TASN
Autism and Tertiary Behavior Supports
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Executive Function and ASD

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Have you been hearing about executive functioning lately? It is a hot topic in the field of ASD and this article will explain some of the basics of EF and autism. Primary characteristics of individuals with autism are social communication differences and engagement in restricted interests and patterns of behavior. Difficulty with executive function EF is another commonly recognized characteristic of many individuals on the autism spectrum. EF is a concept that refers to higher level cognitive processes that are necessary for planning and carrying out activities or achieving goals. Models of EF include both thinking and behavioral skills. Generally, skills considered to be **thinking skills** include components like:

- planning
- organization
- time management
- working memory
- metacognition (self-monitoring and self-evaluation)

Behavioral skills encompassed in EF models typically include

- response inhibition
- emotional control
- sustained attention
- task initiation
- flexibility
- goal directed persistence

Building executive function skills is a developmental process. As individuals grow, they are learn and are more able to engage in organized, planned, goal-directed actions. Executive functions are highly interrelated. Each type of skill draws on elements of the others, and the successful application of executive function skills requires them to operate in coordination with each other. For individuals with autism, development of EF skills may be atypical.

Fortunately, executive function skills can be taught and supported with age-appropriate strategies. Common strategies for support include:

- Establishing a classroom and homework routines
- Teaching the student problem solving using a step-by-step guide
- Creating or helping students prepare picture schedules, planners, checklists, or electronic organizers
- Supporting the student in breaking down long-term and larger projects- start with the due date and then working backwards to determine when the steps need to be completed
- Teaching visualization skills, “What will it look like when the assignment is complete?”
- Making connections, i.e., show that the twos times table is the same as his doubles facts, such as 4 x 2 = 8 and 4 + 4 = 8
- Teaching emotions and their gradients
- Explaining “expected” and “unexpected” behaviors and the consequences of each
- Preparing individuals in advance for new situations
- Role playing or video modeling of situations students may encounter

The bonus to using these strategies to support individuals with autism is that it will also support individuals who have speech/language impairments, cognitive differences, brain injury, learning disabilities and those who are typically developing.

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Notes from the Corner

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Get Unstuck:
Conduct a Preference Assessment

Feeling stuck with increasing desired behavior? Stop and ask, "How do I know for sure what motivates my student?" It is common to develop a list of reinforcing items for an individual by asking others for their opinion. This is valuable information; however, we should evaluate which of the student's most desired items will be most useful as reinforcers. Failing to evaluate could result in wasting valuable time, energy, and resources.

Preference assessments provide a systematic, data-based approach to evaluating a host of potential interests (e.g. food, toys, activities) for an individual. There are many types of preference assessments that have been used successfully to identify reinforcers. Asking the individual, caregiver interviews, reinforcement surveys, direct observations, and offering the individual a pre-task choice are common practices used to identify potential reinforcers.

The assessment method that produces the most accurate results involves presenting objects and activities systematically to the individual to reveal a hierarchy or ranking of preferences. Two methods of assessments include: Single Item and Forced-Choice.

Single Item or "Successful Choice": This is the quickest and easiest testing assessment method. Objects and activities are presented one by one. Each item is presented several times in a random order. After each presentation, data are recorded on how long the person engages with each object or activity. Graph your results. Pick the top two to use to teach a new behavior.

"Forced Choice" or Paired Method: Involves the simultaneous presentation of two items or activities. All items are paired systematically with every other item in a random order to ensure completeness. For each pair of items, the individual is asked to choose one. The most frequently selected item will likely be the most potent reinforcer. Since all objects and activities have to be paired together, this method takes significantly longer than the single method, but researchers found that the paired method was more accurate than the single method. It is recommended not to mix food with leisure items within this assessment, as food tends to motivate people more that toys/leisure items.

In conclusion, a preference assessment will yield a potential reinforcer, not a definite one. You will know for sure if a preference is a reinforcer if it increases the frequency of a behavior following each presentation.

Cooper, J.O., Heron, T.E., & Heward W.L. (2007). *Applied Behavior Analysis* (2nd ed.). Upper Saddle River, New Jersey: Prentice Hall.

Did you know? The TASN Lending Library has a variety of training materials that include ready-to-use social narratives on sensitive issues like toileting, hygiene, and sexual issues available for checkout in PDF format. Just type "sensitive training materials" in the search box in the library for a list of topics.

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