



Assessment of Biobehavioral States: Supporting Availability for Learning for Students with Multiple Disabilities including Deafblindness & Profound Intellectual & Multiple Disabilities

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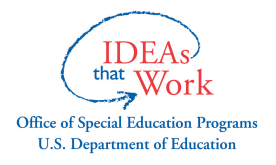
CODING KEY	Environmental Lighting (L): Dk: Dark Dm: Dim BN: Bright natural (sun) BL: Bright lamp/lightbulb	Sound Level (SL): Q: Quiet LB: Low background noise HB: High level backgr. noise N: Noisy, direct	Temperature (T): C: Cold Cl: Cool W: Warm H: Hot VH: Very Hot (humid)
Behavior State Codes: AI: Asleep-Inactive AA: Asleep-Active DR: Drowsy DA: Daze AWIA: Awake-Inactive-Alert AWAA: Awake-Active-Alert AWASS: Awake-Active-Self-Stimulatory CR: Crying Z: Seizures	Position SE: Seated ST: Standing PR: Prone SP: Supine Sl: Side--lying RP: Repositioning	Social: A: Alone P: Proximity (within 3') PC: Physical Contact HUH: Hand Under Hand HOH: Hand Over Hand	Communication partner: N: No partner T: Teacher A: Aide P: Peer

Coding systems partially adapted from:

Arthur, M. (2004). Patterns amongst behavior states, sociocommunicative, and activity variables in educational programs for students with profound and multiple disabilities. *Journal of Developmental and Physical Disabilities*, 16(2), 125-149.

Guess, D., Mulligan-Ault, M., Roberts, S., Struth, J., Siegel-Causey, E., Thompson, B., ... & Guy, B. (1988). Implications of biobehavioral states for the education and treatment of students with the most profoundly handicapping conditions. *Journal of the Association for Persons with Severe Handicaps*, 13(3), 163-174.

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Instructions for Completing the Assessment of Biobehavioral States:

1. Review the results of prior assessments, and conduct additional sensory, communication, and preferences assessment needed to gather student-centered information that will help guide biobehavioral assessment and intervention. See **Additional Resources** below.
2. **Background Information:** Collect background information within 24 hours of observation, with support of the family and/or home management team. (See page 3)
3. Pick a time interval for using the Observation forms. If assessing a half day or full day, you may want to use 15-minute or 30-minute intervals. If assessing a single contained activity, you may want to use 1-minute intervals.
4. **Observation Form:** On the observation form, complete data at the exact time interval selected above. Describe the activity briefly, and circle codes for data across all areas: Behavior State, Position, Environmental (ambient: Lighting, Temperature, Sound Level), Social Context, and Communication Partner. You may want to add additional notes on the side bar as needed.
5. Duplicate as many copies of the observation forms needed to complete data for the allotted time of the observation (whether a single activity, half day or full day).
6. **Informal Evaluation:** Note informal trends observed for each behavior state. Is there a time of day at which the student tends to be in a certain state? Are certain positions, environmental contexts, social contexts, or specific communication partner interactions associated with a specific behavior state?
7. **Recommendations:** Refer to the Recommendations form as a guide to provide the collaborative team (including the family) with clear recommendations for next steps in modifying the biophysical, environmental, and/or communication plan in order to increase the student's availability for learning.

Additional Resources Supporting Assessment and Intervention:

[The Communication Matrix](#) (assessment of expressive communication appropriate for learners with multiple disabilities)

[Assessment of Learning & Communication in Children who are Deafblind or Who Have Multiple Disabilities](#) (assessment guide)

[HomeTalk: A Family Assessment of Children Who are Deafblind](#)

[WSDS Likes/Dislikes](#) Form (informal sensory preferences assessment)

[Sensory Channel Form](#) (adapted by T. Anthony)

["Talking the Language of the Hands to the Hands"](#) (Miles, 2003; Rev. Miles, Nelson & Pellerin, 2015)

[Open Hands Open Access DeafBlind Intervener Modules](#) (free online training modules for interveners and collaborative team members)

Food/Liquid Intake

Type of food/liquid	Time Start	Time Stop	Amount (ounces)	Comments

Elimination activity

Time	Urine (U) or BM	Comments

Medication information

Type	Time	Amount (cc /mg)	Comments Description of side effects

Seizure Activity

Start Time	Stop Time	Description	Comments (aura, state before and after seizure)

Sleep Information

Start Time	Stop Time	Location	Comments

Additional Comments:

Time	Activity	Behavior State	Position	Environmental (Ambient)	Social Context	Communication Partner
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P

Comments: (Include specific **time**):

Student: _____ Date: _____ Data Collector(s): _____

Time	Activity	Behavior State	Position	Environmental (Ambient)	Social Context	Communication Partner
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P
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		AI AA DR DA AWAI AWAA CR Z	SE ST PR SP SI RP	L: Dk Dm BN BL T: C CI W H VH SL: Q LB HB N	A P PC HUH HOH	N T A P

Comments: (Include specific ***time***):

Informal Evaluation:

Note any informal trends observed in each behavior state, in relation to: Time, Position, Environmental, Social Context, Communication Partner. For example, AA: Trend Position = Supine (Student was observed generally in Asleep-Active position when supine).
 *Do not note trends unless observed specifically.

Behavior State	Time	Position	Environmental (Ambient)	Social Context	Communication Partner
AI					
AA					
DR					
DA					
AWAI					
AWAA					
CR					
Z					

Biobehavioral Assessment: Guidelines for Recommendations

The goal of intervention is to increase the student's availability for learning. It may be necessary to modify the biophysical management plan and/or to make adjustments to the student's schedule, to the environment of the classroom and other instructional settings, to positioning, communication modes and practices used with the student, and to the actual materials presented to the student. The following guidelines are provided to support the development of meaningful, student-centered recommendations for intervention:

Biophysical management plan: Are there areas of the student's biophysical management plan that require further investigation in order to support increased availability for learning? Consider specific questions for the family and/or clinical specialists regarding concerns or areas of potential intervention including: food/liquid intake, elimination (schedule, routine, other supports), amount of sleep, seizure activity, impact of medication (including timing of administering medication).

Changes to the student's schedule: Are there specific changes to the student's schedule that would support increased availability for learning? For example, if the student is always fatigued after Physical Therapy, should a break be scheduled after this activity, as opposed to scheduling an academic activity or other related service immediately following PT?

Positioning: Are there changes to positioning and seating supports needed to promote availability for learning, both in general and during specific activities? The [Positioning and Adaptations Tool](#) (NYDBC, 2016) may be used by the team to plan positioning supports for each activity.

Environmental modifications and supports: Are there changes to the ambient environment of the classroom or other areas of the school/setting needed to promote availability for learning, both in general and during specific activities? Consider adaptations/modifications to: Lighting, Temperature, Sound Levels.

Social Context: Are there social contexts that should be planned and implemented to promote increased availability for learning? Consider: constant contact and tactile proximity, use of **hand under hand** supports and mutual exploration (instead of more intrusive and manipulative hand over hand).

Communication Partner: Does the student have a variety of communication partners, or is communication/interaction limited to one or two people throughout the day? Do communication partners have common forms/modes of communicating and interacting with the student? Are there additional considerations for supporting communication partners and team members to share common practices of interacting and communicating with the student?

Communication and Interaction Supports: Consider recommendations for specific interaction and communication supports, including: touch cues, name cues, tangible symbols, calendar systems, active learning interventions (Little Room, others).

Materials and Instructional Routines: Are there adaptations to materials and to instructional routines that would support increased availability for learning? Consider the extent to which materials and the presentation of materials affects the student's availability or causes fatigue. For students with cortical visual impairment, consider the extent to which materials impact the characteristics of Multisensory Complexity.

Additional evaluation recommended: Are there additional assessments or evaluations needed to support the student's program to increase availability for learning? Consider: Communication Matrix (assessment of pre-linguistic expressive communication, normed for students with multiple disabilities); functional vision assessment and learning media assessment (or CVI Range assessment for students with cortical visual impairment); sensory preferences assessment and sensory profiles (see **Additional Resources**, p. 2).