Positive and Negative Effects of Inclusive Education on Social Development for Students with Autism Spectrum Disorder: A Literature Review

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Emily Coelho

Kristina Scott
Faculty Advisor
Department of Education

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Abstract

This research reviewed available literature on the positive and negative effects of educational inclusion on social development for students with Autism Spectrum Disorder (ASD). Autism Spectrum Disorder is a spectrum of disorders characterized by deficits in social skills and nonverbal behaviors. With the prevalence of ASD steadily increasing, students with ASD are more frequently being placed in inclusive education classrooms among their peers without ASD. Research studies conveyed that positive inclusion harbors social inclusion, trained educators and cooperation from peers who are non-disabled. Other studies conveyed that inclusion can be detrimental to a student with ASD's social development and success. Results of this literature review suggests that there are several supports required within an inclusive education environment in order for social developmental progress to be made for students with ASD.

Key Terms: Autism Spectrum Disorder, Educational Inclusion, Social Development

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Introduction

According to the National Center for Education Statistics (2015), 6.7 million students or 14% of the total public school enrollment was made up of students who required special education. Since the year 2000, these numbers have fluctuated but have ultimately been increasing. According to the U.S. Department of Education, Office of Special Education Programs, and Individuals with Disabilities Education Act (IDEA) database, more than 50% of those 6.7 million students spend 80% or more of their school-time in a general education classroom (2017). Some of the disabilities served under this act are the following: Specific Learning Disability, Autism Spectrum Disorder, Emotional Disturbance, Intellectual Disabilities, Hearing Impairment and several others. This research will focus on is Autism Spectrum Disorder (ASD) (2017).

Roughly nine percent of the 6.7 million students identified as qualifying for special education were diagnosed with ASD. According to the Center for Disease Control (2018), as of 2018, the prevalence of ASD was at 1 in every 59 children in the United States. Tracking the prevalence of ASD can be difficult due to changing diagnostic criteria as well as undiagnosed cases. But, this previously stated prevalence estimation is supported by the Autism and Developmental Disabilities Monitoring (ADDM) Network (2014).

According to Autism Speaks (2019), an organization that teaches and supports development within the ASD community, autism is characterized by deficits in social skills, and repetitive and restrictive behaviors. The autism spectrum is wide and consists of several variables which effect people with autism including the severity of the disorder as well as the challenges that vary between cases. Autism Speaks defines autism under the following characteristics listed in the Diagnostic and Statistical Manual V (2013):

"A) Persistent deficits in social communication and social interaction across multiple contexts…B) Restricted, repetitive patterns of behavior, interests, or activities…C) Symptoms must be present in the early developmental period…D) Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning…E) These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay."

A student with this disability may require accommodations and/or modifications to their education. This specialized education should take place in an ideal academic situation that benefits the individual child the most. The Individuals with Disabilities Education Act (2004) is a law that provides eligible students with a disability the right to a free, appropriate, public education. This law was passed to create a secure education for these children and to protect their rights to an education and provide them with all necessary learning materials. A child with autism, under the IDEA, has access to any accommodations and/or interventions and/or strategies that are necessary for them to progress within their school. Such implementations can include: schedules, visual aids, weighted vests and other items that provide modifications educationally, cognitively or emotionally. Under the IDEA, the educational growth of these students is a top priority and therefore each individual deserves to be given this equal chance to a free, appropriate, public education.

Under the IDEA, students with disabilities also have the right to be educated in the least restrictive learning environment. The least restrictive environment is considered one in which the student is educated with non-disabled peers, and one in which the student would only be removed if their services that allow for effective progress in the curriculum cannot be achieved properly. Inclusion is the concept that students who require special education will be integrated into the same learning environment as peers who do not require special education (Kids Together INC, 2009). Grouping these students in the general education

environment can promote academic growth in students with disabilities, as well as in students who are not disabled.

Within an inclusive education setting, social skills are often not directly taught to the children but they are developed through interactions with other students. For a student with ASD, these social interactions may need more direction and support. There are several different professionals that may work in the inclusive classroom in order to work with students with ASD to promote social development. Some of these professionals include: special education teachers, speech pathologists, behavioral therapists and school psychologists (Autism Speaks, 2019).

There are several researched benefits of inclusion for students with disabilities. Noted by the Kids Together INC nonprofit (2009), some of these benefits include the following: higher expectations of the students from educators, enhanced skill acquisition, increased integration, increased access to the general curriculum and increased access to more interaction and collaboration with same age peers. Fortunately, these benefits not only help the students with disabilities in a general education classroom, but they also benefit the students without disabilities (Kids Together INC nonprofit, 2009). Being in class with students who have disabilities facilitates working together and helping one another. Not only does this boost social interaction, it also increases the opportunity to respect others and accept diversity. When inclusion is done correctly, with the necessary support(s), many benefits can be enjoyed by everyone involved (Kids Together INC nonprofit, 2009).

It is crucial that "faculty members understand what meaningful inclusion entails and accept that students with ASD and other developmental disabilities belong in the school community" (Godek, 2008, para. 22). Educators, psychologists and other professionals who

work with such individuals have been developing methods to include children with autism spectrum disorder into mainstream education. Past research has shown that inclusion has several benefits of providing an effective education for a child who requires special education including the opportunity to advance in subject areas where they had lacked abilities before (Karsten, Peetsma, Roeleveld, & Vergeer, 2001). These results, however, will only be apparent if the inclusion environment can provide the needed accommodations and strategies for children with ASD. Students with ASD need specialized education plans which will meet their academic, social and communication needs within the least restrictive environment (Godek, 2008). If the general education setting can provide this unique education for a student with ASD, many academic, social and communication skills can develop as a result.

While students with ASD may require differentiation, it is important to study how these accommodations or modifications are affecting their development within an inclusive environment (Karsten, Peetsma, Roeleveld, & Vergeer, 2001). Students with ASD may also need access to additional services, "including applied behavioral analysis, or ABA, treatments, speech and language therapy, occupational therapy and instruction to improve social interaction, communication and development of academic and functional skills" which are all interventions in which the professionals educating these children need to be knowledgeable of (Godek, 2008, para. 5). The specific accommodations and modifications required by individual students often require the educator to provide extra help and services. Research supports that proper management and training for educators of students with autism can greatly increase the probability that these children will succeed (Cammuso, 2011).

Sometimes, due to many accommodations and modifications that are necessary for an individual child who receives special education, inclusion may not be ideal.

The purpose of this research is to study the effect that inclusion in the classroom has on social development for students with ASD in the pre-K and elementary years. This will be done through the analysis of published research on this topic. This literature review will examine research to determine how inclusion affects several aspects of a child with ASD's education based on social integration and development. These studies will be analyzed in order to interpret and evaluate the success of inclusive programming, as well as the interventions involved. By researching the social aspect of education for a student with ASD, and comparing the pros and cons, a conclusion will be reached deciding whether or not the inclusion of children with ASD in the mainstream classroom successfully promotes and/or enhances social development. For each individual case, the academic experience will be different based on the manifestations of each individual's ASD, preference of learning style and personality. Yet, this study will be reviewing the average responses, reactions and success rates of inclusion for social purposes.

The purpose of this study is to understand the effect that inclusion of students with ASD has on factors that contribute to their social development within the inclusive education environment. By reviewing and applying available studies that have previously researched this topic, a better understanding of inclusive education's effect on social development in students with ASD will be readily available. The significance of this study is to determine if inclusion is a feasible method of education for social growth in children with ASD who require specialized education programs.

Methodology

All of the articles reviewed in this research are peer-reviewed, scholarly, and publically available literature about inclusion for children with ASD. The criterion for articles included: a publication date between 2000-2018, peer-review, and each study had to take place in the United States. Several methodologies were accepted and reviewed within this criterion, including case studies as well as group experiments. Only studies that include children in pre-k through elementary school with ASD in public schooling settings and were clearly measuring social development or progress were included. The research design mostly reviewed in this research is an AB design where a baseline is assessed, and an intervention in implemented.

Results

Social skills are those that help guide interactions with others and make individuals a part of a social community (Autism Speaks, 2019). Social skills develop through social interaction and through the reinforcement of positive social experiences. School age children generally find common interests with peers in the classroom and initiate a social interaction about this shared interest (Autism Speaks, 2019). According to Autism Speaks (2019), these interactions build up the skills, eventually creating a social map that guides future interactions. For children with autism, the development of social skills may not be as easily facilitated as it is for children without autism who gather these skills through everyday communication (Autism Speaks, 2019). In inclusion classroom settings, it is important that students with autism are reaching social developmental milestones as well as progressing in social interactions. Several studies have conveyed how crucial social inclusion and social interaction are for students with ASD in developing their social skills (Boutot et al., 2005; Mazurik-Charles et al., 2010; Barton et al., 2011).

Success in Areas of Social Development for Students with ASD in an Inclusive

Classroom

It was observed by Boutot and Bryant (2005) that students with ASD in elementary

school inclusive classrooms scored as high in social preference, social impact and social

network affiliation as their peers without ASD. These results conveyed that there was not

much of a difference, socially between individuals with and without ASD in terms of social

networks, in this sample. Students with ASD were just as likely to have friends, to be picked

for activities, such as peer-work, and be a part of a group as students without ASD in the

same classroom (Boutot et al., 2005). It would be assumed, due to the nature of low

communication skills associated with ASD, that these students would not have the same

social success as students without ASD. Yet, in a setting where both of these groups of

students work together to build social skills, it was observed that their social abilities were

similar (Boutot et al., 2005).

Through the use of social interventions, such as social skills training by a

paraprofessional, students with autism can greatly improve their social skills as well as

appropriately reciprocate responses in social situations (Mazurik-Charles & Stefanou, 2010).

Mazurik-Charles and Stefanou implemented social skills training by a paraprofessional for

specific students with ASD within an elementary school general education classroom in order

to improve their ability to recognize emotions, deal with emotions appropriately, maintain

physical distance and remain courteous of others speaking (Mazurik-Charles et al., 2010).

Their research included a social skills training program between the paraprofessional and the

student with ASD, then an observation period in which the program was being implemented

in the general education classroom.

Visual cues in this research were shown to be an effective tool in aiding the student with ASD in developing their social skills (Mazurik-Charles et al., 2010). While the students with ASD mix with their peers without ASD, these visual cues are a good way of prompting the student without making any interruption in the classroom. Positive gains were found concerning the potential of social development for students with ASD when using this method, conveying that paraprofessionals who are trained properly in teaching social skills can greatly help children with ASD learn social skills as well as intervene when the child needs assistance (Mazurik-Charles et al., 2010). This ensures that there is hope for social development for students with ASD in a general education classroom with properly trained specialists.

In situations where a student with ASD is expected to socialize and follow social cues, research supports that the student may find this challenging due to the task of listening to peers/teachers, speaking to others and generally being near people (Barton, Reichow, Wolery, & Chen, 2001). In a case study done by Barton (2011), a four and a half year old in an inclusive day center with no special educators, paraprofessionals or specialists saw circle-time in the classroom as an opportunity to escape the classroom. With the social delays associated with ASD, it is expected that this child would have a harder time adapting to these social situations than her peers without ASD. Students with autism "…require individualized adaptations to daily routines and activities." (Barton et al., 2011, p. 5) This is needed during social times in the classroom, such as circle time, where this student had several social expectations she was expected to adhere to.

A Checklist of Priority and Concern for this four year old suggested that circle time would be the proper time to develop these social skills (Barton et al., 2011). The progress she

made with social interactions during a social development intervention course involving her teachers and peers spoke to the effectiveness of this training. The greatest improvement in this case study was the student's diminished attempts to escape circle time, and therefore remain more engaged in the socialization process at circle time (Barton et al., 2011).

Times of teacher and peer-initiated social interaction in the general education classroom can be positive for students with ASD "…when individual needs and strengths are considered." (Barton et al., 2011, p.18). By catering to individual students with ASD and considering their different strengths and deficits, educators are better able to develop the specific social skills that may be lacking (Barton et al., 2011). This research by Barton conveyed how impactful an inclusive education environment is in developing the social skills of students with ASD.

Promoting Socialization to Facilitate Social Development for Students with ASD

As researched by McConnell (2002), environmental modifications made to the inclusive environment may promote students with ASD's ability to facilitate conversations with their peers. Environmental modifications refer to any change to the physical or social environment, including several types of interventions used with students with ASD (McConnell, 2002). Such interventions include: developing visual social scripts that the student can keep with them, posting clearly stated rules that can shape the students social behaviors, and assigning work in small groups to facilitate socialization (Autism Digest, 2001). Barton's research (2011), mentioned previously, showed that enhancing the child's involvement in circle time and preventing escape are effective examples of environmental modifications.

McConnell elaborated on this concept by establishing that many specific interventions were found to promote social involvement for students with ASD. Child-specific interventions often call for the direct instruction of social behaviors and these interventions "increase social interaction for children with autism, both as direct effects of intervention and through promotion of generalization or maintenance." (McConnell, 2002, p. 362). Collateral-skills intervention refers to strategies that promote social skills through training specific skills such as language involved with play and "[t]hese interventions which give children with autism greater competence for participation in social activities…" may also reinforce the meaning of social participation (McConnell, 2002, p.361). Peer-mediated intervention involves the inclusion of peers without disability in order to teach appropriate responses to social interactions with students who have ASD, these interventions convey that lasting effects can be achieved if the peer intervention is continued. (McConnell, 2002). Comprehensive interventions include any mix of the previously mentioned interventions (McConnell, 2002), combining the many different skills taught and learned through each intervention. The consensus on this intervention through McConnell's research (2002) was that caution needs to be exercised when implementing several interventions due to the observation that this could be overstimulating, and this over-stimulation would be juxtaposed to aiding social development.

Detrimental Effects of Inclusion on Social Development for Students with ASD

In inclusive education settings it is crucial for both students with ASD, and without, to engage in social interactions which "…constitute learning experiences about features of social relationships including reciprocity, fairness, and the impact of causing others harm" (Bottema-Beutel, Turiel, DeWitt, Wolfberg, 2016, p. 52). Therefore, when situations of

social isolation occur for students with ASD, it can be assumed that social development is not occurring at its expected rate. These interactions, and the experiences of social isolation and neglect can teach a lot about the importance of these interactions for students with ASD (Bottema-Beutel et al, 2016). Due to a lack of studies specifically researching the effect of social neglect and isolation on social development for students with ASD, this needs to be further researched.

The Role of Students without ASD in Social Development of Students with ASD

Though there are noted benefits to inclusion for students with ASD in terms of their social inclusion and development (Boutot et al., 2005; Mazurik-Charles et al., 2010; Barton et al., 2011), there is other research that disproves this argument. These studies state that there is essentially no difference in social experiences between students with ASD and without ASD (Ochs et al., 2001; Bottema-Beutel et al., 2016; Winchell et al., 2018).

The ultimate success in any social interaction is that the individual is able to speak with others while being able to convey a message or point. Yet, for students with ASD there are often social experiences of rejection and isolation (Ochs, Kremer-Sadlik, Solomon & Sirota, 2001); this is due to the lack of understanding between students with ASD and students without ASD. "Positive inclusion experiences appear to be facilitated by peer awareness of the capabilities and impairments…" (Ochs et al., 2001, p. 415) of students with ASD by students without ASD. Even when placed in a general education setting with inclusion as the goal, there is isolation that occurs (Ochs et al., 2001).

Ochs (2001) found that students with ASD in the observed inclusive settings had been neglected in some way. This isolation and neglect, facilitated by both children and teachers, included the child with ASD being ignored, as well as their requests and the district not

adhering to IDEA requirements (Ochs et al., 2001). Ochs' research conveyed that these

students with ASD are "…cognizant of and distressed by others' derisive stances and acts."

(2001, p. 412) which often times in this study led to intentional and unintentional withdrawal

from opportunities to socialize. In other social situations, these children were scorned for

their behaviors that are associated with ASD such as flapping or verbal interruptions (Ochs et

al., 2001). As conveyed through Ochs' study on social isolation, students with ASD often

experience times of social neglect which unfortunately may turn these students away from

opportunities to socialize and grow socially (2001).

Social Isolation as an Obstruction to Social Development

"Given the significant role that typically developing children play in the social lives

of children with autism spectrum disorder, it is important to understand how they evaluate

and reason about the inclusion/exclusion…" (Bottema-Beutel et al., 2016, p. 51) of students

with ASD. Not only do these decisions to involve or exclude students with ASD have an

emotional impact, these decisions ultimately effect the social progress for students with ASD.

(Bottema-Beutel et al., 2016) They may provide decreased opportunities to socialize and this

would be associated with this social isolation. With diminished opportunities to work on

social expression and understanding, there is little room for progress or social development.

"Although education among typically developing peers is becoming more prevalent

for students with ASD, these children may still find themselves without a peer group…"

(Bottema-Beutel et al., 2016, p. 51) which creates the feeling of social isolation from social

activities. In research done by Bottema-Beutel on elementary school age children and their

ability to reason or justify social isolation of students with ASD, findings conveyed that

students as young as kindergarten-age could identify the wrongness in social isolation

associated with this particular disability (Bottema-Beutel et al., 2016.). This study also conveyed the ability of these young children with ASD to vocalize their concerns about the lack of a peer-group. Students without ASD make decisions every day about who to include in their social activities and therefore it is important to study the reasoning and processes involved in these decisions (Bottema-Beutel et al., 2016).

Peer Behaviors as Predictors of Social Exclusion for Students with ASD

"The limited positive social interactions and friendships students with ASD have with their peers are concerning considering interactions and relationships with peers can make important contributions" (Winchell, Sreckovic & Schultz, 2018, p. 244) to the daily lives of these children and more specifically to their success in school. Social development is a crucial area in the education of students with ASD due to the specific social characteristics associated with ASD. Due to the impact that other students have on the social inclusion of students with ASD, these social opportunities promoted by other students also contribute to their educational progress (Winchell et al., 2018). Students with ASD may "…understand loneliness differently and experience loneliness more intensely and more frequently than neurotypical children." (Winchell et al., 2018, p. 245) which highlights the impact of other children's behavior towards students with ASD. Knowing the impact that the lack of a peer-group has on a student with ASD, there is a specific need to understand the reason behind social isolation facilitated by these peers.

When assessing the importance of the role that other students have on the social development of students with ASD in the general education classroom, these many findings contribute to the argument that students with ASD are not socially included in inclusive

environments as much as their peers without ASD and therefore cannot develop social skills without specific interventions and explicit teaching in order to make progress (Ochs et al., 2001; Bottema-Beutel et al., 2016; Winchell et al., 2018).

Conclusion

As can be seen through many studies on social acceptance of students with ASD as well as studies on social neglect of students with ASD, there are many varied effects of inclusion on the social development of students with ASD. With the prevalence of ASD on the rise (Center for Disease Control, 2018), the research on proper educational settings for both educational and social development purposes is on the rise as well. Through the use of many studies including case-studies, studies involving pre-post measures and other research designs, this synthesis of the research aimed to evaluate the positive and negative effects that inclusion has on the social development for students with ASD.

By analyzing studies that specifically researched the social benefits of inclusion, the findings showed that inclusion of students with ASD in the general education setting can promote socialization behaviors, teach positive social reinforcement, and aid in teaching these students proper reactions to social situations (Boutot et al., 2005; Mazurik-Charles et al., 2010; Barton et al., 2011). With increased opportunities to socialize, students with ASD in inclusive education environments can benefit from the rich social experience that mixes them with their peers without ASD (Mazurik-Charles et al., 2010; McConnell, 2002). It has been recognized that these benefits are most likely to be achieved with proper support in the classroom for students with ASD (Cammuso, 2011). Four main questions should be considered when analyzing inclusion for students with ASD (Cammuso, 2011):

- Are mainstream education teachers aware of the strategies used to teach students with ASD?

- What information, about ASD, should mainstream teachers be provided with?

- How will mainstream teachers and special education teachers interact on matters concerning the students with ASD?

- Will mainstream teachers have support from specialists and how often will mainstream teachers have the opportunity to consult with specialists on matters involving the students with ASD?

The positive effects, as well as promoters of social development for students with ASD in inclusive environments should not be overlooked when considering the educational placement of a child with ASD.

There are also several studies competing against this data; these studies argue that inclusion does not promote the social development or social opportunities that have been conveyed by studies previously (Ochs et al., 2001; Bottema-Beutel et al., 2016; Winchell et al., 2018). In inclusive environments, research has shown the students without ASD sometimes do not provide students with ASD the opportunity to socialize in peer groups, therefore deterring their social development (Winchell et al., 2018). It has also been noted that students with ASD do not experience social inclusion at the same rate as their peers who do not have ASD (Ochs et al., 2001). In the research that focused on social isolation, analyzed in this study, the results conveyed social exclusion and neglect sometimes does exist in inclusive education environments and students with ASD who experience this are negatively affected as a consequence of the lack of opportunities to socialize, develop skills,

and apply intervention trainings when this social isolation is present (Ochs et al., 2001; Bottema-Beutel et al., 2016; Winchell et al., 2018).

Students with ASD who face the challenge of warming up to a new social environment, like the inclusive classroom need the time to adjust to the new demands, expectations and interactions that occur within this environment (Cammuso, 2011). There are several antecedent interventions which can mitigate the detriments of social exclusion such as proper training for mainstream educators and collaboration with intervention specialists (Cammuso, 2011). Inclusive education environments staffed with properly trained educators (Cammuso 2011) mitigate the negative effects of inclusion including social exclusion from peers as well as social neglect from teachers.

The decision of whether to place a student with ASD into an inclusive education environment does not rely solely on the researched benefits and detriments in this review of literature, yet the effect that these benefits and detriments have on a child with ASD's social development is crucial. There are many noted benefits and negative effects on the social development of a child with ASD in an inclusive education setting, yet each individual child has a different experience within these environments.

By weighing the costs and benefits of inclusion on the social development of students with ASD, it can be determined that children with ASD equally both suffer and benefit socially from this inclusion, depending on the specific supports and social skills training available for the student. This study has concluded that when a student with ASD is supported by properly trained educators, social development does occur (Cammuso, 2011). It also concludes that an inclusive education environment that is supported by peers, who do not have ASD, but are trained to socialize with peer with ASD promotes positive social

interactions (Ochs et al., 2001). Also, in an inclusive education environment supported by trained interventions students with ASD are able to thrive socially (Barton et al., 2011). In contrast, inclusive education settings that are not supported by this proper training do not promote proper social development for students with ASD (Cammuso, 2011). In inclusive education settings that do not support or encourage the socialization between children with ASD and without ASD, individuals with ASD often withdraw and therefore are stunted from social development/progress (Winchell et al., 2018). Lastly, this research concluded that inclusive education environments, which are not focused on the social development of students with ASD, do not promote diverse and inclusive social interactions (Ochs et al., 2001).

Based on these factors that both promote social inclusion and mitigate social exclusion, this study can conclude that students with ASD will benefit most in an inclusive environment where they are receiving proper accommodations as well as receiving the proper attention and training they need to develop socially. Inclusion means integrating specialized teachers, doing extra training for mainstream educators, and involving peers without ASD in the conversation about ASD. All of these factors need to be in place in order for the inclusion to effectively support social development of students with ASD. The social success of students with ASD, within the inclusive environment, can be beneficial if the right supports and interventions are in place.

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