The Pros and Cons of Inclusion for Children with Autism Spectrum Disorders:

What Constitutes the Least Restrictive Environment?

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Abstract

In the contemporary educational system, the issue of full inclusion has brought about much discussion and debate. Because the principle of the least restrictive environment (LRE) mandates that students with special needs should have the opportunity to be educated with non-disabled peers to the greatest extent appropriate, the necessary components of inclusion impact all educational circles without exception. In fully inclusive settings, students with disabilities are provided with the services and supports appropriate to their individual needs within the general education classroom. Autism spectrum disorders (ASD) are defined as neurodevelopmental disorders resulting in impairments in communication and social interaction. In order for children with autism to be successful in general education settings, a number of carefully planned interventions must be established. In many instances, the LRE for children with autism is a fully inclusive general education classroom. Because ASD occurs on a continuum and encompasses a wide range of exceptionalities, however, education in a traditional classroom setting may not always be appropriate. In some instances, the LRE is, in fact, the special education class. Ultimately, the decision of whether or not a child will be placed in an inclusive classroom should be made on an individual, case-by-case basis.

Keywords: full inclusion, autism spectrum disorders, special education

The Pros and Cons of Inclusion for Children with Autism Spectrum Disorders:

What Constitutes the Least Restrictive Environment?

In recent years, the issue of inclusive education has been placed on the forefront

of nearly all scholastic circles in the United States. Because of the passing of numerous

federal laws, such as the Americans with Disabilities Act (1990), the Individuals with

Disabilities Education Act (1990), and the No Child Left Behind Act (2001), full

inclusion and its necessary components continue to be of utmost importance to both the

educational and psychological worlds. According to Hardman, Drew, and Egan (2008),

full inclusion occurs when students with disabilities receive the services and supports

appropriate to their individual needs within the general education environment. That

environment is often viewed as the educational approach of choice for individuals with

disabilities. In this model, serving students with disabilities outside of general education

classes is no longer an option (Mastropieri & Scruggs, 2010).

Simply put, an inclusive classroom is described as one hosting both general

education students and students with disabilities. Inclusion provides exceptional children

with the necessary services and supports within the general education classroom.

According to information compiled by Santoli, Sachs, Romey, and McClurg (2008),

pulling students with exceptionalities out of general education classrooms was not

successful; and Freidlander (2009) asserted that inclusion in the general education

classroom has become the placement of choice for many students with autism. Such

classrooms theoretically depict the least restrictive environment; and when teachers,

administrators, and paraprofessionals are provided with enough time, money, and

patience, inclusive classrooms are usually effective for everyone involved. As can be

imagined, however, these conditions may not always be available. When determining

whether or not a student should be placed in an inclusive educational setting, numerous

factors must be considered, and the decision ultimately should be made on an individual

basis.

Summary of Autism Spectrum Disorders

Since its official identification in 1943, the multifaceted disorder of autism has

perplexed families, medical personnel, educators, and psychologists alike. Coined by

Swiss psychiatrist Eugen Bleuler, "autism" comes from the Greek word "autos" meaning

"self" and refers to an extreme social withdrawal signifying an isolated self. Bleuler

studied mental illnesses, specifically schizophrenia; and a number of doctors associated

autism with schizophrenia for many years. In the 1940s, however, researchers in the

United States began to use the term "autism" to describe children with significantly

atypical emotional or social behaviors. Dr. Leo Kanner at Baltimore's Johns Hopkins

University began using "autism" in its modern sense in 1943 to describe and classify the

apparent withdrawn and indifferent behavior of several children he studied. "Extreme

aloofness" and "total indifference" are two phrases Kanner used to describe autism

(Church, 2009, p. 524).

Although the etiology of autism spectrum disorders remains undetermined,

theories have included everything from "cold parenting" and "refrigerator mothers" to

childhood vaccinations to genetic predisposition (Parish, 2008, p. xxiii). Because there is

neither an agreed-upon cause nor cure, Parish (2008) noted that ASD has perplexed and

mystified a number of the most successful and intelligent medical and educational minds

for over half a century. According to Hoffman (2009), ASD can be defined as a

neurodevelopmental disorder "characterized by dysfunction in three core areas of early

childhood development, namely social interaction; communication and language skills;

and behavior" usually evident before the age of three (p. 36). Common characteristics of

individuals with autism include engagement in repetitive or stereotyped behaviors or

movements, restricted interests or obsessions, resistance to change, and abnormal

responses to sensory stimulation (Hardman et al., 2008). Autism affects various aspects

of a child's cognitive and social development, and individuals with ASD often have

atypical ways of thinking, learning, paying attention, and reacting to sensations. Bellini,

Peters, Benner, and Hopf (2007) asserted that people with ASD often found verbal and

nonverbal communication challenging. The integration and processing of outside

information, the development and prolongation of social relationships, and natural

participation in unfamiliar environments often pose difficulty for individuals with ASD.

When planning interventions for children with autism, Mazurik-Charles and Stefanou

(2010) noted that aspects involving impairments in social interaction required the most

attention. Based on this information, children with autism who are educated in fully

inclusive classrooms may require both social interaction interventions and behavioral

interventions in order to effectively learn and relate to their classmates.

     Autism spectrum disorders are part of the larger umbrella concept of Pervasive

Developmental Disorders (PDD). Comprised of Asperger's Syndrome, Rett's Syndrome,

Childhood Disintegrative Disorder, and Pervasive Developmental Disorder – Not

Otherwise Specified (PDD-NOS), Hamilton (2000) noted that the autism spectrum is

incredibly broad: "Unlike other diseases, which can be diagnosed by their physiological

symptoms and medical testing, autism is determined by how closely the child's condition

fits certain criteria" (p. 40). As can be imagined, children classified with ASD vary significantly, and each case is markedly unique. Symptoms, age of onset, areas of need, and treatment options all differ when considering ASD.

According to the Individuals with Disabilities Education Act (IDEA), "Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects educational performance… The term does not apply if a child's educational performance is adversely affected primarily because the child has a serious emotional disturbance (34 C.F.R., Part 300, 300.7 [b] [1]).

The *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)* defines a person with autism as having:

A. A total of six (or more) characteristics from (1), (2), and (3), with at least two characteristics from (1), and one from both (2) and (3):

(1) Qualitative impairment in social interaction, as manifested by at least two of the following:

i. Marked impairment in the use of multiple nonverbal behaviors, such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction.

ii. Failure to develop peer relationships appropriate to developmental level.

iii. A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest).

        iv.   Lack of social or emotional reciprocity.

   (2) Qualitative impairments in communication as manifested by at least one of

the following:

        i.   Delay in, or total lack of, the development of spoken language (not

accompanied by an attempt to compensate through alternative

modes of communication such as gesture or mime).

        ii.   In individuals with adequate speech, marked impairment in the

ability to initiate or sustain a conversation with others.

        iii.   Stereotyped and repetitive use of language or idiosyncratic

language.

        iv.   Lack of varied, spontaneous, make-believe play or social imitative

play appropriate to developmental level.

   (3) Restricted, repetitive, and stereotyped patterns of behavior, interests, and

activities as manifested by at least one of the following:

        i.   Encompassing preoccupation with one or more stereotyped and

restricted patterns of interest that is abnormal either in intensity or

focus.

        ii.   Apparently inflexible adherence to specific, nonfunctional routines

or rituals.

        iii.   Stereotyped and repetitive motor mannerisms (e.g., hand or finger

flapping or twisting, or complex whole-body movements).

B. Delays or abnormal functioning in at least one of the following areas, with

onset prior to age three years:

(1) Social interaction

(2) Language as used in social communication, or

(3) Symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett's Disorder or Childhood

Disintegrative Disorder. (American Psychiatric Association *[DSM-IV-TR]*,

2000, 299.00)

Because ASD is such a subjective and varying disorder, identification is difficult.

Certain characteristics, however, are observed in children which indicate a developmental

delay. According to Church (2009), parents should contact medical personnel for further

testing if a child:

- Does not smile or use other warm, joyful expression by 6 months.

- Does not engage in a back-and-forth sharing of sounds, smiles or other
  facial expressions by age 9 months.

- Does not babble, point or make meaningful gestures (such as waving or
  reaching) by age 1.

- Does not speak 1 word by age 16 months.

- Does not combine 2 words by age 2 years.

- Loses previously gained language or social skills.

- Has poor eye contact.

- Does not seem to understand how to play with toys, is attached to 1
  specific toy or object, excessively lines up toys or other objects or a
  combination of these.

- Seems to be hearing impaired (e.g., a child may not respond to his name

but may instead overreact to small inconsequential sounds). (p. 527)

Benefits of Full Inclusion

As mentioned previously, inclusion has become a major educational and psychological topic of discussion, and it seems as though everyone has a strong opinion on the issue. In the past, individuals with disabilities have, unfortunately, been left on the outskirts of society and subject to numerous injustices such as infanticide, institutionalization, physical abuse, slavery, and forced sterilization (Hardman et al., 2008). Because of the increased attention on inclusive settings, however, students with exceptionalities have recently been given greater opportunities for education in the least restrictive environment. In general, the LRE at the highest level is full inclusion.

Children with special needs greatly benefit from time spent in the general education classroom. According to Ingersoll and Schreibman (2006) and Williams, Johnson, and Sukhodolsky (2005), fully inclusive classrooms are an ideal location for the implementation of social interaction interventions and behavioral interventions because of the availability of peers to interact with in a natural location (as cited in Mazurik-Charles & Stefanou, 2010). General education classrooms are viewed as the least restrictive environment for most students. As previously mentioned, school settings have proven to be effective locations for both behavioral and social skills interventions. Welsh, Park, Widaman, and O'Neil (2001) asserted that the school day was successful when employing interventions for students with special needs because of the numerous occasions to interact socially with peers and classmates (as cited in Bellini et al., 2007). Finally, authenticity is one of the most important aspects in determining the overall

success of an intervention, and inclusive classrooms allow for a great deal of

generalization in authentic situations.

The Least Restrictive Environment

Because autism is a developmental delay adversely affecting academic

performance, the education of students with ASD must be taken into consideration. In

1990, the Individuals with Disabilities Education Act (IDEA) mandated that children

with disabilities would be educated with children who are not disabled to the maximum

extent appropriate (Hardman et al., 2008). In accordance with non-discriminatory

procedures, teachers must adhere to stipulations, such as accommodations and

modifications, listed on individualized education plans (IEP) to ensure the inclusion of

students with disabilities in the general education environment (DeVore & Russell,

2007).

DeVore and Russell (2007) provide valuable information concerning the education

of preschool-aged children identified with special needs. According to these authors,

inclusion should be encouraged whenever appropriate. In order to understand the

transition from self-contained special education programs to full inclusion, DeVore and

Russell (2007) used a qualitative research approach to pose a specific question: "What

actions did an inclusion team take to implement and sustain the successful inclusion of

young children with disabilities ages three and four years old who attend a community-

based preschool program?" (p. 190). The article described interviews, visits, and focus

groups that were conducted in order to study a specific group's progression from the

stereotypical special education program to inclusion. Issues such as family priorities,

definition and delineation of specific roles, and necessary integrated supports and

services were valuable components analyzed during this study. The research was

conducted over a period of two years, and the primary method of investigation was

cooperative inquiry

       This study, as well as others, indicates that every student should be given the

opportunity to learn in an age-appropriate classroom, and social interaction interventions

are useful in helping students with special needs relate naturally to their classmates:

> To the maximum extent appropriate, children with disabilities, including children
>
> in public or private institutions or other care facilities, are educated with children
>
> who are not disabled, and that special classes, separate schooling, or other
>
> removal of children with disabilities from the regular [general] education
>
> environment occurs only when the nature or severity of the disability is such that
>
> education in regular classes with the use of supplementary aids and services
>
> cannot be achieved satisfactorily. (IDEA, 2004, PL 108-446, Sec 614[d])

In simpler terms, children with disabilities should have the opportunity to be educated in

settings that allow the most freedom, and students with special needs should be given the

opportunity to be with their general education peers as much as possible.

Collaboration and Multidisciplinary Education

       For the most part, inclusive education is regarded as the least restrictive

environment for many individuals, and full inclusion is usually effective when handled

correctly. In order for inclusion to be successful, however, there must be total

commitment. One of the main conclusions of DeVore and Russell's study (2007) was the

fact that inclusive education required a great deal of teamwork. When working in a fully

inclusive setting, special education teachers, general education teachers, and other

professionals must purposefully work together for the benefit of the students.

Collaboration is essential, and all educators are expected to share the responsibility for

student achievement and behavior. Hipsky (2011) noted that when working in an

effectively collaborative relationship, individuals were free to seek advice, engage in

valuable conversations, and develop supportive, reciprocal relationships. In order to

effectively work with students with exceptionalities, special education teachers must

collaborate with a number of individuals including other special education teachers,

general education teachers, nurses, social workers, counselors, therapists,

psychologists/psychiatrists, rehabilitation specialists, and transition service providers.

        One of the most important aspects of education is for the instructor to successfully

engage all types of learners in the classroom environment. When considering inclusive

environments, regular and effective collaboration is essential because the overarching and

idealistic principle of inclusion assumes that no single teacher on his or her own has the

expertise required to meet the varying needs of all children in the classroom. In many

ways, teachers do much more than teach. As an educator, it is one's responsibility to

regularly encourage children to do their best, and it is important to constantly profess

one's belief in each individual student. Not only is teacher enthusiasm a powerful

motivator, it seems to be contagious!

Social Interventions

        Once the decision for inclusion has been made, a number of issues must be taken

into account. Unfortunately in the past, full inclusion was occasionally synonymous with

placing an atypically developing student into a classroom full of typically developing

peers without establishing the necessary supports for teachers or students (Harman et al.,

2008). Often when inclusion is unsuccessful, the reason is because proper services have not been developed or enforced. In order for a child with ASD to be successful in an inclusive setting, interventions must be established prior to the student's inclusion. Social interventions, for example, aim to teach students with disabilities about successfully interacting with others in the general education classroom. For many children diagnosed with ASD, social isolation is common to some extent. Whereas non-disabled, typically developing children naturally learn to read gestures and understand facial expressions, Church (2009) found that children with autism had difficulty understanding and interpreting affect in facial expressions and voice. According to Mastropieri and Scruggs (2010), affect is the overall emotional outlook, disposition, and feelings of an individual. Most children naturally learn to determine what others think and feel based on facial expressions and body language, but children with ASD struggle "to perceive and accurately interpret what most of us accomplish without any conscious effort" (Church, 2009, p. 525). Thus, social interventions are necessary.

Behavioral interventions, on the other hand, focus on reducing or eradicating self-stimulating activities, temper tantrums, and self-inflicted injury. It is important to remember that interventions of any kind must be geared towards a specific individual while targeting specific skills. As is the case in many aspects of special education, some interventions are incredibly valuable for certain students while the same intervention may yield no results in other children. A number of effective interventions will be discussed and evaluated below.

Intervention Strategies and Educational Approaches

Because autism spectrum disorders are some of the most prevalent developmental

disorders in the nation, it is important to provide students with autism the appropriate and

effective intervention strategies and educational approaches. There is no cure for autism,

but a number of interventions are used in an attempt to manage the disorder. According

to Exkorn (2006), between the years of 1960 and 1970, treatments for ASD unfortunately

included electric shock, medications such as lysergic acid diethylamide (LSD), and

extremely intense behavior change techniques. As can be imagined, pain and punishment

were heavily relied on. In the 1980s and 1990s, the use of highly controlled learning

environments became the number one plan of action for dealing with the disorder

(Exkorn, 2006). Presently, the most commonly used treatments for autism include

behavior therapy, such as Applied Behavior Analysis (ABA) and Dr. Greenspan's

DIR/Floortime Model, in conjunction with medication and diet changes as needed. No

single treatment is superior, and management procedures must be determined on an

individual, case-by-case basis. Because there is no cure, interventions must be tailored to

a child's specific needs and should be used to increase independence and quality of life

while simultaneously decreasing personal and familial stress.

When a student with autism is placed in a fully inclusive environment, a number

of issues must be taken into account. As mentioned previously, the appropriate supports

for both children and teachers must be established for fully inclusive education to be

effective (Hardman et al., 2008). In some instances, traditional schools have been known

to unintentionally exclude children who learn differently, and unfortunately, inclusive

classrooms are not exempt from this offense. Bellini and colleagues (2007) determined

that although social skills impairments are characteristic of children with autism spectrum

disorders, few students with ASD received sufficient social skills training while in

school. In order for children with autism to be successful in an inclusive setting,

interventions must be established and utilized. Social interaction interventions, for

example, assist children in successfully interacting with their typically developing peers

and classmates: "Because ASD children can be unpredictable, intense in what they do,

and difficult to read, connection is difficult to come by" (Senator, 2008, p. xxi).

Researchers Hwang and Hughes (2000) asserted that social interaction interventions

yielded promise for effectively improving both social skills and communication skills (as

cited in Bellini et al., 2007).

　　　　Full inclusion is made possible by the elimination of hindrances in general

education classrooms, alteration of certain educational methods, and provision of the

necessary supports and services (DeVore & Russell, 2007). Research has demonstrated

that inclusion is often effective for intervention implementation because children with

disabilities were given the opportunity to practice functional skills, such as following

daily routines and appropriately interacting with peers, numerous times a day in authentic

settings.

Applied Behavior Analysis

　　　　Applied Behavior Analysis (ABA) is also referred to as the Lovaas Method,

named for Dr. Ivar Lovaas. This program "focuses on managing a child's learning

opportunities by teaching specific, manageable tasks until mastery in a continued effort to

build upon the mastered skills" (Ryan, Hughes, Katsiyannis, McDaniel, & Sprinkle,

2011, p. 59). When ABA is implemented, a child is taught the specific skills to help him

or her naturally learn from the environment. According to information compiled by the

Lovaas Institute (Lovaas), ABA has resulted in some of the greatest outcomes for

children with ASD. In addition, this systematic and methodical approach is often easily

implemented in self-contained educational settings.

Because it is so heavily structured and more restrictive in nature, ABA could not

be feasibly implemented in a general education classroom, and a major complaint

associated with the Lovaas Model of Applied Behavior Analysis is the strictness and

rigidity associated with the program. Although constantly attempting to keep a child

calm and happy is a nice idea, few parents follow this theory with their typically

developing children: "If my daughter screams because she doesn't want a shot at the

doctor's office, should I stop? If she screams because she wants a toy another child has,

should I get her the toy to stop her from screaming?" (Hamilton, 2000, p. 100). Hard

work is seldom pleasant but always rewarding. According to the mother of a child with

autism, "Those short spurts of 'unhappiness' were nothing compared to the joy I see in

my son's eyes now as he plays, learns, and grows – as he has become more of who he can

be (Hamilton, 2000, p. 100).

Others argue that ABA teaches children to act and speak like robots. Although

this may be true to some extent, priorities and feasibility must be considered. The same

mother argued her decision to use ABA with her son in the following manner:

>   When Ryan was first learning to talk, he did sound like a robot. In order to teach
>
>   him to converse, we had him read his response. When I said, "Hi, Ryan," he
>
>   would look at the table and read, very robotically, "Hi, Mommy." But the way he
>
>   needed to learn language wasn't much different from the way I learned German in

high school. The first weeks of class, the teacher wrote words on the board, and

we repeated them, much like robots. Did I understand all the words and say them

with expression? No way! The process was rote for quite a while. Later, when I

understood more and practiced what I'd learned, the words flowed more naturally.

I could produce sentences and convey my thoughts, but this took time. To Ryan,

English was a foreign language, except he had no primary language to fall back

on. At first, his words were robotic and rote, but now they flow. Now he can say

whatever he needs to and can express *his* thoughts with feeling. (Hamilton, 2000,

p. 98)

Finally, because of its rigidity, some professionals accuse ABA of being too

strenuous for a family. Everyone, including the loved ones of those affected by autism

spectrum disorders, however, must come to the understanding that great successes and

accomplishments seldom occur apart from great sacrifices. Like every other situation

affecting those with exceptionalities, decisions must be made subjectively, on a case-by-

case basis. The majority of families simply want their child to excel and are willing to do

whatever it takes to reach this end. When asked about using the Lovaas Method with her

son, one woman was quoted saying, "The stresses that came with raising our son before

we started ABA were much worse than the stresses from doing ABA. Now that he has

changed so dramatically, the stresses have been reduced even more. ABA is not too hard

on a family, but untreated, or *undertreated*, autism is" (Hamilton, 2000, p. 101).

DIR/Floortime Model

The Developmental, Individual-Difference, Relationship-Based Model

(DIR/Floortime) is an interdisciplinary approach that has become a prominent method for

students with ASD: "Through challenging yet child-friendly play experiences, clinicians,

parents, and educators learn about the strengths and limitations of the child, therefore

gaining the ability to tailor interventions as necessary while strengthening the bond

between the parent and child and fostering social and emotional development of the

child" (Ryan et. al, 2011, p. 59). The overall goal of this approach is the development of

foundational relationships in order to advance a child's skills in both communicating with

and relating to others. Advantages of the DIR/Floortime Model include the fact that it is

easily implemented in the home, and it results in increased levels of social and emotional

functioning and information gathering. While this model may seem to be comprised of

simple play, there is much more involved.

Founded by Dr. Stanley Greenspan, the DIR/Floortime Model focuses on a

child's interests and emotions in order to develop "successively higher levels of social,

emotional, and intellectual capacities" (Greenspan & Wieder, n.d., para. 1). As can be

inferred from the method's title, the playful interactions that comprise this model can take

place on the "floor" and are generally informal and enjoyable. According to Dr.

Greenspan (n.d.), "each child has a unique path to his or her challenges, and therefore

each child's road to improvement must also be unique" (DIR/Floortime Model, 2011,

para. 5). In order for the DIR/Floortime Model to be most effective, lessons must take

the child's individual interests into account. If a particular student loves tractors and

machines, he would likely count and add tractors during math class and read about

steamrollers, cranes, and excavators during Language Arts. As can be inferred, it is

important to simultaneously weave in both personal interests and standards of learning in

order for learning to be successful.

Approaches and interventions similar to the DIR/Floortime Model aim to assist

children with ASD in forming warm and comfortable relationships that eventually lead to

natural interactions. Parents, teachers, and therapists engage the child by meeting them at

their level, following their lead, and encouraging them socially, emotionally, and

intellectually: "Children who learn something in a very structured, rote way tend to give

it back in a very structured, rote way. Children who learn to relate with warmth,

excitement and a sense of humor tend to enjoy relating warmly with excitement and a

sense of humor" (DIR/Floortime Model, 2011, para. 9). The DIR/Floortime Model

considers the child's individual needs and problem areas, and a comprehensive

intervention approach is developed accordingly.

Play Therapy

Play therapy is effective because it allows children the opportunity to interact with

and relate to people, objects, and environments – something with which children with

autism occasionally struggle (Kaduson & Schaefer, 2006). Similar to the DIR/Floortime

Model, the play therapy approach utilizes a specific child's interests in order to formulate

a thorough and individualized intervention strategy: "No single comprehensive definition

of the term *play* has been developed. The most often quoted definition was developed by

Erikson (1950), who stated that 'play is a function of the ego, an attempt to synchronize

the bodily and social processes with the self.' Play is generally thought to be the

antithesis of work; it is fun" (O'Connor, 2000, p. 3).

According to O'Connor (2000), "Play is also defined as (1) intrinsically

motivated, (2) freely chosen, (3) nonliteral, (4) actively engaged in, and (5) pleasurable"

(p. 3). When considering "play" in terms of play therapy, however, having fun is not

necessarily a primary motive but a means to accomplish. Play therapy is effective

because "play is intrinsically complete; it does not depend on external rewards or other

people" (O'Connor, 2000, p. 4). This therapy is usually successful for children with

ASD:

> Play therapy consists of a cluster of treatment modalities that involve the
>
> systematic use of a theoretical model to establish as interpersonal process wherein
>
> trained play therapists use the therapeutic powers of play to help clients prevent or
>
> resolve psychosocial difficulties and achieve optimal growth and development
>
> and the reestablishment of the child's ability to engage in play behavior as it is
>
> classically defined. (O'Connor, 2000, p. 7)

As can be seen in the definition above, the ultimate goal of play therapists, when

working with children with autism, is to "maximize the child's ability to engage in

behavior that is fun, intrinsically complete, person-oriented, variable/flexible,

noninstrumental, and characterized by a natural flow" (O'Connor, 2000, p. 7). Although

this intervention has proven, in some cases, to be very effective for children with autism

spectrum disorders, it does not easily mesh with the equity vs. excellence debate, which

will be discussed later.

Social Stories

Another intervention that has been implemented for students with autism is the

use of social stories. According to Bellini and colleagues, (2007), social skills deficits

were common in individuals with autism spectrum disorders, and Xin and Sutman (2011)

asserted that difficulties in communication often resulted in impaired social interaction.

According to Kokina and Kern (2010), social stories were first used in 1993 in order to

decrease the social difficulties of individuals with autism. Although their effectiveness is still somewhat questionable, social stories successfully provide information about practical concepts and can be easily implemented in general education classrooms.

A sample social story is included below:

Keeping My Hands to Myself

There are a lot of children in my class. Sometimes I get excited when I see my friends moving around. It is okay to be excited. When I am excited, it is good to keep my hands to myself. If I push others, they may get hurt. My friends like it when I keep my hands to myself. That way no one gets hurt and we stay friends. (Mancil et al., 2009)

Because students with ASD frequently struggle with natural, face-to-face interaction, social stories depicting certain social situations have occasionally been a valuable intervention. For children with autism spectrum disorders, difficulties with pragmatics pose problems during conversations and while expressing needs. According to Denning (2007), "Social stories attempt to accurately describe the situation in which a behavior occurred, describe the perspective of those involved, and provide guidelines for what the student should do in the future" (p. 18). Researchers found social stories to be successful because of their ability to offer visual representations of specific solutions for students (Denning, 2007). Individuals with ASD are often very visual learners: "Social stories use children's strengths in visual media to provide instruction – without the complexity of interpersonal interaction" (Scattone, Wilczynski, Edwards, & Rabian, 2002, as cited in Xin & Sutman, 2011, p. 19).

Kokina and Kern (2010) asserted that using social stories as a social intervention strategy was most beneficial in inclusive classes because of its ease of employment and seemingly inconspicuous nature. Research demonstrated that social stories produced significantly higher results when implemented in the general education environment than when used in self-contained settings (Kokina & Kern, 2010).

Social stories researchers Xin and Sutman (2011) asserted that "Each social story is designed to teach children how to mange their own behavior during a given social situation by describing where the activity will take place, when it will occur, what will happen, who is participating, and why the child should participate in a given manner (p. 19). Xin and Sutman (2011) also conclude that because individuals with autism are often characterized by repetitiveness and strict adherence to established routines, social stories may yield positive results in teaching children with autism how to establish common rules to abide by in certain social situations.

Picture Exchange Communication System

According to Flippin, Reszka, and Watson (2010), the Picture Exchange Communication System (PECS) is a common intervention strategy that was developed in 1985 and is often used for non-verbal students with ASD. Ryan and colleagues (2011) state that "PECS is a multitiered program that promotes communication through the exchange of tactile symbols and objects. Such symbols may include photographs, drawings, pictures of objects, or objects that a child is taught to associate with a desirable toy, person, or activity" (p. 61). Communication is invaluable, and Church (2009) found that "the inability to communicate can lead to other early behavioral signs, such as pronounced irritability or extreme passivity" (p. 528). As noted by the American

Psychiatric Association in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)*, difficulty initiating conversation is characteristic of autism spectrum disorders (2000). PECS seeks to improve such initiation and to increase the communication expressive abilities of children with ASD.

> PECS begins by teaching an individual to give a picture of a desired item to a "communicative partner," who immediately honors the exchange as a request. The system goes on to teach discrimination of pictures and how to put them together in sentences. In the more advanced phases, individuals are taught to answer questions and to comment. (Pyramid Educational Consultants, 2011)

The Picture Exchange Communication System has a number of phases, and each successive phase is slightly more complex than the one preceding it. As can be seen, the ultimate and idealistic goal for PECS is that the ability to use symbols as a way of communicating wants or needs will eventually develop into spontaneous communication. Finding the appropriate communication system for individuals who are non-verbal is necessary, and supporting visual communication is essential. According to Sue Rubin (2004), in the documentary *Autism is a World* co-produced by Wurzburg and CNN, Rubin was originally lost in her own world of autism where words simply floated over her head. Only when Rubin's therapist discovered a form of facilitated communication did Rubin obtain the ability to communicate and express herself.
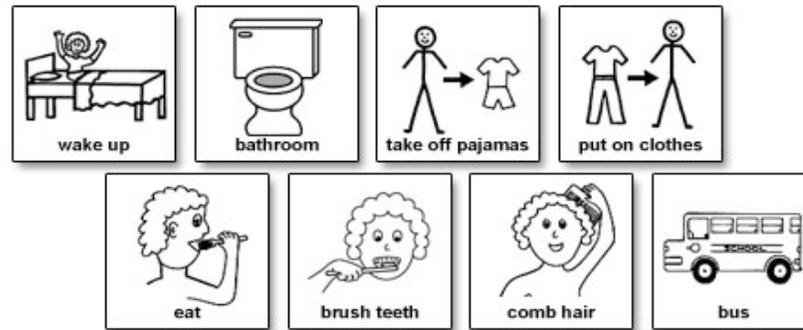
Figure 1. This figure depicts sample images that can be used with the Picture Exchange Communication System (PECS). Retrieved from "Picture Cards," Do2Learn: Supporting Special Needs, 2011.

Reciprocal Imitation Training

As can be imagined, "everyday" activities that seem mindless to typically developing people can seem monumental and nearly impossible for individuals with autism. Instead of observing the worlds of their peers and expressing a curiosity about the activities of others, children with autism sometimes seem to simply fall farther and farther behind. Although learning may seem incredibly difficult for someone with autism who has trouble relating to others, one way to meet this need is through the use of reciprocal imitation training.

Reciprocal imitation training (RIT) is a behavior intervention strategy that attempts to teach imitation to children with autism spectrum disorders (Ingersoll & Lalonde, 2010). In order to successfully develop language skills, imitation is necessary; therefore, Ingersoll and Lalonde (2010) asserted that because children with ASD exhibited impairments in communication such as delayed language development and imitation skills, RIT had been effective. One major benefit of RIT is the fact that imitation skills are taught in familiar environments using naturalistic techniques. Warren, Yoder, Gazdag, and Kim (1999), state that in order to encourage reciprocity, "the therapist contingently imitated the child's verbal and nonverbal behavior, described the

child's actions using simplified language, and expanded the child's utterances" (as cited

in Ingersoll & Lalonde, 2010, p. 1042).

      For example, if a child with autism and his therapist were playing with toy drums,

the therapist would imitate every action done by the child. If the child stopped using his

drumstick and began using his hands, the therapist would immediately stop using her

drumstick and begin using her hands as well. The RIT therapist also constantly explains

what is occurring and expands upon utterances made by the child. Imagine that a child is

playing with a toy car. The therapist would also play with a toy car and narrate what is

happening. For example, "Noah is playing with his car. His car is red. Noah's red car is

moving fast. Look at the red car's wheels spin!" As can be observed, this intervention

strategy can be easily implemented in conjunction with both the DIR/Floortime Model

and play therapy. A major goal of RIT is to encourage reciprocity.

      One particular study conducted by Ingersoll and Schreibman (2006), referenced

by Ingersoll and Lalonde (2010), evaluated the effectiveness of RIT based on five

children with autism spectrum disorders, and research demonstrated that this social

interaction intervention was effective. According to the researchers and authors of the

article, all five of the previously mentioned children improved in their ability to imitate

object interaction because of RIT (Ingersoll & Lalonde, 2010). Although this social

skills strategy did not directly focus on verbal imitation, the children also displayed

advancements in verbal imitation skills over the course of this study: "All children

exhibited generalized improvements in language skills that were maintained after the

intervention was completed on both an observation assessment as well as parent report"

(Ingersoll & Lalonde, 2010, p. 1045). Despite the fact that the participants in this study

received intense object and gesture imitation training on a regular basis, this social

interaction intervention could also be implemented in less structured, more informal

environments.

Visual Schedules and Structured Routines

When working with children with autism spectrum disorders, one should keep

daily schedules as similar as possible because a heavy dependence on familiarity,

sameness, and repetition is characteristic among individuals with ASD. In addition to

requiring strict routines, many children with autism are also reliant on visual cues (Ganz,

2007). In light of these characteristics, Friedlander (2009) concluded that a clearly

delineated visual schedule was often effective when working with students who struggle

with transitions, and incorporating numerous forms of visual representation into the daily

lives of children with autism was effective. For many individuals with ASD, a major

goal is increased independence, and the ability to use a visual schedule allows for a

greater sense of self-sufficiency. Ganz (2007) states that visual schedules allowed

students to observe both the activities that would be taking place that day and the order of

events. Depending on the student, visual schedules can be as simple or as complex as

desired. This intervention provides individuals with autism an additional, concrete form

of visual representation. According to Friedlander (2009), students who were

comfortable using visual schedules often were able to successfully advance towards more

sophisticated day planners or personal organizers later in life.

Interventions such as visual schedules and structured routines are easily

implemented in general education classrooms, and many such strategies even benefit

children without disabilities. A number of elementary-aged, non-disabled children would

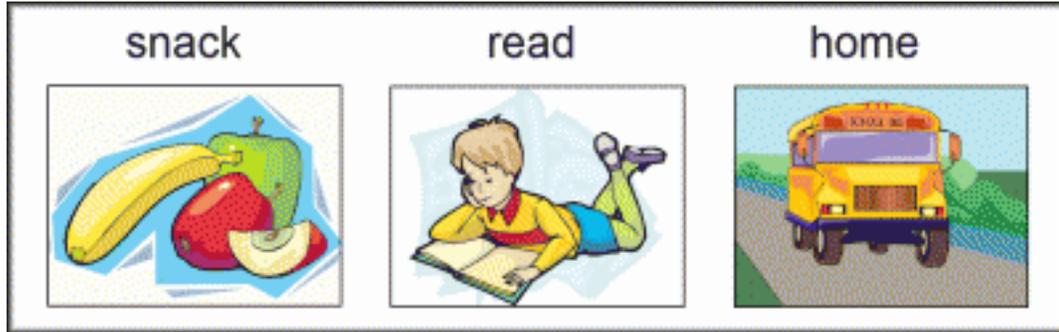enjoy following their own visual schedules and keeping track of the daily agenda.

Figure 2. This image provides an example of a visual schedule that could be used for a child with autism. Retrieved from "Visual Schedules for Use with Autism," 2009, *Healing Thresholds: Connecting Community and Science to Heal Autism*.

Physical Environment Alterations

Even in locations where most people would feel at ease, individuals with ASD occasionally are subject to sensory overload. Friedlander (2009) explains that fluorescent lighting and loud air conditioners or fans can be incredibly irritating or distracting to people with autism. Often, the central nervous system of children with ASD requires constant sensory stimulation; such students may require physical accommodations in order to successfully learn in the general education environment. Students with ASD "may benefit from wearing a weighted vest, having a fidget toy, sitting on an inflated or rice-filled chair cushion, or using an exercise band strung between the front of their chair that they can push with their foot or leg" (Friedlander, 2009, p. 143). According to Temple Grandin, who has provided the world with a great deal of personal information about autism spectrum disorders, sensory overstimulation contributes to the difficulties individuals with autism have in understanding and making sense of situations: "It's like seeing the world though a kaleidoscope and trying to listen to static with constantly changing volume with a nervous system that is often in a state of panic," she explained

(as cited in Neal, 2010, para. 8). Grandin continued by noting that for individuals with

Pervasive Developmental Disorders, reality is not always consistent: "Reality to an

autistic person is a confusing interacting mess of events, people, places, sounds and

sights. There seems to be no clear boundaries, order or meaning to anything. A large

part of my life is spent just trying to work out the pattern behind everything" (as cited in

Neal, 2010, para. 8). Allowing these accommodations can significantly improve the

overall education of students with autism because of the positive influence on both

concentration and conduct. If children with autism are allowed these adjustments to the

physical environment, they will often be more relaxed and better able to successfully

interact with their peers and classmates.

Interventions Conclusion

Unfortunately, when considering the enormous amount time and effort required

for the successful implementation of social interaction and behavioral interventions, some

families become overwhelmed and decide to do without any interventions whatsoever.

The stresses associated with certain strategies seem monumental, but allowing a child to

be educated without the applicable and appropriate interventions is unrealistic:

> Jill, the four-year-old daughter of our friends Dan and Lisa, was diagnosed with
>
> leukemia. Did anyone tell them not to treat it because it would be too hard on the
>
> family? They had to put Jill through spinal taps and all sorts of tests. She had
>
> chemotherapy, which caused her to lose her hair, made her sick, and caused her
>
> body to swell. But they did it because they had a chance to help their daughter.
>
> Of course it stressed their family physically, emotionally, and financially, but
>
> because of her treatment Jill has had no sign of cancer since 1993. Why is it

acceptable to put a child through these treatments for a physical ailment, while a

noninvasive, nonpainful treatment is discouraged for a child with autism because

it's a neurological ailment? Jill was offered a chance at life by enduring the

traumas of chemotherapy. Ryan was offered a chance at life by "enduring" one-

on-one teaching in our home. Ryan was *not* poked with needles. He was *not*

harmed physically. *Yes*, our lifestyles changed, but so did Jill's family's. Both

children were offered hope for recovery, yet only one was encouraged to seek it.

Do you think anyone told Dan and Lisa just to accept Jill for who she was? Why

then, with a chance of recovery, were we told we should just accept Ryan for who

he was? We *do* accept and love him for who he is, but we won't accept the

autism without a fight. It frustrates me that children with autism are expected to

endure their illness instead of working to overcome it or to excel within it….

That's what we want for our son. We want him to excel, and we're willing to do

whatever that takes. (Hamilton, 2000, p. 101)

Most parents of children with autism simply wonder which approach to take. Should

structured behavioral models be implemented or non-stressful, enjoyable methods?

According to this researcher, the answer to any question concerning children with

exceptionalities could be summarized by two words: "It depends." Interventions must be

tailored to meet the unique needs of the child, and "one-size-fits-all" approaches are

rarely successful. Dr. Greenspan (n.d.) advised, "Don't fit the child to the intervention;

fit the intervention to the child" (para. 6). Comprehensive intervention strategies that

address both the "fundamentals" and surface issues should be implemented: "Some

approaches emphasize changing behaviors; others emphasize building relationships;

others emphasize working on academic skills; and others emphasize specific therapies like speech or occupational therapy" (DIR/Floortime, 2011, para. 1). When determining which intervention strategy would be the most effective, it is important to consider primary and secondary problem behaviors, strengths and weaknesses, and responses to sensory stimulation (DIR/Floortime, 2011). Whatever the intervention strategy chosen, families and therapists should always work towards the best interest of the child.

Benefits of Special Education

Although the principle of the least restrictive environment mandates that students with disabilities should have the opportunity to be educated with non-disabled peers to the greatest extent possible, some children are more successful when taught exclusively in a self-contained classroom. Despite the fact that the current trend is shifting more and more towards inclusion, the original "stereotypical" special education program still has merit. Nearly a decade after its official implementation, the concept of full inclusion has not reached its original goal or intention. Because education in the LRE is a federal mandate, however, education in a special, separate classroom should only be implemented if the disability is so severe that learning cannot occur in the general education classroom. As noted earlier, it is impractical and unrealistic to implement approaches such as the Lovaas Model of Applied Behavior Analysis in a fully inclusive classroom. Often, the individual attention and the smaller number of classmates characteristic of a special education program creates a very effective learning environment for children with special needs. Some students with moderate to severe intellectual disabilities may not cope as well in inclusive classrooms and actually prefer being part of self-contained special education programs. Depending on the instructor, the

type of teaching style, and the available supports, students with disabilities occasionally struggle academically in the general education classroom, and frustration is both natural and inevitable if exceptional students are unable to complete the same work as their fellow classmates. When working one-on-one with a special education teacher or with a disabilities specialist, however, children receive an increased amount of individual attention, resulting in a greater potential for academic growth. Simply stated, special education programs allow for much more specialized and intense instruction than may be available in the typical general education classroom.

One family summarized their son's ideas about full inclusion in the following way:

Brian also wasn't sure how he felt about an inclusive placement. He remembered how, in elementary school, he had felt lost most of the time. He felt different and like he didn't really belong. He also remembered being teased when he couldn't keep up with the other kids. He liked his current special education class placement because he didn't feel different and he could help the other kids.

(Coots & Stout, 2007, p. 13)

Regardless of classroom size or makeup, each student should be seen as a valuable, contributing member of a team; therefore, in order for learning to be most effective, each child must feel comfortable with his or her teacher and fellow classmates. As noted by Mastropieri and Scruggs (2010), in addition to fostering equality, full inclusion often diminishes certain stigmas associated with special education.

Occasionally, the primary learning targets that are prioritized in general education classrooms are irrelevant or unrealistic for children with special needs: "For students with

moderate to severe disabilities, the purpose of academic learning may be more functional

and compensatory – to teach skills that have immediate and frequent use in the students

environment." (Hardman et al., 2008, p. 92). In special education classrooms, lessons,

activities, homework, and assessments can be specialized to one individual student.

Hardman and colleagues (2008) also note that students with disabilities who struggle

academically often benefit from classes focused on daily life-skills education such as

career exploration and community integration.

        As can be imagined, special education programs centered around a functional life-

skills based curriculum conflict with the standards-based movement implemented by the

No Child Left Behind Act of 2001. Less inclusive educational placements are beneficial

in that "these instructional settings allow for greater flexibility in terms of access to the

community and for teaching transition related skills, transition planning can focus on

alternatives in the general education classroom" (Kochhar-Bryant & Green, 2009, p.

284). Whether the student's eventual goals include postsecondary education,

competitive, supported, or sheltered employment, or independent living, preparation is

often very successful in specific and specialized education programs.

        In addition, parents of children with disabilities may question the certification of

general education teachers and are skeptical about the instructor's ability to deal with

their children's unique needs. Although instruction concerning differentiated learning

has recently become an important aspect in the training of general education teachers, one

cannot automatically assume that every general education elementary, middle, and high

school teacher will have the skills, knowledge, and experience to work with a child with

unique exceptionalities. One of the main considerations that should be taken into account

when struggling to determine a student's least restrictive environment is the appropriate

placement according to a child's annual goals as stated on the individualized education

plan (IEP). When contemplating full inclusion in light of this stipulation, it often

becomes apparent that long-term benchmarks and goals can be best met in special

education classrooms where there is more freedom to utilize individualization, direct

instruction, intense specialization, and the teaching of explicit skills.

One mother used an analogy to explain her decision for placing her son in a self-

contained special education classroom:

If I want to move to Russia, I can pack right now and be there in a matter of

hours. When I arrive, I have to find transportation, housing, and food. There is a

problem though. I don't speak Russian. I'm a capable person, and I could

probably survive. But what if I wait for a year before going to Russia and in that

time I take Russian courses, learn about the culture and how to fit in socially, and

even meet some Russians while I'm still in America? By the time I move, I'll

adapt more easily and probably enjoy myself more. In a sense we prepared Ryan

for living in a foreign country. He didn't speak the language the other kids did, he

didn't understand the culture, and he didn't know the social rules. He could

survive, but would he thrive? Instead of throwing him into a group setting from

the beginning, we kept him at home and taught him to speak. He learned how to

play and how to interact. At the right time, we brought children to *his*

environment so he could test his new skills. And when he was ready, we sent him

to "Russia," well prepared and eager to have fun. (Hamilton, 2000, p. 99)

As can be seen in this excerpt, this specific child needed to receive special, individualized instruction before inclusion could become a reality. Sometimes this is most effective. One county, for example, implemented a kindergarten-first grade program for children with high functioning autism: "When the school district developed the program, it was decided that after spending a year or two at this school with intensive supports for successful inclusion, the students would be expected to return to their home school" (Coots & Stout, 2007, p. 42). Although being educated alongside typically developing peers may be the eventual goal, a self-contained special education class may be more realistic early on. Ultimately, students are placed in special education programs because they require extra aid or academic support: "Assisting a student through their entire academic career should not be the mission of a special educator or of a child in special education. Instead, special education should function as an avenue for students to learn their strengths, how to use them, and then get back into the general education population" (Getschow, 2011, para. 2). In addition, education in a special education classroom often allows children to do better when they eventually return to general education:

> It is not that they are learning less, or that their material is dumbed down, it is that they are learning alternative, special, ways to accomplish the same goals they would have in any other classroom…. I may have a student in my class for their entire high school career, or I may have them for a single semester, but regardless of how long I teach them I strive to prepare them for life outside of special education. I want them to know that, although their paths may be different from those of their friends, it is no less valuable or worthy of respect. (Getschow, 2011)

Partial Inclusion

Partial inclusion and pull-out programs are often successful. They allow for both the previously mentioned specialized, intense instruction that is not available in the typical general education classroom in addition to some structured time with non-disabled peers. Thus partial inclusion is a viable alternative that seems to be a valuable compromise between segregated special education programs and full inclusion. As can be imagined, pull-out programs including resource rooms allow for flexible alternatives that accommodate various levels of disabilities.

Because of the recent focus on IDEA's mandates for both free and appropriate public education (FAPE) and the least restrictive environment, (LRE) research conducted by Kavale (2002) concluded that pull-out options such as remedial help in a resource room and partial inclusion are often seen as violations of a student's civil rights. This, however, is not the case:

> The LRE requirement has generally been interpreted as general education settings because of the possibilities of affording maximum contact with peers. In fact, the emphasis on LRE as general education may undermine appropriate education because of the difficulties in delivering programs with sufficient frequency or intensity to meet individual needs…. LRE appears to dominate decision-making and greater inclusion is chosen even if it may mean a less effective education. (Kavale, 2002, p. 202)

For many students with ASD, partial inclusion is a positive compromise. Some require both individualized attention and contact with typically developing, same age classmates. One particular student, for example, may excel in mathematics. Because of

his skills in this subject, it is assumed that he would excel when afforded with the opportunity to be with his typically developing peers for all math classes in addition to enrichment subjects such as physical education, chorus, band, and art. This student would return to a self-contained classroom for part of the day, however, in order to receive specialized instruction in the core areas of English, social studies, science, and life skills: "Many services needed by students with disabilities are not usually available in the general education classroom" (Mastropieri & Scruggs, 2010, p. 20), and providing a continuum of such services is necessary.

Recommended Intervention Plans

Given the information and research cited above, this writer created and recommended hypothetical intervention plans that were proposed for a four-year-old boy with a Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS), and an eleven-year-old girl with classic autism.

Ben

Four-year-old Ben is a preschool student who comes from a seemingly loving and stable family. He uses some verbal communication and is relatively independent. Ben enjoys spending time with his family and playing games such as "Hide and Seek." He dislikes aggressive people, puzzles, competitive games, Veggie Tales, and big computerized eyes. In order for Ben to successfully learn in an inclusive preschool class, social interaction interventions will be implemented.

According to information obtained from a form completed by Ben's family and therapists, one of the main goals for Ben is increased socialization. It is important to facilitate friendship between typically developing students and students with special

needs because Chamberlain, Kasari, and Rotherman-Fuller (2007) have noted that when

educated in an inclusive classroom, some individuals with ASD were "less well

accepted" than their typically developing peers and had significantly fewer natural

friendships (as cited in Mazurik-Charles & Stefanou, 2010, p. 162). Based on this

information, improving Ben's social interaction will be the main goal of both school- and

home-based interventions. Lee, Yoo, and Bak (2003) surmised that when interacting

with children with autism in an inclusive environment, general education students usually

assumed the role of helpers or peer tutors instead of friends (as cited in Mazurik-Charles

& Stefanou, 2010). Research has demonstrated, however, that individuals with autism

who were educated in fully inclusive settings were increasingly more involved with their

peers than individuals with autism who were educated in self-contained classrooms

(Mesibov & Shea, 1996). In addition, Howell and Pierson (2010) came to the conclusion

that participation with typically developing, same age peers resulted in a more natural

development of friendships, an increased sense of belonging, and greater self-concept.

Because Ben attends a fully inclusive preschool, interventions are anticipated to be highly

successful.

In order for Ben to learn effectively, distractions must be kept to a minimum.

Based on this information, social interaction interventions will primarily take place in the

late morning when Ben is well rested and has had a snack, and the environment will be

set to facilitate learning. Ben is prone to sensory overstimulation and tends to become

uncooperative when there are distractions such as loud noises, fluorescent lighting, and

excessive amounts of verbiage. During the social interaction interventions, Ben will be

warned before any major interruptions such as fire drills, field trips, or school assemblies. Visual prompts and timers will be used when working with Ben.

Another goal for Ben over the next few months will be increased independence. In order for interventions in this aspect to be successful, meaningful reinforcers given on a regular basis will be important. According to his parents, Ben becomes confused if reinforcers are unclear. As mentioned previously, visual prompts will be another important aspect of interventions. For many children with autism spectrum disorders, visual schedules are valuable because they provide additional visual representation. Because Ben is so young, visual cue cards may be a more effective strategy. When moving from one activity to the next, Ben will transition with the help of visual cue cards. In order for this system to be most effective and to increase the potential for generalization, visual cue cards will be used both at home and at school.

Because Ben's preschool uses developmentally appropriate, play-based learning experiences, the implementation of social interaction interventions should be natural. Reciprocal imitation training (RIT), for example, could be implemented during any center activity or student exploration time at the preschool, and the DIR/Floortime Model will be used regularly. According to his parents, reading and playing with stuffed animals are two of Ben's favorite activities. When Ben is looking at a book or playing with stuffed animals while at school, his teacher or a paraprofessional could naturally implement RIT and play therapy in order to increase object and gesture imitation, inadvertently increase verbal language skills, and allow Ben with the opportunity to both interact with and relate to people, objects, and his environment.

When Ben is feeling frustrated or overly stimulated, he occasionally makes his feelings known by screaming, throwing tantrums, yelling, or biting. If Ben appears to be getting overwhelmed, he will have the opportunity to go to a "cool down" area in the back of the classroom. This area will have a rocking chair and an iPod or CD player with headphones for Ben to use. Rocking and listening to classical music are two ways that Ben calms himself down and regulates his behavior. These accommodations will be made available to Ben whenever necessary.

Through these interventions, it is hoped that Ben's social interaction skills will increase along with his independence. Because of Ben's age and personality, it will be important to remember to keep his interventions fun and not incredibly structured. Social interaction interventions can be just as effective when implemented in natural, enjoyable environments, and the goal is for Ben to feel comfortable and participate in social interactions.

Grace

A hypothetical intervention plan was also developed for an eleven-year-old girl diagnosed with classic autism. Grace's father and mother are divorced, and she spends an equal amount of time with each parent. She attends a public middle school for students in grades six through eight. Because of the severity of her disorder, most of Grace's day is spent in a self-contained class for students with moderate to profound intellectual disabilities, but she is partially included in a few general education sixth grade classes. Grace has always been fascinated with dates; because of her interest in timelines and historical facts, she excels in social studies.

Since Grace's official diagnosis at age two and a half, she has been educated using ABA. She makes echolalic utterances, often using what her parents and therapists refer to as "parrot talk." According to Volkmar, Paul, Klin, and Cohen (2005), echolalia is a common characteristic of individuals with autism spectrum disorders and is defined as the frequent and regular repetition of words and phrases made by others. Because Grace tends to simply repeat words spoken to her instead of providing a response, the majority of Grace's intelligible communication is done through the Picture Exchange Communication System (PECS).

When Grace is bored, frustrated, or overly stimulated, she rocks, screams, and occasionally participates in self-mutilating behavior such as head-banging and arm-biting. She is not affected by loud noises, but she dislikes extremely bright or flickering lights. Before reverting to self-stimulation such as self-inflicted injury, Grace will have the opportunity to wear her weighted vest, sit on an exercise ball instead of a wooden classroom chair, or spend a few minutes looking through her favorite book of important dates. These accommodations will be made available to Grace in both her special education classroom and her general education social studies class in order to help her calm down and regulate her behavior.

According to both Grace's father and mother, the main goals of both school- and home-based interventions will be the continued elimination of self-inflicted injury and increased independence in regards to daily, functional living skills. Grace usually gets dressed when prompted but only if the clothes are already laid out for her. She also seldom helps out with chores around the house. Oftentimes, students with mild exceptionalities are not hindered by their disability but by learned helplessness (Cimera,

2007). Over the course of the next few months, Grace will be taught to pick out her own clothing, wash dishes, and do her own laundry. Skills will be taught in her Daily Living Special Education class and reinforced in both her father and mother's houses.

Because Grace attends a general education social studies class with her typically developing sixth grade peers, specific supports were established for Grace, the general education social studies teacher, and the non-disabled students in the classroom. Students were taught how to communicate with Grace using her Picture Exchange Communication System (PECS) and were encouraged to interact with her as often as possible. Because of these and other carefully planned supports and services Grace's social interaction and behavior interventions are anticipated to be highly successful.

Summary of Social Interaction Interventions

Social interaction interventions for students with ASD should be implemented in the general education classroom as frequently as possible. According to research conducted by Bellini and colleagues (2007), interventions that take place in the child's regular classroom result in increased maintenance, generalization, and overall success. Regardless of which methods of intervention are chosen, it is obvious that early intervention influences effectiveness (Hoffman, 2009). In today's society, education is viewed as a fundamental human right; therefore each student should be given the opportunity to be educated in his or her least restrictive environment. No two children are the same, and it is obvious that not all students learn the same way. In all honesty, the "typical" child does not exist. As noted earlier, the implementation of both behavioral and social interaction interventions may be necessary, but every student should be given the opportunity to learn to the best of his or her ability.

As a future special education teacher, this researcher is a proponent of inclusive classrooms whenever possible. Children with special needs greatly benefit from time spent in the general education classroom. Some students thrive in inclusive settings, and when done properly, inclusion has many benefits. When educated in a fully inclusive setting, children with disabilities have the opportunity to interact socially with non-disabled peers and are provided with the potential for a great deal of valuable sensory stimulation. In addition to the aforementioned benefits, contact with the general education curriculum is much more accessible to students with disabilities when they are part of an inclusive classroom. Instead of being segregated in a self-contained classroom, children in inclusive settings are considered valuable members of the class. Another very important aspect of full inclusion is the fact that differentiated instruction is often utilized in inclusive classrooms and is beneficial for both students with special needs and non-disabled students. According to Hardman and colleagues (2008), differentiated instruction is defined as "a teaching technique in which a variety of instructional approaches within the same curriculum are adapted to individual need and functioning level" (p. 74). Full inclusion is undoubtedly the most natural form of education, and it allows students with disabilities to have peer role models. Finally, inclusive settings encourage assimilation in the community and are successful in preparing individuals with special needs to be more independent post school.

As can be imagined, full inclusion yields a number of positive results in areas besides academics. This form of education is most consistent with a biblical worldview, and students in such educational settings are taught to appreciate diversity. Despite numerous stereotypes and presuppositions about individuals with intellectual disabilities,

people with special needs are no different from their non-disabled peers and deserve the

same respect and appreciation. Ultimately, classrooms devoid of diversity are dull.

When determining the type of setting in which their child should be educated, families

must consider individual values and preferences in addition to the school's ability to meet

the needs of the individual child. In many instances, the actual setting is not as important

as the overall learning environment. Students can be just as successful in special

education classrooms as they can in fully inclusive classrooms and vice versa if the

teachers are competent, the peers are accepting, the parents are viewed as important team

members, and the child's best interests are taken into account.

Equity versus Excellence

As can be imagined, the decision of whether or not a child is placed in an

inclusive classroom directly impacts the educational conflict between scholastic equity

and academic excellence. Because of the increased attention on inclusive settings,

students with exceptionalities have recently been afforded with numerous opportunities

for education in the least restrictive environment, and autism is no exception.

When studying the field of education, many wonder if the concepts of equity and

excellence are in opposition. Each is a key term in both school reform literature and

special education jargon, and since the passage of critical education laws such as IDEA

and NCLB, equity and excellence have come to be of great importance. The unfortunate

dichotomy between equity and excellence has no simple solution, and it is not a new

concept. For decades, the focus of American education could be compared to a swinging

pendulum, constantly weighing out and attempting to balance the priorities associated

with both scholastic equity and academic excellence.

Equity

Although expecting everyone to succeed academically is a lofty goal, it may be somewhat unrealistic in regard to students in special education. One of the major catch phrases in educational circles is "closing the achievement gap." As can be seen from this statement, historically, the needs of students with exceptionalities have gone unnoticed or ignored due to the overriding goal of excellence. This was altered by Public Law 94-142, which eventually transitioned to the well-known IDEA. Because of significant concepts such as free and appropriate public education (FAPE), scholastic equity is now considered to be of great importance.

However, equity in an idealistic sense is not always feasible, nor is it effective. In some instances, students with special needs require individualized attention in conjunction with a significantly modified curriculum. Although special education classes should attempt to teach aligned standards so that students are continuing to learn similar content, it is this researcher's opinion that complete sameness in regard to special education subject matter and assessment is unrealistic. Clearly, students with autism are directly impacted by the concept of equity. When observing a general education elementary school classroom, it quickly becomes obvious that not every student learns the same way, and although idealistic, it is impractical to assume that "sameness" can be implemented when dealing with students with special needs.

Excellence

Academic excellence has long been a goal in the field of education. After President Reagan gave his landmark report entitled "A Nation at Risk: The Imperative for Educational Reform" in 1983, a number of local, state, and federal scholastic reforms

were enacted. Historically, educational underachievement was commonplace, but

according to NCLB, a one hundred percent proficiency target is in place and anticipated

for the year 2014. Although the intention of the No Child Left Behind Act was overall

improvement in regard to education, the current trend of using a common curriculum as

set by the standards-based movement has resulted in an unfortunate sacrifice of scholastic

excellence. Many parents and teachers argue that the current educational system

inadvertently neglects the most talented and promising children by concentrating

specifically on "underachievers." Average students receive much of the focus, and

teachers seldom "pay attention to the brightest students" (Robbins, 2007, p. 6). Because

of both NCLB and the movement towards full inclusion, education in a broad sense has

been somewhat homogenized. Others view NCLB and IDEA as contradictory (Coots &

Stout, 2007).

NCLB, in accordance with IDEA, has resulted in the expectation for improved

student achievement. Thus, accountability and teacher collaboration is essential. It is

assumed that multidisciplinary cooperation results in better education for all individuals

involved.

As can be imagined, a number of educators take issue with the results of the

ongoing standards-based movement. Teachers are seen as both instructors and

facilitators of learning, and as such, it is a teacher's responsibility to encourage students

to reach their highest potential. After studying the current educational system, however,

one may wonder if educators effectively utilize the various learning preferences of their

students or if they succumb to the pressure of simply "teaching to the test." Have

educators sacrificed truly representative evaluations and settled for paper and pencil

examinations that assess only the most basic dimension of knowledge? (Robbins, 2007).

When dealing specifically with students with ASD, the lofty goal of academic excellence

often takes second place to behavior modification and the teaching of functional, daily

living skills.

The Unnecessary Dichotomy

Contrary to popular belief, the concepts of academic equity and scholastic

excellence need not be mutually exclusive. As many educators would attest, "fair" is not

synonymous with "equal," and "equal" is not synonymous with "same." Imagine, for

example, that a blind student with above-average intelligence enrolls in a high school

English literature class. On the first day of classes, the student is presented with all of the

reading materials for the entire semester, but none of it is written in Braille. Although the

student received the books that are "equal" to those belonging to the rest of the class, the

situation is not fair, and the student can hardly be expected to succeed.

The same is true for students with autism. Accommodations and modifications

are necessary, and although equity is incredibly important, it must be viewed through the

lens of "fairness." Students should not be viewed from the behaviorist perspective of

passive agents waiting for the environment to act on them. On the contrary, they must be

taught to be reflective, critical thinkers and interactive learners. All children should be

encouraged to be the best that they can be ("excellence") and educated and assessed

according to their individual learning styles and modalities ("equity"). To put it simply,

Robbins (2007) in her article published in the *Peabody Reflector* noted, "Giving everyone

the same thing is inequitable… excellence versus equity is a false dichotomy. Can you

have excellence without equity? And what's equity without excellence?" (p. 5). Because

autism is a mysterious and perplexing disorder, it adds another aspect to the difficult

relationship between equity and excellence.

Current Perceptions of Autism Spectrum Disorders

Thankfully, public perceptions of ASD have been altered significantly in recent

years. Although still a surprise to most parents, it is no longer considered a hopeless

diagnosis. Some children with autism live "every day with more authentic joy than most

of us" (Parish, 2008, p. xxiv). One significant change in the way that exceptionalities are

viewed by culture can be seen in the shift towards person-first language. Instead of

saying "the autistic man" or "the developmentally disabled child," it is more appropriate

to say "the man with autism" or "the child with a developmental disability." Having

autism does not define a person, it simply is a characteristic that contributes to who he or

she is as a whole.

Within the autism community, however, there are differing opinions about

whether autism is a part of who someone is or if it is a characteristic that he or she has.

Dr. Temple Grandin is a famous individual with autism who never separates her

diagnosis from her personality. According to Grandin, "If I could snap my fingers and be

non-autistic, I would not. Autism is part of who I am.' (Hamilton, 2000, p. 55). Author

Donna Williams is another successful individual who has been classified as having an

autism spectrum disorder. In the book entitled *Facing Autism*, she was quoted saying,

"Autism is not me. Autism is just an information-processing problem that controls who I

appear to be. Autism tries to stop me from being free to be myself. I CAN FIGHT

AUTISM… I WILL CONTROL IT… IT WILL NOT CONTROL ME [emphasis hers]"

(Hamilton, 2000, p. 55).

Conclusion

Some individuals tend to view disabilities from a medical perspective. Hearing

that a child has been diagnosed with autism or some other developmental delay often

evokes shock, denial, grief, and even anger. It is important to remember, however, that

exceptionalities are not illnesses, but part of the spectrum of human existence. When

dealing with autism, it is necessary to first gather all the pieces of information that

comprise the individual as a whole. Parish (2008) advised, "Find the connecting thread

that can link the strength, skill or gift to areas of employment, leisure, or basic

community living" (p. 133). Although it is human nature to compartmentalize and

classify characteristics of a person, it is important to view the person as a whole,

excluding neither positive attributes nor difficulties and limitations. In order to be most

effective, family members and educators must have goals based on disability approaches

and educational training, but they must also be willing to give up expectations in lieu of

getting to know the child beyond the diagnosis. As can be imagined, speaking from an

empowerment stance, noting the shift of focus from risk to resilience, is vital.

Educators of students with special needs, regardless of age groups or content area,

should focus on both self-advocacy and personalized transition planning in order to

develop specific, person-centered visions for the future: "When considering developing

educational programs for students with disabilities, one often thinks first of the annual

goals and short-term objectives that are included in the individualized education program

(IEP). It is important, though, to connect the short-term goals and dreams (the 'now') to

long-term goals and dreams (the 'future')" (Meadan, Sheldon, Appel, & DeGrazia, 2010,

p. 8). This researcher holds to the position that every student has the potential to be

successful if afforded with the right opportunities. Regardless of whether a student with

exceptionalities is educated in a fully inclusive or a self-contained classroom, the ultimate

goal is to give the student the tools needed to be successful in life in the future.

Ultimately, the best educators are effective problem solvers who are willing to be both

creative and innovative.

In an inclusive class and in the world of education, the adult standing at the front

of the room is not the only one who can provide lessons. Ideally, teachers and students

try to create a successful learning community where on all occasions, everyone learns and

everyone teaches.

As has been noted numerous times throughout this piece, everything must be

tailored to each individual child, and lasting connections must be made. In the book

entitled, *Embracing Autism: Connecting and Communicating with Children in the Autism*

Spectrum, Educator Kristin Kaifas-Tennyson (2008) clearly summarizes this point:

> Whenever people ask what I do for a living and I tell them I work in the special
>
> education field, their typical response is something along the lines of, "Wow!
>
> You must have a lot of patience… Working with children in the autism spectrum
>
> has very little to do with summoning magical super powers or even patience.
>
> Don't misunderstand: patience is an important characteristic for an educator to
>
> possess. But it's simply a very small piece of the ultimate puzzle. My decade-
>
> plus of experience, both in the classroom and from my current administrative
>
> vantage point, has shown me that gifted teachers make connections with their
>
> students – all of their students. Even those who are nonverbal, avoid eye contact,
>
> are physically aggressive or disrespectful – the list goes on and on. These

extraordinary teachers break through all barriers (sometimes in spurts) and form

trusting relationships with each and every child. They enable a child to feel

confident enough to express himself without fear of rejection. They find ways to

help the child explore who he is and who he is capable of becoming within a safe,

encouraging atmosphere. They are able to see each child as a unique individual

who deserves the opportunity to convey his true self in a nonjudgmental

environment. They allow the child to be their teacher, allowing continuous

growth and development. All of this can be done by simply making a connection

with a child. (Parish, 2008, p. 32)

In conclusion, this researcher holds to the idea that despite the educational placement

chosen and the intervention strategies utilized, keeping the needs of the child foremost is

of greatest importance. Full inclusion should be used as often and in as many situations

as possible, but it should not be forced at the expense of the child. Never should

happiness or appropriateness be sacrificed under the guise of "normality." As has been

noted, one child may thrive when educated according to the DIR/Floortime Model and

another student could make significant improvements because of ABA. Regardless of

the classroom setting in which strategies are employed or the type and number of

interventions used, it is the teacher's responsibility (along with the child's parents, other

educators, therapists, and medical personnel) to delve into the different realms of

previously referenced possibilities and seek potential options that would positively

influence the child with autism. Together, this team must attempt to determine not only

what will expand the child's world to the fullest potential and make him or her a viable

part of the community, but also what will allow the child the opportunity to experience a

whole and joyful life.

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