	❍
6. In class, my friends would sit next to a student with a disability.	❍	❍	❍	❍	❍
7. My parents or teachers would not want me to introduce a student with a disability to others.	❍	❍	❍	❍	❍
8. My parents or teachers would not want me to become friends with a student who has a disability.	❍	❍	❍	❍	❍
9. My parents or teachers would want me to stick up for a student with a disability who was being teased.	❍	❍	❍	❍	❍
10. My parents or teachers would want me to talk to a student with a disability I didn't know.	❍	❍	❍	❍	❍
11. My parents or teachers would want me to try to stay away from a student with a disability.	❍	❍	❍	❍	❍

APPENDIX D (continued)

12. In class, my parents or teachers would want me to sit next to a student with a disability.	❍	❍	❍	❍	❍

SECTION 5

This section is meant to help me understand what you would do in certain situations. Please read each question and fill in the circle of the answer that tells me how you would act.

	Yes	**Probably Yes**	**Probably No**	**No**
1. Would you go up to a student with a disability and say hello?	❍	❍	❍	❍
2. Would you choose a student with a disability to be on your team in gym class?	❍	❍	❍	❍
3. Would you talk to a student with a disability during free time or lunch?	❍	❍	❍	❍
4. Would you lend a student with a disability a pencil or pen?	❍	❍	❍	❍
5. Would you stand next to a student with a disability while waiting in a line?	❍	❍	❍	❍
6. Would you work with a student with a disability on a project in class?	❍	❍	❍	❍

APPENDIX E

Social Initiation Observation Form

Manual for Coding Peer Initiations: Adapted Individual Social Behavior Scale (ISBS)

This manual is a secondary adaptation and refinement of a portion of the Social Behaviors Checklist developed by White and his colleagues (White and Watts, 1973)[1]. It was first adapted by Guralnick and colleagues (Guaralnick et al., 1996). It consists of definitions and examples of individual peer related social behaviors as well as coding guidelines for this study.

The coding system provides three types of data: a) the frequency of individual social behaviors; b) the number of initiations by the subject/ target child; and c) the context the behavior occurred in.

Definitions

Initiations

An initiated event is one in which the student has not interacted with Target Student either verbally or nonverbally for at least 5 seconds and attempts to begin an interaction with Target Student. Simply watching another student does not constitute an initiation.

In addition, the initiation must be directed specifically towards the Target Student. Initiations that are more global in nature (i.e. small group setting) that include the Target Student as well as others, are not to be recorded.

General Rules for Coding

Coding Cover Sheet

1. Each period for coding is 50 minutes in length. The cover sheet should be completed PRIOR to beginning the 50 minutes of coding. This includes:
   (a) Date, Start and End time, School code, Classroom code, Observer Initials
   (b) Note Target students initials
   (c) Note the Context category (academic or non-academic) and Subject area
2. If a student behavior begins in one interval and extends to a second interval, code the behavior in the interval in which the behavior began.

Separate Events

If a codable behavior occurs and is immediately followed by another codable behavior before there is time for the student to respond to the first; code both behaviors. Also, if time is allowed for a response AND student does NOT respond to the first initiation, code both. However, if student does respond and less than 5 seconds elapse before second behavior is initiated, only code the first behavior.

APPENDIX E (continued)

For example, if Steve calls Pat's name (Code GA – Attempts to Gain Attention) and then asks him a question ("How was your weekend?") without waiting for Pat to respond to the GA behavior, or waits for response and does not get it before asking question, code both. However, if Steve calls Pat's name, gets a response and then proceeds with the question within 5 seconds, only code the GA behavior.

Positive vs. Negative

In order to determine if an initiation is Positive or Negative, two aspects of the initiation are considered: content and delivery style. An initiation is considered negative if EITHER content or delivery style are deemed negative.

Negative content means that, regardless of the tone of the initiation, the intent is to somehow stop, limit, or circumscribe the activity of a peer. Initiations of this kind may be delivered in a pleasant tone or include mitigating language (i.e. "Please stop doing that, okay?"), but are considered negative based on the content of the request.

An initiation is also coded as negative, regardless of the content, if the delivery style is negative. This would include initiations delivered in an unpleasant, hostile, or whining manner. The action being requested in this case is irrelevant. What matters is HOW it is requested. "Give me the pencil!", screamed in an angry voice, is a negative initiation.

Positive initiations are therefore those that cannot be classified as Negative based on content or delivery style. There is nothing limiting or restrictive about the content and it is delivered in a positive, or at least matter-of-fact, manner.

Categories for Initiations by students toward Target Peer

1. **Providing Assistance (A)**: Giving any help to Target Student to complete a task. This can be verbal or physical in nature. For example, Mike opens the classroom door for Target Student.

2. **Providing social amenities (SA)**: Giving any verbal or nonverbal behaviors that are associated with social amenities, such as saying "Hey, how are you doing?"

3. **Providing social compliments (SC)**: Giving any verbal or nonverbal behaviors that are positive and reinforcing to others. For example, Mike says to Target Student, "Great job today".

4. **Non-school related conversation (NSC)**: Initiation of a verbal exchange beyond social amenities that is non-school related. For example, Mike asks Target Student what s/he did last weekend or if s/he saw a new movie.

APPENDIX E (continued)

5. **Joins peer engaged in activity (JP)**: SWD is engaged in a specific activity and is deliberately joined by SWOD in that activity. For example, Mike sees SWD in the library section of the classroom looking for a book and joins student in this task. Additional clarification: To qualify as joining, student must engage in the specific activity of Target Student. Moving to engage in proximity to Target Student but on a separate activity would not constitute a JP code.

6. **Attempts to gain attention of peer (GA)**: Any attempt to gain the attention of a peer in a neutral or positive manner. An attempt may be verbal, nonverbal or physical in nature. For example, Mike taps the Target Student sitting in front of him on the shoulder.

7. **Other (O)**: Any positive social behavior initiation that cannot be classified to the categories described above.

8. **Unknown(U)**: Unable to hear initiation or clearly distinguish what happened.

9. **Teacher directed (TD)**: Any of the above categories, but done in the context of a request by the teacher. For example, Teacher asks Mike to provide assistance to Target Student and Mike then does this.

APPENDIX E (continued)

Social Initiation by SWOD Observation Form- Cover Sheet

General Information

Date: _____ Start Time: _____ End Time: _____

School Code: _____ Classroom Code: _____ Observer Initials: _____

Target Students: SWD identifier _____

SWOD identifier _____

Academic or Non-academic (circle)

Subject/Content _____

APPENDIX E (continued)

Behavior Codes:

A - Providing assistance
SA – Providing social amenities
SC – Providing social compliments
NSC – Non-school related conversation
JP – Joins peer engaged in activity
GA – Attempts to gain attention of peer
TD- Teacher Directed
O – Other
U – Unknown

T		**Student Initiator**	**Behavior Code**	**Activity/Context**	**Note**	**Behavior Code**	**Activity/Context**	**Note**	**Behavior Code**	**Activity/Context**	**Note**
	1:00										
	2:00										
	3:00										
	4:00										
	5:00										
	6:00										
	7:00										
	8:00										
	9:00										
	10:00										

APPENDIX E (continued)

Behavior Codes:

A - Providing assistance
SA – Providing social amenities
SC – Providing social compliments
NSC – Non-school related conversation
JP – Joins peer engaged in activity
GA – Attempts to gain attention of peer
TD- Teacher Directed
O – Other
U – Unknown

T		**Student Initiator**	**Behavior Code**	**Activity/Context**	**Note**	**Behavior Code**	**Activity/Context**	**Note**	**Behavior Code**	**Activity/Context**	**Note**
	11:00										
	12:00										
	13:00										
	14:00										
	15:00										
	16:00										
	17:00										
	18:00										
	19:00										
	20:00										

APPENDIX E (continued)

Behavior Codes:

A - Providing assistance
SA – Providing social amenities
SC – Providing social compliments
NSC – Non-school related conversation
JP – Joins peer engaged in activity
GA – Attempts to gain attention of peer
TD- Teacher Directed
O – Other
U – Unknown

T		**Student Initiator**	**Behavior Code**	**Activity/Context**	**Note**	**Behavior Code**	**Activity/Context**	**Note**	**Behavior Code**	**Activity/Context**	**Note**
	21:00										
	22:00										
	23:00										
	24:00										
	25:00										
	26:00										
	27:00										
	28:00										
	29:00										
	30:00										

APPENDIX F

Program Quality Measurement Tool

Lisa S. Cushing and Nitasha M. Clark

Peabody College

Vanderbilt University

Revised: 7/29/04

(articles generated using this tool):

Clark, N. M., Cushing, L. S., & Kennedy, C. H.(2004). An intensive onsite technical assistance model to promote inclusive educational practices for students with severe disabilities. *Research and Practice for Persons with Severe Disabilities.*

Cushing, L. S., Carter, E. W., Clark, N. M., Wallis, T., & Kennedy, C.H. (2008). Evaluating inclusive educational practices for students with severe disabilities using the Program Quality Measurement Tool. *Journal of Special Education.*

APPENDIX F (continued)

Program Quality Measurement Tool
(PQMT)

Purpose of the PQMT

The purpose of the Program Quality Measurement Tool is to assess and evaluate the critical indicators that ensure each student with disabilities receives quality services. Indicators address features of IDEA 1997 (i.e. access to the general education curriculum and minimal segregation from their peers) and are based on research that supports best practice for students with disabilities.

Using the PQMT

The results of the PQMT will provide local education agencies, school buildings and classroom teachers with measured indicators for determining annual goals, evaluating program effectiveness, planning for programs, implementation and maintenance of effective programs.

III. STUDENT

B. Best Practices for Classroom Instruction

1. The material being taught is useful and relevant to the student's daily life. (IEP, direct observation, teacher interview)

1	2	3	4	5
There is no evidence that the material being taught is useful and relevant to the student's daily life.	There is emerging evidence that materials are useful and relevant to the student's daily life.	There is some evidence that materials are useful and relevant to the student's daily life.	Evidence exists that most of the material taught is useful and relevant to the student's daily life.	There is clear evidence that the material taught is useful and relevant across the school day to the student's daily life.

APPENDIX F (continued)

2. Students with and without disabilities have daily opportunities to interact and develop relationships with each other. (Direct observation, teacher interview, IEP)

1	2	3	4	5
Students with and without disabilities are not provided opportunities to interact.	Students with and without disabilities have daily opportunities to interact and develop relationships with each other. But such interactions are either rare or inappropriate. There is no evidence of teachers facilitating relationships.	Opportunities are provided and interactions are evident (but neutral, or high in frequency, short in duration). Facilitation by the teacher is minimal.	Opportunities are provided across the school day, with teacher facilitation and the interactions are positive. There is evidence that several types of social support behaviors and reciprocity exist.	Opportunities are provided to students to interact across the school day (unstructured settings, electives and academics) and teacher and other peers facilitate interactions between peers and students with disabilities. There is clear evidence of social interactions.

3. Students are given opportunities (within and/or among activities) to make choices and further develop choice making and self-determination skills. (Direct observation, teacher interview, IEP)

1	2	3	4	5
There is no evidence of choice making.	Choices are provided during free time and unstructured times.	Choices are provided during unstructured activities, and, on occasions, during academic times.	There is evidence that choices are provided and planned for. Choices are embedded throughout the school day.	Choices are planned for and embedded throughout the school day. Students assume responsibility for their program.

APPENDIX F (continued)

4. The means by which instructional materials are presented to students vary from activity-to- activity and day-to-day (i.e., one to one, small group, large group, cooperative learning, and peer supports). (Direct observation, lesson plans, and teacher interview)

1	2	3	4	5
The same instructional materials, instruction and activities are used day-to-day.	Little variation in the presentation of instructional materials is observed across activities and days.	The presentation of instruction varies across activities but not day-to-day.	The presentation of instruction varies across activities and days. There is evidence of 3 of 6 types of presentation observed.	Instruction is presented in a variety of ways. There is evidence of 5 of 6 types of presentation observed.

5. The materials and content taught to students are based on chronological age and meaningful experiences. (Lesson plans, assessments, IEP, direct observation, and teacher interview)

1	2	3	4	5
Materials and content are not age appropriate and not meaningful.	There is emerging evidence that materials and content are age appropriate (within 2 years of individual's chronological age) and meaningful (based on student input and interests).	There is some evidence that materials and content are age appropriate (within 2 years of individual's chronological age) and meaningful.	There is evidence that most materials and content are age appropriate (within 2 years of individual's chronological age) and meaningful.	There is clear evidence that materials and content are age appropriate (within 2 years of individual's chronological age) and meaningful across the school day.

6. Students are provided with attention from teachers primarily for engaging in appropriate and desirable behavior. (Direct observation)

1	2	3	4	5
Within a 5 min period, teachers provide a higher number of corrections to positive statements.	Within a 5 min period, teachers provide an equal number of positive statements to corrections.	Within a 5 min period, teachers provide twice as many positive statements to corrections.	Within a 5 min period, teachers provide three times as many positive statements to corrections.	Within a 5 min period, teachers provide four or more times as many positive statements to corrections.

APPENDIX F (continued)

7. Each student is able to understand and predict the educational routines (i.e., through the use of visual/tactile calendars or schedules) he or she is being asked to engage. (Direct observation)

1	2	3	4	5
There is no set schedule and no visual calendars or cues.	The schedule is stated verbally.	There is a visual schedule in place, but it is not accessed.	A visual schedule is used sporadically.	A visual schedule is used and embedded within instruction.

8. A variety of group learning strategies are used as a means for students to learn instructional material (i.e., direct instruction, cooperative learning, role playing, peer supports). (Lesson plans, direct observation, IEP, teacher interview)

1	2	3	4	5
Group learning strategies are not used for instruction.	One strategy is predominantly used as a means for students to learn instructional material.	There is evidence of more than one group strategy used as a means for student learning.	Many strategies are used as a means for student learning, but the strategies are not effectively.	Many strategies are used effectively as a means to enhance student learning.

9. Strategies accommodate for individual students' learning styles. (Observation, IEP, lesson plans, teacher interview)

1	2	3	4	5
Accommodations are not based on individual learning styles.	Accommodations made are inconsistent with individual student learning styles.	Evidence exists that some accommodations are made for individual learning styles.	Strategies to accommodate individual students' learning styles are used sporadically.	Strategies to accommodate for individual students' learning styles are implemented regularly.

APPENDIX F (continued)

10. Students receive accommodations and adaptations (technology, peers, and staff) necessary to enable them to be successful in each learning environment. (IEP, lesson plans, direct observation, teacher interview)

1	2	3	4	5
Students with adaptations/ Modifications, identified on their IEP's are not being provided the necessary adaptations.	There is evidence of adaptations and accommodations, but they are not tied to the adaptations identified on the IEP or the adaptations are not being used.	There is evidence that some adaptations and are made in some learning environments.	Adaptations are provided in all learning environments with minimal success.	Adaptations and are provided in all learning environments with success.

11. Multiple settings/people/materials are used for generalization of instruction. (Lesson plan, direct observation, and teacher interview)

1	2	3	4	5
Instruction is taught outside of context.	Instruction takes place in 1 setting /people/material.	The skill is taught across settings but with limited opportunities.	Skill is taught across settings but not across people or materials.	Multiple settings, people and materials used to teach skills.

12. Teachers and peers actively model how students with disabilities should act in order to become more effective learners. (Direct observation, teacher interview)

1	2	3	4	5
Active modeling is not evident.	Modeling by teachers and or peers occurs but it is infrequent and unplanned.	Modeling occurs frequently by teachers and peers but it is unplanned.	Some evidence exists that teachers plan and actively model how students with disabilities should act.	Clear evidence exists that teacher's plan and teachers and peers actively model how students with disabilities should act.

VITA

Alicia J. Wyche
University of Illinois at Chicago
Chicago, IL 60647

ACADEMIC PREPARATION:

University of Illinois at Chicago

Ph.D.	Special Education: Literacy & Language	2007- 2013

National Louis University

M.A.T.	Education – IL Type 03 Elementary Certificate with Middle School Endorsement in Social Science	2003-2004

University of Notre Dame

B.A.	Psychology	1999-2003

PROFESSIONAL EXPERIENCE:

2009- 2013 **Graduate Research Assistant, Early Reading First, University of Illinois at Chicago**
Duties: Collect, analyze, and manage data for three USDOE Early Reading First Projects; develop and provide annual professional development for preschool teachers/assistants from schools in areas related to early literacy assessment administration, scoring, and interpretation, assist in writing sections of the annual report to the federal government; and collaborate with staff to realize project goals.

2009- 2013 **Research Assistant, Department of Psychology & Medicine, University of Chicago**
Duties: Recruit and consent eligible participants for multiple studies. Collect data, develop and manage databases. Assist in preparation of abstracts and manuscripts for presentation and publication.

VITA (continued)

2008-2009 **Elementary School Curriculum & Data Coordinator, Dodge Renaissance Academy, Chicago, IL**
Duties: Train and support classroom teachers in the use of formative assessment data and curriculum tools. Coordinate and manage database systems for various curriculum and academic communication tools for the school.

UNIVERSITY LEVEL TEACHING AND PROFESSIONAL DEVELOPMENT:

2013- Present **Visiting Assistant Professor, North Central College, Naperville, IL**
Dutes: Plan, teach and evaluate undergraduate education students

2011-2012 **Professional Development Facilitator, UIC Early Reading First Project, Chicago IL**
Duties: Plan and facilitate PPVT and PALS Assessment Administration, Data Entry and Interpretation professional development for project teachers, assistants and coaches.

2010 **Co-Instructor, University of Illinois at Chicago**
Duties: Plan, teach, and evaluate graduate SPED 473 students

2010 **Professional Development Facilitator, UIC Early Reading First Project, Chicago, IL**
Duties: Plan and facilitate the PPVT and PALS Assessment Training Workshop for UIC and UIUC staff

2008-2009 **Science Curriculum Project Co-coordinator, Academy for Urban School Leadership (AUSL), Chicago, IL**
Duties: Lead design team in unpacking and aligning state science benchmarks. Identify, recruit and train teachers to pilot curriculum tools and monitor proper implementation. Collect pilot data and supervise the analysis and revision process for design team.

2004-2009 **Elementary and Middle School Teacher, Nicholson & Dodge Renaissance Academy, Chicago, IL**
Duties: Design classroom activities, integrate learning techniques and tools for the education of fifth through eighth grade students in reading and science. Collaborate with other educators, confer with parents, and maintain regular contact regarding students' educational and behavioral progress. Assist administrators in classroom, school, and community settings to address issues of inequality and poverty through initiatives such as extended day, after school enrichment and museum partnerships.

VITA (continued)

DISSERTATION:

Wyche, A.J. Analysis of socializing behaviors of students without disabilities towards their peers with disabilities at the middle school level. University of Illinois at Chicago.
Defense: July 23, 2013

PEER REVIEWED PRESENTATIONS:

Wyche, A. (2010, April). *Family beliefs about collaboration and participation*. Poster session presented at the annual meeting of the Council for Exceptional Children, Nashville, TN.

Koonce, N. and Wyche, A. (2009, April). *Look who's thinking and talking*. Poster session presented at the annual meeting of the Council for Exceptional Children, Seattle, WA.

AWARDS, HONORS AND APPOINTMENTS

2007- 2013	STEP=UP Leadership Scholar, Office of Special Education Programs (OSEP), Preparation of Leadership Personnel Grant, University of Illinois at Chicago
2003-2004	Academy for Urban School Leadership (AUSL) Scholar, AUSL & National Louis University, Chicago, IL • full graduate scholarship and stipend

PROFESSIONAL ORGANIZATION MEMBERSHIPS AND SERVICE:

American Education Research Association
Council for Exceptional Children
- Proposal Reviewer, Teacher Education Division, 2009