

Supplemental Material S2. Operational definitions of intentional child communicative behaviors.

Oral Communication

An *oral communicative act* is defined as a production of (a) speech or speech approximation, (b) vocalizations (i.e., sound or word production that is not intelligible to a naïve listener), or (c) crying/whining.

Manual Communication

A *manual communicative act* is defined as a production of (a) a manual sign (i.e., production of a conventional or personalized sign), (b) a gesture (i.e., physical communication [e.g., a child pushing an adult's hand away], pointing to an object/person that requires understanding of the immediate context to interpret the physical behavior).

Aided Communication

An *aided communicative act* is defined as (a) an activation of speech-generating device or (b) touching a graphic symbol using a low-tech communication board to communicate a concept.

Challenging Behaviors

A *challenging behavior* is defined as a physical act that is used as a means to communicate that is aggressive towards another person or to self (e.g., biting, hitting, hair pulling to protest or signal distress/anger) or resistive to an adult's bid.