



# INFORMATION CAPSULE

Research Services

Vol. 1802  
September 2018

Christie Blazer, Supervisor

## THE EFFICACY OF PLACING STUDENTS WITH AUTISM SPECTRUM DISORDER IN INCLUSIVE CLASSROOMS

### At a Glance

This Information Capsule reviews the research conducted on outcomes associated with placing students with Autism Spectrum Disorder (ASD) in inclusive classrooms. Key findings include:

- studies comparing the academic and social outcomes of students with ASD placed in inclusive versus segregated special education classrooms have produced mixed results;
- research conducted on the impact of inclusive classrooms on nondisabled students' academic and social outcomes has produced inconsistent findings;
- inclusion works for some but not all students with ASD;
- physical integration of students with ASD and nondisabled students in inclusive classrooms alone may not be enough to produce positive outcomes; and
- the biggest challenge is providing teachers with enough training and support.

Autism Spectrum Disorder (ASD) is the most common neurological development disorder affecting children. Individual children with ASD vary greatly in the degree of severity of their cognitive and behavioral deficits (Saggers, 2016; Chaaya, 2012; Reagan, 2012). According to the Centers for Disease Control and Prevention (2018), approximately 1.7% of 8-year-old children (one in 59 children) have ASD; childhood autism rates have more than doubled since 2000.

There is an ongoing debate over which educational setting is best for children with autism. Historically, children with ASD were segregated from their nondisabled peers in separate classrooms or even separate schools. More recently, however, rising numbers of students with autism and other disabilities are being included in general education classrooms along with their typically developing peers (Furfaro, 2017; Seymour, 2017). One of the main reasons students with ASD are placed in general education settings is the mandate in the federal Individuals with Disabilities Education Act (IDEA) that students with special education needs, including students with ASD, be educated in the least restrictive environment possible (Abate, 2017; Seymour, 2017; Campbell, 2016).

For many students with ASD the least restrictive environment is the inclusive classroom. An inclusive classroom is a general education classroom in which students receive special education alongside their typically developing peers. Students with disabilities, including those with ASD, remain in the regular classroom for most if not all of the entire school day and any additional

services needed by these students are brought into the general education classroom. Students with disabilities who attend inclusive classrooms have their own individualized material and are not expected to learn the same material as the rest of the class. They are included in the class so they have the opportunity to interact with and receive the same education as their same-aged peers (Waddington & Reed, 2017; Campbell, 2016; Center for Autism Research, 2016; Morin, 2016; Chaaya, 2012; Foster & Pearson, 2012; Kaushik, 2011; Spence, 2010).

The main argument in favor of inclusion is that segregated classrooms do not provide students with disabilities the opportunity to learn alongside their typically developing peers. Advocates of inclusion for students with ASD emphasize that it promotes interactions between students with ASD and their nondisabled peers, helps students with ASD develop social competence, and increases their social acceptance (Abate, 2017; Waddington & Reed, 2017; Campbell, 2016; Reagan, 2012; Woronko & Killoran, 2011; Leach & Duffy, 2009). The Center for Autism Research (2016) provided the following rationale for inclusive education for students with ASD:

- Children with ASD have the right to be educated in the least restrictive environment.
- Children with ASD deserve the same learning opportunities as typically developing students.
- Children with ASD can learn appropriate social behavior from their typically developing classmates.
- Children with ASD spend their entire lives in a typically developing world; therefore, learning beside their typically developing peers is a more natural environment.
- Typically developing students need to understand how to learn alongside students with disabilities.

The Center for Autism Research (2016) suggested that a student's IEP team should consider a variety of factors when deciding on the least restrictive placement for a student with ASD. The Center recommended that educators consider the following questions before placing a student with ASD in an inclusive classroom:

- Is the learning environment able to support the child's academic needs?
- Can the child sustain attention among the 25-30 students in the classroom?
- How will the student learn and model social skills from typically developing students?
- How will learning be measured and how will data be collected?

### **Research on Students with ASD in Inclusive Classrooms**

Following is a summary of research conducted on outcomes associated with placing students with ASD in inclusive classrooms.

- **Academic Outcomes for Students with ASD.** Studies comparing the academic outcomes of students with ASD placed in inclusive versus segregated special education classrooms have produced mixed findings. Some studies have found that students with ASD in inclusive classrooms score higher on achievement tests than those in segregated special education classrooms, while others have reported that students with ASD have more positive academic outcomes when they are placed in special education classes. Still other studies have found that classroom placement has no significant effect on the academic outcomes of students with ASD (Waddington & Reed, 2017; Foster & Pearson, 2012; Kurth & Mastergeorge, 2010).

- **Social Outcomes for Students with ASD.** Studies comparing the social behavior of students with ASD placed in inclusive versus segregated special education classrooms have yielded inconsistent results. While some researchers have found that students with ASD in inclusive classrooms exhibit more pro-social behaviors than those in segregated classrooms, other researchers have concluded that inclusion is insufficient to truly integrate children with ASD into the social networks of their typical peers, and may even be detrimental to their social development (Waddington & Reed, 2017; Moore, 2016; Chaaya, 2012; Harrower & Dunlap, 2001).
  - Several studies have found that students with ASD who are placed in inclusive classrooms engage in more social interaction, provide and receive higher levels of social support, and have larger networks of friends (Chaaya, 2012; Reagan, 2012; Spence, 2010; Leach & Duffy, 2009).
  - Other studies have shown that students with ASD are more likely to be on the receiving rather than giving end of social interactions. In addition, some students with ASD have reported that their social experiences in inclusive classrooms are negative and that they feel lonely, socially excluded, and bullied (Abate, 2017; Campbell, 2016; Sharman, 2015; Chaaya, 2012; Woronko & Killoran, 2011).
  
- **Impact of Inclusive Classrooms on Nondisabled Students.** Research on the impact of inclusive classrooms on nondisabled students' academic and social outcomes has produced mixed findings.
  - Some studies conducted on the effect of inclusive classrooms on nondisabled students' achievement have found that inclusive classrooms have a positive impact on typically developing students' academic performance. Other studies have reported that inclusion of students with disabilities, including ASD, has no impact on nondisabled students' achievement, while several studies have concluded that inclusion of students with disabilities has a negative effect on nondisabled students' achievement (Applied Behavior Analysis Edu.org, 2018; Chaaya, 2012; Spence, 2010).
  - Some studies have reported that inclusion of students with disabilities can have a positive social impact on nondisabled students. For example, nondisabled students in inclusive classrooms have been found to demonstrate greater respect for their disabled classmates; show increased understanding of other children's needs; become more comfortable around persons with disabilities; and learn how to become friends with their disabled classmates (Blazer, 2017).
  - In contrast, some researchers have found that students without disabilities are negatively affected when they are educated in the same classrooms as students with emotional and behavioral disabilities. Gottlieb and colleagues (cited in Constantinescu & Samuels, 2016) found that nondisabled students with a greater number of students with disabilities in their classrooms experienced significantly higher rates of absenteeism and exhibited more behavioral problems, such as arguing and fighting, more anxiety and loneliness, and lower self-esteem.

- **Inclusion Works for Some but Not All Students with ASD.** Because there is so much variation regarding the levels of cognitive and behavioral functioning in students diagnosed with ASD, researchers have concluded that inclusion may not be effective for every student with ASD (Abate, 2017; Sharman, 2015; Cassady, 2011; Harrower & Dunlap, 2001). Moore (2016) stated, “The bottom line is, virtually all the studies, as varied as they are, point in a single direction: Inclusion works for some students with ASD, and it does not work for others.” Similarly, the Center for Autism Research (2016) concluded, “Whether or not full inclusion will work is highly dependent on . . . [the] child and the supports provided in the inclusive classroom.”
- **Inclusion May Not be Enough to Produce Positive Outcomes.** Physical integration alone may not be enough to produce positive academic and social outcomes for students with ASD. Researchers have suggested that the instructional strategies used in the classroom, teacher preparedness, students’ own ability levels, and the treatment students with ASD receive from other students in the classroom also play a significant role in the development of students with ASD and their educational success (Aller, 2017; Waddington & Reed, 2017).
- **The Biggest Challenge is Providing Teachers with Enough Training and Support.** Studies have found that the most frequently cited challenge to effective implementation of inclusive classrooms is a lack of teacher training and support.
  - Research indicates that the majority of teachers in inclusive classrooms do not feel adequately trained to teach both general and special education students. They report that they do not know how to differentiate instruction for students with ASD or provide them with the appropriate supports, nor are they familiar with the necessary behavior management and intervention strategies that will improve these students’ academic and social outcomes (Abate, 2017; Aller, 2017; Seymour, 2017; Campbell, 2016; Center for Autism Research, 2016; Goodrow, 2016; Saggars, 2016; Reagan, 2012; Cassady, 2011; Spence, 2010; Leach & Duffy, 2009).
  - Educators who teach in inclusive classrooms report that they need time for planning and collaboration with other teachers. Additional planning time allows teachers to individualize supports, plan alternative activities, and develop instructional strategies that are appropriate to the needs of students with ASD. Collaboration between general and special education teachers facilitates the inclusion of students with ASD in classrooms and helps to bridge the gap between general education and special education settings (Seymour, 2017; Center for Autism Research, 2016; Goodrow, 2016; Reagan, 2012; Cassady, 2011; Leach & Duffy, 2009).

## References

- Abate, D.J. (2017). When Students with Autism Succeed in Inclusive Classrooms. *Elements*, 13(2), 37-43.
- Aller, E.E. (2017). *Developmental Impact of Inclusion Classrooms on Autism Spectrum Disorder: A Systematic Review*. Master's Thesis, St. Catherine University and the University of St. Thomas, St. Paul, MN. Retrieved from [https://sophia.stkate.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1701&context=msw\\_papers](https://sophia.stkate.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1701&context=msw_papers).
- Applied Behavior Analysis Edu.org. (2018). *Will Having Autistic Students in My Kid's Class Impact Their Learning?* Retrieved from <https://www.appliedbehavioranalysisedu.org/will-having-autistic-students-in-my-kids-class-impact-their-learning>.
- Blazer, C. (2017). Review of the Research on Inclusive Classrooms: Academic and Social Outcomes for Students with and without Disabilities; Best Practices; and Parents' Perceptions of Benefits and Risks. *Miami-Dade County Public Schools Information Capsule, Vol. 1701*. Retrieved from <http://drs.dadeschools.net/InformationCapsules/IC1701.pdf>.
- Campbell, J. (2016). *The Importance of Peers in Inclusive Education for Individuals with ASD*. Organization for Autism Research, Arlington, VA. Retrieved from <https://researchautism.org/the-importance-of-peers-in-inclusive-education-for-individuals-with-asd/>.
- Cassady, J.M. (2011). Teachers' Attitudes Toward the Inclusion of Students with Autism and Emotional Behavioral Disorder. *Electronic Journal for Inclusive Education*, 2(7). Retrieved from <https://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1127&context=ejie>.
- Center for Autism Research. (2016). *Inclusion Vs. Self-Contained Education for Children with ASD Diagnoses*. The Children's Hospital of Philadelphia Research Institute, Philadelphia, PA. Retrieved from <https://www.carautismroadmap.org/inclusion-vs-self-contained-education-for-children-with-asd-diagnoses/>.
- Centers for Disease Control. (2018). Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years – Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014. *Morbidity and Mortality Weekly Report*, April 27, 2018. Retrieved from <http://cdc.gov/mmwr/volumes/67/ss/ss6706a1.htm>.
- Chaaya, R. (2012). *Inclusion of Students with Autism in General Education Classrooms*. Master of Teaching Degree, University of Toronto, Toronto, Canada. Retrieved from [https://tspace.library.utoronto.ca/bitstream/1807/35088/1/Rana\\_Chaaya.MTRP.pdf](https://tspace.library.utoronto.ca/bitstream/1807/35088/1/Rana_Chaaya.MTRP.pdf).
- Constantinescu, C., & Samuels, C.A. (2016). Studies Flag Potential Downside to Inclusion. *Education Week*, 36(3), 1, 10-11.
- Foster, E.M., & Pearson, E. (2012). Is Inclusivity an Indicator of Quality of Care for Children with Autism in Special Education? *Pediatrics*, 130(Supplement 2), S179-S185.
- Furfaro, H. (2017). Inclusive Classes are Best Option for Some Children with Autism. *Spectrum*, May 12, 2017. Retrieved from <https://www.spectrumnews.org/news/inclusive-classes-best-option-children-autism/>.

Goodrow, M.A. (2016). *A Study of Teachers' Challenges with the Inclusion of Middle and High School Students with Autism*. Doctoral Dissertation, Walden University, Minneapolis, MN. Retrieved from <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=3760&context=dissertations>.

Harrower, J., & Dunlap, G. (2001). Including Children with Autism in General Education Classrooms. *Behavior Modification*, 25(5), 762-784.

Kaushik, N. (2011). Difference Between Mainstreaming and Inclusion. *Difference Between.net*, July 13, 2011. Retrieved from <http://www.differencebetween.net/language/words-language/difference-between-mainstreaming-and-inclusion/>.

Kurth, J.A., & Mastergeorge, A.M. (2010). Academic and Cognitive Profiles of Students with Autism: Implications for Classroom Practice and Placement. *International Journal of Special Education*, 25(2), 8-14.

Leach, D., & Duffy, M.L. (2009). Supporting Students with Autism Spectrum Disorders in Inclusive Settings, *Intervention in School and Clinic*, 45(1), 31-37.

Moore, R. (2016). Teaching in the Time of Autism: Mainstreaming the Autistic Child, Many Question Whether It Works. *The Lakeland Times* (Minocqua, Wisconsin), September 20, 2016. Retrieved from <http://lakelandtimes.com>.

Morin, A. (2016). *Least Restrictive Environment (LRE): What You Need to Know*. Retrieved from <http://understood.org/en/school-learning/special-services/special-education-basics/least-restrictive-environment-lre-what-you-need-to-know>.

Reagan, N. (2012). *Effective Inclusion of Students with Autism Spectrum Disorders*. Master's Thesis, St. John Fisher College, Rochester, NY. Retrieved from [https://fisherpub.sjfc.edu/cgi/viewcontent.cgi?article=1277&context=education\\_ETD\\_masters](https://fisherpub.sjfc.edu/cgi/viewcontent.cgi?article=1277&context=education_ETD_masters).

Saggers, B. (2016). Supporting Students with Autism in the Classroom: What Teachers Need to Know. *The Conversation*, September 7, 2016. Retrieved from [http://the\\_conversation.com/supporting-students-with-autism-in-the-classroom-what-teachers-need-to-know-64814](http://the_conversation.com/supporting-students-with-autism-in-the-classroom-what-teachers-need-to-know-64814).

Seymour, K. (2017). *Inclusion of Students with Autism: Teacher Perceptions Regarding Evidence-Based Strategies and Staff Supports in Pennsylvania*. Doctoral Dissertation, Lehigh University, Bethlehem, PA. Retrieved from <https://preserve.lehigh.edu/cgi/viewcontent.cgi?article=3800&context=etd>.

Sharman, R. (2015). Can Inclusive Education Do More Harm Than Good? *Autism Aspergers Advocacy Australia (A4)*, June 28, 2015. Retrieved from <http://a4.org.au/node/1004>.

Spence, R.S. (2010). *The Effects of Inclusion on the Academic Achievement of Regular Education Students*. Doctoral Dissertation, Georgia Southern University, Statesboro, GA. Retrieved from <https://digitalcommons.georgiasouthern.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1369&context=etd>.

Waddington, E.M., & Reed, P. (2017). Comparison of the Effects of Mainstream and Special School on National Curriculum Outcomes in Children with Autism Spectrum Disorder: An Archive-Based Analysis. *Journal of Research in Special Education Needs*, 17(2), 132-142.

Woronko, D., & Killoran, I. (2011). Creating Inclusive Environments for Children with Autism. In T. Williams (Ed.), *Autism Spectrum Disorders – From Genes to Environment*. London, UK: In Tech.