

Communication and Symbolic Behavior Scales (CSBS)

Project IMPACT

**Communicative and Symbolic
Behavior Scales (CSBS)**

Administration Manual
Project ImPACT

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Overview

The CSBS is recorded using the standard procedures. The structure of the CSBS includes 6 different contexts:

1. Warm-up; this will vary for each child. If necessary, approximately 2 to 10 minutes.
2. Communicative temptations; 5 to 10 minutes.
3. Book sharing; 2 minutes.
4. Symbolic play probe; 5 minutes.
5. Language comprehension probe; 2 minutes.
6. Constructive play probe; 1 minute.

The times indicated are estimates and should be used as guidelines to set the pace of the interaction.

The child's caregiver should be present during the entire session. Ask the caregiver to react naturally to the child's communicative behavior but to avoid directing the child's behavior. Throughout the sampling session, the evaluator should speak predominantly in response to the child's communicative behavior. That is, the evaluator should talk after the child has focused attention on an object or event or has initiated a verbal or nonverbal communicative act. Respond to the child's act by interpreting, acknowledging, imitating, expanding, or extending. Try not to ask questions except to request clarification or further information. It is important for the evaluator and caregiver to talk enough but not too much. If the adults do not talk enough, the child may be less likely to vocalize or use words. If the adults talk too much or direct the child with instructions and questions, the child may be less likely to initiate communication.

Relevant sections of the CSBS manual can be found on the Box network. This assessment will be recorded; therefore, examiners do not score it on-line. The following is meant to specify the directions so that our administration will be standardized across sites and children.

Environment

Administer the CSBS in a room set up for that purpose in which there is no other activity to distract the child. All objects, except the CSBS materials, should be kept out of the child's reach and view at all times.

Materials

- 2 wind-up toys
- Red bag for toys
- 2 teethers
- 2 animal figures
- Balloons (all one color)
- Picture (hang on wall)
- Bubble soap and wand
- 2 Clear containers for snacks (with snack in them- ex. Cheddar bunnies & Kix)

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- 4 board books
- Object
- Stuffed Animal (Big Bird)
- 2 identical yellow spoons
- 2 identical bowls
- 2 identical cups
- 2 identical bottles
- Spatula
- Large spoon
- Cooking pan with lid
- Cooking bowl
- 5 blocks

Tape the picture on the wall and place the object on a shelf. If 0° is the point directly in front of the child and 180° is directly behind the child, the picture should be placed at about 135° , and the object should be placed on a shelf at about 270° . See diagram.

Seating Positions

It is strongly recommended that restrictive seating be used for the child (i.e., Tripp Trapp Chair). If that is not possible, the child can be seated in the corner (on a chair) with a table positioned diagonally in front to limit the child's mobility. The child remains seated for the entire procedure, only being allowed out of the seat if absolutely necessary.

The evaluator should sit on the **child's left**, close enough to the child that the child can easily hand an object to her or touch her. Adjust your height if possible so that the child can establish face-to-face contact with the adult with a predominantly horizontal but slightly upward gaze.

Keep all materials out of the child's sight and reach when they are not in use. To facilitate the procedure, arrange materials prior to the sampling in the order of their presentation.

Sanitary and Safety Precautions

Anything the child can put in his/her mouth should be discarded or cleaned before it is used with another child. The CSBS kit contains enough balloons to throw them away at the end of the session. Do not reuse the balloons. Particular care should be taken when using the balloons. Do not allow the child to place any more than the end of the balloon in his/her mouth. If the balloon should break, dispose of all pieces of the balloon.

All other toys are washable and should be cleaned with soap and water or alcohol wipes. Make sure you have permission for the child to eat cereal as part of the communicative temptations.

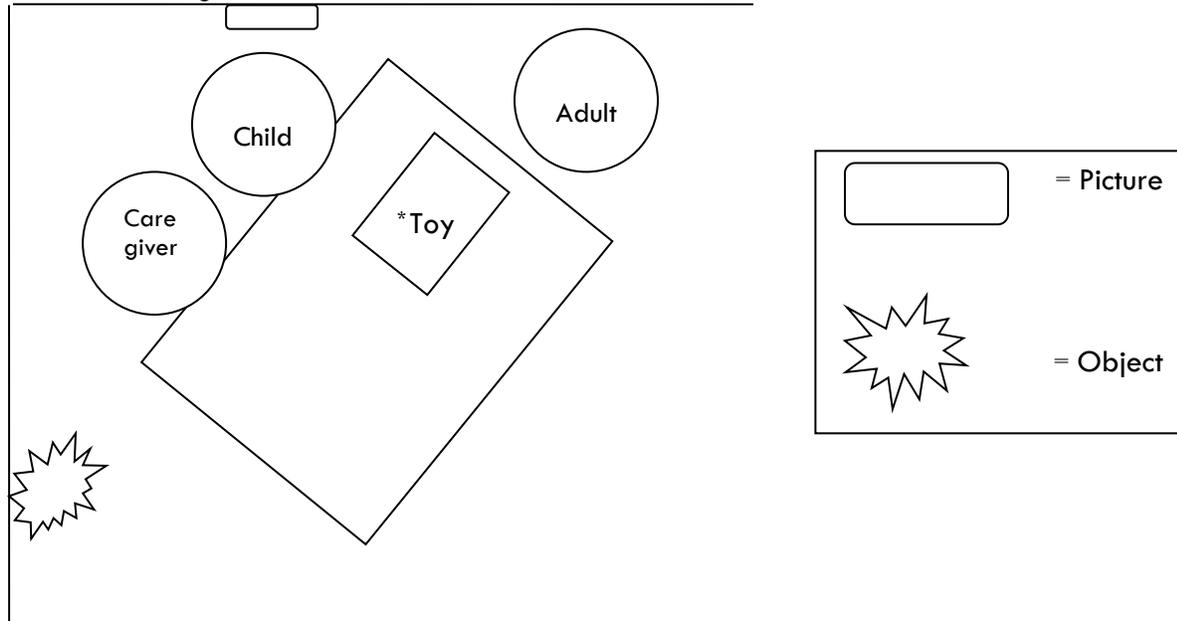
Positioning Video Equipment

The video camera should be set up across the room facing the child, focused as closely as possible to the child's upper body and face while also having the evaluator and caregiver within the frame. It is important that the child and adult's hands appear in the picture. The camera operator should **Focus On The Screen** and not attend directly to the child.

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Corner of testing area



Camera

Administration Procedures**Communicative Attempt**

A *communicative attempt* is an attempt by the child to send a message to the examiner or the parent. A child may direct a message to a communication partner in many different ways. The most obvious way in which a child may direct a message to a communication partner is by pairing a gesture or vocalization with gaze to the examiner's face. If the child clearly directs a communicative signal to the examiner in this way, then the examiner should immediately respond to the child's communication by activating the toy, providing assistance, etc.

Children may also direct a message to a communication partner in a less obvious way, such as placing the communication partner's hand on an object to make a request or giving the item to the communication partner without gazing to the adult's face. We would consider these types of communicative signals to reflect "lower level" communication. If the child uses one of these "lower level" communicative signals without gaze to the adult's face, then the examiner should silently pause for 1 to 2 seconds to allow the child the opportunity to look to the adult's face. The examiner **should not** prompt the child's eye gaze, but should just pause briefly. If the child does not spontaneously gaze to the communication partner's face within 1-2 seconds, the examiner should respond to the lower level communicative signal that the child used.

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Communicative Temptations

When presenting each communicative temptation use this prompting hierarchy:

The examiner should wait about 7 seconds (counting silently, “one thousand one……one thousand seven”) after each prompt before presenting the next one.

1. Present the temptation, wait and look expectantly.
2. Say, “Need help?” and wait.
3. Say “Need help?” and simultaneously extend an open hand on the table, at least 12 inches from object.
4. Say “Need help?” and simultaneously move the open hand to within 3 inches of the object.
5. Repeat the temptation from the beginning

Even if the child does not make a communicative attempt, wait seven seconds before proceeding to the next presentation, or the next temptation. **If a child is not responding to the temptations, only offer 2 presentations of the temptation, then move on to the next temptation.**

In the case of a **child who is frightened by or rejecting/protesting a particular temptation**, after the first presentation, present the temptation one more time. If the child is still afraid or rejects the object, go on to the next temptation (new object).

Examiners should receive objects from the child slowly and deliberately for the purposes of coding.

Warm-Up

The warm-up should last a maximum of 2-10 minutes *if necessary*. During the warm-up a few toys *not included in the sampling procedures* should be made available to the child. The evaluator should attempt to engage the child in interaction. Begin the CSBS when the child appears comfortable interacting with the evaluator.

Instructions for the Parent:

“We want to get a sample of how [child's name] communicates with sounds, gestures, or words. First, I am going to present some situations that will encourage [child's name] to communicate. Wait for [child's name] to communicate to you. Please try not to ask him/her too many questions. When [child's name] does communicate, try to respond naturally, by helping him/her or noticing what he/she is playing with.”

Announcement

Prior to beginning the CSBS, make the following announcement once the video is recording. State the Project name, ID #, name of the measure, the time period and the date. Say “Start coding here.”

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Example: “This is Project Impact, ID number 101, CSBS, Time One, on January 15, 2015, Start Coding Here.”

1) Wind –Up Toy

There are two wind-up toys included in the CSBS kit. Choose one and use it throughout this item.

- a) Activate the wind-up toy and let it deactivate. Allow the child to pick it up and wait for the child to signal for your help. If the child does not pick it up within 7 seconds, give it to the child and wait.
- b) After the child’s **first** communicative signal, reactivate the wind-up toy. Let it deactivate. Allow the child to pick it up or hand it to the child and wait for the child to signal for your help.
- c) After the child’s **second** communicative signal, activate the wind-up toy, and then remove it from the table while **saying (not waving)** “Bye-bye (name of animal).”

2) Toys in Bag (do not use the prompting hierarchy during this activity)

- a) Shake the cloth bag containing the four toys to attract the child’s attention and place the bag in front of the child. Encourage the child to take a toy out of the bag.
- b) If the child does not take a toy, hand a toy to the child and allow the child to examine it.
- c) Remove the bag with the 3 remaining toys, but allow the child to hold the first toy or set it aside.

3) Balloons

Use two balloons of the same color with each child, one for you to blow and one for the child.

- a) Blow up your balloon. Hold the balloon with some air in it toward the child, and encourage the child to touch or squeeze the balloon. Let it deflate slowly, pointing air away from the child. Hand the child’s balloon to the child while holding on to your balloon, concealed in your lap, and wait for the child to signal for your help.
- b) After the child’s **first** communicative signal to request, take back the child’s balloon but blow up your balloon again and let it deflate. Hand the child’s balloon back to the child and wait for the child to signal for your help.
- c) After the child’s **second** communicative signal, blow up the balloon and let it deflate and then remove it from the table while **saying (not waving)** “Bye-bye balloon”.

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4) Toys in Bag (do not use the prompting hierarchy during this activity)

- a) Shake the cloth bag containing the three toys to attract the child's attention and place the bag in front of the child. Encourage the child to take a toy out of the bag.
- b) If the child does not take a toy, hand a toy to the child and allow the child to examine it.
- c) Remove the bag with the 2 remaining toys, but allow the child to hold the toy or set it aside.

5) Gaze/Point Following Probe

- a) Call the child's name to get the child's attention and say "Look!" while pointing and looking at the picture that has been taped to the wall behind the child's left shoulder.

6) Bubbles

Use the jar of bubbles.

- a) Open the jar of bubbles. Blow a few bubbles up in the air away from the child's face. Catch one bubble on the wand* and encourage the child to pop it. Close the jar of bubbles **tightly** and place it on the table in front of the child. Wait for the child to signal for your help.
- b) After the child's **first** communicative signal to request, open the jar, blow a few bubbles, and again catch one on the wand. Close the jar of bubbles tightly, hand it to the child, and wait for the child to signal for your help.
- c) After the child's **second** communicative signal to request, open the jar, blow a few bubbles, and then remove the jar from the table, while saying "Bye-bye bubbles."

**Some children grab the bubble wand and will not release it. When this occurs, the tester should not offer the wand to the child. Instead, the tester can pop the bubbles in the air and encourage the child to do the same.*

Wipe bubble residue off table after the bubble activity.

7) Toys in Bag (do not use the prompting hierarchy during this activity)

- a) Shake the cloth bag containing the two toys to attract the child's attention and place the bag in front of the child. Encourage the child to take a toy out of the bag.
- b) If the child does not take a toy, hand a toy to the child and allow the child to examine it.
- c) Remove the bag with the 1 remaining toy, but allow the child to hold the toy or set it aside.

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8) Cereal in Jar

Use cereal or crackers in a closed clear container; if the child is not permitted to have food, place a small toy in the closed container.

a) Give the child one piece of cereal (or other food/toy), and encourage the child to eat it to establish interest. Put the lid back on the jar, close it, and shake the jar to attract attention. Place the jar on the table within the child's reach. Wait for the child to signal for your help.

b) After the child's *first* communicative signal, open the jar, give the child another piece of cereal. Close the jar and put it on the table in front of the child. Wait for the child to signal for your help.

c) After the child's *second* communication signal, open the jar and put one Cheerio on the table to take and remove the jar from the table while **saying (not waving)**, "bye-bye _____"

9) Toys in Bag (do not use the prompting hierarchy during this activity)

a) Shake the cloth bag containing the one toy to attract the child's attention and place the bag in front of the child. Encourage the child to take a toy out of the bag.

b) If the child does not take a toy, hand a toy to the child and allow the child to examine it.

c) Remove the bag, but allow the child to hold the toy or set it aside.

10) Book Sharing: *The entire book activity should take no more than 5 minutes.*

Instructions for the Parent: "Now we want to see what [child's name] does when looking at books. I am going to have him/her look at some books and then I'll have you look at one with him/her. Try to avoid telling [child's name] what to look at or asking [child's name] to label the picture. Follow [child's name] lead by noticing or labeling the picture that he/she directs your attention to."

a) Show the child three books from the CSBS kit by laying them out on the table in front of the child. Encourage him/her to select one. Remove the books that the child does not select. Allow the child to examine the book while the evaluator displays interest in it. The evaluator should respond naturally to the child's communicative behaviors by acknowledging, commenting on, or expanding on what the child is looking at, pointing at, or communicating about in the book. Avoid giving the child commands or asking the child questions except to request clarification or further information.

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b) If the child looks through the first book very quickly offer the child the remaining 2 books and encourage him/her to select one. Remove the other book and allow the child to examine the chosen book as described previously. After the child looks through the book, remove it.

Instructions for the Parent: “Here’s a book for you to look at together. Try to avoid telling [child’s name] what to look at or asking [child’s name] to label the pictures. Just follow his/her lead by noticing or labeling the picture that he/she directs your attention to.”

c) Present the child with the remaining book or books and encourage him or her to take it or select one. Encourage the caregiver and the child to engage with the book.

****While the child is engaging with the caregiver about the book, administer Number 11****

11) Gaze/Point Following Probe

a) Call the child’s name to get the child’s attention and say “Look!” while pointing and looking at an object across midline to the child’s right.

12) Symbolic Play Probe

Instructions for the Parent: “Now we want to see how [child’s name] plays with different sets of toys. Try to avoid telling [child’s name] what to do or asking questions. Follow [child’s name] lead by commenting about what he/she is doing.”

a) Give the child Big Bird. Then give the child the cup, the bowl, the spoon, the bottle. Bring out the matching 4 objects, keep two and give two to the caregiver. Acknowledge, comment on, or expand on the child’s communication and imitate the child’s actions on objects. Encourage the caregiver to imitate the child’s actions with the two objects. Avoid giving the child commands or asking the child questions except to request clarification or further information.

b) When the child has examined the first four objects and used at least one object functionally toward self or others, bring out the remaining objects, which include the frying pan and lid, spatula, mixing bowl, and serving spoon, and allow the child to initiate play for a few minutes with these toys. BE CONSERVATIVE IN INTERPRETING WHETHER AN ACTION REPRESENTS USE OF AN OBJECT TOWARDS SELF. MANY CHILDREN MAY MOUTH THE TOYS, ESPECIALLY THE BOTTLES, AND YOU SHOULD NOT CREDIT THIS ACTION AS USE OF AN OBJECT TOWARDS SELF UNLESS IT IS VERY CLEAR (I.E., THE CHILD PAIRS THE ACTION WITH APPROPRIATE VOCALIZATION OR VERBALIZATION, LIKE “MMMMM!”)

Give the child 2 minutes to demonstrate using at least one object functionally toward self or others prior to initiating the play probe. For very young children who are primarily mouthing, banging, and dropping the objects, you should skip bringing out the remaining objects.

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*Note: If the child uses an object functionally toward self or others at any point during the one-step and play sequence probes, bring out the remaining objects

d) After the child demonstrates play with the feeding toy set for a few minutes or two minutes have passed without the child demonstrating play, probe for the use of a one-step play action directed toward other. First, direct the child's attention to the caregiver or Big Bird by using a vague verbal prompt, such as "Oh, look at Big Bird. He's hungry." If the child does not complete the one-step play action directed toward other, give a direct verbal prompt for the action (e.g., "Show me how you feed Big Bird!"). If the child still does not feed Big Bird, model the one-step play action directed toward other with a utensil. You may verbally label what you are doing when you model a play action during the play probe. For example, "I'm feeding Big Bird," or "I'll feed Big Bird." Then hand the same utensil to the child, and allow the child to take a turn. When you hand the child your utensil you may say "you do it" or "your turn." If the child completes the action in imitation, hand a different utensil to the child and say, "Feed Big Bird some more!" to encourage the child to demonstrate the same act with a different utensil without modeling.

e) After you complete the one-step play probe, probe for a play sequence. The play sequence probe should be attempted even if the child does not complete a one-step play action in imitation or spontaneously. To prompt for a play sequence use the same prompting hierarchy as indicated above. For example, a) place the bowl and spoon in front of the child and provide a vague verbal suggestion for a place sequence, like "Let's make Big Bird some food!", b) provide a direct prompt, such as "Make Big Bird's food!", c) model stirring and feeding the plush doll with the spoon (you may verbally label what you are doing. For example, "I'll make Big Bird's food!", d) hand the same spoon to the child and allow him/her the chance to perform the sequence (you may say "you do it" or "your turn"), and e) if the child completes the sequence with the same utensil, hand a different utensil to the child and say, "Make Big Bird some more food!" to encourage the child to carry out the same sequence with a model.

General Guidelines:

Allow the child to use each object spontaneously first, and imitate what the child is doing. **For the purposes of this research study, always probe for one-step play toward other and then probe for a play sequence. See below for the symbolic play prompt hierarchy.** When you model play at a level higher than the child is displaying, make sure your play is more complex in regard to three dimensions: the variety of functional use of objects, the orientation of actions toward others, and the sequence of actions. Allow the child to take a few turns with the objects before modeling again.

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Language Comprehension Probes

13) Object Names

During this probe no gestural or other cues can be given that may guide the child's responses.

a) After the child finishes playing with the feeding toy set, say "Time to pick up," and begin removing some of the objects, but leave the cup, the bowl, the spoon, the bottle, and two additional objects as foils.

b) Ask the child to give you each object by name. Say, "Give me the _____ (e.g. cup, bowl, spoon, bottle)," while extending one hand out with the palm up to receive the object. A correct response is the child touching or giving the object named. You should applaud and praise the child for giving you an object. You may repeat each object name once; however, do not repeat the name if the child is identifying the wrong object.

c) Remove each object as the child gives it to you, making sure there are at least three choices of objects for the last trial.

STOP Rule: Stop when the child has correctly identified three different objects, or when the child misses two object names in a row.

If the child begins removing objects before you present the name, put the objects back on the table and instruct the child to "wait" (use a palm toward child gesture) and "listen" (use a pointing gesture to your ears).

In total you can only give 8 trials, four object names only repeated once. Botched trials are not counted in this total.

A "botched" trial occurs when the examiner or parent inadvertently points to an object while it's named or if the child begins to pick up an object as the examiner names it. These trials should be re-administered.

14) Person Names

During this probe no gestural or other cues can be given that may guide the child's responses. Use the choices of the caregiver (s), the child, and Big Bird.

a) Say, "Where is _____ (Mom, child's name, Big Bird)?" A correct response is the child touching or showing the agent named or making a clear change in direction of gaze to the agent. You should applaud and praise the child for identifying the person or agent.

You may repeat each person's name once; however, do not repeat the name if the child is identifying the wrong agent.

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STOP Rule: Stop when the child has correctly identified two people, or when the child misses two names in a row.

15) Body Parts

- a) Ask the parent what body parts the child knows. Administer this item even if the caregiver says the child does not know any body parts. Tell the caregiver that it is informative to try.
- b) Select body parts from the following choices, beginning with the ones the caregiver indicated the child knows: head, hair, eyes, nose, mouth, ears, tummy, hand, and feet.
- c) Say “Point to _____.” or “Show me _____.” Give stress to the lexical items being tested.
- d) A correct response is the child’s touching or showing the body part named or making a clear change in direction of gaze to that body part. The child can identify the body part on him or herself, on the caregiver, on the evaluator or on Big Bird. You should applaud and praise the child for identifying a body part.

You may repeat the name of each body part once, but do not repeat the name if the child is identifying the wrong body part. You may present up to four different body parts.

STOP Rule: Stop when the child has correctly identified three different body parts, or when the child misses two body parts in a row.

Constructive Play Probe

16) Constructive Play

Use the five blocks.

- a) Engage in a turn-taking game of building a tower and knocking it down.
- b) Give the child an opportunity to build a tower **without assistance**.
- c) If the child does not readily build a tower, hand the child one block at a time, and encourage the child to build. You may model building a tower, and you may encourage the child to build by saying “let’s stack”, “you try”...
- d) Applaud and praise the child for attempting to stack blocks.

Say: “Stop Coding Here.”

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Symbolic Play Probe Prompt Hierarchy

Play Probe:

- 1) Watch for the child's level of play for about a minute.
- 2) Prompt for a one-step play action directed toward Big Bird *verbally*, using a **vague verbal prompt**. WAIT.
- 3) If the child does not display a one-step play action directed toward Big Bird, use a **specific verbal prompt**. WAIT.
- 4) If the child does not display the one-step play action toward Big Bird after a specific verbal prompt, **model a one-step play action**.
- 5) **Hand the child the same utensil** so that they can imitate the one-step play action.
- 6) If the child imitates the one-step play action with the same utensil, **hand the child a different utensil** and encourage him or her demonstrate the action spontaneously by saying "Feed Big Bird some more."
- 7) Regardless of how the child responds to the one-step play probe, **prompt for a play sequence following this hierarchy**.