Semi-Structured Imitation Scale (SSIS)
Project ImPACT

Semi-Structured Imitation Sample

Object & Gesture

Administration Manual

Description

&

Coding Guidelines

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Procedure

Purpose
The SSIS measures the Child's ability to **spontaneously** imitate gestures & object play in the **context of social interactions.** During the administration the Examiner creates a series of opportunities for the child to imitate using gestures & objects. To ensure useful, code-able data it is important that all trials are presented & that the full 5 seconds are allowed for each.

Materials
- There are two scales: Object Scale & Gesture Scale. Each scale has 5 actions that are presented with corresponding toys & verbal markers.

Object Scale	**Gesture Scale**
• Fishing net & fish	• Baby & blanket
• Sound tube	• Blocks
• Train	• Car
• Slinky	• Dog
• Tambourine & Jingle bells	• Top

- For both scales, two identical copies of each set of materials are present in the administration kit.
- Only present the toys for one scale at a time.

General Environmental Arrangement

- This assessment is given on the floor ideally in a space limited to about a 6 foot circumference. This allows the Examiner to have adequate control over the materials & limits the range the Child can wander during administration.

- During the "Item Administration" portion of this measure the Examiner's positon should be face to face with the Child & as close to eye level with the Child as possible.

- During the "Item Administration" portion of this measure modeled gestures (with and without objects) must be presented with strong consideration to the scope of the Child's visual field. **Gestures should be discrete & contained within the Child's immediate visual field,** allowing the Child to see them easily. Large, sweeping gestures that may require the Child to track across a wide space should be avoided. (Examples for discussion: sound tube, fish & net, car with point, clapping above head, slinky on the nose.)

- During the "Item Administration" portion of this measure the toy selection presented to the Child must be **within the Child's easy reac**h. For Children as young as these, we define

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"easy reach" to mean within arm's length. When seated, the Child must be able to pick up any of the toys easily by simply reaching out.

- Remember this is not a measure of the Child's ability to visually track, but rather the Child's inclination to spontaneously imitate what they see.

Parent Instructions

Once the recording has started, give the parent the following instructions. **"During this procedure, we want to see for how your Child imitates different actions. Please don't give any directions or any assistance with imitating the actions that I demonstrate. We don't expect him/her to do everything I show them."**

5-minute Warm-Up

- All toys from one box should be arranged on the floor in pairs.
- Once the toys are arranged in pairs on the floor, start the timer for **5-minutes** & say **"Start Coding Here."**
- Before beginning modeling say, "*I have some toys to play with. We can play together.*"
- During the warm-up, imitate all of the Child's verbal & non-verbal actions playfully & naturally, including vocalizations, gestures, & object play. You may comment on the Child's play, but do not model actions. Be sensitive to how the Child is responding to your playful imitations & adjust as needed to keep the Child comfortable & at ease during this interaction.

Moving from Warm-up to Item Administration

- When the 5 minute timer goes off allow the Child to continue playing with whatever object has their attention & leave that object's pair out too. Collect the other toys back in the box. As you clean up tell the Child "*I have more toys to play with. We can play together.*"

Item Administration

- Begin Item Administration using the same box of toys used during the Warm-up.
- The Child will have retained one item-pair from this box during transition.
- Select a second pair of items from the box & place on the floor in the Child's line of sight & within easy reach & wait.
- Join in the Child's play by playfully imitating whatever s/he is doing for a moment.

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Item 1

TRIAL-1

Put down that toy & prepare for your first prompt series.

1. Pick up a different toy (not the Child's items pair) & proceed with the following cycle:
    a. Attempt to draw the Child's attention by holding the item in the Child's line of sight, intersecting their gaze with the item.
    b. Say "Watch me!"
    c. Demonstrate the appropriate gesture/toy movement.
2. Wait & watch expectantly, give the Child **a full 5 seconds** to respond before moving on.
3. If your attempts to draw the Child's attention & intersect their gaze are unsuccessful move forward with the cycle presenting the carrier phrase & model, regardless.

TRIAL-2

1. Continue using the same toy:
    a. Attempt to draw the Child's attention by holding the item in the Child's line of sight, intersecting their gaze with the item.
    b. Say "Watch me!"
    c. Demonstrate the appropriate gesture/toy movement.
2. Wait & watch expectantly, give the Child **a full 5 seconds** to respond before moving on.
3. If your attempts to draw the Child's attention & intersect their gaze are unsuccessful move forward with the cycle presenting the carrier phrase & model, regardless.

TRIAL-3

1. Continue using the same toy:
    a. Attempt to draw the Child's attention by holding the item in the Child's line of sight, intersecting their gaze with the item.
    b. Say "Watch me!"
    c. Demonstrate the appropriate gesture/toy movement.
2. Wait & watch expectantly, give the Child **a full 5 seconds** to respond before moving on. DON'T CUT THE THIRD OPPORTUNITY SHORT. GIVE THE FULL 5 SECONDS TO RESPOND.
3. If your attempts to draw the Child's attention & intersect their gaze are unsuccessful move forward with the cycle presenting the carrier phrase & model, regardless
4. At the end of TRIAL-3 remove the item-pair you have just prompted for, placing the item-pair behind you out of the Child's view.
5. Prepare for **ITEM-2** by bring out a new item-pair from the box, place in front of the Child & observe.
6. Join the Child in play briefly by showing interest in whatever toy has their attention & by playfully & naturally imitating their vocalizations & play behaviors. You may also narrate the Child's play in a natural way.

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Item 2

Trial-1 Follow directions above for Item1 Trial-1

Trial-2 Follow directions above for Item1 Trial-2

Trial-3 Follow directions above for Item1 Trial-3

Item 3

Trial-1 Follow directions above for Item1 Trial-1

Trial-2 Follow directions above for Item1 Trial-2

Trial-3 Follow directions above for Item1 Trial-3

❖ Continue on as above for all 5 items in the Object Scale & for all 5 Items in the Gesture Scale.

NOTES:

- The goal is to present ten items to imitate within a context of fun social communication & natural play.
- Avoid using the Child's name when presenting verbal markers. Modulate your voice, pitch, tone, & volume across this measure to remain playful, agreeable, & enticing. Avoid turning this measure into a drill.
- Refrain from imitating the Child's actions & sounds between *trials*. The Examiner should limit comments between *trials*. The Examiner may respond to the Child's initiations in order to maintain the interaction, but the Examiner should refrain from spontaneously engaging the Child between *trials*. This will help the coder determine the Child's response to the Examiner's prompt. You *should* continue to imitate the Child's actions & sounds between ***ITEMS.***
- Repeat the cycle a total of 3 times per item, creating 3 5-second opportunities for the Child to spontaneously imitate your demonstration.
- Be sure to wait at least the full 5 seconds after each model, <u>including the final model of the set</u> before moving forward with test administration.
- AVOID unconsciously prompting the Child to imitate. You should not give, point, touch or move the Child's item-pair toy to draw their attention to it after you have used the carrier phrase & model. You can move their item-pair to make sure it is within their easy reach, ideally before the model is given. Prompting a Child during Item Administration makes any Child response un-codeable.

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Additional Instructions
- After you have completed the 5 items from the first scale, immediately repeat the process for the remaining 5 items from the second scale. You do not need to make another announcement.
- When you have completed all 10 items, say "Stop coding here."

THE FOLLOWING NOTES CHRONICLE THE PROGRESSIVE REFINEMENT OF THIS MEASURE AND ARE INCLUDED FOR RETRASPECTIVE CLARITY.

Standardization Notes (1/29/16):

Object Imitation

Fish & Net: The Examiner should make sure that the Child's fish is out of their net before demonstrating the action for each trial.

Tambourine & Jingle Bells: When demonstrating this item, the tambourine should be on the floor & the Examiner should use the bells to hit the tambourine (rather than holding them up). Also after hitting the tambourine with the bells, be careful not to add an additional gesture or action with the toy, like shaking the jingle bells. Ideally you hit the tambourine with the bells 2 times & then pause, holding the bells slightly above the tambourine, which is on the floor.

Train: The Examiner pushes the train off the table. The pushing action happens from behind the train, not from the top of the train.

Gesture Imitation

Baby & Blanket: Be sure to only demonstrate one gesture (finger to lips) during this item. After you cover the baby & say "sh," it may be tempting to pat the baby, but end the trial with the "sh" gesture & the verbal marker, then pause.

Blocks: In order to st&ardize when & how long we are clapping, please clap for the duration of the phrase, "Yay, I did it!" & then stop clapping.

Car: In order for the Child to have the opportunity to see the point gesture, be careful not to push the car too far away from you. On 3/22/16, the statement about holding the point gesture for 5 seconds was removed.

Top: When modeling the "Finger in circle" gesture, please use a slow circle gesture & circle from the wrist.

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<u>Other: Added 3/22/16</u>

1. Refrain from imitating the Child's actions & sounds between *trials*. Limit comments between *trials*. Respond to the Child's initiations in order to maintain the interaction, but refrain from spontaneously engaging the Child between *trials*. This will help the coder determine the Child's response to the Examiner's prompt. You should continue to imitate the Child's actions & sounds between *items*.

2. Allow 5 seconds for the Child to respond to a trial:
   For the Object Imitation Scale, the window for the Child's response occurs after the Examiner demonstrates the object action & says the verbal marker. For example, the Examiner pushes the train off the table & says "Oh no!" Then she waits 5 seconds for the Child to respond.

   For the Gesture Imitation Scale, the window for the Child's response occurs after the Examiner says the verbal marker & models the gesture. For example, the Examiner says "Shh, Baby's sleeping" with her finger to her lips, & then removes her finger from her lips to wait 5 seconds. This procedure is used for all 5 gesture trials, including the Car Trial.

3. It is important to ensure that the materials for the item being administrated are *easily* within reach of the Child. If the Child moves away from the toys during a model of a gesture or play action the Examiner may need to re-arrange the toys so that they are indeed still within reach of the Child. *As a rule of thumb*, if the toys are easily in reach, & the Child does not move away from the toys during the administration of an item, then the Examiner should refrain from touching the toys or moving them closer to the Child.

References for SSIS

Ingersoll, B. (2008). The effect of context on imitation skills in Children with autism. *Research in Autism Spectrum Disorders, 2,* 332-340.

Ingersoll, B. (2010). Brief Report: Pilot r&omized controlled trial of reciprocal imitation training for teaching elicited & spontaneous imitation to Children with autism. *Journal of Autism & Developmental Disorders, 40,* 1154-1160.

Ingersoll, B. & Meyer, K. (2011). Examination of correlates of different imitative functions in young Children with autism spectrum disorders. *Research in Autism Spectrum Disorders, 5(3),* 1078-1085.

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SEMI STRUCTURED IMITATION SCALE
GESTURE & OBJECT IMITATION ASSESSMENT

Id_____   Time Period _____   Date_____

Examiner _____   Scorer _____P   R

TOY SET ONE	ACTION	VERBAL MARKER	TRIAL 1	TRIAL 2	TRIAL 3	SCORE
Sound tube	Turns upside down 2 times	*Whee!*				
Train	Pushes train off the table from behind the train	*Oh no!*				
Slinky	Put slinky on nose & drop 1 end	*Look!*				
Fish & Net	Drop fish in net	*I got it!*				
Tambourine & Jingle bells	Hit tambourine with bells 2 times	*Ta Da!!*				

TOY SET TWO	PLAY ACTION	GESTURE	VERBAL MARKER	TRIAL 1	TRIAL 2	TRIAL 3	SCORE
Baby & Blanket	Cover baby with blanket	Finger to lips	*Shh, Baby's sleeping*				
Blocks	Make tower of 3 blocks	Clap	*Yay, I did it!*				
Car	Push car across	Point to car	*It went over there.*				
Dog	Show toy	H&s up & pant	*I'm a dog.*				
Top	Spin top	Finger in circle	*It's spinning.*				

**NOTE: THE CHILD IS NOT SCORED ON WHETHER THEY IMITATE THE PLAY ACTIONS. THESE ARE JUST USED BY THE EXAMINER TO PLACE THE GESTURES IN CONTEXT

Total Score _____

Scoring Guidelines

OBJECT SCALE

Sound tube (Whee)

-Picks up & the tube automatically makes noise w/o Child turning it= 1

-Shaking it back & forth without wrist rotation = 1

-Moving sound tube by rotating the wrist 1x. Not flexion & extension = 2

Train (Oh no!)

-Drive it w/o dropping it= 0

-Pushes it toward edge w/o dropping off= 1

-Pushes train at least an inch, then it drops off table= 2

Slinky (Look!)

-Puts on nose but does not extend it= 1

-Puts it on interactant's nose= 1

-Puts in on nose & extends it= 2

Fish & Net (I got it!)

-Put fish in Examiner's net= 1

-Put something else in net= 1

-Put fish in own net= 2 (Do not need to shake or swing net aTrial)

Tambourine & bells (Ta Da!!)

-Hits h& on tambourine= 1

-Hits shaker on something else or hits something else on the tambourine = 1

-At least one hit w/ shaker on tambourine= 2

GESTURE SCALE

Finger to lips (Shh, baby's sleeping)

-Says shh w/o gesture= 0

-Finger to lips w/o "shh"= 2

Clap (Yay, I did it!)

-Says "yeah, I did it"= 0

-One Clap; the Child's h&s are open & come together at midline = 1

-At least two claps= 2

Point (It went over there!)

-Says "It went over there!"= 0

-Points= 2

H&s up & pant (It's a dog)

-Says "I'm a dog"= 0

-Panting= 1

-H&s up (with or w/o panting) = 2

Finger in circle (It's spinning!)

-Says "It's spinning"= 0

-Attempts to move fingers or h& in a circular motion; during the Child's attempt at the circular motion, their fingers or h&s return to the starting point of the motion = 2