engagement level

during prompting

during task execution

prompt compliance

task completion rate

what are modes of interactions observed

Gestural, gaze, and verbal, what else

How to use these to better improve engagement during interaction

General Engagement Level:

Average % time body is facing NAO during prompting = sum of time child’s body facing NAO when NAO prompting / total prompt time

Average # verbal occurrences = # verbal occurrences / total # trials

Average # physical contacts = # physical contacts with NAO or monitor / total # trials

Average # caregiver intervening = # caregiver intervening / total # trials

Prompt Attention Level and Task Concentration Level:

Average % time VFOA is correct during prompting = sum of time child looking at NAO or virtual avatar when prompting / total prompt time

Average % time VFOA is correct during task execution = sum of time child looking at correct sink objects (soap, towel, or tap region) or hands / total task execution time

Attention Grabber Effectiveness:

Average AG compliance rate = # complied AG / total # AG delivered

Prompt Effectiveness:

Average prompt compliance rate = # complied prompts / total # prompts delivered

Average task completion rate = # completed tasks / total # tasks complied

Concerns:

How to distinguish in tasks completed those C knows what to do and those C complied and completed?

* C looks, C completes => C knows step or R motion helpful
* C looks, C doesn’t complete => { C mimicks => R motion is misleading, C doesn’t mimick => C doesn’t want to follow R’s motions (maybe it’s hard to follow) }
* C doesn’t look, C completes => C knows step
* C doesn’t look, C doesn’t complete => C doesn’t know step AND doesn’t view R as helpful

does C know which step to do without prompt

* C starts step before prompt + step completed (this would be attempted step after prompt)

Does C ever wait for prompt

* Stopped before prompt && not starting next prompt

C doesn’t know the motion of the step

* !step completed (this would be attempted step after prompt)
* Seeks help?
  + Looks at P/R
* Complies?

C is confident in when to stop

* C stops step before next prompt
* Correlate this with when

When does C do verbal?

Distracted / not looking at task

Touching R during intro

Difference between P and R’s prompts

time evolution of behaviour:

* Getting better at knowing the steps (know next step and know the motions)
* Getting better at turn taking or seeking help from prompting agent (waiting for R / P)
* getting better at complying to prompting agent
  + These two are both giving more authority to prompting agent
* Transition from P-r-c to r-c

Dyad and Dyad comparison (p-c vs r-c):

What can we compare?

Dyad and Tryad comparison (p-c vs p-r-c vs r-c):

How does presence of P influences r-c interaction

How does presence of R influences p-c interaction

How to guide a transition from p-r-c to r-c?

Under what circumstance would r-c be appropriate to start off, when would we need to do p-r-c first?