

LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION
FOR CHILDREN.

An adaptation from his work.

MANUAL

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Manual submitted in conjunction with thesis
submitted in partial fulfilment of the
requirements for the degree of
Doctor of Philosophy
in the
Department of Psychology,
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1989

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PART 1

INTRODUCTION

PART 1

INTRODUCTION

The development of Luria's Neuropsychological Investigation for Children (LNI-C) has been described in the accompanying dissertation. This manual has been compiled on the basis of this work. It contains a detailed inventory of all the materials required for the LNI-C. The composition of Part 2 of the manual is as follows:

- 2.1 An itemization of tasks.
- 2.2 A list of stimulus cards.
- 2.3 A copy of the record forms.

LNI-C assessment data is interpreted using Luria's concept of syndrome analysis and double dissociation. To facilitate this process and place it within a developmental framework, a conceptual model of brain-behaviour ontogeny and a table outlining the behavioural disturbances associated with different kinds of brain pathology in children, as per Luria, have been devised (see Chapter 5, Section 5.5 and Figure 1; and Chapter 6, Section 6.3 and Table 15 of the dissertation, respectively). This manual is designed to be used in conjunction with this material.

PART 2

DETAILS OF MATERIALS REQUIRED FOR LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION
FOR WHITE, ENGLISH-SPEAKING SOUTH AFRICAN CHILDREN AGED 8-14 YEARS.

PART 2.1

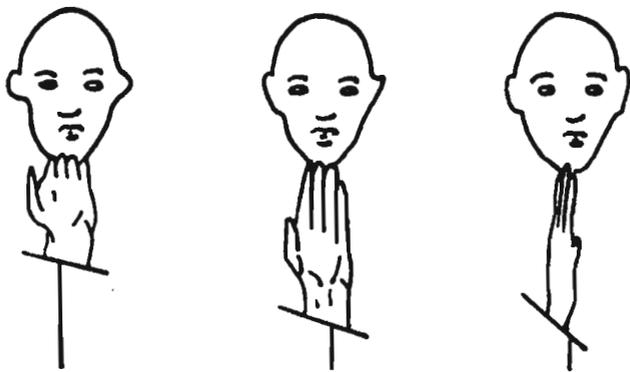
TASKS

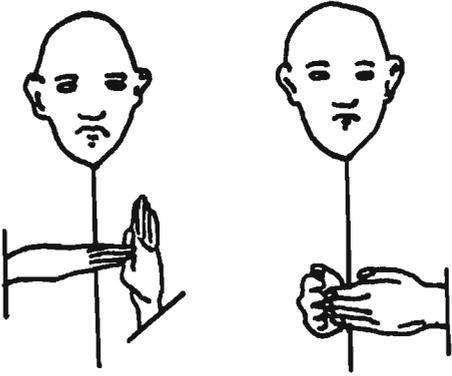
TASK	AGE RANGE (YEARS)
1.0 <u>PRELIMINARY CONVERSATION</u>	
1.1 <u>The state of the patient's consciousness</u>	
1.1.1 <u>Orientation</u>	
Name	8-14
Date of birth: - day and month	8-9
- day, month and year	10-14
Today's activities	8-14
Yesterday's activities	8-14
Address	8-14
Siblings: - age	8-14
- number	8-14
1.1.2 <u>The premorbid level</u>	
School	8-14
Standard	8-14
Weekend activities	8-14
Evening activities	8-14
Interests	8-14
1.1.3 <u>The patient's attitude towards his illness, situation and surroundings</u>	
Patient's description of how she/he feels	8-14
Patient's present residence	8-14
Age of arrival at residence/institution	8-10
Date of arrival at residence/institution	11-14
Name of class teacher	8
Name of family doctor	9-14
Recognition of examiner	8-14
Ability to become very angry or cross	8-9
Ability to lose temper	10-14
Ability to cope with school work	8-14
Description of family life	8-14

TASK	AGE RANGE (YEARS)
1.2 <u>Principal complaints</u>	
1.2.1 <u>Subjective, spontaneous complaints</u>	
Patient's description of how she/he feels	8-14
Complaints	8-14
Pain	8-14
Fear/worry	8-12
Anxiety	13-14
Sleep	8-14
Hunger	8-14
Thirst	8-14
1.2.2 <u>Generalized complaints</u>	
Headaches	8-14
Eyesight	8-14
Hearing	8-14
Loss of initiative	13-14
Fatigue	8-14
Memory	8-14
1.2.3 <u>Complaints of specific, episodic symptoms</u>	
Epilepsy	8-14
Hallucinations: - Visual	8-14
- Auditory	8-14
- Olfactory	8-14
- Kinesthetic/tactile	8-14
1.2.4 <u>Complaints of constant or gradually progressing symptoms</u>	
Progressing symptoms	8-14
1.2.5 <u>Complaints of disturbances in complex functions</u>	
Finding way around	8-14
Dressing and undressing	8-14
Reading	3-14
Writing	3-14
Musical notation	8-14

TASK	AGE RANGE (YEARS)
Impressive speech	8-14
Expressive speech	8-14
Calculations	8-14

TASK	AGE RANGE (YEARS)
2.0 <u>CEREBRAL DOMINANCE</u>	
2.1 <u>Dominant hand</u>	
2.1.1 Hand used to indicate: - Right hand - Left ear - Right eye	8-14 8-14 8-14
2.1.2 Hand used to demonstrate: - Throwing a ball - Hammering a nail - Cutting with a knife - Turning a doorknob - Using scissors - Using a rubber	8-14 8-14 8-14 8-14 8-14 8-14
2.1.3 Writing name with: - Preferred hand - Non-preferred hand	8-14 8-14
2.1.4 Interlocking of the fingers: Thumb which is placed uppermost.	8-14
2.1.5 Clapping test: Hand with which subject claps actively.	8-14
2.1.6 "Napoleonic pose" test: Arm which is placed uppermost.	8-14
2.2 <u>Dominant eye</u>	
2.2.1 Eye used to: - Look through a tube - Aim a gun	8-14 8-14
2.3 <u>Dominant foot</u>	
2.3.1 Foot used to demonstrate: - Kicking a football - Stepping on a bug	8-14 8-14
2.4 <u>Dominant ear</u>	
2.4.1 Dichotic listening ear	8-14

TASK	AGE RANGE (YEARS)
<p>3.0 <u>MOTOR FUNCTIONS</u></p>	
<p>3.1 <u>The motor functions of the hands</u></p>	
<p>3.1.1 <u>Simple movement</u></p>	
<p>Repeated touching and counting of fingers with thumb</p>	8-14
<p>Repeated separating of fingers</p>	8-14
<p>Repeated clenching and stretching of fingers</p>	8-14
<p>3.1.2 <u>Kinesthetic basis of movement</u></p>	
<p>Reproduction of pose in which examiner places hand (eyes closed)</p>	8-14
<p>Copying examiner's hand positions: -</p>	8-14
<p></p>	
<p>- </p>	8-14
<p>Obeying instruction to place index finger over middle finger</p>	8-14
<p>Transference of pose in which examiner places one hand to the other hand (eyes closed)</p>	8-14
<p>Obeying instruction to extend index and little fingers and bend the others</p>	8-14
<p>3.1.3 <u>Optic-spatial organization</u></p>	
<p>Reproduction of examiner's hand positions:</p>	
<p>- one hand</p>	8-14
<p></p>	

TASK	AGE RANGE (YEARS)
<p>- two hands</p> 	8-14
<p>Placing pencil in: - Horizontal plane</p>	8-14
<p>- Frontal plane</p>	8-14
<p>- Saggital plane</p>	8-14
<p>Heads test: - Raising same hand as examiner</p>	8-14
<p>- Touching ipsilateral eye/ear (model provided)</p>	8-14
<p>- Touching contralateral eye/ear (model provided)</p>	8-14
<p>Carrying out movement on verbal command:</p>	
<p>- Indicating left eye with right hand</p>	8-14
<p>- Touching nose with right hand and right ear with left hand</p>	8-14
<p>3.1.4 <u>Dynamic organization</u></p>	
<p>Ozeretskii's test of reciprocal co-ordination involving simultaneous changing of hand positions</p>	8-14
<p>Tapping rhythm with alternative hands</p>	8-14
<p>"Fist-ring" test: Fingers alternatively formed into fist and ring</p>	8-14
<p>Clenching of fingers into fist followed by concurrent extension of the elbow and fingers</p>	8-14
<p>Learning sequential tasks:</p>	
<p>- "Fist-edge-palm" test</p>	8-14
<p>- "1-2, 1-5" test</p>	8-14
<p>Copying design: - Card D1a</p>	8
<p>- Card D1b</p>	9-14
<p>Drawing series of: - Two circles, one square, two minus signs</p>	8-13
<p>- Two circles, one cross, three triangles</p>	14

TASK	AGE RANGE (YEARS)
3.1.5 <u>Complex forms of praxis</u>	
Performing complex, purposeful task: - fastening buttons	8-14
- undoing zipper	8
- lacing shoes	9-14
Miming: - pouring and stirring tea	8-14
- threatening needle	8-14
- using scissors	8-14
Symbollic action: - waving good-bye	8-14
- hitchhiking	8-14
- saluting	8-14
- beckoning with a finger	9-14
3.2 <u>Oral praxis</u>	
3.2.1 <u>Simple movement</u>	
Showing teeth	8-14
Puffing cheeks	8-14
Screwing the eyes up tightly	8-14
Sticking out tongue	8-14
3.2.2 <u>Kinesthetic movement</u>	
Flat extension of tongue	8-14
Rolling tongue	8-14
Placing tongue between teeth and upper lip	8-14
3.2.3 <u>Dynamic organization</u>	
Repetition of sequence of two lip and tongue movements	8-14
3.2.4 <u>Integrative oral praxis</u>	
Chewing	8-14
Blowing a kiss	8-11
Blow out match	8-11
Suck on Straw	8-11
Whistling	12-14

TASK	AGE RANGE (YEARS)
3.3 <u>Speech regulation of the motor act</u>	
3.3.1 <u>Selectivity</u>	
Drawing: - a circle	8-14
- a square	8-14
- a cross	8
- a triangle	9-14
Copying: - Card D2	8-14
- Card D3a	8
Card D3b	9-14
- Card D4	8-14
- Card D5a	8
Card D5b	9-14
- Card D6	8-14
Reproducing series of three figures from memory:	8-9
Card D7a	
Reproducing series of four figures from memory:	10-14
Card D7b	
Drawing: - a circle and a cross	8-14
- two squares	8-14
- a cross and a circle	8-14
Performing motor act in response to symbolic, preliminary recoded signal to act:	
- Knocking twice in response to one sound and once in response to two sounds	8-14
- Showing fist in response to a pointed finger and vice versa	8-14
3.3.2 <u>Speech regulation of movements</u>	
Squeezing examiner's hand in response to one signal and doing nothing in response to another signal	8-14
Raising right hand in response to one signal and raising left hand in response to two signals presented in: - random order	8-14
- regular alternation	
- stereotype of motor response formed is suddenly broken	

TASK	AGE RANGE (YEARS)
<p>Conflict reactions:</p> <ul style="list-style-type: none">- Showing finger when examiner shows fist and vice versa- Reacting to a slight signal with a strong reaction and vice versa	<p>8-14</p> <p>8-14</p>

TASK	AGE RANGE (YEARS)
4.0 <u>ACOUSTICO-MOTOR ORGANIZATION</u>	
4.1 <u>Perception and reproduction of pitch relationships</u>	
4.1.1 <u>Perception of pitch</u> Comparing pitch of two sounds and Identifying the higher and lower one Making correct response to two groups of sounds (d^{d} ; d^{d}) Comparing two groups of sounds: - d^{d} ; d^{d} - d^{d} ; d^{d} - d^{d} ; d^{d}	8-14 12-14 13-14 8-13 8-13 14
4.1.2 <u>Reproduction of pitch relationships and musical melodies</u> Reproduction of tones by singing: - d^{d} ; d^{d} - d^{d} ; d^{d} - d^{d} ; d^{d} Singing melody: - Happy birthday - Jack and Jill	8-14 8-14 8-14 8-14 8-14
4.2 <u>Perception and reproduction of rhythmic structures</u>	
4.2.1 <u>Perception and evaluation of acoustic signals</u> Number of taps in a single group: - '' - '''' Number of taps in a series of groups: - '''' '''' '''' '''' - '''' '''' '''' '''' - '''' '''' '''' ''''	8-14 8-14 8-13 14 8-13 14

TASK	AGE RANGE (YEARS)
Number of taps of different strengths per group:	
- 'U	8-13
UUU'	14
- 'UU	8-13
UU'	14
- ''UU	8-14
- ''''UUU	8-13
UUU''	14
Number of accentuated taps per group: - UU''	8
UUU'''	9-14
- 'UU'	8-14
'''UU'	13-14
4.2.2 <u>Motor performance of rhythmic groups</u>	
Reproduction of acoustically presented rhythm:	
- '' '' '' '' ''	8-14
- '' '' '' '' '' '' ''	8-14
- '' '' '' ''	8-14
- ''''UU''''UU''	8-12
'''''UU''''UU''	13-14
- 'UU'UU	8-12
UU''UU''	13-14
- ''''U''''U	8-14
- UU'UU'	8-12
'U'U'	13-14
Reproduction of verbally presented rhythm:	
- two taps	8-14
- three taps	8-14
- two taps	8-14
- one soft and two loud taps	8-10
two loud and three soft taps	11-14
- two loud and one soft tap	8-12
three weak and two strong taps	13-14
- series of two taps	8-13
series of two and three	

TASK	AGE RANGE (YEARS)
<p>Reproduction of acoustically presented rhythm with verbal auto-reinforcement. (The patterns utilized for the reproduction of acoustically presented rhythms are repeated.)</p>	
<p>Reproduction of orally presented rhythm with verbal auto-reinforcement. (The patterns utilized for the reproduction of verbally presented rhythms are repeated.)</p>	
<p>Changing from one rhythmic structure to another:</p> <ul style="list-style-type: none"> - UUU'; UU' - ''UUU; ''UU 	<p>13-14</p> <p>13-14</p>

TASK	AGE RANGE (YEARS)
5.0 <u>HIGHER CUTANEOUS AND KINESTHETIC FUNCTIONS</u>	
5.1 <u>Cutaneous sensation</u>	
5.1.1 <u>Tactile sensation</u>	
Tactile threshold - sensation (Frey's hair)	8-14
Tactile discrimination: - type of stimulus	8-14
- intensity of stimulus	8-14
Tactile localization: - area of body touched	8-14
- area on opposite limb corresponding to part of skin touched by examiner	8-14
Tactile spatial discrimination: - two-point sensation	8-14
- area of body touched	8-14
Tactile identification: - direction of movement	8-14
- geometric shape traced on skin: cross	8-14
circle	8-14
square	8-14
triangle	9-14
- number traced on skin:	
1	13-14
4	13-14
8	13-14
5.2 <u>Muscle and joint sensation</u>	
5.2.1 <u>Kinesthetic sensation</u>	
Direction of limb movement - upward	8-14
- downward	8-14
- sideways	8-14
Reproduction of given position of one limb with opposite limb	8-14

TASK	AGE RANGE (YEARS)
6.0 <u>HIGHER VISUAL FUNCTIONS</u>	
6.1 <u>Visual perception</u>	
6.1.1 <u>Objects and pictures</u>	
Naming objects: - pencil	8-14
- key	8-10
penknife	11-14
- rubberband	8-14
- coin	8-14
Naming pictures: - watch (Card G1)	8-14
- pair of scissors (Card G2)	8-14
- handbag (Card G3)	8-14
Naming complicated pictures: - measuring jug (Card G4)	8-14
- clothes peg (Card G5)	8-14
- transistor radio (Card G6a)	8
- camera and lens (Card G6b)	9-14
- egg box (Card G7)	8-14
Naming indistinct pictures:- blurred book (Card G8)	8-14
- book (Card G9)	8-14
- blurred sunglasses (Card 10)	8-14
- sunglasses (Card G11)	8-14
Naming masked outline drawings:	
- apple (Card G12)	8-14
- clock (Card G13)	8-14
- sailing boat (Card G14)	8-14
- hat (Card G15)	8-14
Naming silhouette pictures:- man's face (Card G16)	8-14
- boy's face (Card G17)	8-14
Naming objects in superimposed outline drawings (Poppelreuter's Test): - bed - table - chair (Card G18)	8-10
- trousers - shirt - hat - shoe (Card G19)	10-11
- jug - knife - hammer - cup and saucer (Card G20)	11-14

TASK	AGE RANGE (YEARS)
- bucket - axe - rake - paintbrush - pair of scissors (Card G21)	11-14
- kettle - glass - fork - dish - bottle (Card G22)	12-14
Identifying a cross with a black centre from a chessboard (Card G23)	8-14
Raven's matrices: - Card G24	8-14
- Card G25	8-14
6.2 <u>Spatial orientation</u>	
6.2.1 Identifying difference between mirror-image letters and numbers (Cards G26 and G27)	8-14
6.2.2 Drawing from memory: - Card G28a	8
Card G28b	9-14
- Card G29	8-14
6.2.3 Evaluating position of hands on a clock (Cards	
G30a, b, c) - 8-00	8-12
7-57	13-14
- 4-45	8-13
5-09	14
- 10-30	8-12
1-25	13-14
- 5-10	11-13
10-35	13-14
6.2.4 Drawing position of hands on a clock: - 11-00	8-12
12-50	13-14
- 5-45	8-13
16-35	14
- 9-30	8-11
11-10	12-14

TASK	AGE RANGE (YEARS)
6.2.5 Recognising compass directions (Card G31): <ul style="list-style-type: none"> - North - East - West 	13-14 14 14
6.2.6 Drawing plan of bedroom/ward	8-14
6.2.7 Drawing route to assessment room	8-14
6.2.8 Drawing from memory (Card G32): <ul style="list-style-type: none"> - house - daisy watch 	8-14 8-14 12-14
6.3 <u>Intellectual operations in space</u>	
6.3.1 Koh's Test: - Card G33	8-14
- Card G34	8-14
- Card G35	8-14

TASK	AGE RANGE (YEARS)
- india-rubber	8-14
- penknife	8-14
Individual objects in pictures: - bottle (Card H7)	8-14
- oranges (Card H8)	8-14
- pencils (Card H9)	8-14
Indirectly visible objects: - eye	8-14
- nose	8-14
- ear	8-14
Series of objects: penknife - pencil - india-rubber	8-14
Series of indirectly visible objects: nose - ear - eye	8-14
<u>7.2.2 Effect of repetition</u>	
Pointing to series of four body parts: eye - nose - ear - eye	8-14
Pointing to series of four objects: india-rubber - pencil - penknife - pencil	8-14
<u>7.2.3 Identification</u>	
Identification of picture from among six pictures (Cards H10-15): - shoe	8-14
- egg-carton	8-14
- stove	8-14
Identification of: - knee	8-14
- elbow	8-14
- cheek	8-14
- fingernail	8-14
Definitions: - daisy	8-14
- butterfly	8-14
- locust	8-14
- understand	8-14
- nonsense	8-14
- nuisance	8-14
- annoy	10-14

TASK	AGE RANGE (YEARS)
Pointing to an object with another object: - pointing to the pencil with the key - pointing to the comb with the pencil	13-14 13-14
7.4.2 <u>Attributive genitive case</u>	
Identification of daughter's mother (Card H26)	9-14
Deciding if the following people are men or women: - my sister's father	11-14
- my uncle's daughter	11-14
7.4.3 <u>Spatial relationships</u>	
Drawing spatially arranged figures:	
- a circle below a square	8-14
- a dot above a circle	8-14
- a minus sign above a plus sign	8-14
Correct answer: - "Do you put on your shoes after your socks?" or	8-12
"Do you put your shoes on before your socks?"	
- "Do you eat lunch after supper?" or	8-12
"Do you eat lunch before supper?"	
Correct statement: "Spring comes before summer" or "Summer comes before spring"	13-14
7.4.4 <u>Comparative constructions</u>	
Determining which boy is shorter if "John is taller than Peter"	12-14
Comparing sentences: "John is taller than Peter"	12-14
"Peter is taller than John"	
Evaluating sentences: "A fly is bigger than an elephant", or	8-14
"An elephant is bigger than a fly"	
Evaluating colours: - lighter	8-14
- darker	8-14
- less dark	11-14

TASK	AGE RANGE (YEARS)
7.4.5 <u>Inverted grammatical constructions</u>	
Determining which boy was hurt if "Peter hit John"	8-14
Determining correct statement: "The sun lights up the earth"	13-14
"The earth is lit up by the sun"	
Determining first activity if I washed the car after I had swept the yard	13-14

TASK	AGE RANGE (YEARS)
8.0 <u>EXPRESSIVE SPEECH</u>	
8.1 <u>Articulation of speech sounds</u>	
8.1.1 <u>Repetition</u> (Cards J1-3)	
Vowels and consonants: a - i - m - b - sh	8-14
Pairs and groups of sounds: sp - th - pl - str - awk	8-14
Open and closed syllables: - see - seen	8-14
- tree - trick	8-14
8.2 <u>Reflected (repetitive) speech</u>	
8.2.1 <u>Repetition of single words</u> (Cards J4-9)	
Phonetically simple words: cat - dog - man	8-14
Phonetically more complex words: - house - table -	
apple	8-14
- hairbrush - screw-	
driver - laborious	8-14
Less familiar words: rhinoceros - surveillance -	
hierarchy	8-14
Words differing from one another on basis of one	
phoneme: cat - hat - bat	8-14
Phonetically complex and unfamiliar words:	
- haematoma	8
- streptomycin	9-14
- hemiplegia	8-14
- meningioma	8-14
8.2.2 <u>Repetition of a series of words</u> (Cards J10-12)	
- hat - sun - bell	8-14
- house - ball - chair	8-14
- lamp - pin - boy - bridge	8-14
Same words, different order: - hat - bell - sun	8-14
- sun - hat - bell	8-14
- lamp - pin - bridge	
- boy	8-14
- bridge - boy - pin -	
lamp	8-14

TASK	AGE RANGE (YEARS)
<p>8.2.3 <u>Repetition of sentences</u></p> <p>Short sentences: - The weather is fine today 8-14</p> <p>- The sun shines and the sky is blue 8-14</p> <p>Long sentences: - The boy is writing in his exercise book 8-11</p> <p>.The apple trees grew in the garden behind a high fence 12-14</p> <p>- The thief ran away when he saw the police 8-9</p> <p>On the edge of the forest the hunter killed the wolf 10-14</p> <p>Series of short sentences: - The house burns, the dog barks 8-9</p> <p>The dog barks, the house burns 8-9</p> <p>- The house is on fire, the moon is shining, the broom is sweeping 10-14</p> <p>The broom is sweeping, the house is on fire, the moon is shining 10-14</p> <p>Short story: The Frog and the Cow (Card J13a) 8-12</p> <p>The Frog and the Ox (Card J13b) 13-14</p>	
<p>8.3 <u>Nominative function of speech</u></p> <p>8.3.1 <u>Naming objects or pictures of objects</u></p> <p>Objects: pencil - watch - ruler 8-14</p> <p>Objects in pictures: - candle (Card J14a) 8-12</p> <p>ice-bucket (Card J14b) 13-14</p> <p>- table (Card J15) 8-14</p> <p>- salt cellar (Card J16) 8-14</p> <p>- pencil sharpener (Card J17a) 8-11</p> <p>paper punch (Card J17b) 12-14</p> <p>- egg cup (Card J18) 8-14</p> <p>Body parts: - foot (Card J19) 8-14</p> <p>- thumb (Card J20) 8-14</p>	

TASK	AGE RANGE (YEARS)
Naming objects pointed to: pencil - watch - ruler	8-14
Naming pictures pointed to: - candle (Card J14a)	8-12
ice-bucket (Card J14b)	13-14
- table (Card J15)	8-14
- salt cellar (Card J16)	8-14
- pencil sharpener (Card J17a)	8-11
paper punch (Card J17b)	12-14
- egg cup (Card J18)	8-14
8.3.2 <u>Naming from description</u>	
Object used to tidy hair	8-14
Object indicating time	8-14
Object used for protection against the rain	8-14
8.3.3 <u>Determination of categorical names</u>	
cat - dog - budgie	8-14
apple - banana - pineapple (Cards J21-23)	8-14
sucker - sweet in wrapper - slab of chocolate (Cards J24-26)	8-14
guitar - piano - violin (Cards J27-29)	13-14
8.4 <u>Narrative speech</u>	
8.4.1 <u>Fluency and automatization of speech</u>	
Counting to 21	8
Counting backwards from 20-1	9-14
Reciting the days of the week	8-14
Reciting the alphabet	8
Reciting the months of the year	9-14
Counting backwards from 10-1	8
Reciting the days of the week backwards	9-14
Reciting the months of the year backwards	13-14

TASK	AGE RANGE (YEARS)
<p>8.4.2 <u>Predicative speech - reproductive forms</u></p> <p>Answering questions: - breakfast menu - venue of previous holiday</p> <p>Describing pictures: - Card J30 - Card J31</p> <p>Repeating story: Peter and his Dog (Card J32)</p>	<p>8-14</p> <p>8-14</p> <p>8-14</p> <p>8-14</p>
<p>8.4.3 <u>Predicative speech - productive forms</u></p> <p>Telling story: Little Red Riding Hood (Card J33)</p> <p>Making a speech about: - the weather - your teacher</p>	<p>8-14</p> <p>8-14</p> <p>8-14</p>
<p>8.4.4 <u>Complex systems of grammatical expressions</u></p> <p>Sentence completion: - Winter is very (Card J34)</p> <p>- I tennis yesterday (Card J35)</p> <p>- She her washing (Card J36)</p> <p>- I went out into the street to buy myself (Card J37a)</p> <p>- I went to the to buy some sweets (Card J37b)</p> <p>Sentence construction: - motorcar - wood - garage (Card J38)</p> <p>Sentence formation: - sit - the - cat - a - to - loves - by - fire (Card J39)</p> <p>- nest - are - three - in - there - eggs - the (Card J40a)</p> <p>forest - went - and - into - woodcutter - the - got - a - wood (Card J40b)</p>	<p>8-14</p> <p>8-14</p> <p>8-14</p> <p>8</p> <p>9-14</p> <p>8-14</p> <p>8-14</p> <p>8-13</p> <p>14</p>

TASK	AGE RANGE (YEARS)
9.0 <u>WRITING AND READING</u>	
9.1 <u>Phonetic analysis and synthesis of words</u>	
9.1.1 <u>Analysis</u>	
Number of letters: - cat	8-14
- happy	8-14
name	8-13
- jump	8-10
trap	11-14
- table	9-13
hedge	14
Identification of sounds: - second letter in "cat"	8-14
- first letter in "match"	8-14
- third letter in "most" third letter in "hedge"	8-13
14	
Position of sounds: - letter in "dog" after "o"	8-9
letter in "dog" before "g"	8-9
- letter in "stop" before "t"	10-14
letter in "stop" after "o"	10-14
- letter in "light" before "h"	10-13
letter in "light" after "g"	10-13
- letter in "bridges" before "g"	14
- letter in "bridges" after "d"	14
9.1.2 <u>Synthesis</u>	
Syllables: - p - r - o	10-13
- o - p - t	10-13
- l - o - c	10-13
- g - r - o	14
- p - l - y	14

TASK	AGE RANGE (YEARS)
Words: - d - o - g	8-9
- s - t - o - n - e	10-14
- b - o - n - e	8-13
- k - n - e - e	10-13
- k - n - i - g - h - t	14
- c - then - a - then - t	8-14
- f - then - r - then - o - then - g	8-14
a - than - p - then - p - then l - then - e	10-14
9.2 <u>Writing</u>	
9.2.1 <u>Copying and ordinary writing</u>	
Copying letter: - printed	8-14
- written (Card K1)	8-14
Copying syllables (Card K2)	8-14
Writing 2 words from memory: bus - cake (Card K3a)	8-13
match - district (Card K3b)	14
Writing name	8-14
Writing address	10-14
9.2.2 <u>Complex forms</u>	
Writing from dictation:	
Letters: a, n, t, h, l	8
f, t, h, l	9-14
Closed syllables: ot, an	8-14
Words: - ball, call	8
- back, pack	9-14
- knee, knock	13-14
- play	8-9
- birthday	10-14
- hand	8-9
caravan	10-14
- broom	8-9
because	10-12
- telephone	13-14

TASK	AGE RANGE (YEARS)
Series of words: hat - sun - dog	8-14
Phrases: - very happy	8-11
- by the sea	8-11
- all of a sudden	12-14
- last year before Christmas	12-14
Names of objects: - cup	8-9
ashtray	10-14
- book	8-14
- pen	8-9
pencil	10-14
- spoon	8-14
pair of scissors	13-14
Writing family names: - parents	8-14
- siblings	8-14
Writing a few words about how she/he feels	8-14
Writing a few words about his/her main ideas on looking after pets	8-14

9.3 Reading

9.3.1 Analysis and perception of letters

Reading isolated letters: K - S - W - R - T (Card K4)	8-14
Associating letter with word: - John B J S	8-14
- Durban D N R	8-14

9.3.2 Reading syllables and words

Closed syllables: an, ot, mon, prot (Card K5a)	8
Open and closed syllables: pro - cor - cra - spro - prot (Card K5b)	9-14
Words: - house (Card K6a)	8-9
juice (Card K6b)	10-14
- bread (Card K7)	8-14
- bathroom (Card K8a)	8
cloakroom (Card K8b)	9-14

TASK	AGE RANGE (YEARS)
- umbrella (Card K9a)	8-9
fertilizer (Card K9b)	10-12
Ideograms: - SA (Card K10a)	8-11
UN (Card K10b)	12-14
- OFS (Card K11a)	8-12
USA (Card K11b)	13-14
- SAP (Card K12a)	8-12
USSR (Card K12b)	13-14
Complex words: - elephant (Card K13a)	8-9
operation (Card K13b)	10-13
insubordination (Card K13c)	14
- hippopotamus (Card K14a)	10-13
indistinguishable (Card K14b)	14
Unfamiliar words: - cortex (Card K15)	8-14
- praxis (Card K16)	8-14
- astrocytoma (Card K17)	14
9.3.3 <u>Reading phrases and a whole text</u>	
Phrases: - The man went out for a walk (Card K18)	8-14
- Mother cooks the dinner (Card K19a)	8-9
My head aches very much (Card K19b)	10-14
- There are flowers in the garden (Card K20)	8-14
Sentences: - The sun rises in the west (Card K21)	8-14
- The boy went to bed because she was ill (Card K22)	8-14
Texts: - The princess and the golden ball (Card K23a)	8-12
- The boy who stole apples (Card K23b)	13-14

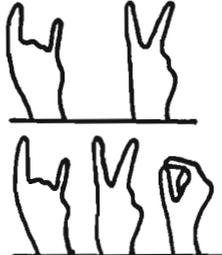
TASK	AGE RANGE (YEARS)
10.0 <u>ARITHMETIC SKILL</u>	
10.1 <u>Comprehension of number structure</u>	
10.1.1 <u>Understanding, writing and recognizing figures</u>	
Single digits (Card L1): - 7 - 9 - 3	8-14
- 3 - 5 - 7	8-14
Visually complementary numbers: - Arabic numbers (Card L2):	
17 and 71	8-14
69 and 96	8-14
- Roman numerals (Card L3):	
IV and VI	13-14
IX and XI	14
Simple multidigit numbers: - 27	8-14
- 34	8-14
- 58	8
158	9-14
- 99	8
396	9-14
- 84	8
9845	9-14
Digits not written the way they are spoken:	
- 14	8-14
- 17	8-14
- 19	8-14
Multidigit numbers in which some digits have the value of zero and are therefore not spoken:	
- 30	8
109	9-14
- 100	8
1023	9-14
Reading vertically arranged numbers: (Card L4a) 158	8
(Card L4b) 1023	9-14
Identifying categories - number written horizontally:	
158 (Card L4a): hundreds - tens - units	8
1023 (Card L4b): thousands - hundreds - tens - units	9-14

TASK	AGE RANGE (YEARS)
<p>10.1.2 <u>Numerical differences</u></p> <p>Identifying larger number:</p> <p>Oral presentation: - 17 - 68 - 23 - 56 - 189 - 211 189 - 201</p> <p>Visual presentation: 489 - 632 (Card L5a) 489 - 601 (Card L5b) 1967 - 3002 (Card L5c)</p>	<p>8-14 8-14 8 9-14 8 9-10 11-14</p>
<p>10.2 <u>Arithmetical operations</u></p>	
<p>10.2.1 <u>Simple, automatized calculations</u></p> <p>Multiplication: - 2 x 3 3 x 3 - 5 x 4 - 6 x 10 7 x 8</p> <p>Addition: - 3 + 4 - 6 + 7</p> <p>Subtraction: - 7 - 4 - 8 - 5</p>	<p>9 10-14 9-14 9-13 14 8-14 8-14 8-14 8-14</p>
<p>10.2.2 <u>Complex arithmetical operations</u></p> <p>Addition: - 24 + 5 (vertical arrangement) (Card L6a) 24 + 8 (vertical arrangement) (Card L6b) 27 + 8 (horizontal arrangement) (Card L6c) - 44 + 7 (vertical arrangement) (Card L7a) 44 + 57 (horizontal arrangement) (Card L7b)</p> <p>Subtraction: - 38 - 7 (vertical arrangement) (Card L8a) 31 - 7 (vertical arrangement) (Card L8b)</p>	<p>8 9-10 11-14 8-10 11-14 8 9-10</p>

TASK	AGE RANGE (YEARS)
31 - 7 (horizontal arrangement) (Card L8c)	11-14
- 47 - 14 (vertical arrangement) (Card L9a)	8
41 - 14 (vertical arrangement) (Card L9b)	9-13
41 - 14 (horizontal arrangement) (Card L9c)	14
Additional of vertically arranged numbers:	
5 - 3 - 2 (Card L10a)	8-13
5 - 9 - 7 (Card 10b)	14
10.2.3 <u>Arithmetical signs</u>	
Determining missing arithmetical sign:	
- 10 <input type="checkbox"/> 2 = 20 (Cards 11a and b)	9-14
- 10 <input type="checkbox"/> 2 = 12 (Card 11a and b)	8-14
- 10 <input type="checkbox"/> 2 = 8 (Card 11a and b)	8-14
- 10 <input type="checkbox"/> 2 = 5 (Card 11b)	10-14
Determining missing number:	
- 10 + <input type="checkbox"/> = 15 (Card 12a)	8-9
9 - <input type="checkbox"/> = 6 (Card 12a)	8-9
- 12 - <input type="checkbox"/> = 8 (Card 12b)	10-14
12 + <input type="checkbox"/> = 19 (Card 12b)	10-14
10.2.4 <u>Serial arithmetical operations</u>	
Oral presentation: - 2 + 8 - 3	
	9-13
12 + 9 - 6	14
- 9 - 5 + 4	9-13
32 - 4 + 9	14
Visual presentation: - 11 + 2 + 3 (Card L13a)	
17 + 3 + 14 (Card L13b)	9-13
27 + 34 + 14 (Card L13c)	10-13
	14
- 20 + 32 (Card L14a)	9-13
25 + 135 (Card L14b)	11-13
158 + 396 (Card L14c)	14

TASK	AGE RANGE (YEARS)
10.2.5 <u>Series of consecutive arithmetical operations</u>	
Counting backwards from 100 in tens	8-14
Counting backwards from 100 in fives	12-14

TASK	AGE RANGE (YEARS)
11.0 <u>MNESTIC PROCESSES</u>	
11.1 <u>The learning process</u>	
11.1.1 Learning series of 8 unrelated words:	
house - forest - cat - night - table - needle - pie - bell	8-14
Learning series of 7 unrelated numbers:	
7 - 1 - 3 - 9 - 4 - 2 - 5	8-13
Learning series of nine unrelated numbers:	
7 - 1 - 3 - 9 - 4 - 2 - 5 - 6 - 8	14
11.2 <u>Retention and retrieval</u>	
11.2.1 <u>Form recognition (Kornorski's Test)</u>	
Recall after "empty" pause: Card M1a	8-9
Card M2a	
Card M1b	10-14
Card M2b	
Recall after "filled" pause: Card M3	8-14
Card M4	
Multiplication: 2 x 2	8-9
3 x 3	8-9
2 x 5	8-9
7 x 4	10-13
6 x 5	10-14
3 x 9	10-14
7 x 6	14
11.2.2 <u>Size contrast effect (Uznadze's Test)</u>	
Identifying larger ball: - two balls of different sizes	8-14
- two balls of the same size	8-14

TASK	AGE RANGE (YEARS)
<p>11.2.3 <u>Immediate reproduction of visual, acoustic, kinesthetic and verbal traces</u></p> <p>Four geometric shapes: Card M5</p> <p>Rhythmic taps' ''UU''UU ''UUU''UUU''</p> <p>Hand positions:</p>  <p>Series of four words: Card M6 house - moon - boy - water</p>	<p>8-14</p> <p>8-9</p> <p>10-14</p> <p>8-13</p> <p>14</p> <p>8-14</p>
<p>11.2.4 <u>Retrieval of words</u></p> <p>Recall of two-word series after heterogeneous inference: house - cat</p> <p>Description of Card M7</p> <p>Recall of two-word series after homogeneous inference: man - hat night - chair</p>	<p>8-14</p> <p>8-14</p>
<p>11.2.5 <u>Retrieval of sentences and paragraphs</u></p> <p>Recall of sentences: - Mother cooks the dinner Father digs in the garden - The sun rises in the east In May the apple trees blossom</p> <p>Recall of stories: - The Lion and the Mouse (Card M8a) The Lion and the Fox (Card M8b) - The Hen and the Golden Eggs (Card M9a) The Crow and the Doves (Card M9b)</p>	<p>8-12</p> <p>13-14</p> <p>8-9</p> <p>10-14</p>

TASK	AGE RANGE (YEARS)
11.3 <u>Logical memorizing</u>	
11.3.1 Indirect memorizing of words with the aid of picture cards:	
Picture corresponding to word given by examiner	
<i>Word to be memorized</i>	<i>Auxilliary picture card</i>
rain	umbrella (Card M10) 8-14
burglar	lock (Card M11) 8-14
small	elephant (Card M12) 8-14
winter	people sunbathing on beach (Card M13) 8-14
coffee	cup (Card M14) 8-14
tame	lion (Card M15) 8-14
wood	table (Card M16) 8-14
morning	bed (Card M17) 8-14
boy	men running(Card M18) 8-14
stupid	boy raising hand (Card M19) 9-14
energy	the sea (Card M20) 13-14
Word corresponding to picture chosen by subject (Cards M21 - M29)	
Words to be memorized:	round 8-14
	pattern 8-14
	happy 8-14
	farm 8-14
	honey 8-14
	hungry 8-14
	music 8-14
	apple 8-14
	cold 13-14
Picture cards:	Card M21 - smiling girl 8-14
	Card M22 - bee 8-14
	Card M23 - piano 8-14
	Card M24 - marbles 8-14
	Card M25 - boy eating sandwich 8-14
	Card M26 - cock 8-14
	Card M27 - wooden trellace 8-14
	Card M28 - orchard 8-14

TASK	AGE RANGE (YEARS)
11.3.2 Recalling by the pictogram method:	
sad	8-14
night	8-14
stormy	8-14
teacher	8-14
pretty	8-14
parent	8-14
rain	8-14
games	10-14
sick	10-14
guardian	14

TASK	AGE RANGE (YEARS)
12.0 <u>INTELLECTUAL FUNCTIONS</u>	
12.1 <u>UNDERSTANDING OF THEMATIC PICTURES AND TEXTS</u>	
12.1.1 <u>Pictures</u>	
Describing story conveyed by picture:	
- Donkey rides on the beach (Card N1)	8-14
- The dolphinarium (Card N2a)	8-11
The party (Card N2b)	12-14
- A family braaivleis (Card N3a)	8-13
Driving horse-drawn cart in the snow (Card N3b)	14
Picture arrangement: - Cards N4-8	8-14
- Cards N9 - 13	8-14
12.1.2 <u>Texts</u>	
Explanation of texts: - The Hare and the	
Tortoise (Card N14)	8-14
- The Ant and the Pigeon	
(Card N15)	10-14
Explanation of metaphor: - A short cut	10-14
Explanation of proverbs: - First come, first	
served	13-14
- Too many cooks spoil	
the broth	13-14
- Strike while the	
iron is hot	
(Card N16)	13-14
- Still waters run	
deep (Card N17)	14
12.2 <u>Concept formation</u>	
12.2.1 <u>Definition</u>	
- table	8-14
- motorcar	8-10
tractor	11-14
- tree	8-9
island	10-14

TASK	AGE RANGE (YEARS)
12.2.2 <u>Comparison and differentiation</u>	
Comparison: - dog and cat	8-14
- rose and daisy	8-14
- apple and banana	8-14
- March and June	10-14
- piano and guitar	11-14
Differentiation: - carrot and banana	8-14
- caterpillar and butterfly	8-12
- lion and cat	10-14
- stone and egg	13-14
- plank and pane of glass	13-14
12.2.3 <u>Logical relationships</u>	
General categories: - daisy - flower	8-9
rose - flower	10-14
- sheep - animal	8-10
salmon - fish	11-14
Member of groups: - sweets	8-10
furniture	11-14
- toys	8-10
vehicles	11-14
- stationery	11-14
- tools	14
Parts of whole knife	13-14
Opposite values: - big	8
high	9-14
- hot	8
fat	9-14
- day	8
old (Card N18)	9-14
12.2.4 <u>Analogies</u>	
- high - low : good (poor, bad, man) (Card N19)	10-13
good (bad) : high - low	14

TASK	AGE RANGE (YEARS)
- fat - thin : (long, narrow, short) (Card N20)	10-13
wide (narrow) : fat - thin	14
- table - leg : bicycle (wheel, road, seat)	10-14
bicycle (wheel) (Card N21)	13-14
12.2.5 <u>Categorical intelligence</u>	
- horse - cow - sheep - tractor (Card N22a)	8-13
spade - saw - axe - log (Card N22b)	14
- coat - cupboard - dress - trousers	8-13
spoon - table - glass - plate	14
- peach - grass - apple - pear	8-13
ball - doll - rockinghorse - knife	14
- chair - table - cup - bed	8-13
cigar - wine - cigarette - tobacco	14
12.3 <u>Discursive intellectual activity</u>	
12.3.1 <u>Elementary arithmetical problems</u>	
Addition: - Peter had 2 apples and John had 6	
apples. How many did they have	
together? (Card N23)	8-14
- Sue had 4 cents. Her mother gave her	
2 cents for sweeping the floor. How	
much money did she have then?	
(Card N24)	8-9
- Henry had 6 marbles. He won 8 in	
a competition. How many marbles	
did he have altogether? (Card N25)	10-14
- There were 3 birds sitting on a tree	
and 2 more arrived. How many birds	
in all were there on the tree?	
(Card N26)	8-14
Subtraction: - Jane had 7 apples and gave 3	
away. How many did she have	
left? (Card N27)	8-14
- A newspaper seller had 12 news-	
papers. He sold 5 during the	
afternoon. How many did he have	
left? (Card N28)	10-14

TASK	AGE RANGE (YEARS)
Intermediate addition: - In one pocket Peter had 2 pens and in the other 1 more than this. How many pens were in his 2 pockets? (Card N29)	10-14
- Mary had 4 apples and Betty had 2 apples more than Mary. How many apples did they both have together? (Card N30)	11-14
Multiplication: - Jane had 3 oranges and Pam had twice as many. How many oranges did Pam have? (Card N31)	13-14
Division:- John had half as many sandwiches in his lunchbox as Paul, who had 6. How many sandwiches did John have. (Card N32)	13-14
- Jill had 25 flowers in a vase. Mary had a fifth of these. How many flowers were there in Mary's vase? (Card N33)	13-14

PART 2.2

STIMULUS CARDS

List of stimulus cards for Luria's Neuropsychological Investigation for white, English-speaking South African children aged eight to 14 years.

3.0 MOTOR FUNCTIONS

- Card D1a : 
- Card D1b :  (see adult LNI Card D1¹.)
- Card D2 :  (see adult LNI Card D2)
- Card D3a : 
- Card D3b :  (see adult LNI Card D2a)
- Card D4 :  (see adult LNI Card D3)
- Card D5a : 
- Card D5b :  (see adult LNI Card D3a)
- Card D6 :  (see adult LNI Card D4)
- Card D7a : 
- Card D7b :  (see adult LNI Card D5)

6.0 HIGHER VISUAL FUNCTIONS

- Card G1 : watch (see adult LNI Card G1)
- Card G2 : pair of scissors (see adult LNI Card G2)
- Card G3 : handbag (see adult LNI Card G3)
- Card G4 : glass measuring jug (see plate 1.1.1)
- Card G5 : clothes peg (see plate 1.1.2)
- Card G6a : transistor radio (see plate 1.1.3)
- Card G6b : camera and lenses (see adult LNI Card G6)
- Card G7 : egg box (see adult LNI Card G7)
- Card G8 : blurred book (see adult LNI Card G8a)

1. Adult LNI cards are as per Christensen (1975).

- Card G9 : book (see adult LNI Card G8b)
- Card G10 : blurred sunglasses (see adult LNI Card G9b)
- Card G11 : sunglasses (see adult LNI Card G9c)
- Card G12 : cross-hatched figure: apple (see plate 1.2.1)
- Card G13 : cross-hatched figure: clock (see plate 1.2.2)
- Card G14 : cross-hatched figure: sailing boat (see plate 1.2.3)
- Card G15 : cross-hatched figure: hat (see plate 1.3.1)
- Card G16 : silhouette of man's face (see plate 1.3.2)
- Card G17 : silhouette of boy's face (see plate 1.3.3)
- Card G18 : outline drawings of superimposed objects (see plate 1.4.1)
- Card G19 : outline drawings of superimposed objects (see plate 1.4.2)
- Card G20 : outline drawings of superimposed objects (see plate 1.4.3)
- Card G21 : outline drawings of superimposed objects (see adult LNI Card G13)
- Card G22 : outline drawing of superimposed objects (see adult LNI Card G14)
- Card G23 : identifying figure on chessboard (see plate 1.5.1)
- Card G24 : Raven's matrices (see plate 1.5.2)
- Card G25 : Raven's matrices (see plate 1.5.3)
- Card G26 : mirror image drawing (see adult LNI Card G21)
- Card G27 : mirror image letters (see adult LNI Card G22)
- Card G28a : 
- Card G28b :  (see adult LNI Card G23)
- Card G29 : 
- Card G30a : Evaluating position of hands on clock (see plate 1.6.1)
- Card G30b : Evaluating position of hands on clock (see plate 1.6.2)
- Card G30c : Evaluating position of hands on clock (see adult LNI Card G26)
- Card G31 : Compass (see adult LNI Card G27)
- Card G32 : Drawing a house from memory (see plate 1.6.3)

- Card G33 : 
- Card G34 : 
- Card G35 : 

7.0 IMPRESSIVE SPEECH

- Card H1 : b - p - m - d - k (see adult LNI Card H1)
- Card H2 : m - p, b - n, p - s (see adult LNI Card H2)
- Card H3 : b - p, d - t, k - g, r - l (see adult LNI Card H3)
- Card H4 : b - p - b, p - b - p, d - t - d (see adult LNI Card H4)
- Card H5 : a - o - a, u - a - i, b - r - k, m - s - d (see adult LNI Card H5)
- Card H6 : bi - ba - bo, bi - bo - bo, bo - bo - bo (see adult LNI Card H6)
- Card H7 : bottle (see adult LNI Card H7)
- Card H8 : oranges (see adult LNI Card H8)
- Card H9 : pencils (see adult LNI Card H9)
- Card H10 : egg cup (see plate 2.1)
(and J18)
- Card H11 : shoe (see adult LNI Card H10)
- Card H12 : candle (see adult LNI Card H14)
(and J14a)
- Card H13 : pencil sharpener (see plate 2.2)
(and J17a)
- Card H14 : electric stove (see plate 2.3)
- Card H15 : egg box (see adult LNI Card H11)
- Card H16 : baby eating (see adult LNI Card H18)
- Card H17 : donkey rides on the beach (see adult LNI Card J28)
(and J30)
- Card H18 : woman typing (see adult LNI Card H19)
- Card H19 : science laboratory (see adult LNI Card H21)
- Card H20 : children in paddling pool (see adult LNI Card H22)
- Card H21 : logs of wood (see adult LNI Card H23)

- Card H22 : fire place (see adult LNI Card H24)
- Card H23 : box of matches (see adult LNI Card H25)
- Card H24 : black card (see adult LNI Card H27)
- Card H25 : grey card (see adult LNI Card H26)
- Card H26 : mother and daughter (see adult LNI Card H28)

8.0 EXPRESSIVE SPEECH

- Card J1 : a - i - m - b - sh (see adult LNI Card J1)
- Card J2 : sp - th - pl - str - awk (see adult LNI Card J3)
- Card J3 : see - seen, tree - trick (see adult LNI Card J3)
- Card J4 : cat - dog - man (see adult LNI Card J4)
- Card J5 : house - table - apple (see adult LNI Card J5)
- Card J6 : hairbrush - screwdriver - laborious (see adult LNI Card J6)
- Card J7 : rhinoceros - surveillance - hierarchy (see adult LNI Card J7)
- Card J8 : cat - hat - bat (see adult LNI Card J8)
- Card J9 : haematoma - streptomycin - hemiplegia - meningioma (see adult LNI Card J9)
- Card J10 : sun - hat - bell (see adult LNI Card J10)
- Card J11 : house - ball - chair (see adult LNI Card J11)
- Card J12 : lamp - pin - boy - bridge (see adult LNI Card J12)
- Card J13a : Story - The Frog and the Cow
Near a swamp where some frogs were living a cow was grazing. One of the frogs saw the cow and said to the others: "I can be just as big as that cow". For some time he tried to blow himself up and he asked: "Am I now just as big?" "Not yet", the others cried. "Then I will show you" he screamed and blew himself up so violently that he burst.
- Card J13b : Story - The Frog and the Ox (see adult LNI (Card J13)
- Card J14a : candle (see adult LNI Card H14)
(and H12)
- Card J14b : ice-bucket (see plate 3.1.1)

- Card J15 : table (see adult LNI Card J15)
- Card J16 : pepper celler (see plate 3.1.2)
- Card J17a : pencil sharpener (see plate 2.2)
(and H13)
- Card J17b : paper punch (see plate 3.1.3)
- Card J18 : egg cup (see plate 2.1)
(and H10)
- Card J19 : foot (see adult LNI Card J19)
- Card J20 : thumb (see adult LNI Card J21)
- Card J21 : apple (see plate 3.2.1)
- Card J22 : banana (see plate 3.2.2)
- Card J23 : pineapple (see plate 3.2.3)
- Card J24 : sucker (see plate 3.3.1)
- Card J25 : sweet in wrapper (see plate 3.3.2)
- Card J26 : slab of chocolate (see plate 3.3.3)
- Card J27 : guitar (see plate 3.4.1)
- Card J28 : piano (see plate 3.4.2)
- Card J29 : violin (see plate 3.5.1)
- Card J30 : donkey rides on the beach (see adult LNI Card J28)
(and H17)
- Card J31 : horse riding in the mountains (see plate 3.5.2)
(and M7)
- Card J32 : Story - Peter and his Dog (see adult LNI Card J30)
- Card J33 : Story - Little Red Riding Hood
There was once a little girl whose grandmother made her a little red cloak. She wore it all the time, so she was called Little Red Riding Hood. One day her mother asked her to take some cakes to her grandmother who was ill. She told her not to stop along the way. Her grandmother lived in the wood. When Little Red Riding Hood got to the wood she met a wolf who asked her where she was going. She told him she was going to visit her grandmother. The wolf thought they would both be nice to eat and decided to be clever. He suggested that Little Red Riding Hood pick some flowers for her grandmother. So she wandered into the forest to do so. Meanwhile the wolf ran to grandmother's cottage, ate her up, put on her nightdress

and cap and climbed into bed. When Little Red Riding Hood arrived at the cottage, she found her grandmother in bed with her cap pulled down over her face. She looked very odd. "Grandmother, what big ears you have", she said. "All the better to hear you with, my dear." "Grandmother, what big eyes you have." "All the better to see you with, my dear." "Grandmother, what big teeth you have." "All the better to eat you with, my dear." As the wolf said this he jumped out of bed and swallowed poor Little Red Riding Hood. Luckily a hunter was passing the cottage. He heard the noise and rushed inside just as the wolf was eating little Red Riding Hood. He quickly caught the wolf and cut him open. Out jumped Little Red Riding Hood and grandmother. They were all very happy. The hunter skinned the wolf and took the skin home. Grandmother ate the cakes Little Red Riding Hood had brought and soon felt better. Little Red Riding Hood decided that in future she would always listen to her mother when she told her not to stop in the forest.

- Card J34 : Winter is very ----- (see adult LNI Card J32)
- Card J35 : I --- tennis yesterday.
- Card J36 : She --- her washing.
- Card J37a : I went out into the street to buy myself ----
- Card J37b : I went to the --- to buy some sweets.
- Card J38 : motorcar - wood - garage
- Card J39 : sit - the - cat - a - to - loves - by - fire
- Card J40a : nest - one - three - in - there - eggs - the
- Card J40b : forest - went - and - into - woodcutter - the - got - a - wood (see adult LNI Card J37)

9.0 WRITING AND READING

- Card K1 : B L *L D B* (see adult LNI Card K1)
- Card K2 : pa - an - pro - pre - str (see adult LNI Card K2)
- Card K3a : bus - cake
- Card K3b : match - district
- Card K4 : K - S - W - R - T (see adult LNI Card K4)
- Card K5a : an - ot - mon - prot
- Card K5b : pro - cor - cra - spro - prot (see adult LNI Card K5)
- Card K6a : house

- Card K6b : juice (see adult LNI Card K6)
- Card K7 : bread (see adult LNI Card K7)
- Card K8a : bathroom
- Card K8b : cloakroom (see adult LNI Card K9)
- Card K9a : umbrella
- Card K9b : fertilizer (see adult LNI Card K10)
- Card K10a: SA
- Card K10b: UN (see adult LNI Card K11)
- Card K11a: OFS
- Card K11b: USA (see adult LNI Card K12)
- Card K12a: SAP
- Card K12b: USSR (see adult LNI Card K13)
- Card K13a: elephant
- Card K13b: operation
- Card K13c: insubordination (see adult LNI Card K14)
- Card K14a: hippopotamus
- Card K14b: indistinguishable (see adult LNI Card K15)
- Card K15 : cortex
- Card K16 : praxis
- Card K17 : astrocytoma (see adult LNI Card K16)
- Card K18 : The man went out for a walk. (see adult LNI Card K18)
- Card K19a: Mother cooks the dinner.
- Card K19b: My head aches very much (see adult LNI Card K19)
- Card K20 : There are flowers in the garden. (see adult LNI Card K20)
- Card K21 : The sun rises in the west. (see adult LNI Card K21)
- Card K22 : The boy went to bed because she was ill. (see adult LNI Card K22)
- Card K23a: Story - The Princess and the Golden Ball
There was once a king who had a very pretty little daughter. This little girl had many, many toys, but best of all she loved her golden ball. One day, she was playing with it

in the garden when it rolled away and fell into the pond. The poor little princess cried, but suddenly a voice said "Don't cry! I will bring back your ball if you promise me three things. I must sit at your table, eat off your plate, and sleep on your bed." She saw a big, green frog looking up from the pond.

Card K23b: Story - The Boy who Stole Apples (see adult LNI Card K30)

10.0 ARITHMETIC SKILL

Card L1 : 7 - 9 - 3, 3 - 5 - 7 (see adult LNI Card L1)

Card L2 : 17 71 69 96 (see adult LNI Card L2)

Card L3 : IV - VI - IX - XI (see adult LNI Card L3)

Card L4a : 1
5
8

Card L4b : 1
0
2
3

Card L5a : 489 - 632

Card L5b : 489 - 601

Card L5c : 1967 - 3002 (see adult LNI Card L5)

Card L6a: 24
+5
—

Card L6b : 24
+8
—

Card L6c : 27 + 8 =

Card L7a : 44
+7
—

Card L7b : 44 + 57 =

Card L8a : 38
-7
—

$$\begin{array}{r} \text{Card L8b :} \\ 31 \\ -7 \\ \hline \\ \hline \end{array}$$

$$\text{Card L8c : } 31 - 7 =$$

$$\begin{array}{r} \text{Card L9a :} \\ 47 \\ -14 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{Card L9b :} \\ 41 \\ -14 \\ \hline \\ \hline \end{array}$$

$$\text{Card L9c : } 41 - 14 =$$

$$\begin{array}{r} \text{Card L10a:} \\ 5 \\ 3 \\ 2 \end{array}$$

$$\begin{array}{r} \text{Card L10b:} \\ 5 \\ 9 \\ 7 \end{array} \quad (\text{see adult LNI Card L6})$$

$$\text{Card L11a: } 10 \square 2 = 20$$

$$10 \square 2 = 12$$

$$10 \square 2 = 8$$

$$\text{Card L11b: } 10 \square 2 = 20$$

$$10 \square 2 = 12$$

$$10 \square 2 = 8$$

$$10 \square 2 = 5 \quad (\text{see adult LNI Card L8})$$

$$\text{Card L12a: } 10 + \square = 15$$

$$9 - \square = 6$$

$$\text{Card L12b: } 12 - \square = 8$$

$$12 + \square = 9 \quad (\text{see adult LNI Card L9})$$

$$\text{Card L13a: } 11 + 2 + 3$$

$$\text{Card L13b: } 17 + 3 + 14$$

$$\text{Card L13c: } 27 + 34 + 14 \quad (\text{see adult LNI Card L10})$$

- Card L14a: 20 + 32
 Card L14b: 25 + 135
 Card L14c: 158 + 396 (see adult LNI Card L10)

11.0 MNESTIC PROCESSES

- Card M1a : 
- Card M1b : 
- Card M2a : 
- Card M2b : 
- Card M3 : 
- Card M4 : 
- Card M5 : 
- Card M6 : house - moon - boy - water
- Card M7 : horse riding in the mountains (see plate 7.1)
 (and J31)
- Card M8a : Story - The Lion and the Mouse
 A lion was asleep and a mouse ran over his body. The lion awoke and caught the mouse. The mouse begged him to let her go. Next day a hunter caught the lion and tied him with a rope to a tree. The mouse came up quietly, chewed through the rope, and set the lion free.
- Card M8b : Story - The Lion and the Fox (see adult LNI Card N26)
- Card M9a : Story - The Hen and the Golden Eggs (see adult LNI Card M8)
- Card M9b : Story - The Crow and the Doves (see adult LNI Card M9)
- Card M10 : umbrella (see plate 4.1.1)
- Card M11 : lock (see plate 4.1.2)
- Card M12 : elephant (see plate 4.2.1)
- Card M13 : people sunbathing on beach (see plate 4.2.2)
- Card M14 : cup and saucer (see plate 4.2.3)
- Card M15 : lion (see plate 4.3.1)
- Card M16 : table (see adult LNI Card J15)
 (and J15)

- Card M17 : bed (see plate 4.3.2)
- Card M18 : men running (see plate 4.3.3)
- Card M19 : boy raising hand (see plate 4.4.1)
- Card M20 : the sea (see adult LNI Card
- Card M21 : smiling girl (see plate 4.4.2)
- Card M22 : bee (see plate 4.4.3)
- Card M23 : piano (see plate 3.4.2)
(and J28)
- Card M24 : marbles (see adult LNI Card M29)
- Card M25 : boy eating sandwich (see plate 4.5.1)
- Card M26 : cock (see plate 4.5.2)
- Card M27 : wooden trellice (see adult LNI Card M28)
- Card M28 : orchard (see plate 4.6)
- Card M29 : horse-drawn cart in snow (see adult LNI Card M20)

11.0 INTELLECTUAL FUNCTIONS

- Card N1 : donkey rides on the beach (see adult LNI Card N1)
- Card N2a : the dolphinarium (see plate 5.1)
- Card N2b : a party (see adult LNI Card N3)
- Card N3a : a braaivleis (see plate 5.2)
- Card N3b : driving horse-drawn cart in the snow (see adult LNI
Card N2)
- Cards N4-
N8 : picture arrangement (see adult LNI Cards N4 - N8)
- Cards N9-
N13 : picture arrangement (see adult LNI Cards N9 - N13)
- Card N14 : Story - The Hare and the Tortoise (see adult LNI Card J31)
- Card N15 : Story - The Ant and the Pigeon
An ant went down to the stream to drink. A wave swamped
him and he began to drown. A pigeon flew past him and
threw him a twig. He climbed on the twig and was saved.
Next day, a hunter set a net and caught the pigeon. When
he took it from the net, however, the ant crept up stealthily
and bit the hunter on his hand. The hunter cried out and
the pigeon flew away.

- Card N16 : Proverb - Strike while the iron is hot. (see adult LNI Card N24)
- Card N17 : Proverb - Still waters run deep. (see adult LNI Card N25)
- Card N18 : old good
 ugly (see adult LNI Card N27)
 young
- Card N19 : good bad
 poor
 man
- Card N20 : wide long
 narrow
 short
- Card N21 : bicycle walk
 car (see adult LNI Card N28)
 wheel
- Card N22a : horse - cow - sheep - tractor
- Card N22b : spade - saw - axe - log (see adult LNI Card N29)
- Card N23 : arithmetic problem (see adult LNI Card N30)
- Card N24 : Sue had 4 cents. Her mother gave her 2 cents for sweeping the floor. How much money did she have then?
- Card N25 : Henry had 6 marbles. He won 8 in a competition. How many marbles did he have altogether?
- Card N26 : There were 3 birds sitting on a tree and 2 more arrived. How many birds in all were there on the tree?
- Card N27 : arithmetic problem (see adult LNI Card N31)
- Card N28 : A newspaper seller had 12 newspapers. He sold 5 during the afternoon. How many did he have left?
- Card N29 : In one pocket Peter had 2 pens and in the other 1 more than this. How many pens were in his 2 pockets.
- Card N30 : arithmetic problem (see adult LNI Card N32)
- Card N31 : Jane had 3 oranges and Pam had twice as many. How many oranges did Pam have?
- Card N32 : John had half as many sandwiches in his lunch box as Paul, who had 6. How many sandwiches did John have?
- Card N33 : Jill had 25 flowers in a vase. Mary had one fifth of those. How many flowers were there in Mary's vase?

PLATE 1.0

STIMULUS CARDS FOR LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION FOR CHILDREN : HIGHER VISUAL FUNCTIONS

PLATE 1.1

CARDS G4 - G6a.

1.1.1 Card G4 : Measuring jug.



1.1.2 Card G5 : Clothes peg.



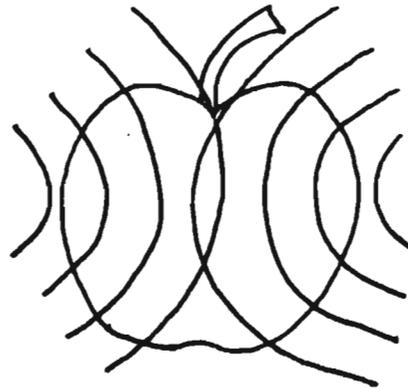
1.1.3 Card G6a : Transistor radio.



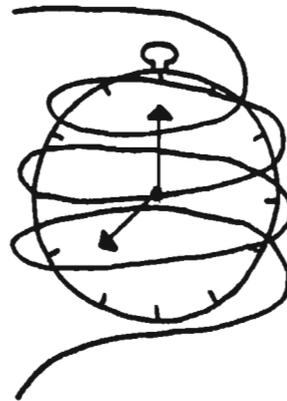
PLATE 1.2

CARDS G12 - G14.

- 1.2.1 Card G12 : Cross-hatched figure: apple.



- 1.2.2 Card G13 : Cross-hatched figure: clock.



- 1.2.3 Card G14 : Cross-hatched figure: sailing boat.

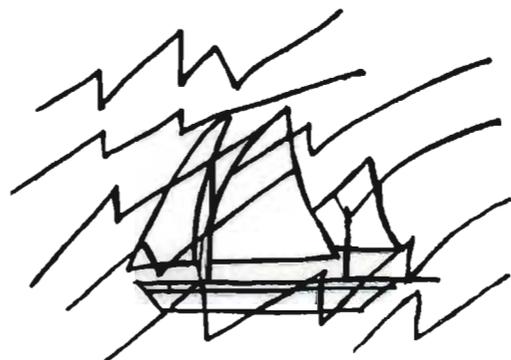
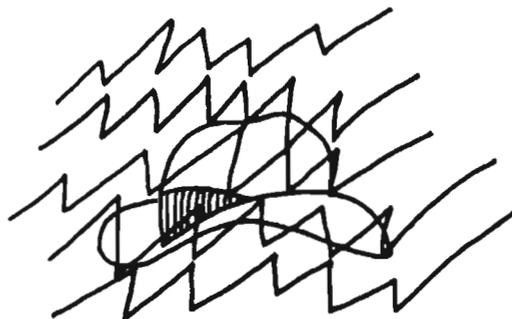


PLATE 1.3

CARDS G15 - G17.

- 1.3.1 Card G15 : Cross-hatched figure:
hat.



- 1.3.2 Card G16 : Silhouette
of man's face.



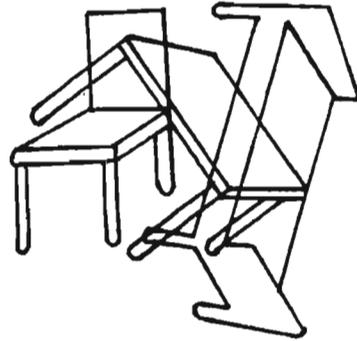
- 1.3.3 Card G17 : Silhouette
of boy's face.



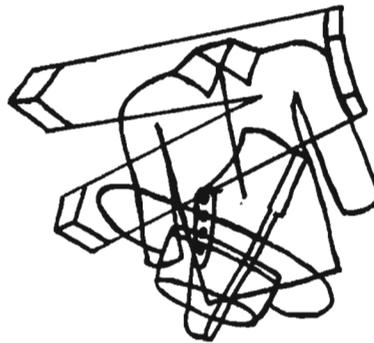
PLATE 1.4

CARDS G18 - G20.

1.4.1 Card G18 : Outline drawing of super-imposed objects.



1.4.2 Card G19 : Outline drawing of super-imposed objects.



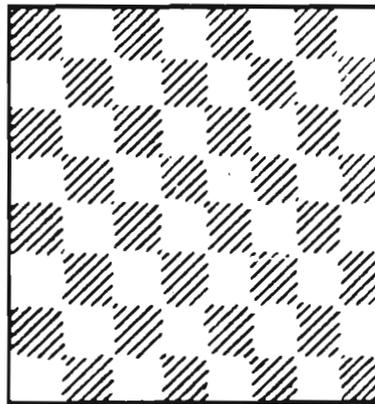
1.4.3 Card G20 : Outline drawing of super-imposed objects.



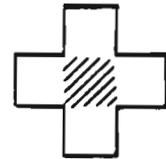
PLATE 1.5

CARDS G23 - G25.

- 1.5.1 Card G23 :
Identifying figure
on chessboard

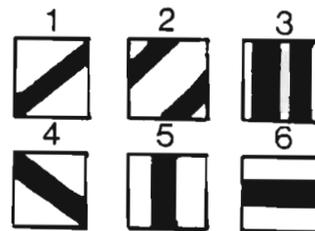
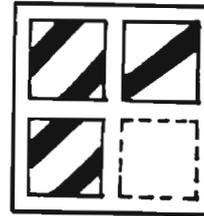


Chessboard



Figure

- 1.5.2 Card G24 : Raven's
matrices.



- 1.5.3 Card G25 : Raven's
matrices.

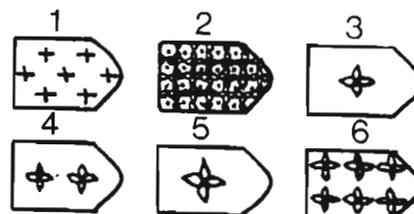
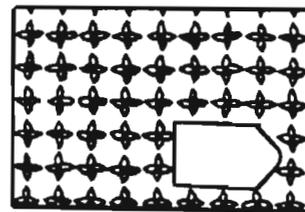
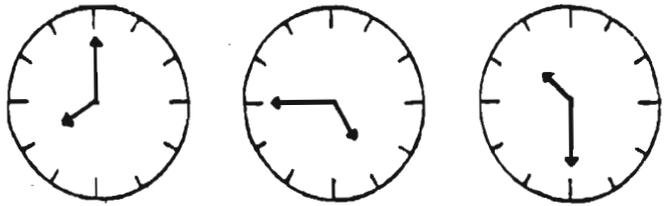


PLATE 1.6

CARDS G30a AND b; G32.

- 1.6.1 Card G30a :
Positions on hands
of clock to be
evaluated.



- 1.6.2 Card G30b :
Positions on hands
of clock to be
evaluated.



- 1.6.3 Card G32 : House
to be drawn from
memory.

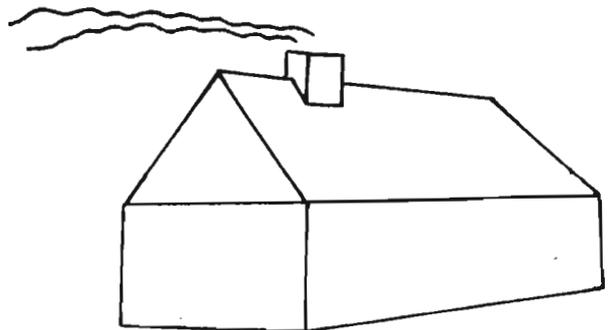


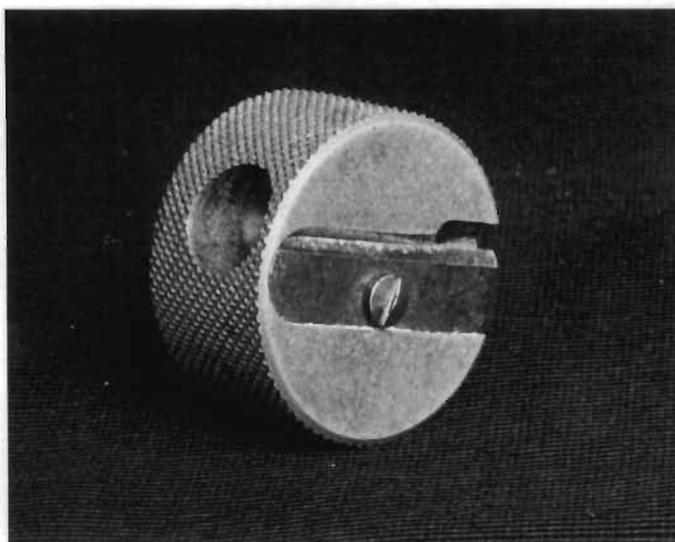
PLATE 2.0

STIMULUS CARDS FOR LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION FOR CHILDREN :
IMPRESSIVE SPEECH - CARDS H10, H13, H14.

2.1 Card H10 (and J18):
Egg cup.



2.2 Card H13 (and J17a):
Pencil sharpener.



2.3 Card H14 : Electric
stove.



PLATE 3.0

STIMULUS CARDS FOR LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION FOR CHILDREN :
EXPRESSIVE SPEECH

PLATE 3.1

CARDS J14b, J16, J17b.

3.1.1 Card J14b : Ice-
bucket.



3.1.2 Card J16 : Pepper.
celler.



3.1.3 Card J17b : Paper
punch.



PLATE 3.2

CARDS J21 - J23.

3.2.1 Card J21 : Apple.

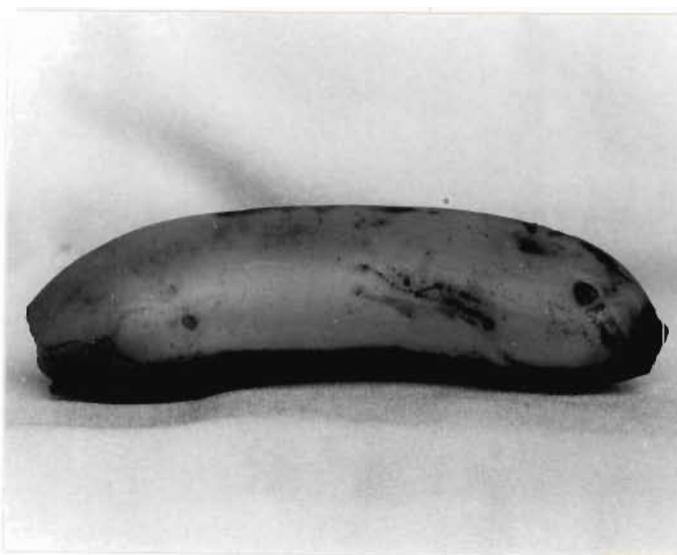
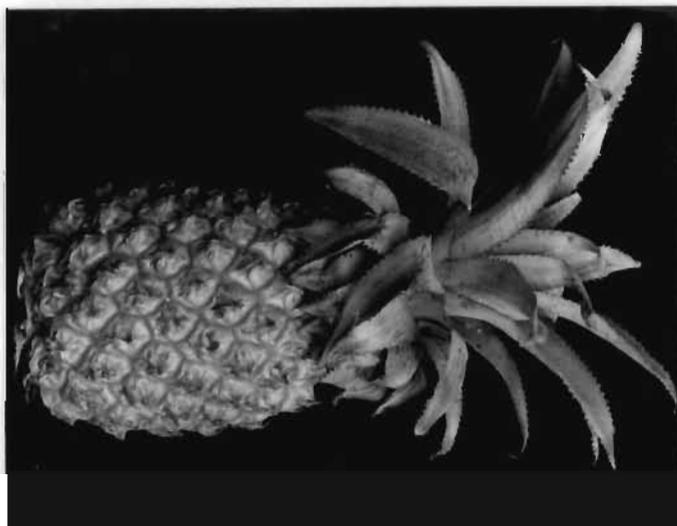
3.2.2 Card J22 :
Banana.3.2.3 Card J23 : Pine-
apple.

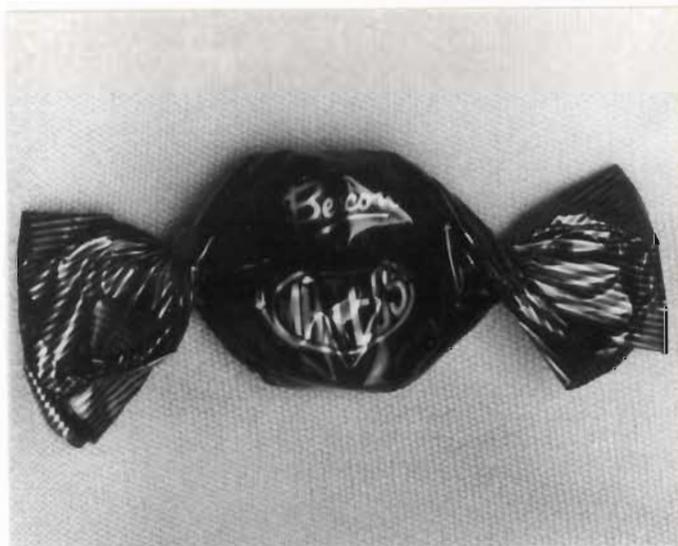
PLATE 3.3

CARDS J24 - J26.

3.3.1 Card J24 : Sucker.



3.3.2 Card J25 : Sweet
in wrapper.



3.3.3 Card J26 : Slab
of chocolate.



PLATE 3.4

CARDS J27 AND J28.

3.4.1 Card J27 : Guitar.



3.4.2 Card J28 : Piano.



PLATE 3.5

CARDS J30 AND J31.

3.5.1 Card J30 : Violin.



3.5.2 Card J31 (and M7) : Horseriding in the mountains.



PLATE 4.0

STIMULUS CARDS FOR LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION FOR CHILDREN :
MNESTIC PROCESSES.

PLATE 4.1

CARDS M10 AND M11.

4.1.1 Card M10 : Umbrella.



4.1.2 Card M11 : Lock.



PLATE 4.2

CARDS M12 - M14.

4.2.1 Card M12 : Elephant.



4.2.2 Card M13 : People sunbathing on beach.



4.2.3 Card M14 : Cup and saucer.



PLATE 4.3

CARDS M15, M17, M18.

4.3.1 Card M15 : Lion.



4.3.2 Card M17 : Bed.



4.3.3 Card M18 : Men running.



PLATE 4.4

CARDS M19, M21, M22.

4.4.1 Card M19 : Boy
raising hand.4.4.2 Card M21 : Girl
smiling.

4.4.3 Card M22 : Bee.



PLATE 4.5

CARDS M25 AND M26.

4.5.1 Card M25 : Boy
eating sandwich.



4.5.2 Card M26 : Cock.



PLATE 4.6
CARD M28

Card M28 : Orchard.



PLATE 5.0

STIMULUS CARDS FOR LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION FOR CHILDREN :
INTELLECTUAL FUNCTIONS - CARDS M2a AND M3a.

5.1 Card N2a : The
dolphinarium.



5.2 Card N3a : A
braaiivleis.



UNIVERSITY OF NATAL, DURBAN : NEUROPSYCHOLOGY UNIT

LURIA'S NEUROPSYCHOLOGICAL INVESTIGATION FOR CHILDREN : RECORD FORM

CASE NO.:	NAME:	DATE OF BIRTH:	AGE:
ASSESSMENT DATE(S):		REFERRED BY:	
REASON FOR REFERRAL:			
TIME: START:	FINISH:	EXAMINER:	

B PRELIMINARY CONVERSATION

1. STATE OF CONSCIOUSNESS

ORIENTATION

8-14¹ Name:
8-9 Date of birth: day and month:
10-14 day, month and year:
8-14 Today's activities:

8-14 Yesterday's activities:

8-14 Address:

8-14 Siblings: a) age:
8-14 b) number:

PREMORBID LEVEL

8-14 School:
8-14 Standard:
8-14 Weekend activities:

8-14 Evening activities:

8-14 Interests:

ATTITUDE

8-14 Patient feels:

8-14 Patient's present residence:
8-10 Age of arrival at residence/institution:
11-14 Date of arrival at residence/institution:
8 Name of class teacher:
9-14 Name of family doctor:
8-14 Recognition of examiner:
8-14 Ability to lose temper:

8-14 Ability of cope with school work:

8-14 Description of family life:

2. PRINCIPAL COMPLAINTS

SUBJECTIVE

8-14 Patient feels:

8-14 Complaints:

8-14 Pain:

8-14 Anxiety:

8-14 Sleep:

8-14 Hunger:

8-14 Thirst:

GENERALIZED COMPLAINTS

8-14 Headaches:

8-14 Eyesight:

8-14 Hearing:

8-14 Loss of initiative:

8-14 Fatigue:

8-14 Memory:

EPISODIC

8-14 Epilepsy:

8-14 Hallucinations: a) visual:

b) auditory:

c) olfactory:

d) kinesthetic/tactile:

PROGRESSING

8-14 Progressing symptoms:

COMPLEX DISTURBANCES

8-14 Finding way around:

8-14 Dressing and undressing:

8-14 Reading:

8-14 Writing:

8-14 Musical notation:

8-14 Impressive speech:

8-14 Expressive speech:

8-14 Calculations:

- 8-14 Copying examiner's hand positions: a)
b)
- 8-14 Obeying instruction to place index finger over middle finger:
- 8-14 Transference of pose in which examiner places one hand to the other hand (eyes closed):
- 8-14 Obeying instruction to extend index and little fingers and bend the others:

OPTIC-SPATIAL ORGANIZATION

- 8-14 Reproduction of examiner's hand positions using: a) one hand:
b) two hands:
- 8-14 Placing pencil in: a) horizontal plane:
b) frontal plane:
c) saggital plane:
- 8-14 Head's test: a) Raising same hand as examiner:
b) Touching ipsilateral eye/ear (model provided):
c) Touching contralateral eye/ear (model provided):
- 8-14 Carrying out movement on verbal command: a) Indicating left eye with right hand:
b) Touching nose with right hand and right ear with left hand:

DYNAMIC ORGANIZATION

- 8-14 Ozeretshii's test:
- 8-14 Tapping rhythm with alternative hands: R [' ' ' ' ' '
L [' ' ' ' ' '
- 8-14 "Finger-ring" test:
- 8-14 Clenching of fingers into fist followed by concurrent extension of the elbow and fingers:
- 8-14 Learning sequential tasks: a) "Finger-edge-palm" test:
b) "1-2, 1-5" test
- Copying design:
- 8 Card D1a:
- 9-14 Card D1b:
- Drawing series of:
- 8-13 two circles, one square, two minus signs:
- 14 two circles, one cross, three triangles:

COMPLEX FORMS OF PRAXIS

Performing complex, purposeful task:

8-14 a) fastening buttons:

8 b) undoing zipper:

9-14 lacing shoes:

8-14 Miming :

a) pouring and stirring tea:

b) threading needle:

c) using scissors:

Symbollic action:

8-14 a) waving good-bye:

8-14 b) hitchhiking:

8-14 c) saluting:

9-14 d) beckoning with a finger:

SUMMARY:

DISTURBANCE

S S
L E
N I V
O G E
N H R
E T E

right

left

motor functions of the hands

2. ORAL PRAXIS

SIMPLE MOVEMENT

		repetition	maintenance	lip tremor	tongue deviance	salivation	praxis of facial muscles	other
8-14	Showing teeth							
8-14	Puffing cheeks							
8-14	Screwing up eyes tightly							
8-14	Sticking out tongue							

KINESTHETIC MOVEMENT

8-14 Flat extension of tongue:

8-14 Rolling tongue:

8-14 Placing tongue between teeth and upper lip:

DYNAMIC ORGANIZATION

8-14 Repetition of sequence of two lip and tongue movements:

INTEGRATIVE ORAL PRAXIS

Performance on command

Natural performance

- 8-14 Chewing:
 8-11 Blowing a kiss:
 12-14 Whistling:

SUMMARY:DISTURBANCE

NO. SL. SEV.

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oral praxis

3. SPEECH REGULATION OF MOTOR ACTSELECTIVITY

Drawing:

- | | | | |
|------|-----------|------|----------|
| 8-14 | a) circle | 8 | c) cross |
| 8-14 | b) square | 9-14 | triangle |

Copying:

- | | | | |
|------|-------------|------|-------------|
| 8-14 | a) Card D2 | 8 | d) Card D5a |
| 8 | b) Card D3a | 9-14 | Card D5b |
| 9-14 | Card D3b | 8-14 | e) Card D6 |
| 8-14 | c) Card D4 | | |

Reproducing series of figures from memory:

- 8-9 Card D7a
 10-14 Card D7b

8-14 Drawing:

- a) a circle and a cross
 b) two squares
 c) a cross and a circle

Effects of
repetitionEffects of
correction

- 8-14 Performing motor act in response to symbolic, preliminary
 recoded signal to act:
- a) Knocking twice in response to one sound and
 once in response to two sounds:
 b) Showing fist in response to a pointed finger and
 vice versa:

SPEECH REGULATION

- 8-14 Squeezing examiner's hand in response to one signal and doing
 nothing in response to another signal:
- 8-14 Raising right hand in response to one signal and raising left
 hand in response to two signals. Signals presented in
- a) Random order:
 b) Regular alternation:
 c) Stereotype of motor response formed is suddenly broken:

- 8-14 Conflict reactions:
- Showing finger when examiner shows fist and vice versa:
 - Reacting to a slight signal with a strong reaction and vice versa:

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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speech regulation of motor act

E ACOUSTICO-MOTOR ORGANIZATION

1. PERCEPTION AND REPRODUCTION OF PITCH RELATIONSHIPS

PERCEPTION OR PITCH

- 8-14 Comparing pitch of two sounds:
- 12-14 Identifying higher and lower sound:
- 13-14 Making correct response to two groups of sounds:
Comparing two groups of sounds:
- 8-13 a) d^d ; d^d
- 8-13 b) $d^d d^d$; $d^d d^d$
- 14 c) $d^d d^d d^d$; $d^d d^d d^d$

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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perception of pitch

REPRODUCTION OF PITCH RELATIONSHIPS AND MUSICAL MELODIES

- 8-14 Reproduction of tones by singing: a) d^d ; d^d
- b) $d^d d^d$; $d^d d^d$
- c) $d^d d^d d^d$; $d^d d^d d^d$
- 8-14 Singing melody: a) Happy birthday
- b) Jack and Jill

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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reproduction of pitch (musical melodies)

2. PERCEPTION AND REPRODUCTION OF RHYTHMIC STRUCTURESPERCEPTION AND EVALUATION OF ACOUSTIC SIGNALS

- 8-14 Number of taps in a single group: a) ''
b) '''
- Number of taps in a series of groups:
- 8-13 a) '' '' '' 8-13 b) '''' '''' ''''
14 '' '' '' '' 14 '''' '''' '''' ''''
- Number of taps of different strengths per group:
- 8-13 a) 'U 8-14 c) ''UU
14 UUU' 8-13 d) ''UUU
8-13 b) 'UU 14 UUU''
14 UU'
- Number of accentuated taps per group:
- 8 a) UU'' 8-14 b) 'UU'
9-14 UUU''' 13-14 ''UU'

MOTOR PERFORMANCE OF RHYTHMIC GROUPS

Reproduction of acoustically presented rhythm:

- 8-14 a) '' '' '' '' 8-12 e) 'UU'UU
8-14 b) '''' '''' '''' '''' 13-14 UU''UU''
8-14 c) '' '' '' 8-14 f) ''U''U
8-12 d) ''UU''UU'' 8-12 g) UU'UU'
13-14 ''UUU''UUU'' 13-14 'U'U'

Reproduction of verbally presented rhythm:

- 8-14 a) two taps 8-12 e) two loud and one soft tap
8-14 b) three taps 13-14 three weak and two strong taps
8-14 c) two taps 8-13 f) series of two taps
8-10 d) one soft and two loud taps 14 series of two and three taps
11-14 two loud and three soft taps

Reproduction of acoustically presented rhythm with verbal and auto-reinforcement:

- 8-14 a) '' '' '' '' 8-12 e) 'UU'UU
8-14 b) '''' '''' '''' '''' 13-14 UU''UU''
8-14 c) '' '' '' 8-14 f) ''U''U
8-12 d) ''UU''UU'' 8-12 g) UU'UU'
13-14 ''UUU''UUU'' 13-14 'U'U'

Reproduction of orally presented rhythm with verbal auto-reinforcement:

- 8-14 a) two taps 8-12 e) two loud and one soft tap
8-14 b) three taps 13-14 three weak and two strong taps
8-14 c) two taps 8-13 f) series of two taps
8-10 d) one soft and two loud taps 14 series of two and three taps
11-14 two loud and three soft taps

13-14 Changing from one rhythmic structure to another:

- a) UUU' ; UU' b) ''UUU ; ''UU

SUMMARY:DISTURBANCE

NO. SL. SEV.

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perception and reproduction of rhythmic structures

F HIGHER CUTANEOUS AND KINESTHETIC FUNCTIONS

1. CUTANEOUS SENSATION

TACTILE SENSATION

- 8-14 Tactile threshold-sensation: a) Intensity of pressure:
(Frey's hair): b) Area touched:
- 8-14 Tactile discrimination: a) Type of stimulus:
b) Intensity of stimulus:
- 8-14 Tactile localization: a) Area of body touched:
b) Area on opposite limb corresponding to part of skin
touched by examiner:
- 8-14 Tactile spatial discrimination: a) Two-point sensation:
b) Area of body touched:
- Tactile identification: 8-14 a) Direction of movement:
b) Geometric shape traced on skin:
- | | | | |
|------|--------|------|----------|
| 8-14 | cross | 8-14 | circle |
| 8-14 | square | 9-14 | triangle |
- 13-14 c) Number traced on skin: 1 4 8

SUMMARY:DISTURBANCE

NO. SL. SEV.

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tactile sensation

2. MUSCLE AND JOINT SENSATION

KINESTHETIC SENSATION

- 8-14 Direction of limb movement: a) upward:
b) downward:
c) sideways:
- 8-14 Reproduction of given position of one limb with opposite limb:
- 8-14 Repetition of consecutive, passively induced movements with opposite forearm:
- 8-14 Distinguishing between two passively induced, consecutive positions of the elbow:

SUMMARY:DISTURBANCE

NO. SL. SEV.

right

left

muscle and joint sensation

3. INVESTIGATION OF STEREOGNOSIS

Tactile identification of object with right hand:

- 8 a) pencil 8-14 c) key
 9-13 india-rubber 8-14 d) rubber band
 8-14 b) small comb

Tactile identification of object with left hand:

- 8 a) pencil 8-14 c) key
 9-13 india-rubber 8-14 d) rubber band
 8-14 b) small comb
 8-14 Identification of object last held in hand from among other objects:

SUMMARY:

DISTURBANCE

	NO.	SL.	SEV.	
left				stereognosis
right				

G HIGHER VISUAL FUNCTIONS

1. VISUAL PERCEPTION

OBJECTS AND PICTURES

Naming objects:

- 8-14 a) pencil 8-14 c) rubber band
 8-10 b) key 8-14 d) coin
 11-14 penknife

Naming pictures:

- 8-14 a) Card G1 8-14 c) Card G3
 8-14 b) Card G2

Naming complicated pictures:

- 8-14 a) Card G4 8 c) Card G6a
 8-14 b) Card G5 9-14 Card G6b
 8-14 d) Card G7

Naming indistinct pictures:

- 8-14 a) Card G8 8-14 c) Card G10
 8-14 b) Card G9 8-14 d) Card G11

Naming masked outline drawings:

- 8-14 a) Card G12 8-14 c) Card G14
 8-14 b) Card G13 8-14 d) Card G15

Naming silhouette pictures:

- 8-14 a) Card G16 8-14 b) Card G17

SUMMARY:DISTURBANCE

NO. SL. SEV.

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spatial orientation

3. INTELLECTUAL OPERATIONS IN SPACE

- 8-14 Koh's Test: a) Card G33
 b) Card G34
 c) Card G35

SUMMARY:DISTURBANCE

NO. SL. SEV.

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intellectual operations in space

H IMPRESSIVE SPEECH1. INVESTIGATION OF PHONEMIC HEARINGREPETITION

- 8-14 Simple, isolated sounds: b p m d k
 8-14 Disjunctive phonemes: m-p b-n p-s
 8-14 Correlating phonemes: b-p d-t k-g r-l
 8-14 Series of disjunctive phonemes: a-o-a u-a-i b-r-k m-s-d
 8-14 Series of correlating phonemes: b-p-b p-b-p d-t-d
 8-14 Series of identical consonants with changing vowels: bi-ba-bo bi-bo-ba bo-bi-bo

WRITING

- 8-14 Sounds (Card H1): b p m d k
 8-14 Letters (Card H2): b-n m-p p-s
 (Card H3): b-p d-t k-g r-l
 (Card H4): a-o-a u-a-i b-r-k m-s-d
 (Card H5): b-p-b p-b-p d-t-d
 (Card H6): bi-ba-bo bi-bo-bo bo-bo-bo
 8-14 Sound differentiation: a) b-p
 b) p-p

CONDITIONED REFLEX PRINCIPLE

- 9-14 Correct response to given signal:
 a) Raising left and right hands in response to different signals:
 b) Raising left and leaving right hand where it is in response to different signals:

CHANGE IN STIMULATION

- 8-14 Sound differentiation: a) b-p (pronounced at same pitch)
b) b-b (pronounced at different pitches)

SUMMARY:DISTURBANCE

NO.	SL.	SEV.

phonemic hearing

2. WORD COMPREHENSIONDEFINITION

- 8-14 Individual objects:
a) pencil c) ruler
b) india-rubber d) penknife
- 8-14 Individual objects in pictures:
a) bottle (Card H7) b) oranges (Card H8) c) pencils (Card H9)
- 8-14 Indirectly visible objects:
a) eye b) nose c) ear
- 8-14 Series of objects: penknife - pencil - india-rubber
- 8-14 Series of indirectly visible objects: nose - ear - eye

EFFECTS OF REPETITION

- 8-14 Pointing to series of body parts: eye - nose - ear - eye
- 8-14 Pointing to series of objects: india-rubber - pencil - penknife - pencil

IDENTIFICATION

- 8-14 Identification of picture from among six pictures (Cards H10-15):

a) shoe b) egg-carton c) stove

- 8-14 Identification of:

a) knee c) cheek
b) elbow d) fingernail

Definitions:

- 8-14 a) daisy
8-14 b) butterfly
8-14 c) locust
8-14 d) understand
8-14 e) nonsense
8-14 f) nuisance
10-14 g) annoy

Meaning of words differing from one another on basis of one phoneme:

- 8-14 a) cat
8-14 b) pat
8-10 c) hat
11-14 bat

SPATIAL RELATIONSHIPS

- 8-14 Drawing spatially arranged figures:
- a) a circle below a cross
 - b) a dot above a circle
 - c) a minus sign above a plus sign
- 8-12 Correct answer:
- a) Do you put your shoes on after your socks?
 - b) Do you put your shoes on before your socks?
 - c) Do you eat lunch after supper?
 - d) Do you eat supper before lunch?
- 13-14 Correct statement: Spring comes before summer; or
Summer comes before spring

COMPARATIVE CONSTRUCTIONS

- 12-14 Determining shorter boy: a) Peter b) John
- 12-14 Comparing sentences: John is taller than Peter,
Peter is taller than John.
- 8-14 Evaluating sentences: A fly is bigger than an elephant; or
An elephant is bigger than a fly.
- Evaluating colours:
- 8-14 a) lighter 11-14 c) less dark
- 8-14 b) darker

INVERTED GRAMMATICAL CONSTRUCTIONS

- 8-14 Determining victim: a) Peter b) John
- 13-14 Correct statement: The sun lights up the earth; or
The earth is lit up by the sun.
- 13-14 First activity: a) washed the car b) swept the yard

SUMMARY:DISTURBANCE

NO. SL. SEV.

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understanding logical grammatical structures

J EXPRESSIVE SPEECH1. ARTICULATION OF SPEECH SOUNDSREPETITION

- 8-14 Vowels and consonants (Card J1): a i m b sh
- 8-14 Pairs and groups of sounds (Card J2): sp th pl str awk
- 8-14 Open and closed syllables (Card J3): a) see - seen
b) tree - trick

SUMMARY:DISTURBANCE

NO.	SL.	SEV.	
			articulation

2. REFLECTED (REPETITIVE) SPEECHREPETITION OF SINGLE WORDS

- 8-14 Phonetically simple words (Card J4): cat - dog - man
- 8-14 Phonetically more complex words (Cards J5-6): a) house - table - apple
b) hairbrush - screwdriver - laborious
- 8-14 Less familiar words (Card J7): rhinoceros - surveillance - hierarchy
- 8-14 Words differing from one another on the basis of one phoneme (Card J8): cat - hat - bat
- Phonetically complex and unfamiliar words (Card J9):
- 8 a) haematoma 8-14 c) hemiplegia
- 9-14 b) streptomycin 8-14 d) meningioma

REPETITION OF A SERIES OF WORDS

- 8-14 Word series (Cards J10-12): a) hat - sun - bell
b) house - ball - chair
c) lamp - pin - boy - bridge
- 8-14 Same words, different order: a) hat - bell - sun
b) sun - hat - bell
c) lamp - pin - bridge - boy
d) bridge - boy - pin - lamp

REPETITION OF SENTENCES:

- Short sentences: 8-14 a) The weather is fine today.
8-14 b) The sun shines and the sky is blue.
- Long sentences: 8-11 a) The boy is writing in his exercise book.
12-14 The apple trees grew in the garden behind a high fence.
8-9 b) The thief ran away when he saw the police.
10-14 On the edge of the forest the hunter killed the wolf.
- Series of short sentences: 8-9 a) The house burns, the dog barks.
The dog barks, the house burns.
10-14 b) The house is on fire, the moon is shining,
the moon is shining, the broom is sweeping,
the broom is sweeping. the house is on fire.
- Short story:
- 8-12 The Frog and the Cow (Card J13a)
- 13-14 The Frog and the Ox (Card J13b)
- Near a swamp (bog) where some frogs were living a cow (an ox) was grazing.

- One of the frogs saw the cow (ox) and said to the others: "I can be just as big as that cow (ox)."
- For some time he tried to blow himself up and he asked: "Am I now just as big?"
- "Not yet", the others cried.
- "Then I will show you", he screamed and blew himself up so violently that he burst.

SUMMARY:DISTURBANCE

NO.	SL.	SEV.

repetitive speech

3. NOMINATIVE FUNCTION OF SPEECHNAMING OBJECTS AND PICTURES OF OBJECTS

8-14 Objects: a) pencil b) watch c) ruler

Objects in pictures:

8-12 a) Card J14a 8-11 d) Card J17a

13-14 Card J14b 12-14 Card J17b

8-14 b) Card J15 8-14 e) Card J18

8-14 c) Card J16

8-14 Body parts: a) Card J19 b) Card J20

8-14 Objects pointed to: a) pencil b) watch c) ruler

Pictures pointed to:

8-12 a) Card J14a 8-11 d) Card J17a

13-14 Card J14b 12-14 Card J17b

8-14 b) Card J15 8-14 d) Card J18

8-14 c) Card J16

NAMING FROM DESCRIPTION

8-14 Object used to tidy hair:

8-14 Object indicating time:

8-14 Object used to protection against the rain:

DETERMINATION OF CATEGORICAL NAMES

8-14 cat - dog - budgie

8-14 apple - banana - pineapple (Cards J21-23):

8-14 sucker - sweet in wrapper - slab of chocolate (Cards J24-26):

13-14 guitar - piano - violin (Cards J27-29):

SUMMARY:DISTURBANCE

NO.	SL.	SEV.

nominative function of speech

4. NARRATIVE SPEECH

FLUENCY AND AUTOMATIZATION OF SPEECH

- 8 Counting to 21: 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 -
17 - 18 - 19 - 20 - 21
- 9-14 Counting backwards: 20 - 19 - 18 - 17 - 16 - 15 - 14 - 13 - 12 - 11 - 10 - 9 - 8 - 7 - 6 -
5 - 4 - 3 - 2 - 1
- 8-14 Reciting the days of the week: Sunday - Monday - Tuesday - Wednesday - Thursday - Friday - Saturday
- 8 Reciting the alphabet: a - b - c - d - e - f - g - h - i - j - k - l - m - n - o - p - q - r -
s - t - u - v - w - x - y - z
- 9-14 Reciting the months of the year: January - February - March - April - May - June - July -
August - September - October - November - December
- 8 Counting backwards: 10 - 9 - 8 - 7 - 6 - 5 - 4 - 3 - 2 - 1
- 9-14 Reciting the days of the week backwards: Saturday - Friday - Thursday - Wednesday - Tuesday -
Monday - Sunday
- 13-14 Reciting the months of the year backwards: December - November - October - September - August -
July - June - May - April - March - February - January

PREDICATIVE SPEECH - REPRODUCTIVE FORMS

- 8-14 Answering questions: a) breakfast menu
b) venue of previous holiday
- 8-14 Describing pictures: a) Card J30
b) Card J31
- 8-14 Repeating story (Card J32):
- Yesterday Peter who was seven years old went down to the river to fish.
- He took his dog Prince with him.
- The river had overflowed its banks after the rainy weather.
- Peter slipped and fell into deep water.
- He would have drowned if the dog had not dived in and helped him to reach the shore.

PREDICATIVE SPEECH - PRODUCTIVE FORMS

- 8-14 Story repetition: Little Red Riding Hood (Card J33)
- 8-14 Speech: a) The weather
b) Your teacher

COMPLEX SYSTEMS OF GRAMMATICAL EXPRESSIONS

Sentence completion:

- 8-14 a) Card J34:

- 8-14 b) Card J35:
 8-14 c) Card J36:
 8 d) Card J37a:
 9-14 Card J37b:
 8-14 Sentence construction (Card J38):

Sentence formation:

- 8-14 a) Card J39:
 8-13 b) Card J40a
 14 Card J40b

SUMMARY:

DISTURBANCE

NO.	SL.	SEV.

narrative speech

K WRITING AND READING

1. PHONETIC ANALYSIS AND SYNTHESIS OF WORDS

ANALYSIS

Number of letters:

- | | | | |
|------|----------|-------|----------|
| 8-14 | a) cat | 11-14 | e) trap |
| 8-14 | b) happy | 9-13 | f) table |
| 8-13 | c) name | 14 | g) hedge |
| 8-10 | d) jump | | |

Identification of sounds:

- 8-14 a) second letter in "cat"
 8-14 b) first letter in "match"
 8-13 c) third letter in "most"
 14 third letter in "hedge"

Position of sounds:

- 8-9 a) letter in "dog" after "o"
 8-9 letter in "dog" before "g"
 10-14 b) letter in "stop" before "t"
 10-14 letter in "stop" after "o"
 10-13 c) letter in "light" before "h"
 10-13 letter in "light" after "g"
 14 d) letter in "bridges" before "g"
 14 letter in "bridges" after "d"

SYNTHESIS

Syllables:

- 10-13 a) p - r - o
 10-13 b) o - p - t
 10-13 c) l - o - c
 14 d) g - r - o
 14 e) p - l - y

Words:

- 8-9 a) d - o - g
 10-14 b) s - t - o - n - e
 8-13 c) b - o - n - e
 10-13 d) k - n - e - e
 14 e) k - n - i - g - h - t
 8-14 f) c - then - a - then - t
 8-14 g) f - then - r - then - o - then - g
 10-14 a - then - p - then - p - then - l - then - e

SUMMARY:DISTURBANCE

NO	SL.	SEV.

phonetic analysis and synthesis

2. WRITINGCOPYING AND ORDINARY WRITING

- 8-14 Copying letters (Card K1): a) Printed B L
 b) Written L D B
 8-14 Copying syllables (Card K2): p̄a - an - pro - pre - sti
 Writing from memory: 8-13 bus - cake (Card K3a)
 14 match - district (Card K3b)
 8-14 Writing name:
 8-14 Writing address:

COMPLEX FORMS

Dictation - letters:

- 8 a n t h l
 9-14 f t h l

Dictation - closed syllables:

- 8-14 ot an

Dictation - words

- | | |
|------------------|-----------------|
| 8 a) ball call | 8-9 c) hand |
| 9-14 back pack | 10-14 caravan |
| 13-14 knee knock | 8-9 d) broom |
| 8-9 b) play | 10-12 because |
| birthday | 13-14 telephone |

Dictation - series of words:

8-14 hat - sun - dog

Dictation - phrases:

8-11 a) very happy

8-11 b) by the sea

12-14 c) all of a sudden

12-14 d) last year before Christmas

Dictation - names of objects:

8-9 a) cup

10-14 ashtray

8-14 d) spoon

8-14 b) book

13-14 e) pair of scissors

8-9 c) pen

10-14 pencil

Writing family names:

8-14 a) parents

8-14 b) siblings

8-14 Writing a few words about how she/he feels:

8-14 Writing a few words about his/her main ideas on looking after pets:

SUMMARY:

DISTURBANCE

NO.	SL.	SEV.

writing

3. READING

ANALYSIS AND PERCEPTION OF LETTERS

8-14 Reading isolated letters (Card K4): K S W R T

8-14 Associating letter with word: a) John B J S

b) Durban D N R

READING SYLLABLES AND WORDS

Closed syllables (Card K5a):

8 an ot mon prot

Open and closed syllables (Card K5b)

9-14 pro cor cra spro prot

Words:

8-9 a) house (Card K6a) 8 c) bathroom (Card K8a)

10-14 juice (Card K6b) 9-14 cloakroom (Card K8b)

8-14 b) bread (Card K7) 8-9 d) umbrella (Card K9a)

10-12 fertilizer (Card K9b)

Ideograms:

- | | | | |
|-------|--------------------|-------|--------------------|
| 8-11 | a) SA (Card K10a) | 8-12 | c) SAP (Card K12a) |
| 12-14 | UN (Card K10b) | 13-14 | USSR (Card K12b) |
| 8-12 | b) OFS (Card K11a) | | |
| 13-14 | USA (Card K11b) | | |

Complex words:

- | | | | |
|-------|-----------------------------|-------|-------------------------------|
| 8-9 | a) elephant (Card K13a) | 10-13 | b) hippopotamus (Card K14a) |
| 10-13 | operation (Card K13b) | 14 | indistinguishable (Card K14b) |
| 14 | insubordination (Card K13c) | | |

Unfamiliar words:

- | | |
|------|---------------------------|
| 8-14 | a) cortex (Card K15) |
| 8-14 | b) praxis (Card K16) |
| 14 | c) astrocytoma (Card K17) |

READING PHRASES AND A WHOLE TEXT

Phrases:

- | | |
|-------|---|
| 8-14 | a) The man went out for a walk (Card K18) |
| 8-9 | b) Mother cooks the dinner (Card K19a) |
| 10-14 | My head aches very much (Card K19b) |
| 8-14 | c) There are flowers in the garden (Card K20) |

Sentences:

- | | |
|------|---|
| 8-14 | a) The sun rises in the west (Card K21) |
| 8-14 | b) The boy went to bed because she was ill (Card K22) |

Texts:

- | | |
|-------|--|
| 8-12 | a) The Princess and the Golden Ball (Card K23a) |
| | There was once a king who had a very pretty little daughter. This little girl had many, many toys, but best of all she loved her golden ball. One day, she was playing with it in the garden when it rolled away and fell into the pond. The poor little princess cried, but suddenly a voice said: "Don't cry! I will bring back your ball if you promise me three things. I must sit at your table, eat off your plate, and sleep on your bed." She saw a big green frog looking up from the pond. |
| 13-14 | b) The Boy who Stole Apples (Card K23b) |
| | John was a boy who liked apples - especially if they were stolen. One dark night he went into an orchard, plucked what he took to be an apple and set his teeth in it. It was however a very unripe pear and his loose front tooth stuck in the fruit. Now he only steals apples in the day-time. |

SUMMARY:DISTURBANCE

NO.	SL.	SEV.

reading

ARITHMETIC SKILLS

1. COMPREHENSION OF NUMBER STRUCTURE

UNDERSTANDING, WRITING AND RECOGNIZING FIGURES

- 8-14 Writing single digits: a) 7 - 9 - 3 b) 3 - 5 - 7
 8-14 Reading single digits (Card L1): a) 7 - 9 - 3 b) 3 - 5 - 7

Writing visually complementary numbers:

- 8-14 a) Arabic numbers: 17 71 69 96
 b) Roman numerals: IV VI IX XI

Reading visually complementary numbers:

- 8-14 a) Arabic numbers (Card L2): 17 71 69 96
 b) Roman numerals (Card L3): IV VI IX XI

Reading and writing multi-digit numbers:

- 8-14 a) 27 8 d) 99
 8-14 b) 34 9-14 396
 8 c) 58 8 e) 84
 9-14 158 9-14 9845

Reading and writing digits not written the way they are spoken:

- 8-14 a) 14 b) 17 c) 19

Reading and writing multi-digit numbers in which some digits have the value of zero and are therefore not spoken:

- 8 a) 30 8 b) 100
 9-14 109 9-14 1023

- 8-14 Reading vertically arranged numbers (Card L4):

Identifying categories - number written horizontally:

- 8 a) 158: hundreds-tens-units (Card L4a):
 9-14 b) 1023: thousands-hundreds-tens-units (Card L4b):

NUMERICAL DIFFERENCES

Identifying larger numbers - oral presentation:

- 8-14 a) 17 - 68 8 c) 189 - 211
 8-14 b) 23 - 56 9-14 189 - 201

Identifying larger number - visual presentation:

- 8 489 - 632 (Card L5a):
 9-10 489 - 601 (Card L5b):
 11-14 1967 - 3002 (Card L5c):

SUMMARY:

OISTURBANCE

NO.	SL.	SEV.

comprehension of number structure

2. ARITHMETIC OPERATIONSSIMPLE, AUTOMATIZED CALCULATIONS

Multiplication:

9	a) 2×3	9-13	c) 6×10
10-14	3×3	14	7×8
9-14	b) 5×4		

Addition:

8-14	a) $3 + 4$	8-14	b) $6 + 7$
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Subtraction:

8-14	a) $7 - 4$	8-14	b) $8 - 5$
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COMPLEX ARITHMETIC OPERATIONS

Addition:

8	a) $24 + 5$ (Card L6a)	8-10	b) $44 + 7$ (Card L7a)
9-10	$24 + 8$ (Card L6b)	11-14	$44 + 57$ (Card L7b)
11-14	$27 + 8$ (Card L6c)		

Subtraction:

8	a) $38 - 7$ (Card L8a)	8	b) $47 - 14$ (Card L9a)
9-10	$31 - 7$ (Card L8b)	9-13	$41 - 14$ (Card L9b)
11-14	$31 - 7$ (Card L8c)	14	$41 - 14$ (Card L9c)

Addition - vertically arranged numbers:

8-13	$5 - 3 - 2$ (Card L10a)
14	$5 - 9 - 7$ (Card L10b)

ARITHMETICAL SIGNS

Missing arithmetical sign (Cards 11a and b):

9-14	a) \times	8-14	c) $-$
8-14	b) $+$	10-14	d) \times

Missing number:

8-9	a) 5 (Card L12b)	b) 4 (Card L12b)
8-9	3	7

SERIAL ARITHMETICAL OPERATIONS

Oral presentation:

9-13	a) $2 + 8 - 3$	9-13	b) $9 - 5 + 4$
14	$12 + 9 - 6$	14	$32 - 4 + 9$

Visual presentation:

9-13	a) $11 + 2 + 3$ (Card L13a)	9-13	b) $20 + 32$ (Card L14a)
10-13	$17 + 3 + 14$ (Card L13b)	11-13	$25 + 135$ (Card L14b)
14	$27 + 34 + 14$ (Card L13c)	14	$158 + 396$ (Card L14c)

SERIES OF CONSECUTIVE ARITHMETICAL OPERATIONS8-14 Counting backwards from 100 in tens: $100 - 90 - 80 - 70 - 60 - 50 - 40 - 30 - 20 - 10$

12-14 Counting backwards from 100 in fives: 100 - 95 - 90 - 85 - 80 - 75 - 70 - 65 - 60 - 55 - 50 -
45 - 40 - 35 - 30 - 25 - 20 - 15 - 10 - 5

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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arithmetical operations

M MNESTIC PROCESSES

1. LEARNING PROCESS

8-14 Series unrelated words:

TRIAL NO.	ASPIRATION LEVEL	ACTUAL RESULT	HOUSE	FOREST	CAT	NIGHT	TABLE	NEEDLE	PIE	BELL
1										
2										
3										
4										
5										
6										

8-13 Series 7 unrelated numbers:

14 Series 9 unrelated numbers

TRIAL NO.	ASPIRATION LEVEL	ACTUAL RESULTS	7	1	3	9	4	2	5	6	8
1											
2											
3											
4											
5											
6											

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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learning process

2. RETENTION AND RETRIEVAL

FORM RECOGNITION (KORNORSKI'S TEST)

Recall after "empty" pause:

8-9 Cards M1a and M2a

10-14 Cards M1b and M2b

Recall after "filled" pause:

8-14 Cards M3 and M4

Multiplication:

8-9	2 x 2	10-14	6 x 5
8-9	3 x 3	10-14	3 x 9
8-9	2 x 5	14	7 x 6
10-13	7 x 4		

SIZE CONTRAST EFFECT (UZNADZE'S TEST)

8-14 Identifying larger ball: a) two balls of different sizes
b) two balls of the same size

IMMEDIATE REPRODUCTION OF VISUAL, ACOUSTIC, KINESTHETIC AND VERBAL TRACES

8-14 Geometric shapes (Card M5):
8-9 Rhythmic taps: ''UU''UU
10-14 ''UUU''UUU
8-13 Hand positions: two
14 three
8-14 Series of words (Card M6): house - moon - boy - water

RETRIEVAL OF WORDS

8-14 Heterogeneous interference: house - cat
Card M7 - description:
8-14 Homogeneous interference: man - hat night - chair

RETRIEVAL OF SENTENCES AND PARAGRAPHS

Sentences:

8-12 Mother cooks the dinner.
Father digs in the garden.
13-14 The sun rises in the east.
In May the apple trees blossom.

Stories:

8-9 The Lion and the Mouse (Card M8a):

- A lion was asleep and a mouse ran over his body.
- The lion awoke and caught the mouse.
- The mouse begged him to let her go.
- The lion laughed and let her go.
- Next day a hunter caught the lion and tied him with a rope to a tree.
- The mouse came up quietly, chewed through the rope, and set the lion free.

8-9 The Lion and the Fox (Card M8b):

- A lion grew old and could no longer hunt animals, so the lion had to decide how to live by being clever.

- He lay in his cave and pretended to be sick.
- The animals came up to him and he ate them.
- One day a fox came, but would not go into his cave.
- The lion asked her: "Why don't you come in?"
- The fox replied: "I can see tracks going into your cave, but none coming out."

10-14 The Hen and the Golden Eggs (Card M9a):

- A man had a hen which laid golden eggs.
- Wishing to obtain more gold without having to wait for it, he killed the hen.
- But he found nothing inside it, for it was just as any other hen.

10-14 The Crow and the Doves (Card M9b):

- A crow heard that the doves had plenty to eat.
- He coloured himself white and flew to the dove cote.
- The doves thought that he was one of them, and took him in.
- However, he could not help cawing like a crow.
- The doves then realized that he was a crow and threw him out.
- He went back to rejoin the crows, but they did not recognize him and would not accept him.

SUMMARY:

DISTURBANCE

NO. SL. SEV.

NO.	SL.	SEV.

retention and retrieval

3. LOGICAL MEMORIZING

RECALLING BY VISUAL AIDS

Picture corresponding to word given by examiner:

- 8-14 Card M10 - rain
- 8-14 Card M11 - burglar
- 8-14 Card M12 - small
- 8-14 Card M13 - winter
- 8-14 Card M14 - coffee
- 8-14 Card M15 - tame
- 8-14 Card M16 - wood
- 8-14 Card M17 - morning
- 8-14 Card M18 - boy
- 9-14 Card M19 - stupid

Picture corresponding to word chosen by subject:

- 8-14 round - Card M
- 8-14 pattern - Card M
- 8-14 happy - Card M
- 8-14 form - Card M
- 8-14 honey - Card M

8-14 hungry - Card M
 8-14 music - Card M
 8-14 apple - Card M
 13-14 cold - Card M

RECALLING BY PICTOGRAM METHOD

8-14	sad	8-14	parent
8-14	night	8-14	rain
8-14	stormy	10-14	games
8-14	teacher	10-14	sick
8-14	pretty	14	guardian

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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logical memorizing

N INTELLECTUAL PROCESSES

1. UNDERSTANDING OF THEMATIC PICTURES AND TEXTS

PICTURES

Describing story conveyed by picture:

8-14 a) Card N1:

8-11 b) Card N2a:

12-14 Card N2b:

8-13 c) Card N3a:

14 Card N3b:

Picture arrangement:

8-14 a) Cards N4-8:

8-14 b) Cards N9-13:

TEXTS

Explanation of texts:

8-14 a) The Hare and the Tortoise (Card N14):

10-14 b) The Ant and the Pigeon (Card N15):

Explanation of metaphor:

10-14 a short cut:

Explanation of proverbs:

13-14 a) First come, first served:

13-14 b) Too many cooks spoil the broth:

13-14 c) Strike while the iron is hot (Card N16):

14 d) Still waters run deep (Card N17):

SUMMARY:

DISTURBANCE

NO. SL. SEV.

NO.	SL.	SEV.

understanding thematic pictures and texts

2. CONCEPT FORMATION

DEFINITION

8-14 a) table

8-10 b) motorcar

11-14 tractor

8-9 c) tree

10-14 island

COMPARISON AND DIFFERENTIATION

Comparison:

8-14 a) dog and cat

8-14 b) rose and daisy

8-14 c) apple and banana

10-14 d) March and June

11-14 e) piano and guitar

Differentiation:

8-14 a) carrot and banana

8-12 b) caterpillar and butterfly

10-14 c) lion and cat

13-14 d) stove and egg

13-14 e) plank and pane of glass

LOGICAL RELATIONSHIPS

General categories:

8-9 a) daisy - flower

10-14 rose - flower

8-10 b) ...

Members of groups:

- 8-10 a) sweets -
 11-14 furniture -
 8-10 b) toys -
 11-14 vehicles -
 11-14 c) stationery -
 14 d) tools -
 13-14 Parts of whole knife:

Opposite values:

- 8 a) big -
 9-11 high -
 8 b) hot -
 9-14 fat -
 8 c) day -
 9-14 old (Card N18) -

ANALOGIES

- 10-13 high-low: good (poor, bad, man) (Card N19)
 14 good (bad): high-low
 10-13 fat-thin: wide (long, narrow, short) (Card N20)
 14 wide (narrow): fat-thin
 10-14 table-leg: bicycle (wheel, road, seat)
 13-14 bicycle (wheel) (Card N21)

CATEGORICAL INTELLIGENCE

- 8-13 horse - cow - sheep - tractor (Card N22a)
 14 spade - saw - axe - log (Card N22b)
 8-13 coat - cupboard - dress - trousers
 14 spoon - table - glass - plate
 8-13 peach - grass - apple - pear
 14 ball - doll - rockinghorse - knife
 8-13 chair - table - cup - bed
 14 cigar - wine - cigarette - tobacco

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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concept formation

3. DISCURSIVE INTELLECTUAL ACTIVITY

ELEMENTARY ARITHMETICAL PROBLEMS

Addition:

- 8-14 a) Card N23: answer =

- 8-9 b) Card N24: answer =
 10-14 c) Card N25: answer =
 8-14 d) Card N26: answer =

Subtraction:

- 8-14 a) Card N27: answer =
 10-14 b) Card N28: answer =

Intermediate addition:

- 10-14 a) Card N29: answer =
 11-14 b) Card N30: answer =

Multiplication:

- 13-14 a) Card N31: answer =

Division:

- 13-14 a) Card N32: answer =
 13-14 b) Card N33: answer =

SUMMARY:

DISTURBANCE

NO. SL. SEV.

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discursive intellectual activity
