

Common Executive Function Differences in Autistic Students and Why They Matter at School



In the U.S., approximately 2% of youth have Autism Spectrum Disorder (ASD). Mental health challenges, including those related to executive functioning, are more common among autistic youth. This infographic describes common executive function differences and how they can impact autistic students at school.

Common Types of Executive Function Difference Experienced by Autistic Students¹⁻⁴

Cognitive Flexibility:
The ability to shift attention, ideas, and opinions quickly and flexibly

Planning:
The ability to formulate and execute a plan to achieve a goal

Working Memory:
The ability to remember information that was recently shared

Emotion Regulation:
The ability to modulate or alter a variety of emotional experiences

Examples of How Executive Function Differences Could Manifest at School



Cognitive Shifting:
Sticking to rules and routines; difficulty seeing other perspectives



Planning:
Taking a while or needing help to get started with activities with multiple steps



Working Memory:
Difficulty remembering instructions that were recently shared



Emotion Regulation:
Becoming easily and quickly excited, anxious, frustrated, or upset

Common Executive Function Differences in Autistic Students and Why They Matter at School

Why Executive Function Matters for Autistic Students^{3,5}

Friendships

Executive function differences make it harder for autistic youth to navigate peer relationships and a complex social world.



This may make friendships difficult and, if unsupported, may put autistic students at risk to be bullied by peers.

Daily Living Skills

Autistic students who have executive function challenges may have greater difficulty with daily living skills.



These skills include packing and remembering a lunch, scheduling meetings, and doing household tasks.

School Performance

Executive function differences may make it difficult for autistic students to sit still, make transitions, and remember things.



These are skills that our school systems require and that impact academic achievement and school participation.

Mental Health

Autistic students with executive function challenges are more likely to have co-occurring anxiety and depression.



Challenges with mental health can get in the way of friendships and participation in school and extracurricular activities.

View the Southeast MHTTC webinar "*Understanding executive functioning differences among autistic students with and without co-occurring ADHD*" here:



References

1. Bottema-Beutel, K., Kapp, S. K., Lester, J. N., Sasson, N. J., & Hand, B. N. (2021). Avoiding ableist language: Suggestions for autism researchers. *Autism in Adulthood*, 3(1), 18-29.
2. Pellicano, E. (2012). The development of executive function in autism. *Autism Research and Treatment*, 2012.
3. Craig, F., Margari, F., Legrottaglie, A. R., Palumbi, R., De Giambattista, C., & Margari, L. (2016). A review of executive function deficits in autism spectrum disorder and attention-deficit/hyperactivity disorder. *Neuropsychiatric Disease and Treatment*, 12, 1191.
4. Miyake, A., & Friedman, N. P. (2012). The nature and organization of individual differences in executive functions: Four general conclusions. *Current Directions in Psychological Science*, 21(1), 8-14.
5. Pugliese, C. E., Anthony, L. G., Strang, J. F., Dudley, K., Wallace, G. L., Naiman, D. Q., & Kenworthy, L. (2016). Longitudinal examination of adaptive behavior in autism spectrum disorders: Influence of executive function. *Journal of Autism and Developmental Disorders*, 46, 467-477.