

CFTQ Study Script

Child Assent: “I am here today to play some games with you that help me learn about how children think. Your mom/dad/guardian has said it is okay for you to play these games with me. If you want to stop at any time that’s okay, you can just tell me and I won’t be mad. Would you like to play these games?”

Signature of adult witness: _____ Date: _____

1. Picture-Book Task (EFT)

“I’m going to show you some pictures now and ask you some questions about what you should bring to some places.”

A. Desert

“I want you to imagine going here tomorrow. *Point to the picture.* Okay, let’s pretend that you are going to go walk across the sand. It’s time to get ready to go! Which should you bring to this place”?

Circle Response: soap / SUNGLASSES / seashell

“Why should you bring the _____?”

Desert Score	Item Choice	Explanation
	0 1	0 1

B. Snowy Forest

“I want you to imagine going here tomorrow. *Point to the picture.* Okay, let’s pretend that you are going to go walk across the snowy ground. Which should you bring to this place”?

Circle Response: Life jacket / ice cubes / WINTER COAT

“Why should you bring the _____?”

Forest Score	Item Choice	Explanation
	0 1	0 1

C. Waterfall

“I want YOU to imagine going here tomorrow. *Point to the picture.* Okay, let’s pretend that YOU are going to walk under this waterfall. Which should YOU bring to this place”?

Circle Response: rocks / RAINCOAT / money

Why should YOU bring the _____?

Waterfall Score	Item Choice	Explanation
Circle	0 1	0 1

Picture-Book Score:

Correct Item choice: _____ (0-3)

Future-Oriented explanations: _____ (0-3)

Total PB Score: _____ (0-6)

NOTES: everything fine other: _____

2. Truck Loading Task (Planning)

Materials: truck, road, 5 coloured invitations, 5 coloured houses, brown round box with stickers (for Naturalistic PM task).

Naturalistic sticker script

Experimenter will say “We are going to play a fun game now called the truck loading game. When we’re all done the truck game, I want you to remind me to let you pick a sticker from this box (shows child box, places it back on chair underneath the table). I might forget so make sure you remember to ask me for the sticker! Can you remind me to give you a sticker after we are done this game? ”

“In this game, you will pretend to be a mail carrier. You will use this toy truck to deliver these party invitations to these houses. The color of the invitation matches the color of the house. See.”

Demonstrate using one house and one invitation. “Let me show you how to play, this is the purple party invitation, so I would deliver it to the purple house”.

“You need to load the invitations onto the back of the truck. This neighbourhood has a one way street that means you can only drive your truck in one direction. This is the only way you can drive the truck”. Demonstrate the one-way road. “These arrows will remind you what way to go”.

Children now complete a warm up with two houses in which they were given the following instructions: **“Now there are two houses that we want to invite to the party. The yellow goes to the yellow house, and the purple invitation goes to the purple house. Now, we need to deliver these party invitations fast so that everyone will be able to come to the party. The fastest way is to drive around the block only one time.”** Next, the experimenter suggests a way in which to put the invitations on the back of the truck so that they could be delivered quickly. **“You always have to take the letter off the top of the truck so that the top invitation goes to the first house and the next invitation goes to the next house.”** She demonstrated loading the truck in reverse order. Then, children were given a rule check. **“So, can I take one from the bottom of the pile?”**

The experimenter repeated this until children answered correctly (“no”), giving feedback after each answer. After children delivered these invitations with the experimenters help, the warm up houses were replaced with two differently colored houses (red and green) and the test trials began.

One new house is added for each successive level of difficulty, ending with 5 houses and a total of four levels of difficulty. For each level, children received two trials and had to pass one of them to continue to the next level. 2-5 houses. The dependent variable at each level was whether or not the children stacked the invitations in reverse order in which they needed to be delivered. Self-corrections were permitted during the loading phase. After loading, children proceeded to deliver the invitations and the experimenter gave feedback about the relevant rule on incorrect trials (e.g., that children must always take the invitation from the top of the truck).

If wrong “**Remember, you should always take the invitations from the top of the truck, let’s do that again’.**

“We are all done the truck loading game now.”

Children received scores based on the highest level achieved (0 to 4).

No. of Houses	Trial 1 (✓ or X)	Trial 2 (✓ or X)	Score (see below)
2			
3			
4			
5			

Score: 2 houses=1, 3 houses=2, 4 houses= 3, 5 houses =4. (based on highest level achieved, even if it was only one of the two trials)

3. Naturalistic PM Sticker Task

Materials: sticker, box

After the Truck Loading Task, the experimenter will tell the child, “We are all finished the truck game now.” The experimenter will wait 30 seconds for the child to ask for the sticker.

If the child does not ask for a sticker, the experimenter will verbally prompt the child, “Was there something you were supposed to remember?” If the child still does not ask for the sticker the experimenter will then prompt with “Was there something you were supposed to ask for when we were done the truck game?” Children will be given a sticker regardless of whether they remember the future intention or not.

Number of Prompts: **0 1 2**

Naturalistic PM sticker task score: **1**=remembered to ask for sticker **0**= forgot to ask for sticker

Naturalistic PM sticker task Score: _____

4. Delay of Gratification

Materials: stickers, Dixie cup, small piece of paper, four reward cards

“Now we will play a choices game where YOU can decide whether you want something right now or something later. In this game, I am going to give YOU choices if you want something right now or later at the end of all our games today.”

Demonstrate two practice trials to the child. Randomly select two cards.

“Let me show you how to play. I have to choose between one _____ now and _____ later at the end of our games. I want _____ now.” Place the two piles of stickers on the table in front of the child. Then pretend to place the sticker on paper.

“Let me show you another one. I have to choose between one _____ now and _____ later at the end of our games. I want _____ later.” Place the sticker in a dixie cup and set aside.

To illustrate both options, the experimenter will choose the immediate reward on the first trial and the delayed rewards on the second trial and will demonstrate the consequences. For the immediate reward, the experimenter will pretend to place the sticker on a piece of paper. Delayed rewards will be placed in a Dixie cup and set aside.

“We will play this game and you will have a chance to win stickers.”

“In this game, you will decide what you want to do! Okay let’s start our game! Ready?”

*For each card, ask children to make a choice for themselves. Cards should be presented in a ****RANDOM ORDER****. Shuffle Cards. Note the order in which the cards come up. Circle children’s response.*

“You get to play next and make decisions for yourself!”

Card	Order (1-4)	“what do YOU want to do?”	Score (0-1)
Stickers: 1 vs. 2		Now / Delay	
Stickers: 1 vs. 4		Now / Delay	
Stickers: 1 vs. 6		Now / Delay	
Stickers: 1 vs. 8		Now / Delay	
Total Score (0-4)		Number of Delay (0-4):	

DoG TOTAL Score: _____ (0-4)

NOTES: everything fine other: _____

5. Zoo Game Card Sort Task (PM)

Summary: Children will be asked to play a game where they have to sort animal cards and place these cards in a basket, which corresponds to a coloured dot on each card (e.g., cards with an yellow dot go in an yellow box and cards with a blue dot go in a blue box). The cards will depict concrete nouns of animals (e.g, polar bear, moose, etc...). Children will be asked to help Joe the zookeeper sort the cards into the appropriate basket or “animal enclosure”. They will also be told that Joe the zookeeper accidentally left the monkey cage open and all the monkeys at the zoo have escaped. Children will be asked if they can help Joe find the escaped monkeys and put them back in their cage by placing the monkey cards in a box behind them when a monkey appears on a card. After the instructions are given, children will be assigned to a delay task (drawing a picture) during the delay interval (3 minutes). After the delay task is complete, children will sort the cards. At the end of the task, children will be asked a few questions about the task to verify their understanding.

Materials: paper, markers, timer, 1 stack of cards, small box placed behind the child, picture of zookeeper joe.

“This is Joe the zookeeper(hold up picture of Joe the zookeeper). **Joe loves to have help taking care of his animals at the zoo. There is one stack of animal cards on the table and Joe really wants help organizing the animals into their cages. Our job is to help Joe by looking at the pictures one by one and sorting the animal cards into the right animal cage by placing them here in these boxes. Each animal card has a coloured dot on it** (show child the dot on a card). **We need to sort the animals with blue dots into the blue cage and the animals with yellow dots into the yellow cage. Also, Joe will be very happy if you draw some pictures for him during our game.”**

“There’s something else important I need to tell you. Joe accidentally left the monkey cage open when he was cleaning it and all the monkeys at the zoo have escaped! So, if you see a monkey on a card, you should stop what you are doing and help Joe return the monkeys to their cage by putting the monkey pictures in the box behind you.” (in a box 2 meters behind the child). Get up and demonstrate how to hide a card.

“Do you understand how to play? Let’s practice by placing the animal cards into the proper coloured box. Here is the first one, what box would this one go in?” At this point, the experimenter hands one card to the child. Children look at card and places it in the appropriate box. If children cannot decide where to put the card or put the card in the wrong box the experimenter can prompt them, and encourage the child to try matching the coloured dot with the coloured box again. Use the first 3 cards (animals) in the first stack to ensure the children understand the rules. After practice trials, remove the 3 cards from the box and place the 3 cards back on the stack of animal cards.

	Practice Card	Placement in Box
1	Elephant	__ Yellow __ Blue
2	Penguin	__ Yellow __ Blue
3	Antelope	__ Yellow __ Blue

"I think you understand how to play this game now. You have to help Joe sort the animals by looking at the coloured dot on the card and placing the card in the matching colored cage, and if you see a monkey remember to put it in the box behind you because Joe needs to return the escaped monkeys to their cage!"

Filler Task

"Okay, before we begin our game, we are going to draw some pictures for Joe." Children are given a blank sheet of paper and asked to draw pictures for 3 minutes. The experimenter sets the timer for 3 minutes. Children will be advised to add more details if they take less time to complete the drawing. After the drawing is complete, children will be given one card at a time and asked to start sorting the cards into the box/cages. If child says the name of the animals as they place each card discourage this by reminding the child that they don't say the names, only sort the cards into the appropriate box.

"Alright, now it's time to play the card game with Joe. Are you ready?"

Stack 1

Order	Card	Placement in Box	Score
1	Elephant	Yellow Blue	
2	Penguin	Yellow Blue	
3	Antelope	Yellow Blue	
4	Fox	Yellow Blue	
5	Brown Bear	Yellow Blue	
6	Camel	Yellow Blue	
7	Turtle	Yellow Blue	
8	Leopard	Yellow Blue	
9	MONKEY	Yellow Blue Hide:	
10	Giraffe	Yellow Blue	
11	Lion	Yellow Blue	
12	Zebra	Yellow Blue	
13	Flamingo	Yellow Blue	
14	Hedgehog	Yellow Blue	
15	Rhino	Yellow Blue	
16	Kangaroo	Yellow Blue	
17	Tiger	Yellow Blue	
18	Ostrich	Yellow Blue	
19	Polar Bear	Yellow Blue	
20	MONKEY	Yellow Blue Hide:	

Stack 1 Continued

Order	Card	Placement in Box	Score
21	Wild Pig	Yellow Blue	
22	Deer	Yellow Blue	
23	Koala	Yellow Blue	
24	Hippo	Yellow Blue	
25	Mountain goat	Yellow Blue	
26	Horse	Yellow Blue	
27	Hyena	Yellow Blue	
28	Sea lion	Yellow Blue	
29	Buffalo	Yellow Blue	
30	Panda Bear	Yellow Blue	
31	Aardvark	Yellow Blue	
32	Parrot	Yellow Blue	
33	Wolf	Yellow Blue	
34	Raccoon	Yellow Blue	
35	MONKEY	Yellow Blue Hide:	
36	Toucan	Yellow Blue	
37	Lynx	Yellow Blue	
38	Moose	Yellow Blue	
39	Rabbit	Yellow Blue	
40	Cheetah	Yellow Blue	

*** **BOLD** colour indicates the correct dot colour on the card. You should place a check mark beside the coloured box the child places the card in under the "Placement in box" column. A correct response will have a check mark beside the **bold** colour.

Each item scored from 0-1. OT: box location correct= 1; box location incorrect = 0.
PM: 1= hid animal in box, 0 = forgot to hide animal in box.

TOTAL PM Score: _____ /3

TOTAL OT Score: _____/37

At the end of the PM task, after children have been through the stack of cards, the experimenter will ask the following questions.

“What you were supposed to do when you saw an a monkey?” (*Confirmation of rule understanding*)

Check: put animals in the box

If child doesn’t respond right away, here are some appropriate probes (indicate on which probe, if any, the child provided the correct response):

- “*What else did you have to do in this game?*”
- “*What did you have to do when a monkey was on one of those cards?*”
- “*What did you have to do to help Joe the zookeeper?*”

“You did a great job playing that game! Now, we’ll play some other games!”

NOTES: everything fine other: _____

6. Naturalistic Drawing PM Task

Materials: drawings from Zoo Game Card Sort task

Summary: the experimenter will ask the child to remind them to give them their pictures they drew for Joe at the end of the session so they can show them to mom and dad. This is a longer delay task with the duration of approximately 20 minutes from the time children are asked to remember the drawing to the time children are expected to prompt the experimenter for the drawing.

“Before we go on to another game, I’d like you to remember to ask me for your drawing(s) that you drew for Joe the zookeeper after we play all the games. I am going to put it here on top of this shelf (experimenter places it on shelf and points to its location). I am sure your mom/dad/parents would love to see what you drew, so be sure to remind me after the last game to give you your drawings. Can you remember to remind me?”

Marble Game Savings Task

Summary: Children are told they will be given a short break to play with a toy. The children will be shown a little marble game in the greeting room and then shown a bigger marble game in the testing room. The marble game consists of 1-to-3 runs and a small box at the end of the run where the marbles drop. After children are introduced to two marble runs, they return to the greeting room with the little marble game. The child is told that they have 3 minutes to play with the little marble game in the greeting room before they move to the testing room with the big marble game. Children are given three marbles to use for both marble games, and they are told that once they put the marble down the run it cannot be used again. The experimenter then tells the child they will be working at the desk until the timer rings. After the 1 minute is up, the experimenter and the child move to the testing room with the big marble run. The same procedure is followed as in the greeting room.

Materials: little marble run, big marble run, two boxes, 3 marbles

"We're going to take a break now to play with some toys. You are going to be playing a game with toys in two rooms" Experimenter goes back to the greeting room and places a small marble run on the carpet. Experimenter points to the little marble game "**In this room you can play with the little marble game.**" Experimenter demonstrates how the game works "**You put the marble here (at the beginning of the run). Once the marble drops into the box (point to bottom of run), it cannot be used again.**"

Experimenter and child then proceed to the testing room, where the experimenter removes the big marble game from the cupboard. "**In this room you can play with a more exciting, big marble game.**" Experimenter demonstrates how the game works. "**You can put the marble down three different spots (shows child the three different runs, demonstrates by dropping one marble down a run). Just like in the other room, once the marble drops into this box (points to box) it cannot be used again. Remember you only get 3 marbles to use for BOTH (emphasize) rooms.**"

Check understanding of rules. So how many marbles do you get to use in this game?

If correct: Repeat, Yes, you only get 3 marbles in this game to use in both rooms. If child is not sure how many marbles or responds incorrectly, provide correction. No/Remember, you only get 3 marbles to use in both rooms. There are only 3 marbles, no more.

The experimenter and the child return to the greeting room, where the child is told "**First, you will stay in this room for 1 minute with the little marble game. Next, you will go into that room for 1 minute (points to testing room) with the big marble game.**" Experimenter hands the child 3 marbles "**You only get three marbles TODAY. Remember, once you put the marble down the run, you can't use it again. What are you going to do now?**" Experimenter waits for child to respond that they will play with the marble game. If the child doesn't respond, by referring to the marble game, the instructions are repeated. "**I am going to work over at that desk (points to desk) until the timer rings.**" Experimenter goes to the desk and starts the timer. The experimenter pretends to work. If the child tries to engage with the experimenter the experimenter will make neutral statements, such as "**I have some work to do**". Once the timer rings the experimenter says "**We're going to the other room now for 1 minute. That room has the big marble game. Bring your marbles!**"

Number of marbles used on the little marble game: _____

The experimenter and the child proceed to the testing room. Outcome of interest is now obtained (i.e., how many marbles the child saved in the first room so children who saved marbles from Room 1 get to use them now on the big marble game. For those children who used all their marbles in the first room, the experimenter will open up a box on the desk and remove more marbles. "**Guess what? I found more marbles for you to play with.**" Children will then be given a few minutes to play with the large marble run. .

Number of marbles used on the big marble game: _____

Notes: _____

7. Simon Says

“We’re going to play a silly game now. In this game, you need to follow my instructions but only when I say “Simon says”. If I don’t say Simon says, then don’t do anything and stay still! Let’s stand up facing each other. Let’s practice, if I say Simon says clap your hands, you should clap your hands. But, if I just say clap your hands, you shouldn’t do it because I didn’t say Simon says!”

Practice Trials	Child’s response correct?
P1. Simon says clap your hands	
P2. Clap your hands	

Experimenter should demonstrate actions while giving commands. Touch your feet when you say “Simon says touch your feet”.

Trial	Child Movement
1. Simon says touch your feet	
2. Simon says touch your shoulders	
3. Touch your head	
4. Simon says touch your nose	
5. Touch your knees	
6. Simon says touch your ears	
7. Touch your eyes	
8. Simon says touch your hips	
9. Touch your tummy	
10. Touch your mouth	

Scoring: 0 = commanded movement, 1 = partial movement, 2 = different movement, 3 = no movement
 TOTAL Simon Says Score: _____ /15

NOTES: everything fine other: _____

8. PPVT

“Now, our last game today will be a fun pointing game. I am going to say a word and it will be your job to point to the picture that matches the word. If you aren’t sure what the word means, you can just guess. I want to see what you think in this game. Let’s try it!”

Raw Score: _____

NOTES: everything fine other: _____

9. Naturalistic Drawing PM Task (Continued from above)

Experimenter will tell the child after the PPVT task “We are finished playing all the games now,” to prompt the child to ask for his/her drawings. Experimenter will wait 30 seconds for the child to ask for the drawings spontaneously.

If the child forgets to complete the prospective action the child will be prompted by the experimenter, “Was there something you were supposed to remember?” If the child still does not ask for the drawings the experimenter will then prompt with “Was there something you were supposed to ask for when you leave?”

Number of Prompts: **0 1 2**

Naturalistic drawing PM task score: **1**=remembered drawings **0**= forgot drawings

Naturalistic drawing PM task Score: _____