

Observing Behavior Using A-B-C Data

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All members of the student's individualized education program (IEP) can observe behavior to learn about patterns and functions of behavior. Everyone who observes behavior probably looks for similar characteristics of autism spectrum disorders (e.g., communication challenges, social deficits, restricted area of interests, sensory needs, etc.) and the impact on behavior. How information is gathered may be different for each person collecting the data and depending on the complexity of the situation. One format involves directly observing and recording situational factors surrounding a problem behavior using an assessment tool called ABC data collection. An ABC data form is an assessment tool used to gather information that should evolve into a positive behavior support plan. ABC refers to:

- Antecedent- the events, action, or circumstances that occur before a behavior.
- Behavior- The behavior.
- Consequences- The action or response that follows the behavior.

The following is an example of ABC data collection. ABC is considered a direct observation format because you have to be directly observing the behavior when it occurs. Typically it is a format that is used when an external observer is available who has the time and ability to observe and document behaviors during specified periods of the day. It is time and personnel intensive. From this data, we can see that when Joe is asked to end an activity he is enjoying (we know that he enjoys playing computer games), he screams, refuses to leave, and ignores. We also can see that the response to Joe's refusal consists mostly of empty threats. If we follow Joe throughout the day, we may find that he is asked repeatedly to follow diections. In addition, the data reveals that Joe's family uses threats that are not followed through. Joe has learned that persistence, ignoring, and refusal will wear parents down.

| Antecedent | Behavior | Consequence |
|----------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------|
| Parent asks Joe to stop playing on the computer. | Joe screams, "NO!" and refuses to leave the computer. | Parent tells Joe to leave the computer again. |
| Parent tells Joe to leave the computer. | Joe again refuses to leave. | Parent starts counting to 10 as a warning to get off the computer. |
| Parent starts counting to 10 as a warning to get off the computer. | Joe does not move from the computer station. | Parent finishes counting to 10 and again warns him to get off the computer. |
| Parent finishes counting to 10 and again warns him to get off the computer. | Joe stays at the computer and refuses to leave. | Parent threatens that Joe lose computer privileges in the future. |
| Parent threatens that the Joe will lose computer privileges in the future. | Joe ignores and continues working on the computer. | The parent count to 10 again and again threatens future computer use. |
| The parent counts to 10 again and again threatens future computer use | Joe ignores and continues computer use. | The parent becomes angry and leaves the room. |

While it is important to look at both the antecedents and the form of the behavior, the focus of this article is on the consequence portion of the data collection. Examine the consequence portion of the data collection form when identifying those responses that both increase and decrease problem behavior. For example, if attention seems to increase problem behavior, then it may be important to teach the individual to get attention in a more appropriate fashion or to use attention for positive behaviors. If escape from a difficult task seems to be a consistent theme in the consequence section, then it may be important to either change the task or to teach the child to ask for help. And we may choose to use downtime as a reinforcer. Our responses should always focus on strengthening desired behavior, promoting the use of the replacement behavior, and decreasing the occurrence of the problem behavior (Sugai, et. al., 2000). An important aspect of this prospect is understanding those responses or consequences that maintain, and either enhance or decrease behavior over time.

Assessment is the key to developing an effective program and tracking the progress of individuals. Yet there are barriers in collecting the data such as time, remembering in a crisis situation, and being consistent. We can overcome these barriers by planning ahead, matching collection strategies to the setting, and simplifying the data collection chart. Remember anyone (e.g., parents, educators, teachers, support personnel, administrators) can take the data when given clear direction and parameters. Here is an example taken from what Joe's parents know about his situation at home using the ABC approach. Notice the responses have already been established on the form. These are the responses that are typically identified as motivating behavior. While this system may be more efficient, you will note that much of the richness of the narrative is missing.

| Antecedent | Behavior | Consequence |
|-----------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------|
| Parent asks Joe to stop playing on the computer. | Joe screams, "NO!" and refuses to leave the computer. | Sensory Feedback Escape Attention |
| Parent tells Joe to leave the computer. | Joe again refuses to leave. | Sensory Feedback Escape Attention |
| Parent starts counting to 10 as a warning to get off the computer. | Joe does not move from the computer station. | Sensory Feedback Escape Attention |
| Parent finishes counting to 10 and again warns him to get off the computer. | Joe stays at the computer and refuses to leave. | Sensory Feedback Escape Attention |
| Parent threatens that the Joe will lose computer privileges in the future. | Joe ignores and continues working on the computer. | Sensory Feedback Escape Attention |

| The parent counts to 10 again and again | Joe ignores and continues | Sensory Feedback |
|-----------------------------------------|---------------------------|-----------------------------------------------|
| threatens future computer use | computer use. | • Escape |
| | | Attention |

Sometimes the ABC data collection form is used to document a behavior incident. At the end of this article is an example of this type of form. Remember that this type of form will give you limited data and focuses heavily on negative behaviors. However, it is easier when someone is not available to do more indepth observing. In truth, the ABC data collection should not be used just to document behavior incidents. It is best used as a narrative during a specified time of the day. Equally important is to document those conditions that surround positive behaviors. By documenting these, professionals and family members can identify effective strategies that can be replicated.

Once accurate and sufficient data is collected; placements, planning, modifications, instruction, and feedback are easier, more valid, and effective (Morton & Lieberman, 2006). ABC data collection can be used for all individuals with behavior issues at home and in school, not just individuals on the autism spectrum.

References

Sugai, G., Horner, R.H., Dunlap, G., Hieneman, M., Nelson, C.M., Scott, T., Liaupsin, C., Sailor, W., Turnbull, A.P., Turnbull III, H.R.; Wickham, D., Wilcox, B., and Ruef, M. (2000). Applying positive behavior support and functional behavioral assessment in schools. *Journal of Positive Behavior Interventions, 2*(3), 131-143.

Morton & Lieberman, 2006. Strategies for collecting data in physical education. Teaching Elementary Physical Education, 17(4), 28-31.

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