The INTERGROWTH-21 ${ }^{\text {st }}$ Project Neurodevelopment Assessment

## The INTER-NDA

$\qquad$
Name of assessor: $\qquad$
Date of assessment $\qquad$ I_I $\qquad$
Date of birth $\qquad$ / $\qquad$

| No. | Item | Observed Performance |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Builds a tower of 5 cubes (trials=3, demonstration=3) | 5 cubes | 3-4 cubes | 2 cubes | No attempt | Unable to assess |
| 2 | Names 4 colours when asked to do so (trials=1, demonstration=0) | Names 4 colours | Names 3 colours | Names 1 or 2 colours | Does not name any colour | Unable to assess |
| 3 | Matches 3 cubes of same colours when requested to do so <br> (trials=1, demonstration=1 of one colour) | Matches 3 colours | Matches 2 colours | Matches 1 colour | Does not match any colour | Unable to assess |
| 4 | Hands the examiner one cube when asked to do so (Examiner says "Please give me one cube" \& keeps palm open for 5 seconds after child has handed over 1 cube) <br> (trials=1, demonstration=0) | Hands only one block within 5 seconds | Hands only one block in more than 5 seconds | Hands two or more blocks | Does not hand any block / No attempt | Unable to assess |
| 5 | Puts the spoon in the cup when asked to do so (trials=5, demonstration=0) | Puts the spoon in cup in $\leq 3$ trials | Puts the spoon in cup in 4-5 trials | Takes the spoon or the cup but does not complete action | No attempt | Unable to assess |
| 6 | Matches shapes on board <br> (trials=5, demonstration=partial - removal only) | All shapes in $\leq 3$ trials | All shapes with repeated demonstration i.e. 45 trials | One or two shapes in 4-5 trials | No attempt | Unable to assess |
| 7 | Matches shapes on rotated board <br> (trials=5, demonstration=partial - removal only) | All shapes in $\leq 3$ trials | All shapes with repeated demonstration i.e. 45 trials | One or two shapes in 4-5 trials | No attempt | Unable to assess |


| 8 | Points correctly when asked "Where is the door/entrance to the room?" (trials=5, demonstration=0) | Identifies door correctly in $\leq 3$ trials | Identifies door correctly in 4-5 trials | Attempts, but does not identify door | No attempt | Unable to assess |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 | Puts a raisin precisely inside a small opening in a bottle <br> (trials=1, demonstration=1, test both hands) | Precise release of raisin into bottle with each hand | Clumsy release, raisin falls out of bottle with one or more hand | Attempts but unsuccessful release with one or more hand | No attempt | Unable to assess |
| 10 | Drinks water from cup/bottle/sippy cup when placed in front of child <br> (trials=1, demonstration=0; maternal recall if observation not possible) | Drinks water from cup/sippy cup without spilling | Drinks clumsily \& spills | Attempts but unsuccessful | No attempt | Unable to assess |
| 11 | Looks towards an object located across the room when pointed at by the examiner (trials=5) | Looks or points at object in $\leq 3$ trials | Looks or points at object in 4-5 trials | Looks at the wrong object, or attempts but cannot identify object | No attempt | Unable to assess |
| 12 | Pretends to drink from a toy cup when placed in front of him/her <br> (trials=2, demonstration=1 if not spontaneous on first attempt) | Spontaneously | After 1 demonstration | Partial attempt after 1 demonstration | No attempt | Unable to assess |
| 13 | Able to make a cup of tea with the toy tea set when requested by examiner (Examiner says "Can you make a cup of tea?") <br> (trials=2, demonstration=1 if not spontaneous on first attempt) | Spontaneously, with pouring motion | After 1 demonstration | Partial attempt after 1 demonstration | No attempt | Unable to assess |
| 14 | Feeds doll when requested to (Examiner says "Can you give the dolly some tea?") <br> (trials=2, demonstration=1 if not spontaneous on first attempt) | Spontaneously | After 1 demonstration | Partial attempt after 1 demonstration | No attempt | Unable to assess |
| 15 | Imitates straight horizontal scribble (trials=5, demonstration=5) | $\leq 3$ trials | 4-5 trials; with difficulty | Attempts (hold crayon) | Cannot hold crayon | Unable to assess |
| 16 | Identifies glitter bracelet under correct washcloth (trials=5, demonstration=0, test both sides) | Finds bracelet correctly in $\leq 2$ trails on both sides | Find bracelet correctly in 3 trials or on one side only | Find bracelet correctly in 4-5 trials or on one side only | Does not find bracelet or no attempt | Unable to assess |
| 17 | Correctly identifies object groups using plurals (concurrent observation) | Uses 5 plurals | Uses 3-4 plurals | Uses 1-2 plurals | Does not use any plurals | Unable to assess |


| 18 | Asks for toilet by gesture or verbally (maternal recall) | Always | Occasionally | Partial (only for bowel movement) | Never | Unable to assess |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19 | Runs <br> (maternal recall) | Runs steadily | Attempts | Walks only | Walks with support | Unable to assess |
| 20 | Throws a ball very near (trials=1, demonstration=1; test both hands) | Good release | Unsteady release | Attempts | No attempt | Unable to assess |
| 21 | Kicks ball (maternal recall) | Kicks ball with knee flexed | Runs after ball \& attempts kicking it | Walks and touches ball with foot | No attempt | Unable to assess |
| 22 | Climbs upstairs holding rail, 2 feet/stair or in adult fashion (maternal recall) | Climbs stairs alone steadily | Climbs stairs alone unsteadily | Climbs stairs with help (uses railing, holds adult's hand) | No attempt | Unable to assess |
| 23 | Uses 2-4 syllable babble such as dada, mama but not specifically to anything or any person <br> (concurrent observation) | Spontaneously | Mimics | 1 syllabe babble e.g. ba, ma, da | None | Unable to assess |
| 24 | Use two words together (concurrent observation) | Two words, appropriate use | Two words, inappropriate use | One word, appropriate use | No attempt | Unable to assess |
| 25 | Indicates by gesture to say no (concurrent observation or maternal recall) | Indicates verbally or by definite gesture all the time | Indicates verbally or by definite gesture some of the time | Attempts, but incomplete indication | No attempt | Unable to assess |
| 26 | Use of a pronoun e.g. me, my, she, he, it, I (concurrent observation) | $\geq 1$ pronoun in correct context | $\geq 1$ pronoun, incorrect use | Use of proper names but not pronouns | No use | Unable to assess |
| 27 | How many words does the child use during the assessment other than mama/dada <br> (concurrent observation) | $\geq 8$ words | 6-7 words | 4-5 words | $\leq 3$ words | Unable to assess |
| 28 | How many sentences of 3 words or more does the child use during the assessment? <br> (concurrent observation) | $\geq 2$ | 1 | $\geq 1$ two word utterance | None | Unable to assess |
| 29 | In how many instances does the child follow on a topic of conversation providing new information? (concurrent observation) | At least one, using $\geq$ 2 words, proving correct information | At least one, uses single words, provides correct information | Uses any number of words, provides incorrect information | Does not follow up on conversations | Unable to assess |


| 30 | Combines word and gesture when asked <br> (Do not demonstrate, trials=3, use different example if <br> mother says child does not know the one you are asking) | Combines word and <br> gesture completely <br> and appropriately | Combines word and <br> gesture completely <br> but inappropriately | Combines word and <br> gesture <br> incompletely and <br> inappropriately | Does not <br> combine a <br> word an <br> gesture |
| :---: | :--- | :--- | :--- | :--- | :--- |

What is the child's native (first) language? $\qquad$
What is the language in which the assessment is being conducted in? $\qquad$
Does the child speak/understand any languages other than his/her native (first) language? $\qquad$

How often were the following behaviours in the child during the assessment?

| 31 | Positive Affect | Never or rarely | Some of the time | Most of the time |
| :---: | :---: | :---: | :---: | :---: |
| 32 | Exploration | Never or rarely | Some of the time | Most of the time |
| 33 | Ease of engagement | Never or rarely | Some of the time | Most of the time |
| 34 | Cooperativeness | Never or rarely | Some of the time | Most of the time |
| 35 | Adaptability to change | Never or rarely | Some of the time | Most of the time |
| 36 | Distractibility | Never or rarely | Some of the time | Most of the time |
| 37 | Negative Affect | Never or rarely | Some of the time | Most of the time |

## Additional information:

