**Everything you need to know about running kids in Maddie’s Iterated Learning study:**

**Age Range**: 6-8 y/os (for now)

**Max kids to be run in a day**: 20 (\*quality trials)

-this is because we will be running one generation at a time, and there are 20 separate chains

**Time allotted for study:** 1 min per trial \* 8 trials (6 quality + 2 training) + 1 training + instructions = 10 minutes

**Estimated time to complete study:** 10 minutes or less (depending on speed of child)

**Study URL:** https://callab.uchicago.edu/experiments/iterated-learning/iterated\_learning.html

**RUNNING THE STUDY:**

1. Introduction (can be given while walking child over to other side of idea factory, or while setting up):

*“Hi, what’s your name? My name is [XXX]. Today, you will be playing a memory game. Have you ever played a memory game before? [child answer]. Well, in this game, you are going to see some stickers placed on grids. I need your help to remember where the stickers are.”*

1. Setup:

When you load the study, you’ll see a beginning page. Input the subject ID (starting at first child = 100, +1 each time) and age of the child (rounded to years is fine). Then press “start”. Give the child the headphones to put on.

*“You will hear some sounds and instructions in the game, so let’s put these headphones on!”*

1. Training-1:

This first training trial is to get the child acquainted with some of the mechanisms of the task—making two grids look the same, clicking and unclicking to place or remove targets. You will not be able to pass this trial if the two grids do not match exactly. If, for some reason, the child spends more than 2 minutes doing this, or seems to have considerable trouble, don’t continue with the task. Depending on the age of the child, you can give more or less help on this. It doesn’t really matter how much help you give here, but it does matter that they understand the different features of the display—namely, clicking on target “stickers” to hear a \*ding\*, clicking on blank target grid elements to “place a sticker”, and clicking a second time to “remove a sticker”.

*“Now, your job is to make the empty grid on the right match the one on the left exactly by placing stickers down with your finger. You can place a sticker on the blank grid by clicking [CLICK ON BLANK GRID TO SHOW], and can remove the sticker by clicking again [CLICK SAME CELL TO REMOVE COLOR]. You can also click on the target stickers to hear a sound [CLICK ON ONE OF COLORED IN TARGETS ON LEFT GRID TO MAKE A DING SOUND—ADJUST VOLUME ON IPAD AS NECESSARY]. Can you make this grid [POINT TO EMPTY INPUT GRID] match this one [POINT TO TARGET GRID]?”*

Now, let the child go and try to make them match. With the 6-8 age range, they should “get it” and be fine, but feel free to give them prompts if they are stuck. If they are missing a target, point it out to them (*“Looks like you’re missing one right here”*), likewise if they have an extra one or if their patterns are shifted over. When they have the targets correctly placed, press “Check My Answer”. It will yell at you and play an audio prompt if the grids don’t match. Otherwise, it will go to the next screen.

1. Training-2:

The next two training trials are to get the child used to the actual format of the study. First, you will see a screen with instructions on it. Instead of reading off the screen, tell the child this:

*“Now, we are going to do two practice trials. First, you’ll see a pattern with stickers already placed on it. You can click on the target stickers to make a sound. Do your best to remember where the stickers are placed! Then, you will see a quick picture, and then you will see an empty grid. Just like we did before, I want you to fill in the stickers on this grid, like on the target that you saw. You’ll have one minute to fill in your pattern before moving onto the next practice.”*

Keep in mind—this is a LOT of information for the kids at once when they are unfamiliar with the task.

If the child seems to get bored in the 12 seconds the target grid is displayed, or seems confused, tell them that they can click on the targets to make a sound, and to focus & remember the pattern.

When the child is doing the input part of the trial, point out the Sticker Counter to them.

*“You’ll have to place 10 stickers on the grid. This counter tells you how many you have left to place. When you’re all done, press this button [POINT TO THE “READY FOR NEXT TRIAL” BUTTON] to move on.”*

If the child starts to re-create the pattern from the FIRST training trial (the one with the grids side by side), tell them to recreate the TEAL pattern they saw before the scribbles.

If the child starts to run low on time, point out the timer to them. If the child does not press the “ready for next trial” button within a minute, the screen WILL ADVANCE automatically. You can’t go back, and it will display the next target, so be prepared for this. If this happens, the kid will probably be flustered, so say something like *“Whoops, we ran out of time! Try to remember this pattern now.”*

If the child puts down the wrong number of stickers, there will be an error message. Point the counter out to them, saying either *“you’ve already put down 10 stickers”* or *“you still need to put down X stickers”*

**IF, AT ANY POINT, THE CHILD SEEMS FRUSTRATED OR SAYS THAT THE TASK IS REALLY HARD, TELL THEM *“Just do your best!”***

1. **Training-3:**

This comes right after the last training. The child should have gotten the hang of the setup at this point, so this trial should be pretty easy for them. The pattern is also recognizable so the child should be pretty accurate. If it seems like the child really doesn’t care, isn’t trying to remember the grid at all, or is totally goofing off, use your judgment and end the session right there if you need to. If there are any clarifications with running out of time/putting the right blocks down/etc, jump in! Otherwise, let the child be independent.

1. Study Trials:

After the completion of the first training and the 2 next training trials, you will see a screen that says the actual study is going to start.

*“Now, the patterns are going to get harder. Just do your best to try and remember what you see!”*

Hopefully with the addition of the timer and sticker counter, you should not have to provide any prompts (ex. With time or number of blocks), but if you do, that is fine, just try to minimize & make a note of it. Otherwise, there shouldn’t be any problems, and you should try to respond to the child as little as possible. Parents SHOULD NOT BE COMMENTING OR HELPING WITH THE STUDY UNDER ANY CIRCUMSTANCES. If the child comments about the specific patterns (e.g. “this one is easy! That one was hard!”) you don’t even need to reply. Only reply if the child is verbalizing a lot of frustration (reassure them! tell them how many trials they have left—it’s displayed on the screen!). If the child wants to stop, or you have to end the study early, make a note of it. You don’t have to do anything task-wise, because the data saves after every trial.

1. Finishing up:

At the end, you will see a smiley face. Just tell the child that they did great (they will also hear an audio congrats) & are all done and go give them stickers. PLEASE MAKE A NOTE OF HOW THE SESSION WENT—IF THERE WERE ANY PROBLEMS AT ALL (or even if there were no problems because I want to know), OR IF THERE ARE ANY ADJUSTMENTS YOU WOULD MAKE TO THE STUDY.

THANK YOU THANK YOU THANK YOU!