

Supplemental Material S1. Coding manual for timed-event sampling via Datavyu.

TELEPRACTICE EMT CODE

Child Code Summary Table			
Single Codes		Form	Independence
[pcv] – potentially communicative vocalization		[g] – gesture	[i] – imitated
		[w] – words	[u] – unprompted
		[z] – ASL / AAC	[p] – prompted
[n] no single code		[n] – no form	[n] – no independence
Adult Code Summary Table			
Column 1			Column 3
Turns	Expansion	Target	Milieu Episodes
[mt] – matched turns	[lx] – spoken “linguistic” expansion	[sw] – single words	[me3] – outstanding performance
[ut] – unmatched turns	[nx] – no expansion	[ad] – active declarative sentences	[me0] – not outstanding performance
[nr] – no response	[ix] – impossible to expand	[no] – non-target	[mli] – correctly abandoned episode

General Coding Rules

- Each adult line: <transcribe>, <turns>, <expansion>, <target>
 - All adult lines should contain one code for every category.
 - If any of these categories are impossible to determine based on the unintelligibility of the adult’s speech do your best and write xxx for the transcript.
- Each child line: <transcribe>, <single code>, <form>, <independence>
 - If no code applies to a child line, use the “no code” option. This is coded as [n]

Example:
C: xxx, [pcv],[n],[n]
- Each milieu line: <milieu episodes>
- General guidelines
 - Code in the exact order provided above (i.e., turn, expansion, target)
 - You do not need to capitalize the coded letters; mt or MT is acceptable.
 - Transcripts should never end with a child line. If the child takes the last turn before the timer beeps, insert the adult’s responding utterance.
 - Transcripts should never begin with an adult matched turn and/or expansion without the preceding child turn. If the transcript begins with an adult matched turn [mt], include the previous child utterance.

Child Code Definitions

Child Single Codes

1. Potentially Communicative Vocalization [pcv]:

Vocalizations are non-word, unintelligible, or linguistic other (non-syntactic) utterances voiced by the child to a partner. Utterances that are coded as vocalizations are those that cannot be understood as single or multiple words. When vocalizations co-occur in utterances in which single or multiple words are understood, the vocalization(s) should not be recorded. Vocalizations are only recorded when they occur in an utterance consisting only of vocalizations or gestures and vocalizations that occur together. An utterance ends when there has been a breath or a clear break of at least one second without vocalizations. The best way to determine this is to count to yourself "one thousand one."

This code can be combined with a gesture code [g].

Vocalizations are coded during:

- Animal sounds (Moo) when looking at a toy, transportation, motor sounds, (e.g., vroom) when pushing a tractor
- Other vowel-vowel or vowel consonant combinations or babbling and coding sounds or fillers such as "mm" or "huh".
- Laughing
- Linguistic others (non-syntactic = wow, uhoh, please, thankyou, byebye, etc.)

Not coded as vocalization:

- Crying / screaming / whining
- Involuntary noises such as hiccups
- An utterance that includes a recognizable word or word combination.

Examples:

C: x [pcv]

C: x playdoh [w][u]

C: {grabs} xxx [pcv] [g] [u]

C: wow [pcv]

C: goodjob cname [pcv]

Child Form Codes:

How the child is communicating.

1. Gesture [g]

The child makes a gesture alone (a signal that does not refer to a specific action or object). If the child uses words and gestures, code as words [w]. Gestures include reaches, grabs, shaking of the head, head nodding, points, shows, and gives.

Examples:

C: {child reaches} [g].

C: {child points to apple} [g].

Note: While playing with books or puzzles, pay extra close attention for pointing. If the child's hands are already on the toy, code conservatively. One way to help decide is to ask, "Would I count this as pointing if the child was playing with a different toy (e.g., blocks, babies, balls)."

Note: Hand as tool or hand over hand is always paired with prompted code [p] code.

Example:

C: {hand as tool} [g] [p].

A: {hand as tool} turtle [mt][ix]

2. Words [w]

The child says a word. A word has to be clearly articulated.

C: ball [w].

If a child uses a specific approximation for a word, transcribe and code the word as the word that is intended.

C: child says ba for "ball" } ball [w].

Colors and numbers count as words when said by a child

C: blue [w]

3. ASL Sign or Augmentative Communication Device [z]

ASL Sign: The child uses a manual sign that is made in the same way each time during the session. If the child used the ASL sign and then speaks, code as ASL.

ASL Examples:

C: {signs 'sing'} sing [z].

C: {signs 'sing' and then says sing} sing [z].

C: {says 'sing' first and then signs 'sing'} sing [w].

Note: ASL communication should be transcribed outside of brackets; the code will denote whether the words were spoken or produced using an ASL sign

Example:

C: { signs 'ball' } ball [z].

Augmentative Communication Device: child uses an augmentative device to communicate. If the child uses the device and speaks simultaneously, code as two separate utterances.

Example:

C: { presses 'sing' on aac } sing [z].

Child Independence Codes

The level of support the child needs to communicate.

1. Imitated [i]

The child imitates all or part of the preceding adult communicative act (words, ASL sign, gesture) but does not add anything to it. If the child adds words or changes the mode then it is unprompted [u]. The child must imitate the utterance within 3 seconds to be considered imitated [i]. If the child repeats any or all of the previous adult utterance but it occurs after 3 seconds, it is considered [u]. If on the line of 3 seconds, code [i]. This includes moments when the child said the word initially.

Example:

A: dog [ut].

C: dog [i].

Example:

A: { signs dog }[ut].

C: { signs dog } [i].

Example:

A: we have red and blue playdoh.

C: have red playdoh [i].

Note: Here the child repeats part of the adult's utterance but does not add anything new or change the mode of communication.

Example:

A: dog [ut].

C: big dog [u].

Note: Here the child adds new words.

Example:

A: dog [ut].

C: { signs dog } [u].

Note: Here the child changes the mode of communication.

Example:

C dog [u].

A The dog is big.

C dog [i]

2. Unprompted [u]

The child takes a spontaneous turn. If the child imitates part or all of the adult's previous communication, but changes the mode of communication, (adult says "More" child uses the manual sign for "More") it is considered unprompted [u]. If the child stays in the same communicative mode, but adds language to the adult's previous communication then it is considered unprompted [u].

Note: If the child repeats what the adult says but it happens more than 3 seconds after the adult speaks, it is considered spontaneous/unprompted [u].

Example:

A: hammer [ut]

C: nail [u]

Example:

A: dog [ut].

C: big dog [u].

Note: Here the child added new language

Example:

A: ball [ut].

C: { signs ball }[u][z].

Note: Here the child changed the mode of communication to signing

Example:

A: drive the truck [ut].

C: { five seconds after } drive [u].

Note: Here more than 3 seconds have passed which moves the child's communication into unprompted

Example:

A: roll the ball [ut].

C: { signs ball } ball [z] [u].

Note: Here the child changed the mode of communication from verbal to ASL signs

3. Prompted [p]

The child takes a turn in response to an adult prompt. These will typically be Milieu "say" or choice prompts, where the response options are included in the adult's turn. Child utterances in response to a time delay or other questions do not count as prompted, unless the child repeats the words spoken in the question when responding. This is because in that instance, the child is both being elicited to communicate AND imitating the word(s) the adult is saying, so it is the least independent.

Example:

A: say dog [ut][ix]

C: dog [w][p].

Example:

A: red truck or blue truck? [ut][ix]

C: red truck [w][p].

Example:

A: do you want to play with the puzzle? [ut][ix]

C: puzzle [w][p].

Note: When a parent is providing hand over hand assistance for a gesture, that gesture is coded as prompted [g] [p].

Example:

A: { hand over hand } a turtle [ut][ix]

C: { hand over hand point } [g][p].

Adult Code Definitions

Adult Turns Codes

Whether or not the adult's utterance was related and contingent to the child's previous utterance.

1. Matched turns [mt]:

Adult turns that follow a child turn that are contingent and related, or the adult related turns are taken *after* an interval of at least 3 seconds in which the child did not take a communicative turn.

If an adult responds to any communicative act that the child produces it is coded as a matched turn [mt]. This includes child verbal turns, AAC activation, vocalizations, and gestures. *Note:* The matched turn code must be temporally and semantically contingent/related, but does not have to include target language.

Example:

C: {gives} [g][u].

A: you need help [mt].

Example:

A: The ball is rolling

C: *no response, 3 s pass, *rolls ball down ramp**

A: The ball went down the ramp [mt]

2. Unmatched turns [ut]:

Adult turns that are not matched to the child's behavior, communication, or content focus. This includes consecutive adult turns that are not preceded by child lines without a pause of 3 seconds from their last turn.

Example:

A: want to play with this puzzle? [ut][ix]

waits only 2 seconds

A: oh look there are car/s in here. [ut]

This also includes adult turns that are in response to a child utterance but are not related or contingent. *Note:* this must be overt.

Example:

C: I want the ball [w][u].

A: are you ready to wash your hand/s? [ut][nx]

This also includes adult turns that are not within 3 seconds of a previous child utterance.

Note: If the adult is trying to find toys to mirror/map, setting up the environment, or trying to discern what language the child used, but then expands or matches the child's previous turn, code [mt].

Example:

A: look [w][u]!

3 seconds pass

A: what are you do/ing over there? [ut]

Code imperatives and commands as unmatched turns.

Example:

C: block

A: give me the block [ut]

Note: utterances that the caregiver could not reply to because of the therapist talking are not coded as unmatched.

3. No Response

The child takes a communicative turn, and the caregiver does not respond This is coded with the [nr] code.

Example:

C: block

A: { no response } [nr]

C: block

Adult Expansion Codes

The adult expands the child's communication by expanding the child's incomplete utterances into Toy Talk sentences. An expansion must match the intent of the child. In an expansion, the adult adds words to the child's previous utterance without changing the child's function.

1. Linguistic Expansion [lx]

The adult expands the child's word(s) *into a simple ADS in which the lexically-specific noun is in the subject position* (not a pronoun). The adult must repeat every content word in the child's previous utterance to expand. They do not have to repeat linguistic others. The expansion must be grammatically correct and meet Toy Talk criteria. Fully formed child utterances cannot be expanded.

Example:

C: blue

A: the block is blue [lx]

Example:

C: no car.

A: the car is go/ing away [lx]

Non-Example:

C: the plum is purple

A: the apple is green [ix]

2. No Expansion [nx]

The adult does not expand a communicative child act that can be expanded into a simple ADS. The adult could be attempting to expand the child's previous utterance but changes the child's communicative function, adds too many words, OR does not repeat all of the content words in the child's utterance. If the adult only adds a linguistic other(s) to the child's previous utterance, it is not an expansion [nx]. Adding an article is not an expansion.

Example:

C: want ball [w][u].

A: here's the ball [mt][nx].

Example:

C: drive car [w][u].

A: drive the car [mt][nx].

Code No Expansion if the adult expands the child's utterance into a complex ADS (I.e., not simple ADS).

Example:

C: Boy store

A: The boy wants to go to the store (complex)

Example:

C: Bear

A: The bear is going to build a tower (complex)

Code No Expansion if the adult expands the child's utterance into an ADS in which a lexically-specific noun is *not* in the subject position

Example:

C: Blue

A: It's blue [nx][ad] (pronoun in subject position)

3. Impossible to Expand [ix]

It is impossible for the adult to expand the child's previous utterance. Adult utterances that do not follow child utterances (consecutive adult turns) are coded [ix].

Example:

A: my car is big

A: your car is small [ix]

Adult utterances that follow completely unintelligible [pcv] child utterances or child vocalizations should be coded [ix].

Example:

C: {vocalizes} [pcv].

A: {ball} [ix].

Adult utterances that follow gestures [g] should be coded as [ix].

Example:

C; {shows car} [g]

A: it's a car [ix]

If the child's utterance is partially intelligible, the adult should expand the word(s) that are intelligible.

Example:

C: xx firetruck.

A: the firetruck is under the table [ix]

Adult utterances that follow a linguistic other are considered impossible to expand.

Example:

C: no

A: you don't want the cup [ix]

Milieu prompts are also considered [ix] because the adult cannot both prompt and expand.

Example:

A: say ball [ut][ix]

C: xx baby [w][u].

A: oh you're right [nx].

Responses to fully-formed child questions are impossible to expand.

Example:

C: what's that?

A: it's an eggplant [ix]

Responses to child Toy Talk ADS are impossible to expand.

Example:

C: the apple go/3s in

A: the banana go/3s in [ix]

Note. If the adult is repeating a linguistic other from the child's previous utterance, it does NOT affect the adult's target code.

Example:

C: oh ball [w][u].

A: oh the ball went down [mt][ix].

Unmatched turns [ut] are considered adult turns in which it is impossible to expand [ix] unless they are ONLY unmatched because the adult's utterance is unrelated or non-contingent and the child's previous utterance could have been expanded, in which case they should be coded [nx].

Example:

C: car/s.

A: hey I think there/'s a puzzle on the shelf [ut][nx].

Adult Target Talk Codes (Adapted from EMT-SF Framework)

The level of language in the adult's utterance in relation to the child's target level of speech.

1. Single Words [sw]

The adult's utterance only contains a single content word with syntactic status (cf. Hadley, 1999). Words without syntactic status include: greetings (e.g., hi, byebye), social words (e.g., please), addressee terms used to get the partner's attention (e.g., Mommy), nonsyntactic markers of affirmation or negation (e.g., yeah, no), and interjections (e.g., uhoh, oops, whoa). A two-word utterance made up of one word with syntactic status and another word without syntactic status will get this code.

Examples:

A: Dog [sw]

A: Open [sw]

A: Help [sw]

A: More please [sw] (single word because please has no syntactic status)

Single words are generally a noun label. Adjectives (purple, big, etc.) do not count as single words.

Verbs by themselves do not count as single words (they are ungrammatical) unless it is a part of the prompting sequence. Adults should not model single verbs, but can prompt a child during a milieu episode.

Examples:

A: push.

Requesting single words (help, more, open) are counted as single words

Examples:

A: Help

Single words combined with a linguistic other (e.g., please, thankyou, goodjob, etc.) or an article (e.g., a, the) are coded as single words

EX: A lion [sw]

2. Simple Active Declarative Sentences [ad]

Active Declarative Sentence (ADS): Active declarative sentences are in active voice and declarative form.

An active voice is one in which the subject is completing an action (e.g. "the girl ate the apple") rather than being acted upon (e.g. "the apple was eaten").

An active voice is one in which the verb is in an active voice form (e.g. "the girl ate the apple") rather than in a passive (e.g. "the apple was eaten").

The declarative form makes a statement (e.g. "it fell down") as opposed to issuing an imperative (command) or asking a question (e.g. "knock it down" or "did it fall

down?”). Repeating a child’s declarative utterance and adding a question intonation is still in the declarative form.

Active, declarative sentences have an overt subject NP and a VP in the canonical word order (i.e., the subject NP precedes the main verb, its auxiliaries, and the rest of the verb phrase). ADS with negation and intonation-only yes/no questions will also be coded as ADS because their word order is canonical.

This definition excludes single words or phrases, fragments, or sentences in passive voice, WH- questions, imperatives and exceptional declarative sentence structures with *fronting* or movement of syntactic structure, in which a word group that customarily follows the verb is placed at the beginning of a sentence (e.g. “here comes the train” or “there are more toys”).

Examples:

- | | |
|-----------------------------------|--|
| A: The girl is in the house. | (ADS, simple sentence) |
| A: You’re eating. | (ADS, simple sentence) |
| A: You can’t wash your hands yet. | (ADS, simple sentence with negation) |
| A: It went way over there! | (ADS, simple sentence) |
| A: The bear is eating apples? | (ADS, simple sentence, intonation-only question) |
| A: It’s a cow. | (ADS) |
| A: That’s the duck | (ADS) |

3. *Non-target Talk [no]*

Adult language will be coded as non-target [no] when the adult uses language *outside* of single words and simple ADS. This includes questions, directives, single verbs, modifiers, phrases, and complex sentences. See below for examples of Non-ADS sentences.

- | | |
|-------------------------------------|---|
| A Let’s play with the slide. | (NOT ADS, imperative, no overt subject) |
| A <u>Say</u> ball. | (NOT ADS, imperative, no overt subject) |
| A <u>Is</u> Poohbear hungry? | (NOT ADS, yes/no question, copula movement) |
| A <u>Is</u> the bear eating apples? | (NOT ADS, yes/no question, auxiliary movement) |
| A <u>What’s</u> the bear doing? | (NOT ADS, wh-question, WH and auxiliary movement) |
| A <u>Here comes</u> the train. | (NOT ADS, fronting) |
| A <u>There goes</u> the alarm. | (NOT ADS, fronting) |

Adult Milieu Episode Codes

Milieu episodes (prompting episodes) are a sequence of prompts often in response to the child's request, sometimes elicited by a Time Delay. Milieu episodes *begin* when the adult does one of the following milieu teaching procedures and *includes* at least one of the following: open question, choice question or model prompt:

1. Open question

Question or statement that requires a verbal or nonverbal communicative response from the child that provides information that the adult does not already have (i.e., there is not a prescribed or "correct" answer). Not all real questions start a milieu episode. To start a milieu episode the real question must:

a. Imply that the child make a request

Example: "Which one should we use?"

Note: This is an open question that triggers a milieu episode

Non-Example: "What is your favorite color?"

Note: This is an open question that does not trigger a milieu episode

b. Contain the words "we", "should", OR "want".

"What do you say" will be considered an Open Prompt ONLY when it is used in response to a child request.

Note: Open questions provide the *least amount of support* for the child. Holding up a truck and an airplane and asking "What do you want" does not give the child any clue as to the name of the objects you are holding. They must understand that they have to say something in exchange for the object they desire. Then they must find the word "truck" or "airplane" in their brains and bring it out as language. So even though holding up a truck and an airplane is functioning as a choice, it is the language of "What do you want" that makes that question an open question.

2. Choice Prompt

A choice question is an either/or question that requires a verbal or nonverbal communicative response from the child that provides information that the adult does not already have (i.e., there is not a prescribed or "correct" answer).

Choice questions provide a *higher level* of support for the child. Holding up a truck and an airplane and asking "Do you want the truck or the airplane?" gives the child the words for the objects you are holding. This offers more support than an open question in which the language is not directly modeled for the child. It also makes it a bit more clear that the child needs to make a verbal attempt to say the name of the object they want in exchange for that object.

3. Model Prompt

A model prompt is a word, phrase, or sentence that the adult states with the intention that the child will imitate. The adult may say, "Say . . ." or emphatically state the word(s) to be imitated so it is clear to the child that the adult is prompting the child to imitate the

words/actions. "Can you say..." counts as a model prompt, as does "tell me. . ." except in the case of "tell me what you want," which is considered an Open Question.

Model prompts offer the most support for the child. Holding up the truck and saying "Say 'truck'" lets the child know exactly what the word is for the object you are holding and it lets them know the expectation that you want them to say that exact word in exchange for the truck.

Each milieu episode may have one or several of these techniques. If the adult is trying to get the child to produce the same or a very similar utterance it is considered to be part of the same episode. Prompts that require the same kind of information from the child are grouped into the same episode:

Same Episode

A: what do you want?

C: roll ball

A: say I want the ball to roll down the hill

C; I want the ball to roll

Different Episodes

A say cow

C: (no response for 2 seconds)

A: say I want ice cream

C: No!

A: what is this?

Each milieu episode is scored depending on how the episode is carried out by the adult. This score represents the quality and correctness of the episode.

There are 2 types of episodes:

1. Milieu episodes that require a child verbal response and is in response to a request [me]
2. Milieu episodes in which the child loses interest [mli]. To be coded as [mli], the child must have requested the object or action at some point during the episode. To be coded as [mli] the adult must also not give the object that was being prompted (since the child lost interest). These episodes do not receive a score.

Milieu Episode Scoring Guidelines
Outstanding Performance +[me3]
<p>The adult demonstrates a high-quality Milieu Episode. The adult must:</p> <ol style="list-style-type: none"> 1. Begin the Milieu Episode naturally and in response to a <u>non-target</u> child request. 2. Prompt a language target at the child's target level. 3. Prompt the same words throughout the episode. 4. Use the correct prompting sequence. 5. Give the child adequate time to respond. 6. Stop prompting when the child loses interest, says the prompted words, or responds to an open question with a target request. 7. Give the child the prompted and requested object/action at the end of the Milieu Episode. 8. Label the object/action with the prompted language target.
Not Outstanding Performance +[me0]
<p>The adult attempts a milieu episode, but makes errors. If any of the above 8 criteria in [me3] are not met it is a [me0]. Code as [me0] if ANY of the follow is observed:</p> <ol style="list-style-type: none"> 1. Begins the Milieu Episode unnaturally and is not in response to a <u>non-target</u> child request. 2. Prompt a language target at anything other than the child's target level. 3. Uses different words to prompt at any point in the episode. 4. Incorrect prompting sequence. 5. Does not give the child adequate time to respond. 6. Does not stop prompting when the child loses interest, says the prompted words, or responds to an open question with a target request. 7. Does not give the child the prompted and requested object/action at the end of the Milieu Episode. 8. Does not label the object/action with the prompted language target.
Abandon Milieu Episode +[mli]
<p>The child loses interest in the object/action and the adult abandons the Milieu Episode appropriately by not giving the child the prompted object/action.</p>

Outstanding Performance [me3]

1. Begins the Milieu Episode naturally and in response to a non-target child request. The episode must begin naturally, in such a way that it does not disrupt play. The adult should not do anything to demand the child's attention, such as taking away toys, clearing play space, etc.
The episode should also begin in response to a non-target child request. If the child is requesting using a target, there is no reason to prompt them. If the child does not want whatever you are prompting, there is also no reason to prompt them.
2. Prompts a language target at the child's target level. The adult should prompt a language target at the child's target level to teach the child the language target. Targets are chosen by the therapist for the child and vary between children.
3. Prompts the same words throughout the episode. The adult should not change the words they are prompting within an episode because this is confusing to the child. This includes adding or taking away words between prompts. This only applies to Choice Prompts and Model Prompts. The wording of the choices should match the wording of the Model prompt.

Examples:

A: ball or car [ut][ix]?

C: {grabs car} [g][p].

A: say car [mt][ix].

4. Uses the correct prompting sequence. The prompting sequence is as follows:
Open Question → Choice Prompt → Model Prompt (Say prompt).
The adult is not required to use all of these options, but they cannot be used out of this order (e.g. model prompt → open question). The adult also may **not** use more than 2 prompts in each category.

If the child does not respond to an Open Question and/or Choice Prompt with the prompted target, then the adult must give at least one Model Prompt.

If the child does not respond to the first Model Prompt with the prompted target, the adult must give the Model Prompt a second time.

If the child does not say all of the correct speech sounds (e.g., "ca" for cat), the adult has the option of giving the model procedure again, or phonologically recasting/expanding.
5. Gives the child adequate time to respond. The adult must give the child at least 3 seconds to respond after all prompts. This applies only to prompts – non-prompt questions such as "what color is this" do not count as prompts and it does not matter if the adult waits 3 seconds after these utterances.
6. Stops prompting when the child loses interest, says the prompted words, or responds to an open question with a target request. This is a measure of "over-prompting." The child needs to learn to respond to prompts in order to receive a desired object – if the adult continues to prompt beyond the expected number of prompts, this will frustrate the child.

The same is true if the child says the words the adult prompts and the adult continues to prompt.

It is also counterproductive to continue to prompt an object/action that the child no longer desires – the child will have no motivation to respond to the prompts. This is where control of the item is important – if the child is able to take the desired object before the end of the episode, he will have no motivation to respond to the prompts.

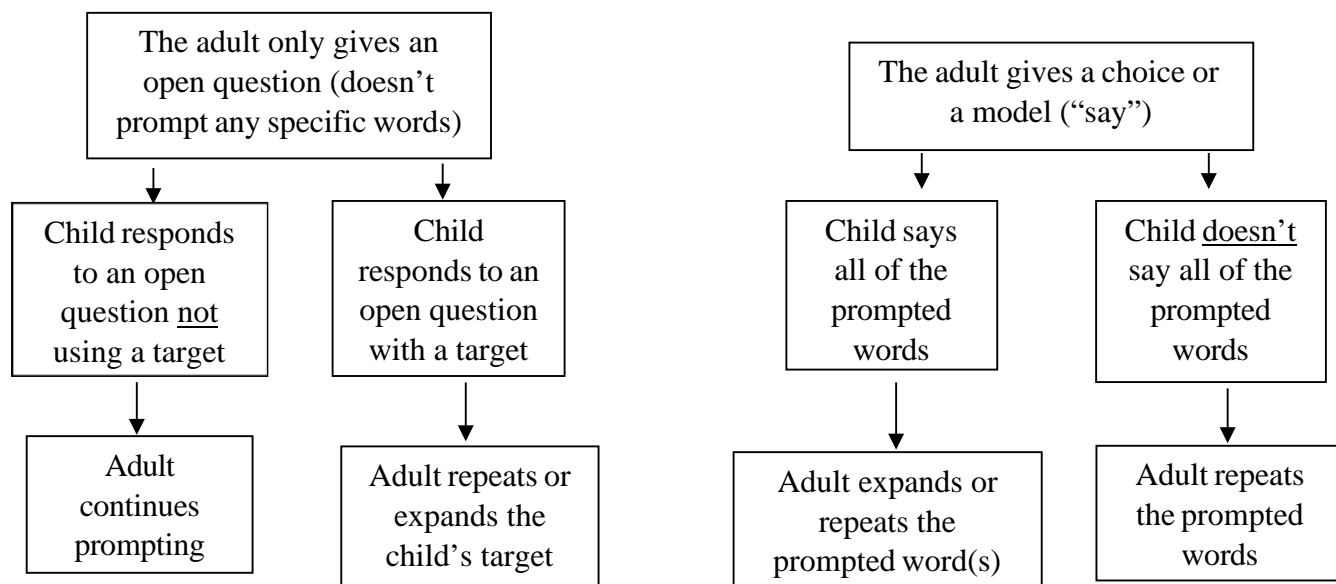
7. Gives the child the prompted and requested object/action at the end of the Milieu Episode. The adult must give the child the prompted and requested action or object regardless of whether they completed the prompting sequence correctly. They should only give the object if the child shows interest in the object or action.

If the episode does not begin in response to a request for an object/action, and the adult prompts an object/action, the child must show overt interest in the prompted object/action (reach, point, give) or respond with the prompted word(s) for the adult to correctly give the prompted object/action at the end.

If the adult goes through the entire prompting sequence they should give the prompted object/action unless the child is blatantly uninterested.

The adult should give the prompted & requested object/action within 2 seconds of ending the episode unless the adult is physically having trouble doing so (ex: the child wants the jar open and it takes the adult more than 2 seconds to open it).

8. Labels the object/action with the prompted language target. The adult must end the episode by labeling the prompted and requested object/action with the prompted language target within one second of intentionally giving it. The language used by the adult to end the episode should be based on how the child responds to the episode. Follow the flowchart below to determine how the adult should end the episode. If the adult does something not listed, the episode should not be scored [me3].



Not Outstanding Performance [me0]

1. *Begins the Milieu Episode at a time when the child is NOT requesting.* If the child is not requesting, and the adult begins a Milieu Episode, it is considered not great teaching. This is because the point of Milieu Episodes is to use opportunities when the child is requesting with below-target-level language to teach them targets. The child's desire for an object/action motivates them to respond and receiving the object/action at the end of the episode reinforces them for responding or at least acquiescing to prompting.
 - a. *Begins the Milieu Episode in response to a child target request.* If the child is requesting using a target, there is no reason to prompt them. This only applies to language targets at the child's current target level. Language targets are child-specific and each child may have words that do not count as targets at his/her level, as specified by the therapist. If the child uses a language target to request and the adult begins a Milieu Episode, score [me0].
 - b. *The Milieu Episode begins in a way that is NOT natural and disrupts play.* The initiation of episodes that overtly disrupt the interaction or involve hoarding of toys or taking toys away from the child should be scored [me0]. This is a measure of the initiation of the episode; some children do not respond well to prompting and the episode itself will be disruptive because the child does not like being prompted. This is not a measure of the child's response – it is a measure of if the episode flows naturally with the play. Examples: The adult takes the Mr. Potatohead hat out of the child's hand and holds it up to Mr. Potatohead and waits – disruptive [me0]. While the child is playing, the adult clears the table of all toys and holds up two choices – hoarding [me0].
2. Prompts at a different target level
 - a. *Prompts below the child's target level or using a non-target word.* If the adult prompts a below target or non-target word (such as a linguistic other) it is considered not great teaching because it is not helpful to teach the child non-target words. This is different from prompting above-target level words because below and non-target words are not necessarily more difficult for the child to say, they are just not as useful as targets are for the child to learn.
 - b. *Prompts above the proximal target level.* If the prompted words are more than 2 words above the child's target level, score [me0]. The word "say" does not count.
Example:
(1-word)
A: say give me the red cup. [me0]
3. Changes the prompted words during the Milieu Episode. This only applies to Choice Prompts and Model Prompts. If the adult only asks an open question, this is not applicable. If the adult adds or takes away any words between prompts, score [me0].
Example: A: say doll/s; A: say want the doll/s

4. Uses the incorrect prompting sequence. The prompting sequence is as follows: Open Question → Choice Prompt → Model Prompt (Say prompt).
 - a. The adult is not required to use all of these options, but they cannot be used out of this order (e.g. model prompt → open question). The adult also may not use more than 2 prompts in each category.
 - b. If the child does not respond to an Open Question and/or Choice Prompt with the prompted target, then the adult must give at least one Model Prompt.
 - c. If the child does not respond to the first Model Prompt with the prompted target, the adult must give the Model Prompt a second time.
 - d. If the child does not say all of the correct speech sounds (e.g., "ca" for cat), the adult has the option of giving the model procedure again, or phonologically recasting/expanding.

Examples:

If the adult goes out of the above order, score [me0].

If the adult uses more than 2 prompts in a category, score [me0].

If the adult fails to give 2 Model Prompts when required, score [me0].

If the adult starts the episode with a yes/no question, score [me0].

If the adult uses a yes/no or test prompt, score [me0].

- e. If the adult starts an episode with a yes/no or a test question they do not get credit for following the correct prompting sequence. The same is true if they insert a faux prompt yes/no question into the milieu episode; however, do not penalize the adult if they are merely responding to the child within the episode.

Example:

A: what is this?

A: say elephant. –[me0]

Example:

A: do you want the puzzle?

C: {nods}.

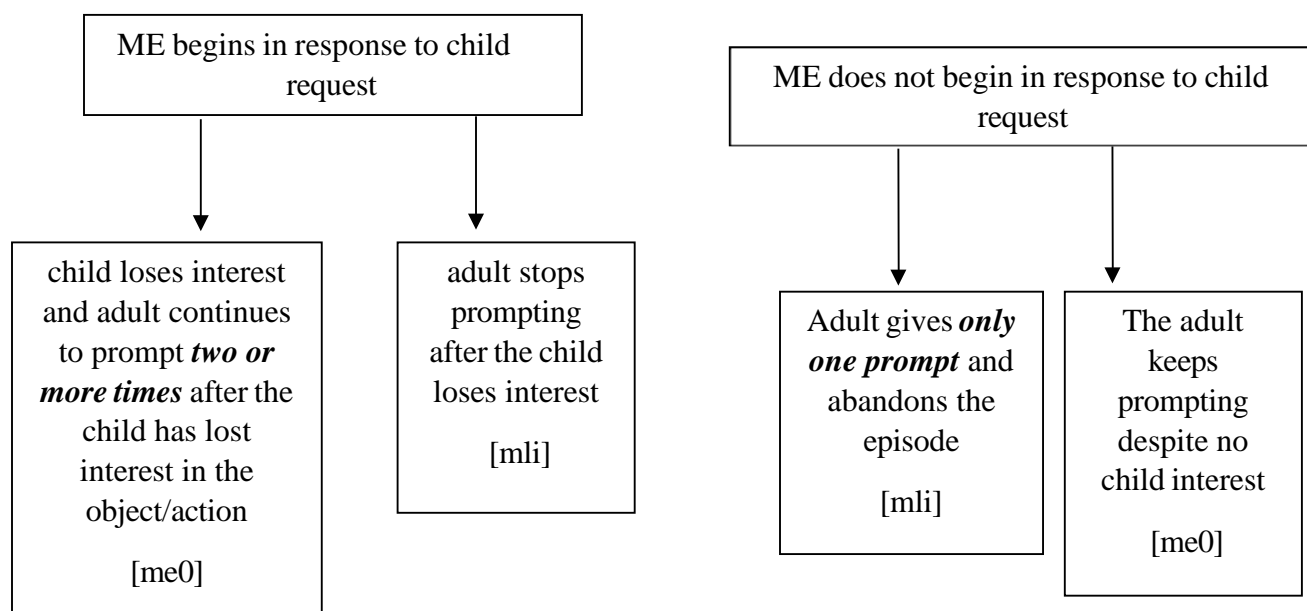
A: say puzzle. –[me0]

5. Does not give the child adequate time to respond. The adult must give the child 3 seconds to respond between prompts. This only applies to ME prompts, not to yes/no questions or any other turns the adult may take during the ME. If the adult does not give the child 3 seconds to respond after a ME prompt, score [me0].
6. Continues prompting after the child responds with the prompted words. Continues prompting after the child has lost interest in the prompted object/action. The same is true if the child says the words the adult prompts and the adult continues to prompt. If the adult continues to prompt after the child says the prompted target, score [me0].
7. Continues prompting after the child has lost interest in the prompted object/action. It is also counterproductive to continue to prompt an object/action that the child no longer

desires – the child will have no motivation to respond to the prompts. This is where control of the item is important – if the child is able to take the desired object before the end of the episode, he will have no motivation to respond to the prompts since he already has his reward.

- a. If the adult continues to prompt after the child does not remain interested in the object or action being prompted, score [me0].
- b. If the child gains control of the object/action and the adult continues to prompt, score [me0].

Use the following flowchart to decide if it should be scored [me0], [mli]



8. Gives the object inappropriately or loses control of the object. The adult must give the child the prompted and requested action or object regardless of whether they completed the prompting sequence correctly. They should only give the object if the child shows interest in the object or action. If the episode does not begin in response to a request for an object/action, and the adult prompts an object/action, the child must show overt interest in the prompted object/action (reach, point, give) or respond with the prompted word(s) for the adult to correctly give the prompted object/action at the end. The adult should give the prompted & requested object/action within 2 seconds of ending the episode unless the adult is physically having trouble doing so (ex: the child wants the jar open and it takes the adult more than 2 seconds to open it). If the adult goes through the entire prompting sequence they should give the prompted object/action unless the child is blatantly uninterested.
 - a. *Does not give the object at the end of the episode.* If the child requests the object/action at the beginning of the ME or becomes interested in the prompted object/action during the episode, and the adult does not give the object/action, score [me0].
 - b. If the adult *gives or loses control* of the prompted and requested action or object *before* the episode has ended, score [me0].

- c. If the child lost interest in the action or object and the adult continues to prompt and gives it anyway, score [me0].
- 9. Does not model target language when ending the episode. If the adult does not model target language at the end of the Milieu Episode, even if the child did not produce the target, it is considered not great teaching [me0]. Modeling is important to child language learning.