Adapted from "Partial Interval Time Sampling of Adaptive Strategies for the Useful Speech Project v 3/1/10" (Yoder, Fey, Thompson, McDuffie, Lieberman, Flippin, Watson, Firestine).

- Each video is 15 minutes long and divided into 180 intervals of 5-seconds
- The following toys are presented to each dyad:
    - brightly coloured 'Mr Tumble' hat
    - box of two-piece tactile animal puzzles
    - brightly coloured wig
    - glove with flashing lights at each finger tip
    - comb
    - plastic figurine of 'In The Night Garden' character Upsy Daisy
    - plastic figurine of 'Toy Story Character Buzz Lightyear
    - 2 x puppets (polar bear and multi-coloured monster)
    - 5 x brightly coloured partially transparent bricks
    - rainmaker
    - spikey ball
    - duplo bus
    - In The Night Garden spinning shapesorter
    - plastic wind up musical Jack in box

First Pass
- The goal of the first pass is to mark each interval as "N" or "C" – only those marked "C" (codeable) will be reviewed for the second pass
- At this point the only goal is to establish if N or C (no blanks allowed)
- Reasons to code an interval as N:
    - Distractions occur during the interval
        - Child is behaving in a way that requires the adult to intervene (e.g. trying to leave the room, hitting, biting, self-harm, crying uncontrollably)
        - Part of session is interrupted (parent leaves to answer phone, child needs nappy change etc)

- Due to arrangement of referents/people/camera there is no clear view of either leads or responses that have occurred
    - Child or adult are off screen or video is out of focus
    - Can't see adult or child hands to determine whether they are doing a touch lead or physical play
    - Can't see child's face or head orientation to determine attentional lead
- Even if only part of interval is affected by above – code as N

Second Pass
- Only applies to intervals coded "C"
- The first goal is to identify whether there is a child lead in each interval and if so, whether there was a parent response – check both of these at the same time even though they are described sequentially below. Additionally, we code the referent to make it easier to identify adopted leads.

Child Lead
- **If no child lead is present**, leave the 'lead' column blank and no further coding is needed for that interval regardless of what the parent is doing

- A child lead is present when:
    - the child is **demonstrating attention** toward a **referent**
    - AND they **'own'** the lead:
- Attention is demonstrated by
    - looking toward it for at least 1 second
    - OR touching the referent (moving it with hand or moving hand on it)
    - For our coding purposes we are not making the distinction, however, you need to be aware of this because whether a lead is look or touch is sometimes important
    - A referent can be toys, people, things in the environment, and also (less frequently) a communicative word, gesture or sign used by the child
- 'Owning the lead' occurs:

- Immediately if the child initiated the lead (code as CI) e.g. child starts looking at a book without any verbal instruction (code CI, referent = book) adult NONVERBAL actions are fine
- With a slight delay if the child adopts an adult lead (code as CA) e.g. adult introduces a book and the child attends to it for a further 3 intervals – only the 3rd interval is coded as CA
- A child adopted lead is one where the parent has introduced a referent but the child has sustained a focus on it for 2 consecutive intervals not including the one in which it was introduced

Codeable	Child Lead	Response	Child referent	Parent referent	Description
C			bus	ball	Referent introduced by parent
C			ball	ball	Child attends to referent [1]
C			ball	ball	Child attends to referent [2]
C	CA	U	ball	ball	This interval is classified as adopted lead for the referent

- What to do if the child displays more than one lead per interval?
  1. Check if any of the leads cause an adult response
  2. If so, code the first child lead to which an adult responded
  3. If not, just code the first one
- What if child looks at one referent whilst touching another?
  1. Looking is credited before touching
  2. UNLESS there are multiple leads affected by the rule above (i.e. the first adult response corresponds with the touched item)
- If a child looks at and touches a referent, it is counted as a touch lead (no BOTH option)
- The same lead can carry over into multiple intervals and should be credited each time if a child sustains attention

Parent responses
- All intervals with a child lead are considered for response
- Response must correspond with the lead in that interval (not prior intervals)

- Parent responses can be coded as physical ("P"), utterance ("U") or "BOTH"
    - Physical response and BOTH can ONLY follow a touch lead (not attentional)
    - Utterance response can follow any lead
    - Only code an utterance response if you can establish what the parent said after 3 listens (otherwise -> no response or P depending on if it was U or BOTH
- If no response displayed – leave cell blank
- Responses only get coded if they refer to the child referent
- Physical response examples
    - Imitate child action with same or similar referent
    - Aid the child's action
    - Demonstrate new action on child's referent
    - Demonstrate new action on differnet referent and relate this to child's referent
- Follow-in utterance examples
    - Must be about the child's referent (or a part of it, or an item related to it) **AND**
    - Must have specific semantic realtion ship to the child referent
- Follow-in utterances that are allowed (so long as based on child lead referent)
    - The ball rolled away
    - There's the ball. You like the big blue ball
    - Child plays with puppet "Oo so pretty"
    - Child plays with cow "moo"
    - "put the block in"
    - "turn the page"
    - "do you want the red one or the green one?"
- Follow-in utterances that are not allowed
    - non-specific affirmatives (ok, right, sure, yes, yay, good job, that's right, way to go, you got it or any UK equivalents e.g. well done, good boy)
    - Recitative utterances (singing songs, reading out text, counting in sequence)
    - No
    - Interjections (huh? Eh? Hey? Oh?) etc

- Statements intended to keep the child from doing something in future (e.g. stop throwing the toy) or about past memories or general statements (we never play like this do we, do you remember what you had for breakfast)

Referent coding

- It is useful to code the child and adult referent in order to track how long since a referent has been introduced by the adult for purpose of CA coding
- Do not need there to be a valid lead or response in order to code referents
    - E.g. child is looking at ball but this was introduced in previous interval by adult (= not a CI or a CA, referent= ball)
    - e.g. child lead relates to shapesorter, adult is talking about the book (code CI, no response, child referent= shapesorter, adult referent= book)