

**INCLUDING STUDENTS WITH DEVELOPMENTAL DISABILITIES IN GENERAL
EDUCATION CLASSROOMS: SOCIAL BENEFITS**

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In recent years, the educational systems in North America and elsewhere have undergone significant educational reforms, including a movement toward the inclusion of students with disabilities in regular education classrooms. There is currently an extensive body of research investigating the social effects of inclusion, particularly with regard to students with developmental disabilities. The goal of this review is to summarize the research specifically related to the social benefits of inclusion in elementary school classrooms for both students with and without disabilities. This information should be useful to teachers, administrators, parents, and others who support such students in educational settings.

In recent years, the educational systems in North America and elsewhere have undergone significant educational reforms, including a movement toward the inclusion of students with disabilities in regular education classrooms. Research has indicated there are many positive effects of placement in inclusive versus special classrooms for students with developmental disabilities in particular (Baker, Wang, & Walberg, 1994-95). Recent research has suggested that inclusive classrooms do not hinder the academic achievement of typical students and may have many social and developmental advantages for students both with and without disabilities (Peltier, 1997; Staub & Peck, 1995). In fact, there is an extensive body of research investigating the social effects of inclusion, particularly with regard to students with developmental disabilities.

The goal of this review is to summarize the research specifically related to the social benefits of inclusion in elementary school classrooms for both students with and without disabilities. In a companion review, we examine research related to the educational benefits of inclusion in such classrooms, including studies that have measured both traditional academic outcomes (e.g. literacy, mathematics, etc.) and non-academic skill development in areas such as basic life skills (e.g. communication, motor skills, functional life skills).

Social Benefits of Inclusion

The impetus behind inclusion from an educational and research standpoint (as opposed to a moral or political one) came primarily from early research evidence that contact with typical (i.e., nondisabled) peers is likely to increase the social, communication, and behavioral skills of students with developmental disabilities. For instance, the amount of contact with students without disabilities has been shown to be associated with increases in social skills and reciprocal interactions (Cole & Meyer, 1991), increased achievement of IEP objectives (Brinker & Thorpe, 1984), positive parental expectations and attitudes (Hanline & Halvorsen, 1989), development of friendships and social support networks (Fryxell & Kennedy, 1995), and improved behavioral outcomes (Lee & Odom, 1996) for such students. Brown et al.

(1987, cited in Alper & Ryndak, 1992) reported that increased opportunities to interact with typical peers at school was associated with students spending more of their leisure time outside of the home with their peers after high school graduation. In addition, these graduates had greater success in competitive employment rather than sheltered workshops. As a result of such reports, much of the early research on inclusion sought to examine/confirm the social efficacy of inclusion, rather than its academic efficacy.

In several qualitative studies that investigated parent, teacher, and student beliefs surrounding inclusion, social goals/outcomes were frequently identified as being of central importance. Baumgart, Filler, and Askvig (1991) surveyed teachers, *experts* (i.e. special education teachers and clinicians), and parents regarding the perceived importance of social skills for students with disabilities. Although teachers and experts placed more emphasis on social skills than did parents, all agreed that social skills were important for students with disabilities. Further research has supported these findings. For example, Hamre-Nietupski, Nietupski, and Strathe (1992) conducted a survey of parents of children with developmental disabilities. Those whose children had severe disabilities rated friendship and social skills goals as their top priorities. While parents of students with moderate disabilities rated functional life skills as most important, they also agreed that social skills and friendships were highly valued goals.

In a longitudinal case study of Melinda, a girl with a developmental disability who moved from a special class to an inclusive classroom (Ryndak, Morrison, & Sommerstein, 1999), many of the parents' and the student's comments were related to social outcomes. For instance, when her parents were asked about her overall experiences in inclusive settings, her mother stated *Inclusion allowed her to have the same experiences as [typical peers]...When we let her out, she had contact with nondisabled students and higher expectations* (p. 13). Melinda herself presented at a local conference on inclusion, and, when a moderator asked her, *What was the difference between the special class and the regular class?* she replied, *When I was in a special class, I used to put my head down on the desk. I used to look out the door and watch the kids go by, and now they're my friends* (p. 15). In a letter Melinda wrote to testify on the least restrictive environment debate for the Education Committee of her State's Assembly, she referred to being able to learn from watching *what her friends do*, and being *taught by her friends and teaching them, as well* (p. 17). In her closing statement, she wrote, *Please change the laws to help kids like me be in regular classes with their friends* (p. 17).

The opportunity to interact with and learn from peers without disabilities has been shown to correlate with measures of self-esteem, social skills, positive affective and behavioral outcomes, and academic achievement for students with developmental disabilities (Alper & Ryndak, 1992; Brinker & Thorpe, 1984; Hunt, Alwell, Farron-Davis, & Goetz, 1996; Lee & Odom, 1996). Thus, the social benefits of inclusion, and the opportunities inclusive classrooms provide for these interactions, include not only direct social skills and outcomes (such as pragmatic language development, a sense of belonging, and friendships), but also more indirect outcomes such as happiness, self-concept development, and positive behavioral changes. As a result, some researchers have investigated the rate and type of interactions that occur between students with developmental disabilities and their classmates, teachers, and support staff, in order to measure the outcomes of inclusion. In some such studies, the rate and type of interactions (i.e., social versus task) of students with disabilities with their typical classmates has been found to be statistically correlated with behavioral, communication, social skills, and academic achievement (Brinker & Thorpe, 1984; Hunt, Farron-Davis, Beckstead, Curtis, & Goetz, 1994).

Opportunities for Social Interaction

The claim that inclusive classrooms provide students with developmental disabilities with greater opportunities to interact with peers without disabilities appears to make common sense. However, many self-contained classrooms also provide structured opportunities to interact with peers without disabilities, and also arrange for partial integration into typical activities/classrooms (Helmstetter, Curry, Brennan, & Sampson-Saul, 1998). On the other hand, it is not uncommon to hear of inclusive classrooms in which students with disabilities are segregated physically, instructionally, and socially. In such classrooms,

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students with disabilities may follow different schedules, have a separate physical spaces set aside for them, and work primarily on 1:1 basis with teacher's aides or other resource personnel (Downing, Morrison, &

Berecin-Rascon, 1996; Schnorr, 1990). Thus, some of the early research on inclusion sought to document the extent to which opportunities for students with developmental disabilities to interact with their typical peers are, indeed, influenced by their class placement.

In a Canadian study, researchers compared three programs for students with moderately mental handicaps in this regard (Saint-Laurent, Fournier, & Lessard, 1993). The authors concluded that full integration proved to be advantageous in terms of social behavior. The included students had a significantly greater mean frequency of opportunities to interact with their typical peers. Similarly, Hunt and Farron-Davis (1992) conducted an investigation of individual education plan (IEP) quality and content associated with placement in general education versus special education classrooms. They documented increases in quality for all seven *indicators of best practices* in the IEPs written for inclusive placements, with the indicator *opportunity for interaction with non-disabled peers* reaching significance. Thus, inclusive classrooms in both of these studies were found to provide significantly more opportunities for interaction with typical peers than self-contained classrooms.

Hunt et al. (1994) also evaluated the effects of placement of students with severe disabilities in general education versus special classes. Both types of sites provided for integration with typical students during general school activities (e.g. recess, lunch, assemblies, field trips) and encouraged students with disabilities to participate in both planned and incidental social interaction opportunities. IEP quality, social interactions, educational contexts, and participants' affective demeanor were measured and compared. The results indicated that the fully included students' IEP objectives placed more emphasis on participation with typical peers than did those of their special education classroom counterparts. In addition, students who were full-time members of general education classes were also less often alone and with peers more often than were those in special class programs, a surprising finding given the smaller staff-to-student ratios in the special classrooms. There were no differences in affective demeanor variables between the two groups, but there were significant differences in participants' social skills and interactions; these will be discussed more fully in the next section.

Social Interactions and the Development of Social Skills

The opportunity to interact with students without disabilities does not automatically mean that students with disabilities can or will take advantage of these opportunities. Thus, perhaps of greatest significance in the Hunt et al. (1994) study was the finding that the students with severe disabilities in inclusive classrooms initiated social interactions with others more often than did those in special class programs. Initiations by the included students to others were also more social in nature and less task-related. There were more reciprocal interactions for the included students with all partners (i.e., nondisabled peers and adults) than for students in segregated settings; yet, there were no differences in the level of initiations by others *toward* the target students. Thus, the students in inclusive classrooms were not just responding to a greater degree of social activity, but were in fact internalizing and modeling social interactions more often. This supports the contention that placement in inclusive classrooms is likely to encourage the growth of social and communication skills.

In a follow up study, Hunt et al. (1996) investigated the use of a multi-component intervention designed to promote social relationships and friendships for included students with severe disabilities. The authors concluded that, while the intervention increased the rate of students' overall interactions, it did not substantially change the quality of those interactions (i.e. with whom the interactions occurred, their context, and the type of interactions). Thus, the target students' interactions were still primarily task-related, often involved paraprofessionals, and were not accompanied by increased positive affect. The question of whether changes in the quantity (i.e., rate) of interactions alone is an appropriate goal for students with disabilities is still open to debate, and requires comparative research to determine the nature of typical students' interactions in classroom settings to set a normative pattern.

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In 1992, Evans, Salisbury, Palombaro, Berryman, and Hollowood compared the interaction patterns of eight students with developmental disabilities in inclusive classrooms and eight of their classmates without disabilities. Early in the school year, interactions between peers with and without disabilities were less reciprocal than were interactions between two typical peers. Some typical students tended to interact with

students with disabilities primarily by helping, showing affection, and engaging in *parenting*-type behaviors. Thus, although interactions took place and were of a positive nature, they were neither initiated nor reciprocated by the students with disabilities. However, the social interaction patterns for students with and without disabilities became more similar as the year progressed. It appeared that the students with disabilities developed social skills over time and that this, in turn, allowed them to begin to initiate and reciprocate interactions. Neither measures of social competence nor disability status predicted the students' popularity. Thus, the idea that students with disabilities are automatically at a social disadvantage is called into question by the results of this study. As was the case for the typical students, some of the students with disabilities were popular and others were not, and their degree of popularity appeared to be related to intrinsic personality traits rather than to their disability status or social skills.

Downing et al. (1996) undertook a qualitative study that investigated the benefits of transition from a segregated classroom to an inclusive classroom for three elementary school students with autism. Improved social communication skills were noted for all three students. One student developed verbal skills, while the others were more responsive nonverbally and showed increased rates of interaction with their typical peers. Over the course of the year, all three students also began to interact with their peers at recess, and to respond to directions given by classmates (e.g. directions to line up).

Cole and Meyer (1991) conducted a longitudinal study to determine whether the inclusion-related social skill development documented in the research had lasting effects. Fifty-five participants attended segregated special education schools and 36 attended integrated schools. No differences were detected between the two groups on any demographic or diagnostic criteria at the beginning of the study. Over a 2-year period, significant differences were found for the two groups in the areas of social competence and student-environment interactions. Specifically, students in the integrated sites improved in their ability to manage their behavior in social situations by providing negative feedback to others (e.g. asking to be left alone, refusing assistance, etc.), accepting assistance, indicating personal preferences, coping with negative social circumstances, and terminating social contact. Conversely, students in the segregated sites actually *regressed* in each of these skill domains, perhaps reflecting the development of learned helplessness, or of the growing gap between their skills and chronological ages. In addition, students in the integrated sites spent more time with their classmates and less time alone than did those in the segregated sites, a finding later replicated in the Hunt, Farron-Davis et al. (1994) study.

Social Interactions and Behavioral Outcomes

The opportunity to interact socially with students without disabilities has also been associated with positive behavioral outcomes for students with developmental disabilities (Downing et al., 1996; Lee & Odom, 1996). This may occur because, in inclusive settings, students with disabilities have increased opportunities to imitate socially acceptable, age-appropriate behaviors (Saint-Laurent et al., 1993). In addition, social interactions often occur in contexts (such as those related to play) that provide desirable stimulation and thus act as setting events for fewer inappropriate and more pro-social behaviors. Through modeling, students with developmental disabilities appear to learn behaviors that are essential to successful integration in school and community settings, including: (a) following rules, (b) waiting their turn, and (c) problem-solving in social situations, among others (Alper & Ryndak, 1992). Although opportunities for modeling may also be encountered in segregated settings, they are likely to be contextually different than those found in inclusive settings, and appropriate peer models are not available. This is essential because many students with developmental disabilities have difficulties with generalization of skills across settings (Alper & Ryndak, 1992; Cole & Meyer, 1991). Thus, social skills that are acquired in segregated settings may not generalize readily to integrated home, school, and community settings.

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An example of this phenomenon was reported in the case study by Downing et al. (1996) that was described previously. All three students with autism in this study had extremely challenging behaviors when they were in the segregated classroom, including screaming, biting, throwing things, hitting, kicking, smearing feces, and so forth. Both the frequency and duration of challenging behaviors decreased for all three students when they were transitioned to inclusive classrooms. For two of the students, challenging behaviors had almost ceased by the end of the school year. For the third student, the rate had decreased considerably, although some incidents still occurred. Interestingly, the latter student was the most isolated

of the three in the regular classroom; he was seated separately from the rest of the students, interacted very little with his classmates and general education teacher, and spent most of his time working on a 1:1 basis with his aide on a completely modified curriculum. Given that all three students received the same type of behavioural treatment (i.e., a functional assessment of behavior and related interventions), it is interesting to note that the student who was the least included in the activities and interactions of the classroom also made the least progress.

In 1986, Lord and Hopkins also studied the social interactions of children with autism. Proximity to and the opportunity to play with both same-aged and younger peers increased the social interactions of the participants and decreased their stereotypic behaviors. In a follow-up study specifically designed to explore the relationship between social interactions and stereotypic behaviors, Lee and Odom (1996) observed two students with autism in inclusive elementary school classrooms. An intervention designed to increase the social interactions of typical peers with the target students was implemented. The results indicated an inverse relationship between peer social engagement and stereotypic behavior for both students with autism. The authors hypothesized that increased social engagement created a more stimulating environment for the students and that, when provided with the option, the students with autism chose to engage in social interactions and play rather than engage in stereotypic behavior.

Saint-Laurent et al. (1993), in their study that compared programs for students with moderate mental handicaps, found that students in inclusive classrooms were more attentive and less disruptive than were students in segregated classrooms. The included students also had significantly higher mean scores for responsibility, and were more independent and self-sufficient. The authors concluded that full inclusion proved to be advantageous in terms of social behavior. The regular class *seemed to provide handicapped students with more models of adequate social behavior than would a self-contained classroom in an integrated school* (Saint-Laurent et al., 1993, p. 343).

In the case study discussed earlier of Melinda (Ryndak et al., 1999), significant behavioral changes were also noted, even during the time of partial transition from a self-contained to an inclusive classroom. Prior to her movement to the inclusive classroom, Melinda's parents had become increasingly concerned about her behaviour. As her transition to the inclusive classroom began, dramatic changes in Melinda's behavior were noted almost immediately. In the segregated classroom, she was frequently off-task and refused to do independent seatwork. When asked to do academic tasks, she either avoided doing so by changing the topic or responded with acting-out behaviors such as yelling, pushing materials away, or physically removing herself. In the inclusive classroom, few of these behaviors were apparent. Melinda was consistently on task and attempted to do everything her peers without disabilities did. While some of these new behaviors may have developed due to maturity, Melinda consistently displayed markedly different behavior in the self-contained classroom as compared to the inclusive classroom, even during the transition year when she spent part of her day in each setting. Thus, maturity alone could not account for the changes that were seen in her behavior. It appeared that the modeling of her classmates without disabilities, the increased expectations, and the educational opportunities available in the inclusive classroom affected Melinda's behavior in positive ways.

Happiness behaviors are often considered to be indicators of positive affect and quality of life (Felce & Perry, 1995; Logan, Jacobs, Gast, Murray, Daino, & Skala, 1998). Happiness behaviors may include (but are not limited to): smiling, laughing, eye contact, alertness, and changes in body tone that reflect

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relaxation or anticipation of pleasurable interactions (Felce & Perry, 1995; Logan et al., 1998). In the Ryndak et al. (1999) report, Melinda began to exhibit increased happiness behaviors in the inclusive classroom. She spent less time with her head on her desk and appeared more alert. Her father described her as . . . *having a different attitude. She was happier, friendlier* (p. 18). Similarly, Logan et al. (1998) explored the impact of peer relationships on the perceived happiness of five students with profound developmental disabilities. All five students showed a higher percentage of intervals of happiness behavior during the typical peers condition. These increases ranged from 2 to 8 times more happiness behaviors per student, with the exception of one student who displayed a very high rate of such behaviors to begin with. The data showed that peers with disabilities interacted very little with one another other, while the typical

peers provided high levels of verbal and physical interactions. The authors postulated that there were qualitative differences in the types of interactions provided by typical peers, and that it was the nature of these interactions, not just their rate, that positively affected the happiness of the students with disabilities. However, specific research into the nature of these qualitative differences is required to validate this hypothesis.

Social Interactions and the Development of Friendships

There is ample evidence for the positive effects that result from participation in social relationships and friendships, having a sense of belonging, and participating in social support networks (Fryxell & Kennedy, 1995; Hall, 1994; Williams & Downing, 1998). Social relationships provide companionship and models for communication and behavior, reduce stress through supportive communications or actions, and develop positive self-concepts through feedback and reciprocal interactions. Achieving a sense of belonging is fundamental to children's psychological well-being (Salisbury, Gallucci, Palombaro, & Peck, 1995; Strully & Strully, 1985). Students who do not have a sense of belonging have been shown to be at risk for loneliness, peer rejection, isolation, and powerlessness (Williams & Downing, 1998). The opportunity for students with disabilities to interact and form friendships with students without disabilities is therefore a goal in and of itself, and one that should not be minimized or overlooked (Alper & Ryndak, 1992; Schnorr, 1990).

Inclusive classrooms appear to maximize the opportunity for students with developmental disabilities to meet and form friendships with students without disabilities by increasing the opportunities for them to interact (Alper & Ryndak, 1992), developing their social skills (Evans et al., 1992), making mutually reinforcing events accessible (Haring & Breen, 1992), and arranging for activities that require cooperation (Fryxell & Kennedy, 1995; Janney & Snell, 1996; Strain, Odom, & McConnell, 1984). For example, Fryxell and Kennedy (1995) explored the effects of placement in general education or self-contained classrooms on the social relationships of 18 students with severe disabilities. Results from observations indicated that students placed in general education classrooms had higher levels of social contact with schoolmates without disabilities and engaged in a greater number of activities in more settings. Students with severe disabilities in inclusive classrooms received and provided higher levels of social support and had much larger friendship networks, composed primarily of schoolmates without disabilities, than did their segregated peers.

Cole, Vandercook, and Rynders (1988) conducted a study to investigate the contexts in which students with disabilities developed friendships with students without disabilities. They observed 53 dyads consisting of one student with a developmental disability and one typical student in two programs, a highly structured peer tutoring program and a special friends program. They found that the interactions of the students within the dyads reflected the purposes of the respective programs. For example, in the dyads involved in peer tutoring, the typical student adopted a *helper* attitude and there was little reciprocal interaction. In the dyads involved in the special friends program, however, the two students usually played with and watched each other at nearly equal rates, and both members demonstrated high degrees of positive affect. Thus, inclusive classrooms, by providing students with disabilities the opportunity to interact with students without disabilities in less structured, social settings (such as recess, lunch, etc.) may facilitate reciprocal interactions and opportunities for friendship development.

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Qualitative studies have also provided support for the finding that opportunities to interact with typical peers in social settings promote the development of friendships between students with and without developmental disabilities. This is not to say that teacher interventions, educational contexts, or social and communication skills training will not enhance these opportunities, but rather that these friendships appear to be able to develop even without these external supports. In one such study (Grenot-Scheyer, 1994), researchers observed the social interactions in 20 dyads of elementary-aged students consisting of one student with and one student without a developmental disability. The author found that students with developmental disabilities who had friends did not differ in terms of any of these measures from those who had only acquaintances. The author suggested that inherent personality characteristics such as being *engaging*, rather than disability status, marked the difference between the groups. For that reason, she recommended that opportunities for inclusion and interaction with peers without disabilities should be

made available to all students with severe disabilities, not just those who already demonstrate specific *prerequisite* social skills.

Hall (1994) assessed the social relationships of four students with developmental disabilities in four different elementary school inclusive classrooms. Reciprocal, positive relationships were found between children with developmental disabilities and their classmates without disabilities in all four classrooms. Interestingly, teachers did not use the word *friends* when describing the interactions in interviews; instead, they described helping and empathic behaviors. However, the students without disabilities did identify their peers with disabilities as friends, and described reciprocal relationships in this regard (e.g., *He is a nice friend and he plays with me a lot; He is a good friend; he's kind and one of the best people I like*, p. 310). The students with disabilities were found to range in social status, as did their friends (i.e. some were of high social status/popular, while others were not). Significantly, high social status was not related to either level of disability or expressive language skills. The author concluded that friendships between students with and without developmental disabilities can occur without formal teacher or aide interventions, as none existed in any of the four classrooms observed.

In a follow up study (Hall & McGregor, 2000), the authors used sociometric ratings, direct observations of play behaviors, and a structured interview to explore the friendships and social status of three students with disabilities as they moved from early primary through upper elementary grades. The results indicated that all three students were selected as playmates by typical peers in both early primary and upper grades, although the frequency of their selection decreased somewhat over time. In addition, all three focus children were observed playing in proximity to and interacting with their peers, and their interactions were coded frequently as being reciprocal. When students without disabilities were asked in interviews why they spent time with the students with disabilities, they described them as *nice, friendly, and fun* (p. 120).

In the study of three children with autism discussed earlier (Downing et al., 1996), friendships also developed for all three students within their classrooms. A circle of friends was started for one student, and his mother reported that after a phone call from a peer without disabilities, the target student reported that he (the caller), was *his best friend* (p. 37). At the end of the school year, half of the classmates without disabilities interviewed reported that the student with autism in their classroom had made friends.

Staub, Schwartz, Gallucci, and Peck (1994) conducted a qualitative case study of four friendships between elementary school students with moderate to severe developmental disabilities and classmates without disabilities in inclusive schools. Benefits for the students with developmental disabilities, as reported by their friends, classmates, parents, teachers, and the students themselves, included companionship, appropriate social and behavioral models, and academic assistance. All four friendships developed in social (i.e. non-academic) contexts. This is a significant finding because such relationships are often perceived as uni-dimensional and as placing excessive demands on students without disabilities. However, in this study, the friendships appeared to be genuine social exchanges that were valuable for both

participants. The benefits of such friendships for students without disabilities will be discussed in a later section.

It appears that peer relations are influenced by a number of characteristics beyond those directly associated with disability (Evans et al., 1992; Grenot-Scheyer, 1994; Hall, 1994). Social and cultural experiences of the classmates without disabilities, the personalities of both partners in the friendships, activity preferences, ongoing opportunities to spend time together, and strategies used by teachers to promote positive attitudes and classroom climate may all be mediating factors (Janney & Snell, 1996; Schnorr, 1990). In one of the first studies to explore the attitudes of students without disabilities towards integration, friendship, and what makes someone *belong*, Schnorr (1990) observed a grade one classroom in which a student with a moderate developmental disability, *Peter*, was integrated part time. She found that the grade one students defined *belonging* in terms of their peers' grade assignments, teachers, and participation in the classroom. Friends and relationships were based on *with whom one played*, and often were associated with current classmates only. Thus, students who had been friends the previous year but who were now assigned to different

classrooms were no longer considered friends. Thus, proximity and the opportunity to interact within the classroom appeared to play a role in determining friendships. These factors played a significant role in the students' attitudes toward Peter, because he was rarely in class and thus was not considered by them to be a member of the class: *He comes here in the morning. He's not in our class. He doesn't ever stay...He leaves to go back to his room* (p. 235). They concluded that *where Peter belonged* was where he spent the majority of his time -- namely, in his segregated classroom.

The students in this grade one classroom were also influenced by teacher attitudes. They were aware of *who got hollered at* and who was *good*. Students also noted the activities in which they engaged that Peter did not. They commented that he *just plays* and that he didn't *come during work-time* (p. 237). The students did not see Peter as a friend or as belonging to their class, not because of any personal or disability characteristics, but because he was simply not included in the life of their classroom. He was not there for critical social activities, did not participate in the same tasks/assignments, did not follow the same daily schedule, used different materials and teaching methods, and was taught by different personnel.

In a later study that used focus group interviews of students toward the end of elementary school, Williams and Downing (1998) found similar themes with regard to how *belonging* was defined. The students felt that membership was associated with *having a place* in the class, feeling welcome, and feeling wanted and respected by classmates and teachers. Students who were active, participated in class activities, and tried hard were considered to be members of the class. To be a part of the class, students had to know the routines of the class, some of the members of the class, and the teacher. In general, the students without disabilities considered their classmates with disabilities to be their friends and to be members of the class. One student was discussed as being a member of the class because she *does what everyone else does, basically. She goof's around and is open-minded* (p. 106). Teachers who treated all students equally and had expectations for all were perceived as promoting membership for the students with disabilities. Calling on everyone, having clear behavioral expectations, and providing similar tasks/materials were all seen as facilitating membership for the students with disabilities. The students with disabilities reported that they felt like they were members of the class *because I am in the class everyday and I do the same work...and I answer questions and I guess that means I am part of the class* (p. 103).

In summary, although most of the studies investigating the social benefits of inclusion for students with developmental disabilities have limited external validity due to their small sample sizes, the aggregation of their findings supports the contention that inclusive classrooms provide students with developmental disabilities substantial opportunities for interaction with typical peers. These opportunities for social interactions in turn, appear to result in increased development of social and communication skills, friendships, and support networks; a sense of belonging; and positive behavioral outcomes.

Social Benefits of Inclusion for Typical Students

Inclusive classrooms offer many social benefits for students without disabilities as well. They may have opportunities to learn many new skills, values, and attitudes related to human differences (Alper & Ryndak, 1992; Farrell, 2000; Karagiannis, Stainback, & Stainback, 1996). The concept that all people have strengths and weaknesses, can both teach and learn, and have value may increase students' acceptance of their own abilities and difficulties, and increase their tolerance of diversity. Students may learn how to be friends with people who are different from themselves (Downing et al., 1996; Janzen, Wilgosh, & McDonald, 1995). Effects on students' social skills have been found to include improved attitudes towards peers with disabilities; more sophisticated and improved interpersonal skills in social interactions with a diverse population; and increases in intrapersonal skills such as maturity, self-confidence, and self-esteem (Kishi & Meyer, 1994; Peltier, 1997). One European study found that typical students who were educated in inclusive classrooms were more likely to enter the helping professions (e.g., social work, teaching, medicine) than were those who did not have this type of school experience (Vizziello, Bet, & Sandona, 1994).

In a case study of the four friendships between students with developmental disabilities and a classmate without disabilities (Staub et al., 1994), many individualized benefits were identified for the students

without disabilities. They were said to benefit from companionship and to experience increased social status because they were seen by classmates, teachers, and parents as kind and caring persons. Students who were not leaders within their classrooms benefited from opportunities to be seen as leaders, and by having students with disabilities *look up to them*. Students increased their tolerance/patience and developed better communication/teaching skills, which may have improved their ability to express or explain their ideas. The trusting, caring, and supportive relationships were bi-directional, such that students without disabilities who were shy, quiet individuals appeared to find security in the companionship of their friendships with classmates who were disabled. When asked to describe these friendships, students did not identify them as different from typical friendships. Rather, they talked about the fun they and their friends with disabilities had together, and made statements like *He's cool* (p. 319) and *She's nice, funny* (p. 321). The authors concluded that, if friendship is defined as having three essential components -- enjoying each other's company, being useful to each other, and sharing a common commitment to the good -- then all four relationships met the criteria of *true friends*.

In a longitudinal study that also explored the self-reports of students without disabilities (Kishi & Meyer, 1994), many similar benefits were mentioned. Participants either had had regular social contact with at least one peer with a disability, had occasional exposure to such peers, or had no contact with such peers in elementary school. Results revealed significantly more positive attitudes (including a greater willingness to have persons with disabilities as neighbors, friends, and co-workers), higher levels of current social contact with persons with disabilities, and more support for full community participation as a function of early social contact with peers with disabilities. Significantly, there was a strong effect related to self-concept for the social contact group, such that contact with and exposure to peers with developmental disabilities was associated with higher self-acceptance in boys. In addition, the contact group scored significantly higher in self-security and self-assertion than did the control group. The authors concluded that social interactions with peers with developmental disabilities contributed positively to the self-concept of typical peers by *building upon boys' abilities to be nurturant and providing girls with opportunities to be valued and noticed* (p. 286). Interviews revealed that most students had positive attitudes towards persons with disabilities, saw them as more like them than different, and enjoyed their experiences with social contact.

Conclusion

As education enters the new millennium, the increasing complexity of societal factors such as technological innovations and socio-cultural diversity requires ongoing research to determine the most effective educational contexts and strategies for all students. Evidence continues to mount in support of the positive effects of inclusive education for students both with and without disabilities. Social benefits of

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inclusion for students with developmental disabilities have been found to include the development of improved social and communication skills, friendship networks, and parent and community attitudes. At the same time, typical students have been shown to benefit from opportunities to interact with students with developmental disabilities. Thus, it seems clear from the research to date that inclusive educational practices provide a context within which the social-emotional development of students in elementary school classrooms is likely to be enhanced.

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