**ABC Brain Games Study Coding Scheme 1**

**Child Negative Affect**

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**2015**

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**ABC Brain Games: Child Negative Affect / Frustration During Backwards Math**

The degree of negative affect present should be coded for each Frustration Math trial. Code for the highest degree of negative affect present during each 10 second segment for both anxiety/worry/sadness/resignation and anger/irritation – it is okay for children to show multiple types of affect during a single interval (i.e. sad/anxious and angry).

* If the child’s face is not on camera, but you can interpret affect from vocal tone, then you can code based on that behavior. If you cannot tell what a child’s behavior is during segment, code N/A (9).
* When weighing evidence for how intense the negative affect display is, consider how many modalities are activated (e.g., face, vocal tone, body language). If you can see evidence for the emotion expression in more than one modality it may be more intense (e.g., frown accompanied by crossed arms would be more intense than a frown alone).
* **IMPORTANT:** for every interval in which you code negative affect as 1 or 2, you need to have a reason to have coded it (i.e., some child behavior to “point to” to justify your code).
* For intervals: Code from start time when the instructions for the task begin until the task ends (should be 1 minute for each set and there are 3 sets). Code an interval if there are *at least* 10 seconds of the task available to code (i.e. Task starts at 1:30 and ends at 2:35, code interval 1 (1:30-1:40) interval 2 (1:40 – 1:50) but not interval three (1:50 – 1:55) because it is less than 10 seconds).

We are looking for behaviors that indicate either general anxiety or sadness, or frustration/anger about the situation. **Rate the peak level of Negative Affect that the child shows during the interval**.

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| **Variable** | **Description** |
| **Anxiety/Worry/Sadness/Resignation** | 1. **No sadness/anxiety**: No anxious, sad, or worried behaviors are seen during segment.
2. **Mild or Minimal sadness/anxiety:** Child shows one or two brief or mild instances of sad, worried, helpless or resigned behavior, e.g. sighing or frowning or looking a little worried. May include child not responding to RA, looking down in effort to avoid RA’s gaze. Child may dart eyes back and forth quickly, in a nervous way. Child may complain or make a negative statement but maintain a neutral or flat tone with no accompanying behavioral indicators of resignation, and be coded as “mild.” Code mild if child is wiping eyes when recovering from crying. Consider coding mild anxiety/sadness if you notice a shift from happy/joking manner to quiet/flat manner.
3. **Moderate or Intense sadness/anxiety:** Child shows **more than 2** instances of sadness/anxiety/resignation (in face or voice). Child may show a very sad, dejected demeanor; may whimper or weep. Child may wipe eyes, be on the verge of tears, look down and cross arms in effort not to cry. Must have evidence in terms of face (lip, brows, chin) or vocalization, in addition to body posture (i.e. more than just slumping down) to code Moderate/Intense sadness/anxiety.

**9**: **N/A**: Child is not visible/audible. |
| **Anger/Irritation** | 1. **No anger/irritation:** No angry or frustrated behaviors are seen during segment
2. **Mild or Minimal anger/irritation**: Cues to look for include body movements that indicate mild annoyance or irritation (I.e. pushing away), sighing with a frustrated look, looking grumpy or saying or doing something mildly argumentative or sassy. If child says something hostile/rude, or gives a very mean look, code Moderate/Intense.
3. **Moderate or Intense Anger/Irritation**: Includes expressions of anger, rage, and defiance. May be accompanied by aggression. An intense angry face (brows down, tense, square mouth, compressed lips, clenched teeth) or vocalizations indicating hostility, harshness, or sarcasm. Child may state that they don’t want to do something in a fierce voice or with a fierce look. Body pressure may be rigid, brows furrowed, mouth tight, harsh tone.

**9**. **N/A:** Child is not visible/audible |