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**ASPECTS OF LANGUAGE
BREAK-DOWN IN DELAYED
LANGUAGE CHILDREN**

SHADIA M. S. EL-DIN FARMY

2000

THE AMERICAN UNIVERSITY IN CAIRO
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
THE ARABIC LANGUAGE INSTITUTE
TAFL PROGRAM

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ASPECTS OF LANGUAGE BREAK DOWN
IN
DELAYED LANGUAGE CHILDREN

A THEISIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS
TAFL

BY
SHADIA MOHAMED SALAH EL-DIN FAHMY

DECEMBER 2000

The American University in Cairo
Aspects Of Language Break Down in Delayed Language Children

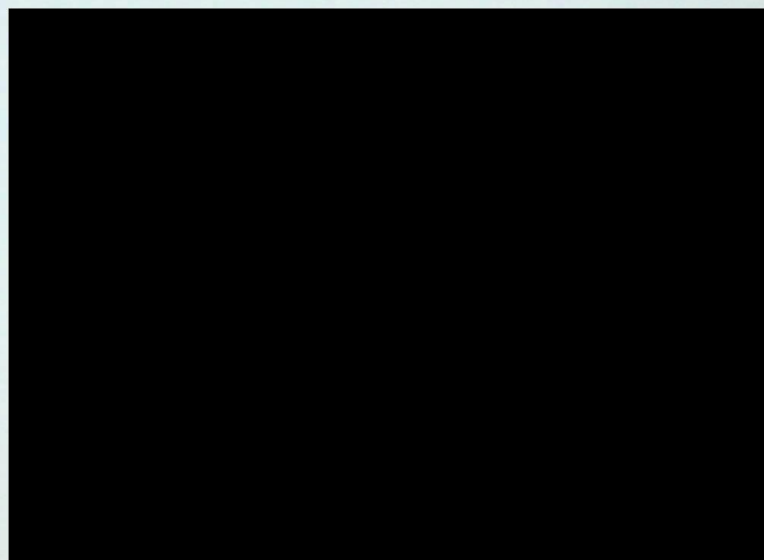
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A Thesis Submitted By Shadia Mohamed Salah El-Din Fahmy
To Department Of TAFL
December 2000
In partial fulfillment of the requirment for
The degree of Master of Arts
Has been approved by

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Abstract

Childhood delayed language disorders with no apparent specific causes are a problem recently identified as a serious impediment for the linguistic aptitudes and learning abilities of children.

Present work aims to examine the defective language of idiopathic children in an attempt to draw up a possible pattern for language breakdown in order to help in designing better intervention strategies leading to better prognosis. The field work for the study (Aspects of Language Breakdown in Children) was conducted in the Phoniatic department of Ain Shams University. Twenty five children, 15 boys and 10 girls, between the ages of three years and a half and seven and half years were tested.

The test applied was the Kotby & Refae (1994) Arabic language test designed in Ain Shams University to detect cases of subtle deviant variation in language aptitudes. The results showed a gap between the language expected from those children according to their chronological ages and their actual language performance. The gap was considered wide and continued to increase with age in areas of pragmatics and prosody, while it showed a considerable decrease in areas of expressive and receptive syntax and semantics. It is important that the language gap should be detected and treated early so as to reduce to a minimum later learning problems.

Acknowledgment

I would like to express my gratitude and thanks to Dr. Said El Bedawi, Dr. Nasser Kotby, and Dr. Alaa El Gabali for the help and guidance they offered me during the various stages of the study. I also like to express my gratefulness for Dr. Safaa El Sady and Dr. Fathi Matar for their valuable opinions and assistance without which the work would never have been completed.

Aim Of the Work

Aim of the study: to review mechanism of language control in the brain which are responsible for language development in order to understand the nature of language breakdown in delayed language children to be able to help in designing better intervention strategies and reach better prognosis.

INTRODUCTION

Language is an arbitrary symbolic program which pairs sound to meaning (Kotby, 1987). It is used as an expressive, verbal code to impress the receiver's mental state. These codes, when familiar and understood by both the speaker and listener, make communication successful. The knowledge of how to use language to communicate is a specific cognitive faculty within the domain of general cognition.

The argument about the relation between cognition, communication and language had a strong effect on modern theories of language acquisition. Piaget who was a dominant figure in this field, adopted the theory that language reflects rather than determines cognition, (Piaget cited by El Sady, 1980). Later theories support the belief that humans are born with an innate language faculty. This innate mechanism, "is a system of principles, conditions and rules that are elements or properties to all human languages", (Chomsky, 1975). Yet a healthy language environment is still required as a stimulating force necessary for the child to acquire his mother tongue. Due to these two reasons (innate mechanism and a stimulating environment) we may define prerequisites for normal language development as presented by Kotby et al, (1977).

- 1) Intact brain function: Modern trends support the belief that anatomical asymmetries account for functional differences between the two hemispheres. The left hemisphere dominates functions of processing verbal information and memory. It is responsible for some aspects of intelligence for example: awareness of one's own body and the prepositional aspects of language and its production. On the other

hand, the right hemisphere is highly involved in comprehension. It also has a superior role in musical awareness, visual-spatial analyses, holistic reception, emotional behavior and affective aspects of language, e.g., prosody and emotional gesturing.

- 2) Intact sensory channels: the child must not suffer from any sensory deprivation which would impair hearing and sight.
- 3) Intact psyche: the child must have the desire to communicate with others and not suffer from psychiatric disturbance as in cases of autism and schizophrenia. This disturbance causes social impairment.
- 4) Stimulating environment: It is necessary to surround the child with correct and vigorous language because this is the input he/she is going to imitate when they produce language. Environmental stimulation plays an undeniably gross role equal in importance to the role of the innate mechanism. The first organizes the input and decides the amount and quality of the intake while the second decides the nature of the intake.

As to cerebral dominance, studies confirm the belief that the left hemisphere is dominant for language processing. There are no definite centers for language, but language systems are distributed diffusely around the Sylvian fissure occupying areas in the frontal and tempo- parietal lobes. The central language control systems also have a cortical, sub-cortical, diencephalic representation (Kotby et al, 1980, cited by El Sady).

Although there are no definite areas for the different language domains it may yet be claimed that posterior areas are specified for comprehension, while

anterior areas are specified for language production. This is still controversial and needs detailed experimental work that is not available at the present time.

Hemispheric specialization may be tabulated as follows:

Function	Left	Right
Cognitive style	Analytic	Holistic
Reception	Temporal	Spatial
Processing	Sequential (details)	Simultaneous (pattern)
Language	Prepositional	Automatic
Communication	Phonetic & syntax	Discourse & humor
Prosody	Grammatical	Emotional
Reading	Phonological	Visio- graphic
Performance abilities	Verbal, arithmetic	Melody, pitch
Dominance	Language & praxis	Visio spatial, attention, emotion

As to the structural domains of the language there are a number of aspects which may be classified as: phonology, semantics, syntax, morphology and pragmatics. Phonology is the sound system or sound patterns of a language. It is the native speaker's competence and awareness in distinguishing between the contrastive and the distinctive abilities of phonemes, in units of utterances, to produce lexically distinctive forms. It marks the differences in selection the languages have made from available articulation of the vocal apparatus and imposes certain positional arrangement of syllabic grouping on these selections. The language systems decide what happens to words in fast speech and in carefully articulated utterances. The sound patterns are divided into two levels the segmental and the suprasegmental (prosodic). At the segmental level the consonant and the vowel, the phonemes of the language, are

identified. At the suprasegmental level features of the voice are identified with regard to intonation, tone, rhythm and stress (VanPatten, 1996; Robins, 1980).

Syntax is the aspect of the language concerned with order in sentences. It is the knowledge of the order of elements in a sentence and the relationship among those elements in an utterance. Meanings or semantics are affected by moving the elements within a sentence. An infinite number of sentences may be produced from the abstract structures and rules of a language (Gass & Selinker, 1994; VanPatten, 1996; Robinson, 1980).

Semantics is the study of the meaning of words and meaning of sentences. Knowledge of the semantics of a language implies knowledge of the referent of word. Meaning is affected by the way we combine different elements in a sentence. Thus syntax and meaning are interrelated (Gass & Selinker, 1994, VanPatten, 1996, Robinson, 1980).

Pragmatics is the way we use language in context. Pragmatic competence has two components: the first concerns language, the second concerns organizational knowledge. The latter is the knowledge of linguistic elements and the rules of their order in a sentence to perform a variety of language functions, e.g., making assertions, requesting, instructing, etc. Therefore, it is concerned with attempts to account for how speakers convey and how listeners comprehend meaning in conversation (Gass& Selinker, 1994; VanPatten, 1996; Robinson, 1980).

To study lateralization, researchers applied various methods to define left cerebral hemisphere function versus the right . Some of these tools are:

- ❖ Wada technique
- ❖ Regional cerebral blood flow

- ❖ Evoked potentials in cerebral dominant
- ❖ Dichotic listening
- ❖ Electro physiological indices
- ❖ Brain splitting
- ❖ Brain imaging

Thus, after considering aspects of the language system, where they are distributed in the brain, and how they function, current theories support the belief that a child's language traverses a sequences of stages before it is fully developed. Most research conclude that cognition and comprehension are the starting point of language acquisition (Kotby, 1990; VanPatten, 1998). Areas of cognition, thought, and language must develop to make the individual able to perceive and understand verbal messages.

Breakdown in the development of the language system may be due to the following reasons:

1. Brain damage as in cases of diffuse sub cortical lesions causing mental retardation. Minimal brain damage as in cases of ADHD or ADD. Localized brain damage as in cases of BDMH with specific motor insult.
2. Sensory deprivation, e.g. sight and hearing impairment.
3. Psychiatric disorder.
4. Environmental deprivation.
5. Idiopathic.

Unfortunately, there is currently no solid data to show how the Arabic language hierarchy is built and how it is indicated when breakdown takes place.

HISTORICAL REVIEW

Behaviorists once considered language learning to be a process similar to other kinds of learning in that it suffices to understand tenets behind formation of habits and avoid errors. Since 1970, however, research has shown us that language acquisition is a complex phenomenon. It may be studied from different perspectives, such as linguistic, cognitive, and the social (VanPatten, 1996).

Psycholinguistics shifted the focus of language acquisitions study to investigate the mechanism of how children learn and how they use language. How do they use their linguistic knowledge to comprehend and produce utterances and discourse? This vein of research focused on the perception of language, the role of memory and comprehension, and the relationship between comprehension and production (VanPatten, 1996).

To be more specific, psycholinguistics concentrated increasingly on the roles played by semantics and syntax in the process of language acquisition, especially in understanding utterances. Are utterances driven to the child's understanding by means of the semantics or the syntax? Which is computed first: the semantics and content of the situation, or the grammatical structures of the sentences? According to Krashen's theory of input (Krashen, 1982, 1985; cited from Harlic & Hartford, 1997) the child needs to understand the meaning of the input in order to acquire its grammaticality. Therefore he/she depends on comprehension to decode the message; thus, we may be allowed to conclude that comprehension is the starting point for language acquisition (VanPatten, 1996; cited by Harlic & Hartford, 1997).

While investigating how a child acquires his/ hers mother tongue, one of the decisive questions was what are some of the characteristics of children's

speech. In an attempt to describe childrens' utterances and determine whether acquisition developed systematically, researchers concluded that child language has its own grammar in which each stage is constrained by its own rules. Children's linguistic competence develops in stages. In each of these stages, the child adjusts the applied rule. Linguistic information is not simply accumulated rather it is gradually adjusted and reconstructed until it is fully developed. This adjustment or reconstruction occurs because children are born with a mechanism to operate on linguistic input and organize the data. The organization itself has its own stages. each characterized by the production of specific grammatical errors. The errors may be the result of over generalization of a form or rule, or may be the result of the child's inability to catch forms and structures, due to concentration on content words. On all accounts, what is evident to observers is that children are born with a developing linguistic system and that it is constantly undergoing organization. How this organizing faculty develops and what its impact on the child's language environment is all still controversial points which need investigation (VanPatten, 1996).

It is clear from reviewing the literature of language organization and control in the brain that the two hemispheres are not equally involved in verbal skills. Theories supporting this view have their origin in the studies of FranzJoseph Gall (1866-1881) who stated that mental faculties and characters traits are dependent on separate areas in the cerebral cortex.

The following is a summary list of the most prominent researches in the field and their conclusion: Broca (1888) declared his view that only verbal expression was lateral while verbal comprehension and the general ability to use symbols depended equally on the two hemispheres.

Wernick (1874) declared that the left cerebral damage may impair comprehension and result in paraphasic speech. Lebrun (1983) declared that the left side of the brain might be dominant for all linguistic functions.

More recently Bhandagan (1983) concluded that the right non- dominant language system is anatomically and functionally tied to the left dominant system, and that its participation in basic language function is passive in contrast to the more active left hemisphere . This was announced when he found that there was no language impairment after functional ablation of the right hemisphere, but that there was language impairment resulting from imposing electrical stimulation on the same hemisphere.

Lebrun (1983) stated that as soon as the concept of cerebral dominance became popular, evidence began to appear suggesting that the right hemisphere also possesses specialized abilities.

Saywer (1987) suggested that Broca's area is responsible for initiating and coordinating the complex sequence of motor abilities that specialize in speech production.

Geschwind (1968) stated that Wernicke's area plays a role in verbal expression by generating the form of the utterances. He believed that the underlying structures of an utterance arises in Wernicke's area and then is transferred through the arcuate fasciculus (a bundle of sub cortical association fibers) to Broca's area, where it evokes a detailed and coordinated program for vocalization.

Luria (1965) discussed the relation between sub cortical structures and language by concluding that the link between the thalamas and verbal behavior has largely been the responsibility of the left thalamus. On the other hand, he

concluded that the process associated with the thalamus seems to be more basic than specific language processing. It may be related to attention and vigilance as they are applied to speech processing.

Finally Davis (1983) associated the angular gyres with reading and writing. Comprehension of the written word may happen through a connection between the left occipital lobe and Wernick's area .

Recent studies focused on further areas of linguistics specialization. Bloom (1994) concluded that, the linguistic structures of the left brain damaged cases generally becomes fragmented at the word and sentence level, while breakdown in the structures of the right brain damaged subjects lies in processing larger units of discourse.

Metzler & Jelinek (1997, and Rivers & Love (1980), concluded that right hemisphere dysfunction may not cause lexical nor syntactic errors. Glosser (1993) reached a similar conclusion about how the relationship of the elements within a sentence is affected in case of right hemisphere dysfunction. Hence, it may be concluded that both hemispheres are involved in tasks of analyzing auditory data, but it is the left hemisphere that processes the auditory data into linguistic patterns. The right hemisphere has an inferior syntactic ability compared to the left.

Bloom, Borod, Obler & Gertman (1993, and Cherney & Canter (1993) concluded that lesions on the right hemisphere may cause the patient to loose the ability to preserve the sequence of events in telling a story, producing impaired narrative discourse.

Zaidel (1987) suggested that the right hemisphere seems to apply a more holistic strategy in semantic categorization based on receiving typical features of

objects while the left hemisphere used a more analytic strategy based on receiving atypical features of objects. A similar conclusion was reached by Vitkovitch and Sunderwood (1991) regarding the left hemisphere employing an analytic strategy on small typical effects, while the right hemisphere employed a holistic strategy on large typical effects.

Thus it may be theorized that the left hemisphere is associated with sequencing verbal data while the right hemisphere is associated with sequencing nonverbal data therefore it has a dominant role in modulating and discriminating the affective components of utterances. Examples of these may be emotion of approval and disapproval, appraisal, social cognition, and motivation. These are the axis around which the pragmatic skills revolve. While the LH is dominant in prepositional aspects of the language related to conceptual and functional grammar.

In 1998 Brockway et al studied documented lateralization and hemispheric dominance of various aspects of language, including the visual, spatial, and memory function. Intracarotid Sodium Amobarbital procedure (IAP) gave the most well- documented results of lateralization in researches concerned with verbal\lexical and visual\spatial memory. Results showed that memory of grammar is associated with the language –dominant lobe that is most often the left while the non-dominant lobe influences visual\spatial memory.

Brockway also hypothesized that simpler tasks may be performed in a more unilateral manner where as complicated tasks may require bilaterally, e.g. connected discourse (a complex task) is difficult for cases with RH lesions. Complicated tasks are also related to remembering linguistic abstractions and semantic clustering. Recent studies suggested the responsibility for these complex

structures lies in the deep structures of the medial temporal lobe. However the role of the medial structures in complex language and complex visual tasks is implicated but not yet well- specified.

In 1998, Clarke and Plante used MRI scans to evaluate seven basic morphological variants of the gyral and sulcal patterns in the inferior frontal gyrus. Those variants were applied to the MRI scan of 41 cases to decide on the relation between the inferior frontal gyrus morphology and delayed language disorders (DLD). The findings of the research supported the theory that a relationship exists between irregular gyral morphology and DLD.

Maestripiere in (1997) attempted to understand the evolution of language, its function, and its parameters (syntax, semantics, grammar, etc). He suggested three hypotheses: 1) language is a by-product of certain brain structures developed for other purpose; 2) Language serves social purposes and has a communicative function and 3) language developed as a cognitive tool to make us able to understand and think about the world.

He concluded that language is mostly used for communication and social purposes, but this does not go against the belief that it has a cognitive significance beside its communicative function.

A study by Youssef, Bassiouny, & Terrey 1993-, evaluated the effect of the environment on language development. The cases of thirty-five children served by non Arabic maids were investigated. The results supported the opinion that children acquired their native language normally in the presence of foreign language at their home environment. These results appeared to be contradictory to previous studies, yet linguistic interaction in such circumstances has a positive

effect on the child's language as long as his intrinsic abilities (sensory, intellectual, and psychic) are intact.

As early as 1968 there were valuable attempts made to describe the development of a linguistic system in children. These are valid and respected attempts. Jakobson's theory about the development of the phonemes is one of those endeavors. It was based on the theory of distinctive features (Dale, 1962) that states that the store of phonemes of a language is not acquired as a list, but rather is organized in acquisition as a system of contrasts. In this system each phoneme has two values. For example, the difference between "P" and "B" is the same as between "T" and "D", it is the contrasts between the voiced and voiceless sounds. Similarly, the difference between "T" and "S" is the same as between "D" and "Z." This is the contrast between stops and fricatives, the continuant-stop contrast. Therefore a small number of contrasts or distinctive phonemes identifies all the phonemes of the language. Jakobson claimed that these contrasts are universal and that the total number of distinctive features in the languages of the world was quite small, about fifteen. In this theory, language development meant the acquisition of these distinctive features and not the acquisition of phonemes. These contrasts have an order by which they are acquired. He continued on to state that some of these contrasts are universal since they appear in all languages. These universals are acquired first by the child (e.g, the continuant stop contrast). He also proposed the theory of "irreversible solidarity", in which back consonants presuppose front consonants. Therefore, the acquisition of front consonants should precede back consonants.

Jakobson continues, stating that the phonemes and contrasts that are rare among the languages of the world are among the last to be acquired. What

is acquired first is what is universal in all languages and not what is frequent in the child's mother tongue. This happens even if the sound has a high frequency in the native language. This classification denotes an underlying connection between acquisition by children and cross-linguistic generalization.

In summary, Jakobson's theory is based on universal contrasts, the laws of universal solidarity, and frequency in the languages of the world. Thus he established a universal ordering in which no contrasts can be acquired before the branch leading to it has been acquired.

From these studies and conclusions it may be inferred that intact brain function, sensory channels, psyche, and a stimulating environment are necessary prerequisites for language development.

As mentioned in the introduction to study laterality of function in the brain, researchers applied various methods to define the function of the left cerebral hemisphere versus the right. The following paragraphs define some of these tools and methods.

Wada technique

The Wada technique is an important procedure for determining which hemisphere serves language. Sodium amytal is injected into the carotid artery while the patient is asked to count and make rapid movement with his hands. When the right hemisphere is affected the patient is confused for a few seconds then is able to speak, but when the left hemisphere is affected the stream of speech is confused and there is difficulty in reading and naming objects (Wada, 1949).

Regional cerebral blood flow.

The test of regional cerebral blood flow depends on measuring the regional flow after injecting the internal carotid artery with radioactive xenon dissolved in saline. The cases were given certain tasks to do and their results showed that speech and reading activate regions in the left hemisphere, which include the anterior and posterior speech cortex while the frontal and post central areas are more activated by abstract thinking and problem solving.

Evoked potentials in cerebral dominance,

Evoked potentials in cerebral dominance is an electrical manifestation of the brain's receptions and responses to an external stimulus. It depends on measuring the difference in amplitude between one positive peak and its adjacent negative one. This usually happens after the brain receives a cerebral auditory or visual stimuli. A language stimuli (auditory and/or visual) produced a larger amplitude of the first negative wave over the left hemisphere than that over the right hemisphere (Warren , et al.,1985).

Dichotic listening

Dichotic listening refers to a situation in which both ears receive signals simultaneously. It is usually done by having the subject listen through earphones to signals that are different for the two ears although they may be related to one another. The signals are delivered by totally independent channels so that the events at each ear can be manipulated separately (Kimura, 1967).

Electro physiological indices

Electro physiological indices involved electrical stimulation of cortical tissue. This technique was used preoperatively to map language areas before operations to treat focal cerebral seizures. Panfield & Roberts (1951) found that when the electrical current was applied to the left Broca's area or to the posterior temporo parietal area the stream of speech was disturbed.

Brain splitting

Brain splitting is the lay man's term for a complete cerebral commissurotomy. Those patients who have complete cerebral commissurotomy were tested for the different capacities of the two hemispheres. It was concluded that the disconnected right hemisphere is mute but not deaf (Milner, et al., 1968).

Brain imaging

Brain imaging is another name for positron emission topography. This is a technique that allows for analatic, non-invasive measurement of the local brain tissue physiology in humans, by providing information about local cerebral blood flow, oxygen, and glucose metabolic rates, as well as blood volume (Phelps et al., 1985).

After considering aspects of the language system and their distribution in the brain and their function, current theories support the belief that the child's language traverses a sequences of stages before it is fully developed. Many researches agree that cognition and comprehension is the starting point of language acquisition (Kotby, 1990; VanPatten, 1998). Areas of cognition, thought, and language must develop to make the individual able to receive,

perceive, and understand verbal messages. Breakdown in the development of the language system may be due to the following reasons: brain damage as in cases of diffuse subcortical lesions causing mental retardation, minimal brain damage as in cases of ADHD or ADD, localized brain damage as in cases of BDMH with specific motor insult; sensory deprivation, e.g., sight and hearing impairment; psychiatric disorder; environmental deprivation; idiopathic language breakdown

It is regrettable that there is currently no solid data to show how the Arabic language hierarchy is constructed and how it is revealed when breakdown takes place. Finally while it may be clear that we are born with innate brain functions and/or abilities for language acquisition, we still need the stimulation of the environment to acquire the mother tongue language

MATERIAL and METHOD

This study was performed in the Phoniatic department of Ain Shams Specialized Hospital and El Demrdash Hospital. The subjects of this study consisted of twenty-eight children who were diagnosed as cases of delayed language for no specific reasons (idiopathic). The causes of their delayed language were not easily diagnosed by the available diagnostic procedures, as those children possess all prerequisites for normal language development. They had their innate faculties (sensory, neuromuscular, intellectual, psychic) intact. A stimulating environment was also put into consideration. All the factors which enhanced their language acquisition were checked. Their age ranged from 3.6/12 months to 7.6/12 months with mean of 4 years. They were 15 males and 10 females. Their IQs ranged from 91 to 125 with a mean value of 99.

They had problems in phonology, deviation in grammatical structures, as well as unconnected discourse. They were subjected to detailed history taking which included the following procedures: (see appendix E)

1) Elementary diagnostic procedure

a-Patient interview

b-Auditory memory analysis

c-Examination of the vocal tract and oral tract as well as examination of the neuro- system

2) Clinical diagnostic aid

a- Language test (see appendix A)

b- Audiologic evaluation

3) Additional instrumental diagnostic measures

a-EEG brain image and MR scanning

b- Genetic counseling

c-Acoustics and aerodynamics analysis of speech

After all aptitudes had been fully assessed, a diagnostic profile was drawn showing the performance in each domain compared to the child's chronological age. A curve was drawn to these domains: the physical age, motor age, reflexive age, manual age, social age, mental age, perceptual age, and the language age. (see appendix F)

The language test (Kotby & Refae 1995) given to the children is designed to detect cases of deviant and delayed language, especially early and subtle cases. It also helps in selection of a suitable line of intervention, and in judging progress in follow up examinations. On the whole, it assists doctors and therapists in drawing a more realistic prognosis. (see appendix A for a description of the test applied)

The test consists of 49 items testing areas of imitation, auditory memory span, semantics, receptive language, expressive language, prosody, phonology, and pragmatics. Imitation is tested by one item, its final score is out of 6 possible points; auditory memory span is tested by one item, its final score is also out of 6; semantics is tested by 5 items, its final score is out of 145 possible points; receptive language is tested by 21 items, its final score is out of 110; expressive language is tested by 19 items its final score is out of 96; prosody is tested by one item, its final score is out of 6; phonology is

Table(1) Mean, standard deviation, language age and age gap of the different language parameters in the patients under test.

Chronological age group		03:04(a)	04:05(b)	05:06(c)	06:07(d)	07:08(e)
Pragmatic	Mean test score± Standard deviation	0± 0	2±.* 1.66	2.25± 2.6	4.5±*§ 3.5	5±*§ 1.4
	Language age	01:02	01:02	01:02	02:03	02:03
	age gap	2	3	4	4	5
Expressive	Mean test score± Standard deviation	39± 24.76	46.4± 27.6	53± 34.9	80± 1.4	93.25±*§ ¥¶ 4.7
	Language age	01:02	02:03	02:03	04:05	06:07
	age gap	2	2	3	2	1
Receptive	Mean test score± Standard deviation	55± 19.1	56.28± 19.2	67± 17.5	72± 4.2	86.5±*§ ¥¶ 5.9
	Language age	02:03	02:03	02:03	03:04	06:07
	age gap	1	2	3	3	1
Prosody	Mean test score± Standard deviation	1.33± 1.15	0.42± 1.08	0.75± 0.95	3±§ 4.2	3.25± § ¥ 2.2
	Language age	01:02	01:02	01:02	01:02	01:02
	age gap	2	3	4	5	6
Semantic	Mean test score± Standard deviation	96.67± 9.61	98.78± 24.5	106± 25.5	122.5± 2.12	134.75±*§ ¥¶ 6.4
	Language age	02:03	01:02	02:03	03:04	05:06
	age gap	1	3	3	2	2
Total	Mean test score± Standard deviation	233± 28.69	175.35± 74.8	224± 54.5	284±¥ 12.7	321.75±*§ ¥¶ 18.6
	Language age	02:03	01:02	02:03	03:04	05:06
	age gap	1	3	3	3	2

The mean is statistically different ($P \leq 0.05$) from the mean of (·) 3:4 years age group, (§) 4:5 years age group, (¥) 5:6 years age group, (¶) 6:7 years age group.

(#) based on the tables of Kotby et al. (1993)

The number of patients in each group is: (a) 3 (b) 14 (c) 4 (d) 2 (e) 4 patients.

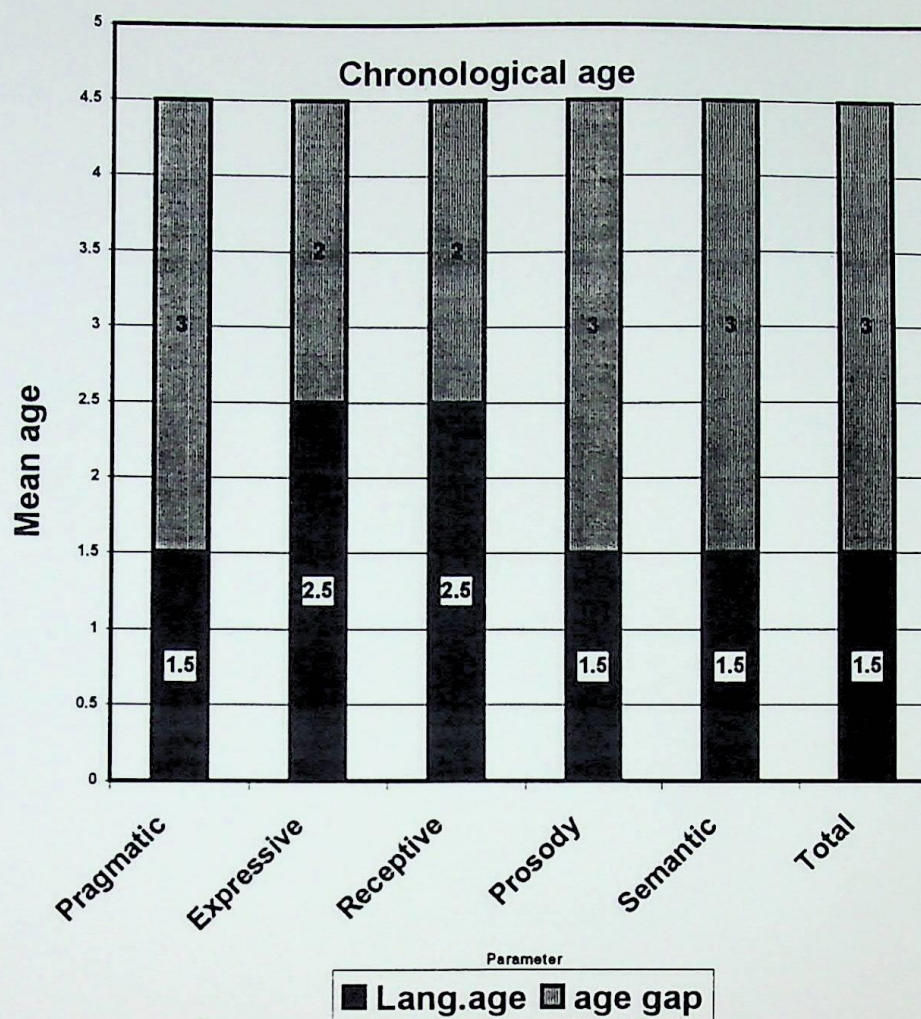


Figure (1) : the difference between the chronological age of the group of children ranging from 3 - 4 years and their measured language performance.

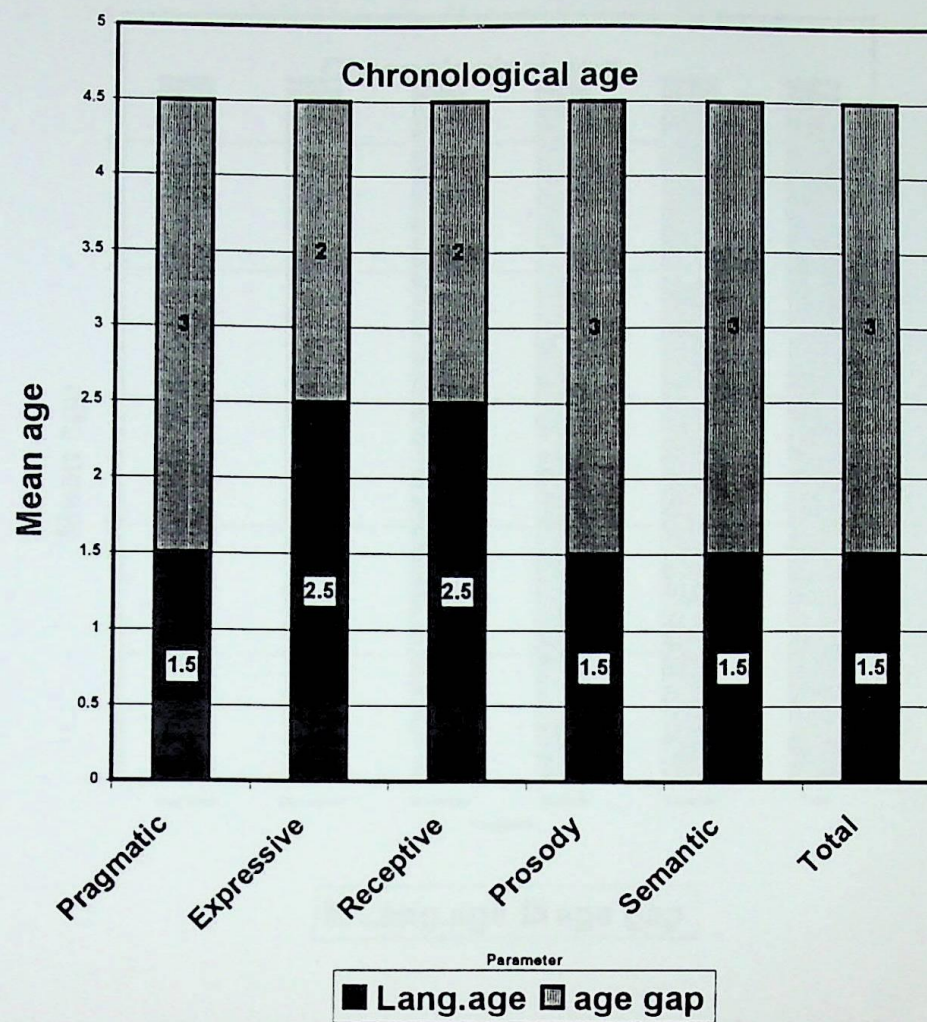


Figure (2) : the difference between the chronological age of the group of children ranging from 4 - 5 years and their measured language performance.

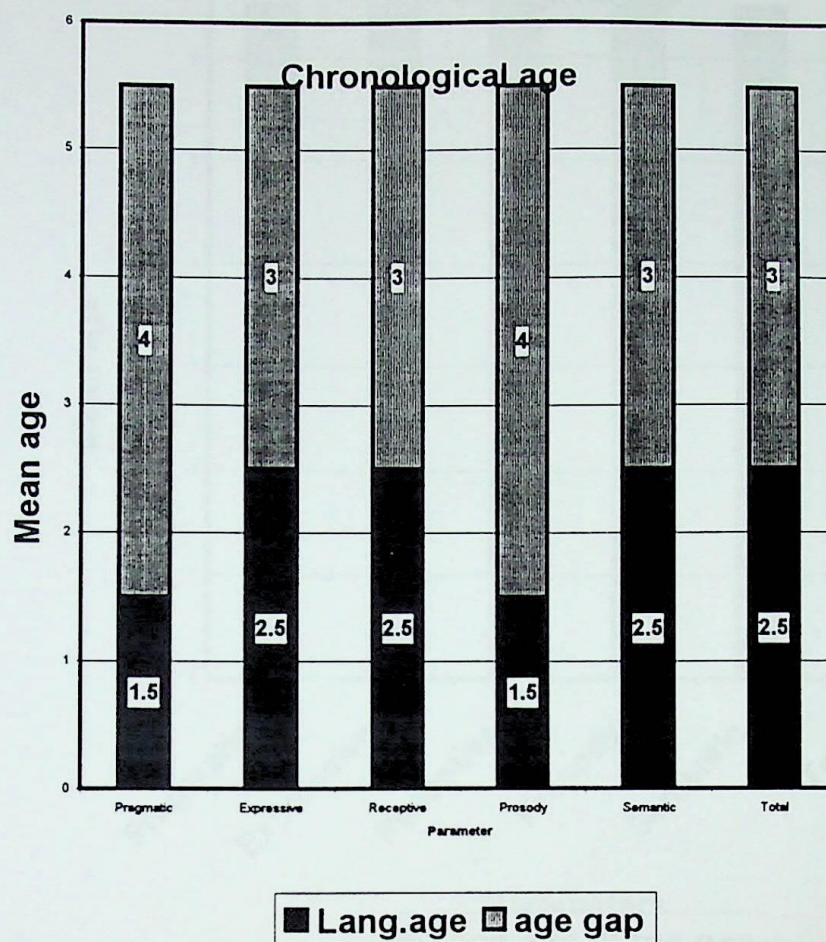


Figure (3) : the difference between the chronological age of the group of children ranging from 5 - 6 years and their measured language performance

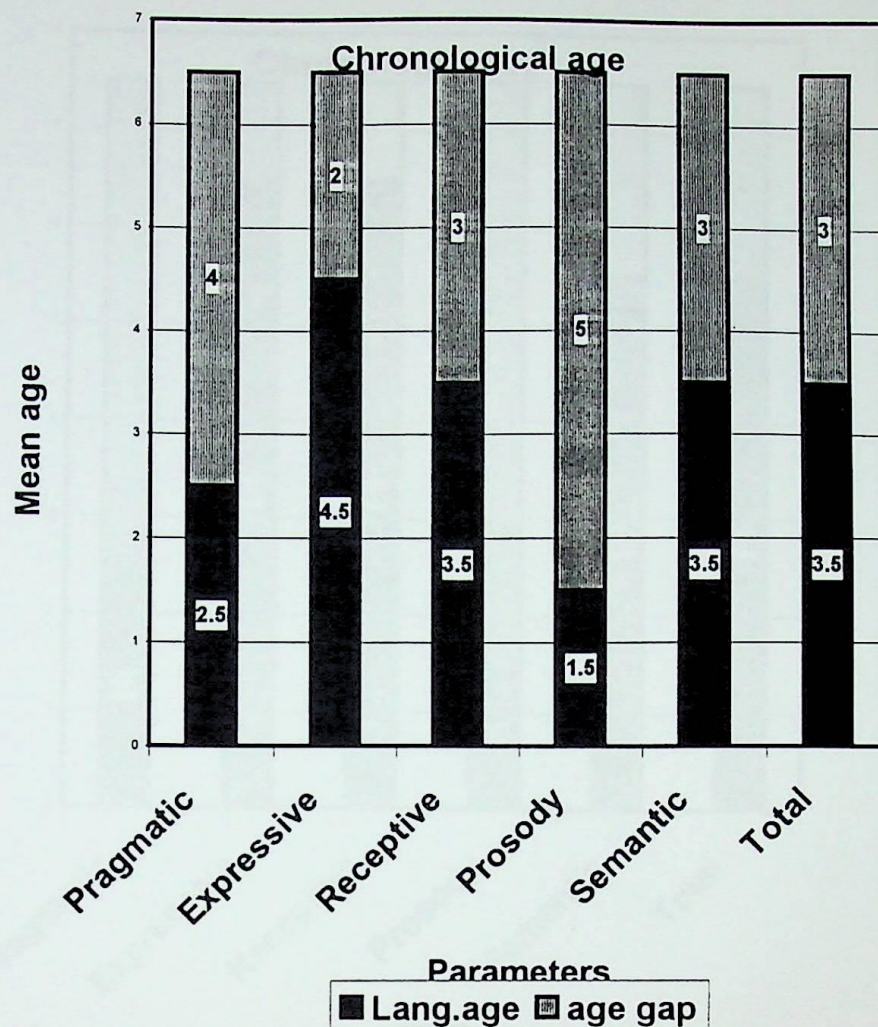


Figure (4) : the difference between the chronological age of the group of children ranging from 6 - 7 years and their measured language performance.

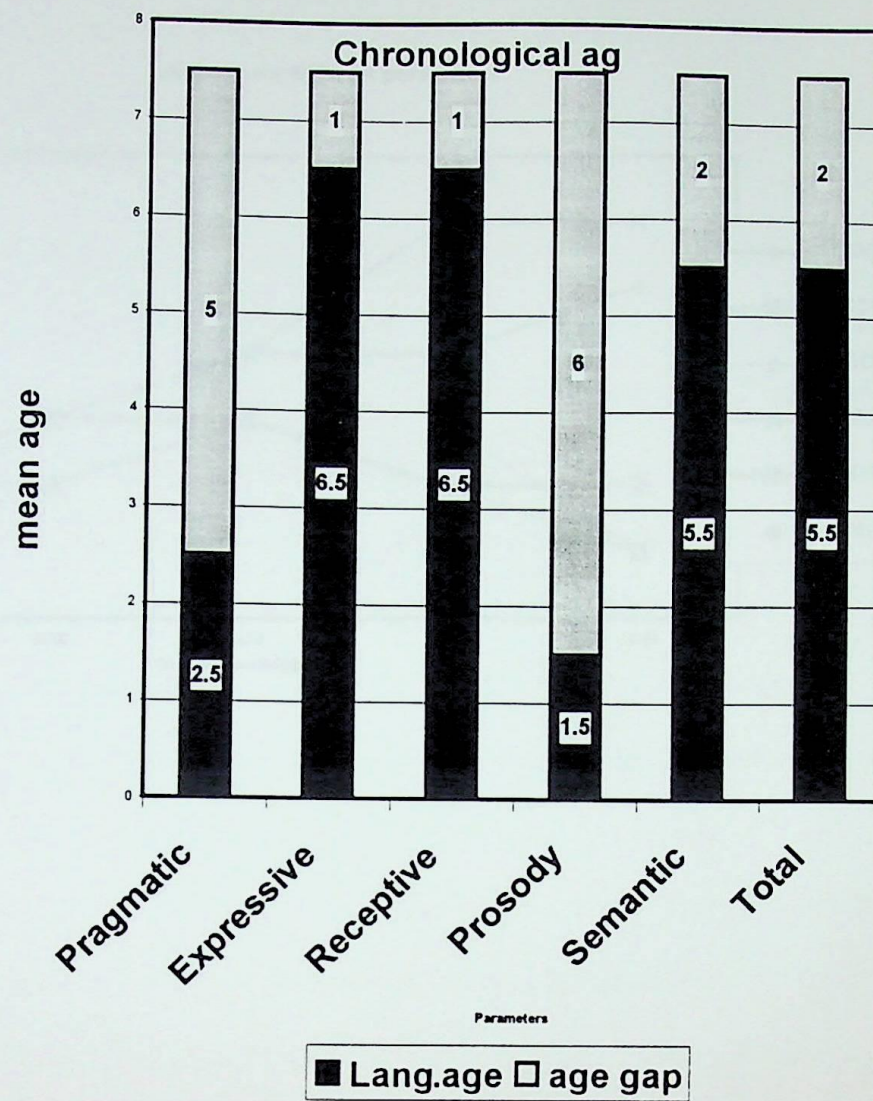
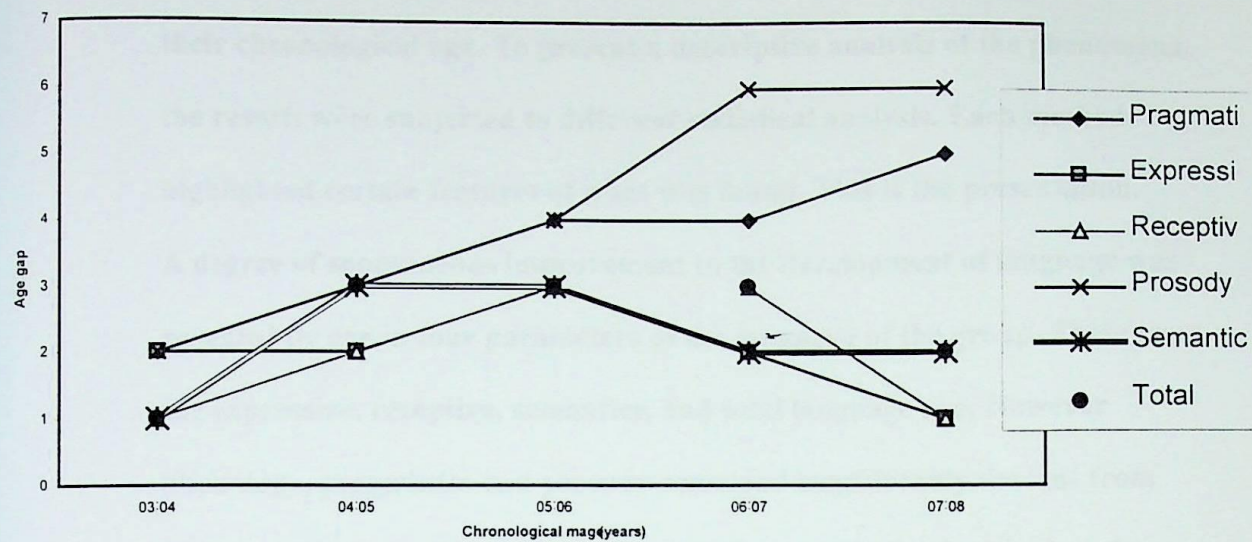


Figure (5) : the difference between the chronological age of the group of children ranging from 7 - 8 years and their measured language performance.

(Fig 6)

Age gap for different parameters



RESULTS

Statistical analysis of the results revealed differences between the language age of the group and the level of language expected from them at their chronological age. To present a descriptive analysis of the phenomena, the results were subjected to different statistical analysis. Each method highlighted certain features of what was found. This is the presentation. A degree of spontaneous improvement in the development of language was revealed by age in four parameters of the language of the group. These were the expressive, receptive, semantics, and total language age. However phonology, pragmatics and prosody remained considerably deviant from the normal between 3.5 years. to 7 years. Two methods of analyzing of variance revealed a correlation between age and language parameters. Age and maturation were factors with positive impact on the language of the studied group. This method of analysis was followed by Duncan's statistical test, which revealed in which parameters did the change happen and at what age. Mean, standard deviation and T test demonstrated that the language age (abilities) of the cases compared negatively to the level of the language expected from them at their chronological age. It was found that though their language aptitudes became higher with age still there was a gap between their achievement and that of their normal peers. This gap was increasing with age advancement. The T test described this gap and what happened in it by comparing the means of the performance of the subjects in this research to the means expected from them at their age if they had a normally developing language.

In the pragmatics parameter the difference between the group language age and the normal language age was significant at 4/5years compared to 3years, and at 6/ 7years compared to 3years and 4years. The difference continued to be significant at the age of 7/ 8 years compared to 3years and 4years. The mean and standard deviation of the language age group was 0 ± 0 at 3/4years, 2 ± 1.66 at the age of 4/5years., 2.25 ± 2.6 at the age of 5/6years, 4.5 ± 3.5 at the age of 6/7years, 5 ± 1.4 at the age of 7/8years. The gap between the two language ages showed that this area was highly affected. It was as wide as 2 years at the age of 3/4years, 3 years at the age of 4/5yrs, 4years at the age of 5/6 years, 4 years at the age of 6/7, 5 years at the age of 7/8years.

In the expressive parameter the difference between the group language age and the normal language expected at their chronological age was insignificant at the age of 3/ 4years. It was also insignificant at the age of 4/5 years, and at 5/6 years and 6/7 years. While at 7/8 years it became significant compared to 3years, 4years, 5years, 6years. The mean and standard deviation of the group language age was 39 ± 24.76 at 3/4 years, 46.4 ± 27.6 at 4/5 years, 53 ± 34.9 at the age of 5/6 years, 80 ± 1.4 at the age of 6 /7 years. 93.25 ± 4.7 at the age of 7/8years. The gap was as wide as 2 years at the age of 3 years, 2 years at the age of 4 years, 3 years at the age of 5 years, 2 years at the age of 6 years, and narrowed to become 1year at the age of 7.

In the receptive parameter there was a difference between the group language age and the expected normal language age at all ages. It was not

significant until the age of 7/8 years compared to 3years, 4years, 5 years, 6 years. The mean and standard deviation was 55 ± 19.1 at 3/4 years, 56.28

19.2 at 4 / 5 years, 67 ± 17.5 at the age of 5/6 years, 72 ± 4.2 at 6/7 years, 86.5 ± 5.9 at 7/8 years . The gap between the two language ages was 1 year at the age of 3 years, 2years at the age of 4 years. The gap widened starting from the age of 5 years becoming 3 years. At the age of 6, the gap was 3 years also but it narrowed to 1 year at the age of 7 years.

Prosody was an area more drastically affected than pragmatics. The difference between the group language age and the normal language age expected from them was significant at 6/7 years when compared to 3/ 4 years. It was also significant at the age of 7/8 years compared to 4-5years. The mean and standard deviation was 1.33 ± 1.15 at the age of 3/4 years, 0.42 ± 1.08 at 4/ 5 years, 0.75 ± 0.95 at the age of 5/6 years and 3 ± 4.2 at the age of 6/7 years, and 3.25 ± 2.2 at the age of 7/8 years. The gap was as wide as 2 years at the age of 3, 3 years at the age of 4years, 4years at the age of 5 years, 5 years at the age of 6 years, 6 years at the age of 7 years.

In the semantic parameter, the difference between the group language age and the normal language age existed at all ages but it was statistically significant only at the age of 7/8 years compared to 3years, 4years, 5years, 6years. The mean and standard deviation of the language age of the group was as follows: At 3/4 years it was 96.67 ± 9.61 , at 4/5 years it was 98.78 ± 24.5 , at 5/6 years it was 106 ± 25.5 , at 6/7 years it was 122.5 ± 2.12 , at 7/8 years it was 134.75 ± 6.4 . The gap between the language age of the group and the chronological language age was 1 year at the age of 3/4 years,

Considering the total language age, the expected gap between the group language age and the normal language age was there at all ages (see figures 1, 2, 3, 4, 5). It was significant at age of 6/ 7 years and 7/8 years compared to 3years, 4years, 5years, 6years. The mean and standard deviation of the group language age was 233 ± 28.69 at the age of 3/4 years, 175.35 ± 74.8 at the age of 4/5 years, 244 ± 54.5 at the age of 5/6, 284 ± 12.7 at the age of 6/7 years, 321.75 ± 18.6 at the age of 7/8 years. The gap was 1 year at the age of 3/4 years, 3 years at the age of 4/5 years, 3years at the age of 5 / 6 years, 3 years at the age of 6/7, 2years at the age of 7/8 years.

Figure 6 (age gap for all parameters) shows that the language gap in the pragmatics and prosody is 5 to 6 years, at the chronological age of 7 years. In the semantics and the total language age it reaches 2 years at the age of 7 years. The gap improves in the receptive and expressive to reach 1 year at the chronological age of 7 years.

PERSONAL OBSERVATION WHILE TESTING THE CASES

These are my observations and personal judgments drawn on evaluating the performance of the studied group during their performance of the language test. As mentioned before these cases are diagnosed as idiopathic suffering from disorders in language due to no specific reasons. They had all the requirements which should have augmented their language acquisition. Recently it has become universally believed that the cause of this complaint may be that areas in the brain responsible for language are not functioning normally and that defect is within the function of the brain cell and not in the structure of this cell.

We have to bear in mind these points while going through the details describing the state of the language of those children. I observed that there was little systematicity in the achievement of the group. I felt that areas of difficulty and areas of ease, and consequently good and bad performance, varied from one individual to another. Individual variation among the studied group often made it difficult for me to predict the achievement of the subject I was examining. This, in my opinion, is an indicator that language breakdown among idiopathic does not occur according to a regular pattern.

Another observation is that many of those cases understood the simple sentence, at least receptively. But many of them did not possess the complex structures of the language either receptively or expressively. Those who possessed the complex forms also possessed the direct, explicit, easy ones but seemed to lack the implicit indirect patterns.

In the item testing imitation : all the 25 cases had successful performance during imitation of verbal and non-verbal sounds. This was a good sign which augmented the diagnostic reports and assured the examiner that the intelligence of the chosen group was intact since they found no difficulty to understand these orders and obey them.

Moving to the item testing vocabulary, which tested knowledge of the names of objects used frequently in daily life, at least 17 cases recognized the names and knew to what they referred to. The best performance was on identifying names of clothes and furniture, followed by the names of fruits, and finally names of vegetables. Troubles appeared during testing the names of money and colors. Only five cases could identified and name the 6 colors. The remaining subjects remained silent or were extremely confused.

In regard to money, the children who came from the villages or from poor districts recognized the pictures shown to them. It seemed parents who came from the villages and those who lived in poor regions tend to give their children more responsibilities and allow them to buy their necessities alone. Therefore, it is recommended that during sessions of parents' council advise should be given to parents to allow their delayed child to bear certain responsibilities suitable for his/her age just as they allow these chances for their normal children. They should be also conscious of the fact that giving more freedom requires more talking and more explanation with their children.

Those whose performance was below average on the item testing vocabulary, were not more than 4 cases out of the sample. The reason for their poor achievement could be attributed to a problem in comprehension or problems

with phonological awareness. On all accounts, reasons given should be handled with caution, since we are only guessing.

Another point of testing was that all of those children were aware of the auditory message. It was clear that they heard the words and recognized the message, but some of them had difficulty in answering questions automatically. As an observer, I was able to judge who was defective in the receptive ability and who was in the expressive. Some had problems in thoroughly processing what they heard and interpreting its deep meaning, while others understood my message and had problems producing answers. Therefore it is recommended to talk slowly to children who have problems in understanding speech, while those who produce defective sentences have to be corrected with caution and love to avoid causing them any embarrassment.

Performance continued to be good on the next two items which were testing the understanding of the simple sentence and the long sentence; 23 children obtained. This result was expected since we were testing a group with normal intelligence.

Moving to the test of verb tenses in the receptive and the expressive I found that 11 children received the maximum score on the receptive while 5 only received it in the expressive. It was a difficult item. They were lost and became restless to escape answering what they did not understand. The concept of what is happening now, and what happened in the past, and what is going to happen drawn on pictures caused difficulty by its complexity. Processing the idea and speaking about it was puzzling to many of them. They were more at ease when we moved to the plural form. It was easily discerned in the pictured they saw and also easy to produce.

Testing pronouns was another area of difficulty. It was another item which caused confusion. Not few of them were lost among the pictures of the boy and the girl and that of a group of children. They were not able to decide easily who is "he" and who is "she". Their performance on the pronouns "you" and "we" were worse. "I" was an easy pronoun and most of them said it correctly. Yet achievement on the whole was within the average and none did worse than that.

They were happy and familiar with adjectives. Twenty children received the maximum score in the receptive, while nine obtained it in the expressive. They were quick and almost automatic in their responses here.

Their performance was not as spontaneous and as easily obtained when we moved to adverbs. I was astonished because I thought they were familiar with "بالراحة جامد بشويش", "belraHa, gamed, beSweS", meaning softly, strongly, slowly. Those are words used frequently. I presume that their defective syntax was the main cause of their bad performance. They were not able to relate the adverbs to their verbs in a correct sentence; yet many of them gave the impression that they understood the meaning of those words. In addition, I always considered adverbs more difficult than adjectives. The results agreed with my view .

In the item testing negation 20 cases obtained the maximum score in the receptive, while one only obtained it in the expressive. 20 cases were within the average range in the expressive also. مابينا مش نايم mabyinamS, maS nayim, not sleeping, are forms easily understood and said and so it was not a difficult task.

The comparative and the superlative were also areas of difficulty and confusion. In fact, they were on top of the list of the difficult articles. Problems in this area were more than what we had in the area of verb tense, adverbs,

pronouns, etc. My impression was that these structures were not easily recognized because they were not frequently used. We may conclude that they had difficulty with the semantic as well as with how to handle these forms.

The passive tense also gave troubles . At least 13 cases of these children were unable to say anything when they were shown the pictures. I believe that they knew the form functionally in one or two verbs ex: enkabet, en'Ta?at, endala'et, انكبت-انقطعت-اندلقت meaning it was poured, it was cut. They did not know the abstract form, nor how to apply it to other verbs when the context demanded it. Despite this 9 cases obtained the maximum score in the receptive, while 6 cases obtained it in the expressive.

Adverbs of time also received low scores. 10cases received the maximum score in the receptive while 5 cases received it in the expressive. Here, they were tested on a statement which they had to judge as true or false. I believe that the pictures shown to them for testing this item confused them more than it helped. I also noticed that they did not understand my question. I believe the problem lies in how this question is formed, let alone judging it as true or false. The words قبل-بعد 'abl, ba?d, before and after, is used often in daily life and I am sure they were understood and familiar to the cases. Yet the children were lost when they had to associate it to the context. I felt I lost them from the very beginning. I believe they had troubles with listening; or may be they were confused by the grammar of my sentence and so did not make the desired inferences. Again these are personal decisions.

In using the conjunction و-و wa, aw, and or, 8 cases received the maximum score in the receptive while 7 received it in expressive. Most of the cases did not

use these tools to connect their speech. This could be the main reason why what they said seemed odd because they were not able to use the correct tool to connect their sentences together. They said inadequate phrases and they were unable to expand their speech. An example is when they were asked "what would you do when electricity is cut off", their answers were mainly : شمعة-ولع بطارية—اولع : Sam?- wal?- BaTaria-'wal?, meaning candle lighten- tource lighten. When they were asked: what would you do when it is cold, they answered هدم ايس-ايس خاكت haduum abas- abas jaket, meaning clothes wear- wear jacket. These were defective utterances far from smoothly flowing, coherent speech. This was very clear when we tried to have a conversation on the phone. It was cut short just after I started it and often I heard the comments: معلقس-مس فادر: mas cader-ma?lfs, meaning can't - don't know.

I believe that it was not difficult for this group to go through the test because most of the answers demanded one word, but they failed in the items testing pragmatics and uninterrupted flow of speech. This was clear even with the best case who was diagnosed as delayed language due to affected phonology. He gave correct answers until we reached pragmatics, when the rate of his speech slowed down, and he started to hesitate and have troubles until he found the next appropriate word.

More important is my follow-up of these cases after they started their rehabilitation program. It took a very short time to put these children on the right track, and improvement was clear after just one month. at El Damardash hospital the sessions are held twice a week, for two hours per session and at Ain Shams Specialized hospital where they attended the medical nursery 5 days per week, from 9 o'clock in the morning until 2 in the afternoon.

DISCUSSION

Results showed that there is a definite gap between the chronological age and the language age in all parameters and groups despite the fact that all prerequisites for normal language development were present language was still deviant from normality. This can be explained by the fact that language areas in the brain may not be well functioning and this would hinders the children's ability to master their language at the optimum level.

Generally speaking, the receptive language was found to be better than the expressive language especially at early ages of 3-5 years. This agrees with Muma's (1978) statement in which he declares that the receptive language ability is better than the expressive language. A general observation on the group achievement as a whole reveals that the gap continued to increase until the age of four years. It then widened from the age of 4 to 6 years. This increase in the curve of the gap was expected, since this group did not receive any appropriate language rehabilitation.

On the other hand, the gap between the chronological age and the language age of the group was found to be decreasing in four parameters, expressive language, receptive language, semantic (expressive and receptive), and the total language age. This occurred between the age of 6 to 8 years. It could be explained by individual variation among the examined cases. The impaired language problems among the idiopathic group tend to not be regular, so regularity in the pattern of the gap was disturbed (see figures 1, 2, 3, 4, 5).

The fact that increase in the gap between the language produced by the examined group and the language expected from them at their chronological age ceased increasing may also be related to the ending of the critical period in childhood when brain plasticity reaches its peak, triggering the process of language acquisition. The process of language development slows down after the age of 5 years and tends toward stability at older ages. It may be also argued that the language test was not sensitive enough to detect the fine details in complex syntactic variation expected to be present in older ages.

The area of difficulty in the receptive language field was understanding complex sentences. Areas of difficulty in the expressive language were choosing the correct verb tense, the correct adverb of place and time, and the correct pronoun. What was even more difficult for the subjects was to attach the appropriate pronoun to names, verbs, prepositions, and adverbs of place so as to hold parts of the sentence together.

The semantic aspect was found to be more or less in the same mean range as that of the total language age. This agrees with what Kotby (1980), and Maestripiere (1994) stated that language is a cognitive tool which enables us to understand and think about the world. VanPatten (1994) stated that children have to understand the meaning of language to which they are exposed before attempting to produce it.

Pragmatics was an area highly affected in the language age of the group. Generally speaking, though the spoken language of the group was deviant in articulation and syntax, a patient listener could understand what

they were saying. This may be due to the theory proposed by Adam's center of Audiology and Speech pathology in Manchester's university (2000), relating to childhood language disorders, which states that many of those children may be competent in areas of grammar, vocabulary, and phonology, nevertheless, they may have problems with semantics and pragmatics.

These problems with semantics and pragmatics may be due to a number of reasons deduced from observation of the behavior of the group during the test. The first was scarcity of the vocabulary stock. It was also evident that most of the subjects had a short memory span; this was clear from their low-scoring performance on the item testing their auditory memory span. Many of them recognized the questions on items of clothes, fruits, vegetables, money, and colors—etc. yet they found difficulty to name them. It could also be due to the inability to exploit acquired knowledge in new situations. They could not apply the language they learned from past experiences to new events, even when these language structures were appropriate to the new context they interacted with. Another explanation could be that because of their defective achievement in the area of pragmatics their sensitivity and awareness to subtle changes in meaning was not sharp enough to embark on the deep meaning of speech in direct and indirect language acts. Therefore, they could not make the necessary inferences and associations required to have adequate pragmatics.

They interpreted the verbal messages literally. According to Chomsky (cited by Robins , 1980) the hearer by the knowledge of his language deduces from surface structures the underlying deep structures, to

which he supplies a semantic interpretation; in other words he understands what he hears. It was clear that the subjects have a tendency to respond to one or two words rather than to the entire message. This tendency, plus their inability to draw the necessary inferences, hindered the stream of their speech. The sequence of taking turns in conversations did not run smoothly and was often interrupted. This was very clear when they were asked to make a phone call. Inability to get the deep meaning of verbal messages, to maintain a topic in discourse, and inadequate articulation were all factors negatively affecting the length and intelligibility of their sentences, and consequently affecting their pragmatics.

According to information circulated by the Scottish Rite Clinic (2000), cases of childhood language disorders without any specific reasons (idiopathic) are slow in developing vocabulary, have incomplete and incorrect sentences, and may have difficulty with attention, memory, and word retrieval. According to Adam's center (2000) the quality of what those children say, (ebass jaket=wear jacket), may be odd. The way they use language in social interaction may be unusual, and/or they may violate turn taking rules by interrupting partners in conversations. They also may have difficulty in processing auditory information, and in understanding the spoken word.

Prosody was an area highly affected in this study. This is an expected issue because awareness and production of prosodic and phonological variations require modification of length, stress, and tone in syllables and successions of syllables. It also requires modification in intonation in sentences and to make constant changes in the sound features functioning in

utterances to express language acts, e.g., questions, disapproval, agreement etc.(Robins, 1980). Since this group has impaired pragmatics it is therefore expected that they have difficulty with indirect language acts which require awareness of subtle variations occurring in prosodic performance. They may be familiar with conventional areas (e. g. simple and compounds sentences) because these are structures which occur frequently.

Phonology was an area also highly affected. Speech intelligibility was inadequate due to distortion, omission, and substitution. The positions of the sound in words were mainly responsible for the defective performance of the group.

CONCLUSION

In conclusion, early detection is recommended for cases of D.L.D. (idiopathic) to avoid later learning problems. Subsidiary testing tools may be needed to augment the present language test in the assessment of more specific changes in complicated and indirect speech acts.

Appendix A

Description of the items of the diagnostic
language test and its contents

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These are the procedures of the language test (Kotby & Refae, 1995, simplified by S. Fahmy) given to diagnose language weakness. The validity and the reliability of this test was proved by administrating it to a normal control group and to a group of children who are of the same ages as the subjects of the control group and who suffer from language disorders. The test items assess the following: imitation, auditory memory span, receptive language, expressive language, semantics, pragmatics, prosody, and phonology. The procedures were as follows:

- To assess the child's eye contact and attention span the child is given three verbal and non-verbal stimulants to test him on imitation. This is followed by showing him 56 pictures to test his/her ability to name and recognize objects of different categories e.g., vegetables, fruits, furnitures, etc. Then he is given two trials to test his ability to understand short sentences during which he is shown six pictures and asked two questions to judge if the child can understand a sentence composed of subject and verb.
- To test his/her understanding of longer sentences he/she is given 2 questions and shown two pictures to judge the ability to understand a sentence composed of subject, verb, object..
- Understanding of a compound and complex sentences is tested by giving two trials in which he/she is shown six pictures and asked the 2 questions. One of these questions include a main sentence and a

- To test his understanding of the verb tenses (the future, the present, the past) he is given two trials. He is shown 6 picture . and he is asked the 3 questions about the what will happen, what is happening, and what happened .
- To test his/her ability to understand the singular and the plural he is given two trials in which he is shown four pictures and asked two questions to judge the ability to discriminate between one object and many .
- To test his ability to understand personal pronoun he is given two trials in which he is shown 6 pictures and asked 12 questions. The pronouns tested are I, you, we, he, she they.
- To test the child's understanding of adjectives he is tested on the adjectives: big, small, tall, and short. He/ she is shown 8 pictures and asked 8 questions.
- To test understanding of adverbs: he/she is tested on the function of fast, slowly, strongly, weakly in sentences. He/she is given two trials in which 8 pictures are shown and 4 questions are asked.
- To test the child's understanding of negation he/she is given two trials and shown 4 pictures, then he is asked 2 questions to judge understanding of the prefix "mesh"and the prefix and suffix "ma—S"when attached to a verb.
- To test understanding of the comparatives he/she is tested on the concept of bigger and smaller, taller and shorter. He is given two trials in which he is shown 6 pictures and asked 6 questions.

- To test his understanding of the passive voice he is given two trials and shown 4 pictures. He is asked 2 questions. Here the concept of an act done on an object or done to someone is tested.
- Then he/she is tested on general knowledge for example: what is your name? who is she? Asked while pointing to the mother .
- To test the ability to understand questions the child is asked 2 questions about what he/she wears and what he /she eats.
- At this stage, the questions changes to test the expressive ability of the child repeating the same grammatical items which were tested in the receptive language at the beginning of the test.
- To test his ability to express verb tenses (future, present, past) he is given two trials in which he is shown 6 pictures and asked 3 questions about what will happen, what is happening, and what happened
- To test his ability to express a 3 word sentence he is shown two pictures and asked 2 questions about what is there in the pictures.
- To test his ability to express the singular and plural he is given two trials in which he is shown 4 pictures and asked 2 questions about what he/she sees in the pictures.
- To test his ability to express pronouns he is given two trials in which he is shown 6 pictures and then he is asked 12 questions about the pronouns I, you, we, he, she, they.
- Then the child is asked whose name is----- (the child's name)?

- To test the child's ability to express adjectives he/she is given two trials in which he/she is shown 8 pictures and asked 4 questions about how to use big, small, short, and tall.
- To test the ability to express adverbs the child is shown 8 pictures and asked 4 questions about how to use slowly, quickly, weakly, and strongly.
- To test his ability to express the conjunction "and" he is shown one picture and asked 1 question to judge the ability to join sentences together.
- To test his ability to count, he is shown 10 pictures and asked how many digits are there in each picture.
- To test the ability of the child to express negation the child is given two trials in which he is shown 4 pictures to judge the usage of "no", and "not" when they negate verbs.
- To test the child ability to express comparatives the child is given two trials in which he is shown 6 pictures and asked 6 questions to judge how he/she uses big, and bigger, also tall, and taller.
- To test the ability of the child to express the superlative he is shown the same materials by means of which the comparatives were tested, but the child was asked different questions to judge how he/she uses the form "the tallest, the biggest".
- To test the ability of the child to use passive voice the child is given two trials in which he is shown 3 pictures and asked 2 questions leading him/her to talk about what happened to the objects in the pictures.

- To test the ability of the child to use time indicators: he is tested on before and after by showing him 4 pictures and then asking 4 questions.
- To test child's ability to repeat words and digits of increasing length to test his auditory memory span .The child is told (say exactly as I say-----).
- To test the child's ability to categorize semantic groups he/she is shown 9 pictures, 3 for each semantic group . He/she is shown 3 pictures and asked to put the three other picture each in its group . To test the child's ability to recognize the concept of time he is shown two pictures and asked 1 question.
- To test the child's ability to understand the use of common objects he is shown three pictures and asked 3 questions about the function of these objects.
- To test the child ability to express the use of objects he is shown three pictures and asked 3 questions about why do we use these objects.
- To test the ability of the child to understand orders increased in length he is shown four pictures and given different orders to put together what he/she sees in the pictures.
- To test his\her ability to understand conjunctions he is shown one picture and told to obey two orders.
- To test his\her understanding of the concept of numbers he is shown 10 pictures of spoons and asked to count what they see in the pictures.
- To test his\her understanding of place indicators he is shown 14 pictures and asked 14 questions about the place of the objects seen there

- To test his\her understanding and expressing opposites he is shown four pictures in two trials leading them to say the adjective opposite the one they hear.
- To test the ability of the child to understand possessives the examiner should distribute three pictures of balls and ask 3 questions about whose ball is the one pointed to.
- To test the child's ability to use the possessive the examiner should ask the child questions as :whose clothes are these -----etc.
- To test the child's pragmatics he is asked questions as: when the light is off what do you do? when it is cold what do you do?
- The examiner should start a conversation with the child and keep it going for more than two turns.
- To test his prosody the child is asked to faithfully repeat certain sentences.

Appendix B

**A sample of the delayed speech of the
chosen subjects.**

A sample of the delayed speech of the subjects of the research

عينة من حديث الأطفال الذين استطاعوا الرد على سؤال الراجماتيقا في هذا الاختبار من الكلام للحكم على طول الجملة ومدى مفهوميته عندهم :

الأسئلة البرجماتيقا في الاختبار هي

أ- النور أقطع أعمل أيه ؟

الدنيا برد أعمل أيه ؟

ب- حوار على التلفون

الو أزيك

الحالة : شمعة - نقفل الشباك ومشى (بس)

الحالة : أنتي تكتبي - أولى حضانة - أنام مع ستي عمتي جدي - أسمها أم - شمعة - جاك

الحالة : أولع شمعة - أنقال - زي الناس - على رجلين - يرضك (بتروح المدرسة أذاي)

الحالة : بعد النور يجي نظيفه - نفتح شمعة - نفتحه ونقله ثاني - نلبس أي حاجة عشان دنيا

برد

الحالة : نجيب شمعة - نكتر - النهاردة - علشان النهاردة الحد - يوم الحد والجمعة أجازة

الحالة : غطا - انا أهو - أه - ماما - شقه

الحالة : الدنيا برد - خرجين في البرد - نلب هدوم كثيرة - أزيك - عندي أخوي واحد بس

الحالة : أصلحه - أغطي بطانيه - زيك شادية

الحالة : أنا - نوره أحمد - لا أسمه عمي - أدرس (لا أقدر) أجي هنا - كده كبيرة - أعد شى

هناك في البيت - النور تديدي (بيجي) ثاني - ثقيلة دة

الحالة : نور قطع بيت أنا - ضلمة - شمعة - مش ولاتركب بيس

الحالة : جيلة كحة

الحالة : نولع شمعة - نلبس جاكيت - لسة قبلوني (تحب المدرسة ؟؟؟) لا بصراحة لا
المدرسة فيها ضرب واوف علي الحيطه وحاجات كدة هبل - انا عايز اروش المدرسة خالص
ولا يومين ولا خمس ايام

الحالة : كان في دبة راحت الصبح الامن غابة لان فيها ولد وحش قوي - قال لمامته عايز
يخرج - فتح باب الشقة خرج بعد ما فتح الشقة لقي بيت الدبة - انا عايز اكل ارواح بيت الدبة
- راح بيت الدبة بعد ما كل طلع الدور الثاني نام - الدبة عيطت علي اكلها - مامته ادت ها
شوية من اكلها - طلع الثاني - صحو ودوة عند مامته

الحالة : اة اة

الحالة : عندنا شمعة كثيرة - اخاف - نيطها في النور م نور قطع - الابلة اسمها نانا - لما
خلص حضانة - ارواح مدرسة

الحالة : الو - الو - الدنيا ساقعة - اعمل كدة

الحالة : حتولعيه - حتولعي كشاف - حايلبس هو جاكيت طاقيه - اما انا اكبر شوية - انا بلعب
في الشارع

Appendix C

Two language tests as examples of the best performance and the worst performance of the subjects.

Language Test

The best Test

اللغة، اختبار

اسم الطفل: M. D.
 تاريخ الميلاد: March 1995
 العن: Dan El Salam
 وظيفة الأب: An Employee
 وظيفة الأم: A house wife
 ترتيب الطفل بين الأخوات: The first
 اسم المدرسة: Nursery
 تاريخ الاختبار الأول: Dec. 2000
 ملاحظات: One of the best

الجنس: female

العمر: 5 years

ت:

الصف:

تاريخ الاختبار الثاني:

تاريخ الاختبار الثالث:

T.O. 91

درجة المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول			البند
صفر - ١						١ - نظرة العين ودرجة الانتباه
صفر - ١ - ٢ صفر - ١ - ٢ صفر - ١ - ٢	المجموع ٢م ١م	المجموع ٢م ١م	المجموع ٢م ١م	٢م ١م	٢م ١م	٢ - التقليد : - اداء حركى (الكرة - تصفيق) - اصوات غير كلامية (نقر - طرقة) - اصوات كلامية (هيه - بيب بيب)
	تسمية	تسمية	تسمية	تعرف	تعرف	٣ - التعرف على الصور وتسميتها اجزاء الجسم : عين بق انف اذن شعر يد
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦						المجموع
						الملابس : بنطلون فستان

درجة المجموع	الاختبار الثالث		الاختبار الثاني		الاختبار الأول		البند
	تسمية	تعرف	تسمية	تعرف	تسمية	تعرف	
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦						قميص فانلة جزمة شراب	
						المجموع	
						الخضار : قوطة خيار جزر بطاطس بسلة بصل	
						المجموع	
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦						الفاكهة : عنب موز برتقال بطيخ	
						المجموع	

درجـة المجموع	الاختبار الثالث		الاختبار الثاني		الاختبار الأول		البند
	تسمية	تعرف	تسمية	تعرف	تسمية	تعرف	تفاح فراولة
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦							المجموع
							الحيوانات : كلب قطعة فيل خروف بطة حصان
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦							المجموع
							الاثاث : دولاب سرير ثلاجة تلفزيون كرسي ترابيزة

درجة المجموع	الاختبار الثالث		الاختبار الثاني		الاختبار الأول		البند
	تسمية	تعرف	تسمية	تعرف	تسمية	تعرف	
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦							المجموع
							الادوات العامة : قلم نظارة ساعة : مشط فرشة مفتاح
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦						٢	المجموع
							المواصلات : عربية أتوبيس مركب طيارة عجلة قطر
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦							المجموع

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			السند	
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م		
صفر - ١ - ٢							2	✓	✓	٦ - فهم جملة مركبة : "فين : ماما شالت الولد اللى بيعيط"	
صفر - ١ - ٢										٧ - فهم زمن الفعل "هنا في بنت لسة ح تاخذ الكتاب و بنت بتاخذ الكتاب و بنت أخذت الكتاب خلاص" ١ - المستقبل "فين : البنت لسة حتأخذ الكتاب"	
صفر - ١ - ٢								✓	✓	ب - المضارع "فين البنت بتاخذ الكتاب"	

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند	
	المجموع	٢ م	١ م	المجموع	٢ م	١ م	المجموع	٢ م	١ م		
صفر - ١ - ٢							3		✓	ج - الماضي "قَيْن البنت أختدت الكتاب خلاص"	ج - قَيْن البنت أختدت الكتاب خلاص"
صفر - ١ - ٢							2		✓	٨ - فهم المفرد والجمع "قَيْن الأولاد"	٨ - فهم المفرد والجمع "قَيْن الأولاد"
صفر - ١ - ٢									✓	٩ - فهم الضمائر الشخصية: "ده ولد ودي بنت. ودول عيال"	٩ - فهم الضمائر الشخصية: "ده ولد ودي بنت. ودول عيال"
صفر - ١ - ٢								✓	✓	أ - هو: "قَيْن هو بيلعب لوحده"	أ - هو: "قَيْن هو بيلعب لوحده"
صفر - ١ - ٢								✓	✓	ب - هي: "قَيْن هي بتلعب لوحدها"	ب - هي: "قَيْن هي بتلعب لوحدها"
صفر - ١ - ٢								✓	✓	ج - هم: "قَيْن هم بيلعبوا"	ج - هم: "قَيْن هم بيلعبوا"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند	
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م		
صفر - ١ - ٢										د - أحنأ : "أحنأ قين؟"	
صفر - ١ - ٢										هـ - أنا : "قين أنا؟"	"شاور علينا أحنأ"
صفر - ١ - ٢										و - أنت : "قين أنت"	"شاور على أنا"
							١٢			"شاور عليك أنت"	
صفر - ١ - ٢										١٠ - فهم الصفات : أ - كبير / صغير :	
صفر - ١ - ٢										"قين النيل الكبير"	"قين البيت الكبير"
صفر - ١ - ٢										"قين النيل الصغير"	"قين البيت الصغير"
صفر - ١ - ٢										ب - طويل / قصير : "قين : الشعر الطويل"	"قين : الشراب الطويل"
صفر - ١ - ٢							٨			"قين الشعر القصير؟"	"قين الشراب القصير؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										١١ - فهم الحال أ - سرعة / يشويش : "قين اللي بتمشي بسرعة" "قين اللي بتمشي يشويش"
										"قين الولد اللي بيحرق بسرعة ؟" "قين الولد اللي بيحرق بشويش ؟"
										ب - جامد / بالراحة : "قين الحنفية اللي أفتحت جامد ؟" "قين الحنفية اللي أفتحت بالراحة"
صفر - ١ - ٢										١٢ - فهم النفي : "قين الولد اللي مش نايم"
صفر - ١ - ٢										"قين الولد اللي مايمشيش ؟"

درجة المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول	البنند
صفر - ١ صفر - ١			✓ ✓	١٢ - فهم المتقاربات أ - أكبر / أصغر : "هنا شمعة كبيرة وشمعة صغيرة وشمعة صغيرة" الشمعة دي مين أكبر منها؟ ومين أصغر منها؟
صفر - ١ صفر - ١		✓ ✓	✓ ✓	ب - أطول / أقصر : "هنا بنت طويلة وبنت قصيرة وبنت قصيرة" البنت دي مين أطول منها؟ ومين أقصر منها؟
صفر - ١ صفر - ١		✓ ✓	✓ ✓	١٤ - فهم التفصيل : أ - أكبر واحده / أصغر واحده "فين أكبر شمعة خالص؟" "فين أصغر واحدة خالص؟"
صفر - ١ صفر - ١		✓ ✓	✓ ✓	ب - أطول واحدة / أقصر واحدة "فين أطول بنت خالص؟" "فين أقصر واحد خالص؟"

الفرق بينهما

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢							١	✓	✓	١٥ - فهم المبنى للمجهول ؟ "الولد دة ماسك عصاية وبيضرب صاحبة فين الولد اللي بيتضرب"
صفر - ١ - ٢										١٦ - اسمك أيه ؟ "مين دى ؟ (بالإشارة إلى أم الطفل)"
صفر - ١ - ٢							٢	✓	✓	١٧ - الاجابة عن الاسئلة التى تكون اجابتها كلمة واحدة "أنت لابس إيه فى رجلك ؟" "بتعمل إيه بالبسكوت ؟"
										١٨ - التعبير عن زمن الفعل : "هنا فى ولد قاعد لسة" "هنا فى ولد لسه ح يشوط الكورة وولد بيشوط الكورة" وولد شاط الكورة خلاص

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند	
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م		
صفر - ١ - ٢							✓	✓	١م	المستقبل : "الولد هنا أكل ولا لسه ح يأكل؟"	والولد هنا شاطها والا لسه ح يشوطها؟"
صفر - ١ - ٢						١م	✓	✓		المضارع : "والولد هنا إيه؟"	"والولد هنا إيه؟"
صفر - ١ - ٢										الماضي : "والولد هنا أكل والا لسه ح يأكل؟"	والولد هنا شاطها ولسه ح يشوطها؟"
صفر - ١ - ٢							2			١٩ - التعبير عن جملة من ٣ كلمات إيه اللي في الصورة؟ "وهنا إيه اللي في الصورة؟"	
صفر - ١ - ٢ صفر - ١ - ٢							2	✓	✓	٢٠ - التعبير عن المفرد والجمع : "دى عربية ودول كلهم إيه؟" "دى معلقة ودول كلهم إيه؟"	

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البسند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
										٢١ - التعبير عن الضمائر : "آية التي في الصورة ، خللى بالك ده ولد ودى بنت يبقى هنا إيه اللى في الصورة بقى ؟"
صفر - ١ - ٢										هى - (هى بتلعب هدومها) هو - (هو بيلعب هدومه) هم - (هم بيلعبوا بالكورة) أنا - "مين أسفه ... ؟" أنت - "مين أسفها طنط ؟" أحنا - "مين قاعدين يتفرجوا على الصور مع بعض ؟"
										(هى بتلعب بعروستها) (هو بيفسل سنانه) (هم بيتفرجوا على التليفزيون) "واحد يمسك الشوكة" وواحد يمسك المعلقة" مين ماسك المعلقة ؟" "مين ماسك الشوكة" "مين ماسكين المعلقة والشوكة ؟"
							١٩			
صفر - ١ - ٢										
صفر - ١ - ٢										
صفر - ١ - ٢										
صفر - ١ - ٢										
صفر - ١ - ٢										

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢ صفر - ١ - ٢								✓ ✓	✓ ✓	٢٢ - التعبير عن الصفات : أ - كبير / صغير : "دى كورة كبيرة والا صغيرة ؟ ودى ؟"
صفر - ١ - ٢ صفر - ١ - ٢								✓ ✓	✓ ✓	ب - طويل / قصير : "ده فتان طويل والا قصير ؟ وده آيه ؟"
صفر - ١ - ٢ صفر - ١ - ٢							8	✓ ✓	✓ ✓	٢٣ - التعبير عن الحال : أ - بسرعة / بشوئش : "القط ده بيمشى بسرعة والا بشوئش ؟" "طلب والكار ودى ؟"
صفر - ١ - ٢ صفر - ١ - ٢							8	✓ ✓	✓ ✓	ب - جامد / خفيف : "الولد ده بيزقها جامد ولا بالراحة ؟" والولد ده ؟

درجۃ المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول	البسند
صفر - ١				٢٤ - التعبير عن حرف العطف (و) : الصورة دي فيها آيه ؟
صفر - ١ - ٢ - ٣			٨٠٪	٢٥ - التعبير عن الأرقام (العدد) : تعرف تعد ؟ يالا عد كده دول كام ؟ ودول بيتقوا كام ؟
صفر - ١			٨٠٪	٢٦ - التعبير عن النفي : ”بص على الصورة دي فيها كرسي . دي فيها كرسي برده ؟“ الجدل هنا مليون والجدل هنا آية ، مش مليون ”الولد هنا بيعيط الولد ده بيعيط برده“
صفر - ١		٢		٢٧ - التعبير عن المتقارنات : ١ - أكبر / أصغر : ”هنا في عجله كبيرة وعجله صغيرة . وعجله صغيرة“ ”العجلة دي أكبر والا أصغر من دي ودي ؟“

درجة المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول	البند
صفر - ١		✓		ب - أطول / أقصر :
صفر - ١	3	✓		"هنا في نخلة طويلة ونخلة قصيرة ونخلة قصيرة"
				"النخلة دي أطول والا أقصر من دي ؟"
				"ودي ؟"
صفر - ١		✓		٢٨ - التعبير عن التفصيل :
صفر - ١		✓		١ - أكبر واحدة / أصغر واحدة :
				"العجلة دي أكبر واحدة خالص والا أصغر واحدة خالص ؟"
				"ودي ؟"
صفر - ١		✓		ب - أطول واحدة / أقصر واحدة :
صفر - ١	3	✓		"النخلة دي أطول واحدة خالص والا أقصر واحدة خالص ؟"
				"ودي ؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
صفر - ١ - ٢	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٢٩ - التعبير عن المبنى للمجهول :
										<p>”الولد ده قطع صباعه بالسكينة ، يبقى صباعه حصل له آيه؟“</p> <p>”الولد ده وقع الطبق كسره بيق الطبق انكسر“</p> <p>”الولد ده خبط كباية اللبن دلق اللبن ، يبقى اللبن حصل له آيه؟“</p>
										٣٠ - التعبير عن ظرف الزمان :
صفر - ١ - ٢	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	<p>أ - قبل :</p> <p>”الولد ده قلع هدومة قبل أما ينزل البحر والا بعد ما نزل البحر؟“</p> <p>”بتلبس الشراب قبل الجزمة والا بعد الجزمة؟“</p>
										ب - بعد :
										<p>”البت دي عيطت قبل أما صباعها يتعور والا بعد ما أتعور؟“</p> <p>”أنشف وشى بالخطوة قبل أما أغسلة والا بعد ما أغسلة؟“</p>
صفر - ١ - ٢	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	

درجۃ المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣١ - فهم ظرف الزمان : أ - قبل : "أنا ح أقول حاجة وأنت تقوللى صبح والا غلط" "ياكل الخيارة قبل اما اغسلها" صبح والا غلط ؟
صفر - ١ - ٢								✓	✓	
	المجموع						٤	✓	✓	ب - بعد : "ياكل الموزة بعد اما اقشرها" صبح والا غلط ؟
صفر - ١ - ٢								✓	✓	
	المجموع									٣٢ - التكرار : أ - جمل : "خللى بالك وقول ورايا زى ما ح أقول بالضبط"
صفر - ١ - ٢ - ٣								✓	✓	١ "قطعة ، عروسة" تطير "العصفورة بتعرف"
صفر - ١ - ٢ - ٣							✓	✓	✓	ب - أرقام : "١ : ٢ : ٣" "٦ : ٧ : ٥ : ١ : ٨ : ٤"

درجۃ المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البسند
صفر - ١ - ٢	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣٢ - فهم وأداء المتضادات : "دي كباية مليانة ودي كباية ايشه ؟" ودي فيها حاجة ايشه ؟ ودي فيها حاجة ساقعة
صفر - ١ - ٢ - ٣										٣٤ - التقسيم لمجموعات مضمونية : "الصور دي ح نخطها كده ثلاث مجموعات مختلفة الصور دي مين زيبها ؟ يعني ح نخطها مع مين زيبها ؟ ودي . ودي ؟"
صفر - ١ - ٢ - ٣										٣٥ - التطبيق : "بص على الصور دي الصورة دي فين اللي زيبها أو اختها ؟ ودي . ودي ؟"
صفر - ١				-			١			٣٦ - التعرف على مفهوم الوقت : "فين : الدنيا بالليل ؟"

درجة المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول	البند
	المجموع	المجموع	المجموع	
صفر - ١ - ٢ - ٣			٣	٣٧ - فهم استخدام الأشياء : "ثأور لى بتتعد على آيه ؟ وبتاكل فى آيه ؟ وبتتسرب فى آيه ؟"
صفر - ١ - ٢ - ٣			٣	٣٨ - التعبير عن استخدام الأشياء : "المشط اعمل به آيه ؟ والقلم ؟ والمفتاح ؟"
صفر - ١ - ٢ - ٣			٣	٣٩ - فهم الأوامر التى تزداد فى الطول : "دى صورة طبق ودى كبايه ، ودى معلقة ودى كورة ، خللى بالك ، زى ما ح أقول لك تعمل بالضبط" "حط المعلقة فوق "حط المعلقة فوق "حط المعلقة فوق الكباية وادبنى الكورة" حط المعلقة فوق الكباية وأقلب الطبق وأدبنى الكورة"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢							١	✓	✓	٤٠ - فهم حروف العطف (و - أو) : دى ملعقة ودى كباية ، أعمل زى ما أقول لك "أدينى الملعقة والكباية" "أدينى يا الملعقة يا الكباية"
صفر - ١ - ٢ - ٣							٣	✓	✓	٤١ - فهم الأعداد : أدينى ملعقة واحدة ، أثنين ، ...
صفر - ١ - ٢										٤٢ - فهم ظرف المكان : فوق : "قنين : الطابق فوق الفنجان" تحت : "قنين : الطابق تحت الفنجان" جوه : "قنين : الكورة جوه الكباية" بره : "قنين : الكورة بره الكباية"
صفر - ١ - ٢								✓	✓	"قنين : الكورة اللي فوق" ٢
صفر - ١ - ٢								✓	✓	"قنين : الكورة اللي تحت" ٢
صفر - ١ - ٢								✓	✓	"قنين : الفنجان جوه الفنجان"
صفر - ١ - ٢								✓	✓	"قنين : المفتاح بره العلبة"

درجۃ المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										جنب : "فين الفنتجان جنب الفنتجان" يمين / شمال "فين أيدك اليمين / الشمال؟"
صفر - ١ - ٢										في النص "فين الكورة اللي في نص الطبق؟"
صفر - ١ - ٢										حوالين "فين الكور اللي حوالين العلية؟"
صفر - ١ - ٢										أمام : "فين العصاة اللي قدام الكرسي؟"
صفر - ١ - ٢										خلف : "فين العصاة اللي ورا الكرسي؟"
صفر - ١ - ٢										الدولاب؟ "فين الكرسي اللي ورا الدولاب؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البسند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
										٤٣ - التعبير عن ظرف المكان :
صفر - ١ - ٢										فوق : "الكرسي ده فين ؟"
صفر - ١ - ٢										تحت : "الكرسي ده فين ؟"
صفر - ١ - ٢										جوه : "الملقعة حطينها فين ؟"
صفر - ١ - ٢										بره : "وكده خرجت فين ؟"
صفر - ١ - ٢										جنب : "الملقعة دي حطينها فين ؟"
صفر - ١ - ٢										يمين / شمال : "دي ايدك الايه ؟ ودي ؟"
صفر - ١ - ٢										في أي ايد ؟ وهنا ؟ "أمسك الشوكة في ايد ، والمعلقة في ايد . الشوكة في أي ايد ؟ وهنا ؟"

درجۃ المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢ م	١ م	المجموع	٢ م	١ م	المجموع	٢ م	١ م	
صفر - ١ - ٢										في النص : "الكورة دي فوق ودي تحت ودي فين؟" حوالين : "الكراسي كده مرصوصين ازاي؟" أمام : "المعلقة دي فين؟" خلف : "وكده فين؟"
صفر - ١ - ٢										"الكراسي ده قدام وده ورا والكراسي ده فين؟" "والمعلق دي محطوطيين ازاي؟"
صفر - ١ - ٢										"الكورة دي فين"
صفر - ١ - ٢										"والكورة دي فين"
صفر - ١ - ٢										٤٤ - فهم الملكيات : "أنت تاخذ كورة وأنا أخذ كورة ونعطى ماما كورة؟ فين بتاعتي؟ بتاعك؟ بتاعها؟ (أو بتاع ماما؟)"
صفر - ١ - ٢ - ٣										٤٥ - التعبير عن الملكيات : اللبس ده بتاع مين؟ وده؟ وده؟

درجۃ المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٤٦ - اختبار البراجماتيقا : أ - الاسئلة : "النور قطع أعمل إيه ؟" "الدنيا برد أعمل إيه ؟"
صفر - ١ - ٢							٥	✓	٢	ب - الحوار : الو . أزيك
صفر - ١ - ٢ - ٣ - ٤ - ٥							٦	+		٤٧ - اختبار الاطار اللحنى : "قول ورايا بنفس النغمة والطريقة" "لها اسمع كلام ماما ح تجيب لي حاجات حلوة كثيرة" "أنا باحِب بابا وماما وأخواتي وهم بيحبوني"
صفر - ١ - ٢ - ٣ - ٤ - ٥							٨	✓	✓	٤٨ - عينة من الكلام المستمرسل والتعليق على : - طول الجملة : - درجۃ مفهوميته :
صفر - ١ - ٢ - ٣								٢		٤٩ - النطق : بتطبيق اختبار النطق

0 10 20 30 40 50 60 70 80 90 100

Imitation

Auditory memory span

Receptive Language

Expressive Language

Semantics

Pragmatics

Prosody

Phonology

Scoring

Name :

Date : (1)

(2)

(3)

Scores of Test items:

Percentage

	1	2	3
(1) Imitation			
(2) Auditory memory span			
(3) Receptive Language			
(4) Expressive Language			
(5) Semantics			
(6) Pragmatics			
(7) Prosody			
(8) Phonology			

- 59 -

- Receptive language age
- Expressive language age
- Semantics age
- Pragmatic age
- Prosody age
- Total language age

Language Test

The Worst Test

پختہ انتہا

اسم الطفل: D. L.
 تاريخ الميلاد: 27th Dec. 1995-
 الجنس: Anni Shams
 وظيفة الأب: Owner of a Supermarket
 وظيفة الأم: A house wife
 ترتيب الطفل بين الأخوات: The Third
 اسم المدرسة: Nursey
 تاريخ الاختبار الأول: 3/2/2000
 ملاحظات: Very weak understanding

الجنس: Female
 العمر: 4 years and 2 months
 تاريخ الاختبار الثاني:

I. Q. 95

الصف:
 تاريخ الاختبار الثاني:

تاريخ الاختبار الثالث:

البنند	الاختبار الأول			الاختبار الثاني			الاختبار الثالث			درجة المجموع
١ - نظرة العين ودرجة الانتباه										صفر - ١
٢ - التقليد : - اداء حركى (الكرة - تصفيق) - اصوات غير كلامية (نقر - طرقة) - اصوات كلامية (هيه - بيب بيب)	١٢	٢٢	المجموع	١٢	٢٢	المجموع	١٢	٢٢	المجموع	صفر - ١ - ٢
	١									صفر - ١ - ٢
	١									صفر - ١ - ٢
	١									صفر - ١ - ٢
٣ - التعرف على الصور وتسميتها اجزاء الجسم : عين بق انف اذن شعر يد	تعرف			تعرف			تعرف			صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦
	١		تسمية	١		تسمية	١		تسمية	
	١			١			١			
	١			١			١			
	١			١			١			
المجموع										
الملايس : بنطلون فستان	١		١	١		١	١		١	
	١		١	١		١	١		١	

درجـة المجموع	الاختبار الثالث		الاختبار الثاني		الاختبار الأول		البند
	تسمية	تعرف	تسمية	تعرف	تسمية	تعرف	
صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦				سكى	١ - ١ - ١ - ١	١ - ١ - ١ - ١	قميص فانلة جزمة شراب
				فوكا	١ - ١ - ١ - ١ - ١	١ - ١ - ١ - ١ - ١	المجموع
							الفسار : قوطة خيار جزر بطاطس بسلة بصل
	صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦						المجموع
				موز	١ - ١ - ١ - ١	١ - ١ - ١ - ١	الفاكهة : عنب موز برتقال بطيخ
				خ			

البنـد	الاختبار الأول		الاختبار الثاني		الاختبار الثالث		درجة المجموع
تفاح	تعريف	تسمية	تعريف	تسمية	تعريف	تسمية	
فراولة	/	-					
المجموع	/	-					
الحيوانات :							صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦
كلب	/	-	نم				
قطه	+	-					
فيل	-	-					
خروف	-	-					
بطه	-	-					
حصان	-	-					
المجموع	-	-					
الاثاث :							صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦
دولاب	/	-					
سرير	/	-					
ثلاجه	/	-	م				
تليفزيون	/	-					
كرسي	/	-					
ترابيزة	-	-					

البنند	الاختبار الأول		الاختبار الثاني		الاختبار الثالث		درجـة المجموع
	تعرف	تسمية	تعرف	تسمية	تعرف	تسمية	
المجموع							صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦
الادوات العامة : قلم نظارة ساعة مشط فرشة مفتاح	/	/	١				صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦
	/	/	٢				
	/	/	٣				
	/	/	٤				
	/	/	٥				
	/	/	٦				
المجموع	٢						صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦
المواصلات : عربية أتوبيس مركب طيارة عجلة قطر	/	/	٢				صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦
	/	/	٣				
	/	/	٤				
	/	/	٥				
	/	/	٦				
	/	/	٧				
المجموع							صفر - ١ - ٢ - ٣ - ٤ - ٥ - ٦

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										٦ - فهم جملة مركبة : "فين : ماما شالت الولد اللي بيعيط"
										والبنت قاعده بتاكل" "فين : ماما بتغسل الطبايق
صفر - ١ - ٢										٧ - فهم زمن الفعل "هنا في بنت لسة ح تاخذ الكتاب وبنت بتاخذ الكتاب وبنت أخذت الكتاب خلاص" أ - المستقبل "فين : البنت لسة حتاخذ الكتاب"
										"هنا في بنت لسة ح تقعد وبنت بتقعد وبنت قعدت خلاص" "فين : البنت لسة ح تقعد"
صفر - ١ - ٢										ب - المضارع "فين البنت بتاخذ الكتاب"
										"فين البنت بتقعد"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند	
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م		
صفر - ١ - ٢										ج - الماضي "قَيْنَ البنت أخذت الكتاب خلاص"	قَيْنَ البنت قعدت خلاص"
صفر - ١ - ٢								١	١	٨ - فهم المفرد والجمع "قَيْنَ الأولاد"	قَيْنَ الكراسي
صفر - ١ - ٢										٩ - فهم الضمائر الشخصية : "ده ولد ودي بنت. ودول عيال"	
صفر - ١ - ٢								-	٢	أ - هو : "قَيْنَ هو بيلعب لوحده"	قَيْنَ هو نايم
صفر - ١ - ٢								-	١	ب - هي : "قَيْنَ هي بتلعب لوحدها"	قَيْنَ هي نايمه
صفر - ١ - ٢								-	١	ج - هم : "قَيْنَ هم بيلعبوا"	قَيْنَ هم نايمين

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند	
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م		
صفر - ١ - ٢										د - أحنا : "أحنا فين؟"	
صفر - ١ - ٢										هـ - أنا : "فين أنا؟"	"شاور علينا أحنا"
صفر - ١ - ٢										و - أنت : "فين أنت"	"شاور على أنا" "شاور عليك أنت"
صفر - ١ - ٢										١٠ - فهم الصفات : أ - كبير / صغير : "فين الفيل الكبير" "فين الفيل الصغير"	
صفر - ١ - ٢										ب - طويل / قصير : "فين : الشعر الطويل" "فين الشعر القصير؟"	"فين : الشراب الطويل" "فين الشراب القصير؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										١١ - فهم الحال أ - بسرعة / بشوئش : "قين اللي يتمشى بسرعة" "قين اللي يتمشى بشوئش"
صفر - ١ - ٢										ب - جامد / بالراحة : "قين الحنينة اللي أفتحت جامد ؟" "قين الحنينة اللي أفتحت بالراحة"
صفر - ١ - ٢										١٢ - فهم النفي : "قين الولد مش نايم" مايمشيش ؟

البنـد	الاختبار الأول	الاختبار الثاني	الاختبار الثالث	درجة المجموع
١٢ - فهم المتقارنات أ - أكبر / أصغر : هنا شمعة كبيرة وشمعة صغيرة وشمعة صغيرة الشمعة دى مين أكبر منها ؟ ومين أصغر منها ؟	— —			صفر - ١ صفر - ١
ب - أطول / أقصر : هنا بنت طويلة وبنت قصيرة وبنت قصيرة البنت دى مين أطول منها ؟ ومين أقصر منها ؟	— —			صفر - ١ صفر - ١
١٤ - فهم التفصيل : أ - أكبر واحده / أصغر واحده قنين أكبر شمعة خالص ؟ قنين أصغر واحده خالص ؟	— —			صفر - ١ صفر - ١
ب - أطول واحده / أقصر واحده قنين أطول بنت خالص ؟ قنين أقصر واحد خالص ؟	— —	— —		صفر - ١ صفر - ١

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢								١		١٥ - فهم المبنى للمجهول ؟ "الولد دة ماسك عصاية وبيضرب صاحبة فين الولد اللي بيتضرب"
صفر - ١ - ٢								١		"فين الولد اللي إتخبط برجل الحصان؟"
صفر - ١ - ٢								١	١	١٦ - اسمك إيه "مين دى ؟ (بالإشارة إلى أم الطفل)
صفر - ١ - ٢								٣	١	١٧ - الإجابة عن الأسئلة التي تكون اجابتها كلمة واحدة "بتعمل إيه بالبسكوت؟" "أنت لابس إيه فى رجلك؟"
										١٨ - التعبير عن زمن الفعل : "هنا فى ولد لسه ج يشوط الكورة وولد بيشوط الكورة وولد شاط الكورة خلاص"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢								—	—	المستقبل : "الولد هنا أكل ولا لسه ح يأكل؟"
صفر - ١ - ٢								—	/	المضارع : "والولد هنا إيه؟"
صفر - ١ - ٢								—	—	الماضي : "والولد هنا أكل والا لسه ح يأكل؟"
صفر - ١ - ٢								—	—	١٩ - التعبير عن جملة من ٣ كلمات "إيه اللي في الصورة؟"
صفر - ١ - ٢								—	—	٢٠ - التعبير عن المفرد والجمع : "دى عربية ودول كلهم إيه؟" "دى معلقة ودول كلهم إيه؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
										٢١ - التعبير عن الضمائر : آية التي في الصورة . خلى بالك ده ولد ودي بنت يبقى هنا إيه اللى في الصورة بتى ؟
صفر - ١ - ٢										هى - (هى بتلعب هدومها) هو - (هو بيقلع هدومه) هم - (هم بيلعبوا بالكورة) أنا - "مين أسمه ... ؟"
صفر - ١ - ٢										واحد يمسك الشوكة واحد يمسك المعلقة مين ماسك المعلقة ؟
صفر - ١ - ٢										"مين ماسك الشوكة" أنت - "مين أسمها طنط ؟" أحنا - "مين قاعدين يتنرجوا" على الصور مع بعض ؟
صفر - ١ - ٢										والشوكة ؟

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										٢٢ - التعبير عن الصفات : أ - كبير / صغير : "دى كورة كبيرة والا صغيرة ؟ ودى ؟"
صفر - ١ - ٢										
صفر - ١ - ٢										ب - طويل / قصير : "ده فستان طويل والا قصير ؟ وده أيه ؟"
صفر - ١ - ٢										
صفر - ١ - ٢										٢٣ - التعبير عن الحال : أ - بسرعة / بشويش : "القط ده بيمشى بسرعة والا بشويش ؟" "طلب والكار ودى ؟"
صفر - ١ - ٢										
صفر - ١ - ٢										ب - جامد / خفيف : "الولد ده بيزقها جامد ولا بالراحة ؟" والولد ده ؟
صفر - ١ - ٢										

درجة المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول	البـنـد
صفر - ١			—	٢٤ - التعبير عن حرف العطف (و) : الصورة دى فيها آيه ؟
صفر - ١ - ٢ - ٣			/ /	٢٥ - التعبير عن الأرقام (العد) : تعرف تعد ؟ يالا عد كده دول كام ؟ ودول بيتقوا كام ؟
صفر - ١			— — —	٢٦ - التعبير عن النفي : ”بص على الصورة دى فيها كرسي ، دى فيها كرسي برده ؟“ الجر دل هنا مليون والجر دل هنا آيه ، مش مليون ”الولد هنا بيعيط الولد ده بيعيط برده“
				٢٧ - التعبير عن المتقارنات : ١ - أكبر / أصغر : ”هنا فى عجله كبيرة وعجله صغيرة ، وعجله صغيرة“ ”العجلة دى أكبر والا أصغر من دى ودى ؟“

درجة المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول	البند
صفر - ١ صفر - ١			4 1	ب - أطول / أقصر : "منا في نخلة طويلة ونخلة قصيرة ونخلة قصيرة" "النخلة دي أطول ولا أقصر من دي ؟" "ودي ؟"
صفر - ١ صفر - ١			1 1	٢٨ - التعبير عن التفضيل : أ - أكبر واحدة / أصغر واحدة : "العجلة دي أكبر واحدة خالص ولا أصغر واحدة خالص ؟" "ودي ؟"
صفر - ١ صفر - ١			1	ب - أطول واحدة / أقصر واحدة : "النخلة دي أطول واحدة خالص ولا أقصر واحدة خالص ؟" "ودي ؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										٢٩ - التعبير عن المبنى للمجهول : "الولد ده قطع صباعه بالسكينة ، بيتقى صباعه حصل له ايه؟" "الولد ده وقع الطبق كسره بيتق الطبق انكسر" "الولد ده خبط كباية اللبن دلق اللبن ، بيتقى اللبن حصل له ايه؟"
صفر - ١ - ٢										٣٠ - التعبير عن ظرف الزمان : ١ - قبل : "الولد ده قلع هدومة قبل امايتزل البحر والا بعد ما نزل البحر؟" "بتليس الشراب قبل الجزمة والا بعد الجزمة؟"
صفر - ١ - ٢										ب - بعد : "البنت دي عيطت قبل اما صباعها يتعور والا بعد ما اتعور؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣١ - فهم ظروف الزمان : أ - قبل : "أنا ح أقول حاجة وأنت تقول لي صبح والا غلط" "بأكل الخيار قبل اما أغسلها" "ح أقشر البيض قبل اما أكله صبح والا غلط؟"
صفر - ١ - ٢										
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	ب - بعد : "بأكل الموزة بعد اما أقشرها" "صبح والا غلط؟"
صفر - ١ - ٢										
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣٢ - التكرار : أ - جمل : "خللي بالك وقول ورايا زي ما ح أقول بالضبط"
صفر - ١ - ٢										
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	١ "قطعة ، عروسة" ٢ "العصفورة بتعرف تطير" ٣ "الولد بيلعب الكرة مع أصحابه"
صفر - ١ - ٢										ب - أرقام : "٨ : ٤" "١ : ٢ : ٣"
صفر - ١ - ٢										

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
صفر - ١ - ٢	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣٣ - فهم وأداء المتضادات : "دي كباية مليانة ودي كباية إيه ؟" "ودي فيها حاجة ساقعة ودي فيها حاجة إيه ؟"
صفر - ١ - ٢ - ٣	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣٤ - التقسيم لمجموعات مضمونية : "الصور دي ح : حطها كده ثلاث مجموعات مختلفة الصور دي : بين زيتها ؟ يعني ح نحتها مع مين زيتها ؟ ودي . ودي ؟"
صفر - ١ - ٢ - ٣	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣٥ - التطابق : "بص على الصور دي الصورة دي فين اللي زيتها أو اختها ؟ ودي . ودي ؟"
صفر - ١	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٣٦ - التعرف على مفهوم الوقت : "فين : الدنيا بالليل ؟"

درجة المجموع	الاختبار الثالث	الاختبار الثاني	الاختبار الأول			المجموع	البند
صفر - ١ - ٢ - ٣							٣٧ - فهم استخدام الأشياء : "نماور لي بتتعد على أيه؟ ويتاكل في أيه؟ ويتشرب في أيه؟"
صفر - ١ - ٢ - ٣							٣٨ - التعبير عن استخدام الأشياء : "المشط اعمل به أيه؟ والتلم؟ والمفتاح؟"
صفر - ١ - ٢ - ٣							٣٩ - فهم الأوامر التي تزداد في الطول : "دى صورة طبق ودى كبايه، ودى معلقة ودى كورة، خللى بالك، زى ما ح أقول لك تعمل بالضبط" <div> <div>خط المعلقة فوق</div> <div>خط المعلقة فوق</div> <div>خط المعلقة فوق</div> </div> الكباية الكباية وأدينسى الكورة الكورة الطبق وأدينسى الكورة

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										٤٠ - فهم حروف العطف (و - أو) :
صفر - ١ - ٢										دي ملقعة ودي كباية ، أعمل زي ما أقول لك "أديني الملقة والكباية"
صفر - ١ - ٢										٤١ - فهم الأعداد :
صفر - ١ - ٢										أديني ملقعة واحدة ، أثنين
صفر - ١ - ٢										٤٢ - فهم ظرف المكان :
صفر - ١ - ٢										فوق :
صفر - ١ - ٢										فوق : التطبيق فوق الفنجان "فنين : الكورة اللي فوق"
صفر - ١ - ٢										تحت :
صفر - ١ - ٢										تحت : التطبيق تحت الفنجان "فنين : الكورة اللي تحت"
صفر - ١ - ٢										جوه :
صفر - ١ - ٢										جوه : الكورة جوه الكباية "فنين : الفنجان جوه الفنجان"
صفر - ١ - ٢										بره :
صفر - ١ - ٢										بره : الكورة بره الكباية "فنين : المفتاح بره العلبة"

درجۃ المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										جنب : "فين المنجان جنب المنجان" يمين / شمال "فين أيدك اليمين / الشمال؟"
صفر - ١ - ٢										في النص "فين الكورة التي في نص الطبق؟"
صفر - ١ - ٢										حوالين "فين الكور التي حوالين العلبة؟"
صفر - ١ - ٢										أمام : "فين العصاة التي قدام الكرسي؟"
صفر - ١ - ٢										خلف : "فين العصاة التي ورا الكرسي؟"
صفر - ١ - ٢										"فين الكورة جنب الطبق" يمينك / شمالك؟ "فين المفتاح التي في نص الترابيزة؟"
صفر - ١ - ٢										"فين الكور التي حوالين الكرسي؟" "فين الكرسي التي قدام الدولاب؟" "فين الكرسي التي ورا الدولاب؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										٤٣ - التعبير عن ظرف المكان :
صفر - ١ - ٢										فوق : "الكرسي ده فين؟"
صفر - ١ - ٢										تحت : "الكرسي ده فين؟"
صفر - ١ - ٢										جوه : "الملعقة حطينها فين؟"
صفر - ١ - ٢										بره : "وكده خرجت فين؟"
صفر - ١ - ٢										جنب : "الملعقة دى حطينها فين؟"
صفر - ١ - ٢										يمين / شمال : "دى ايدك الايه؟ ودى؟"
صفر - ١ - ٢										فوق : "الكرسي ده فين؟"
صفر - ١ - ٢										تحت : "الكرسي ده فين؟"
صفر - ١ - ٢										جوه : "الملعقة حطينها فين؟"
صفر - ١ - ٢										بره : "وكده خرجت فين؟"
صفر - ١ - ٢										جنب : "الملعقة دى حطينها فين؟"
صفر - ١ - ٢										يمين / شمال : "دى ايدك الايه؟ ودى؟"

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البسند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	
صفر - ١ - ٢										في النص : "الكورة دي فوق ودي تحت ودي فين ؟" حوالين : "الكراسي كده مرصوصين أزاي ؟" أمام : "المعلقة دي فين ؟" خلف : "وكده فين ؟"
صفر - ١ - ٢										"الكرسي ده قدام وده ورا والكرسي ده فين ؟" "والمعلق دي محطوطيين أزاي ؟" "الكورة دي فين" "والكورة دي فين"
صفر - ١ - ٢										٤٤ - فهم الملكيات : "أنت تاخذ كورة وأنا أخذ كورة ونعطى ماما كورة ؟ فلين بتاعنى ؟ بتاعلك ؟ بتاعها ؟ (أو بتاع ماما ؟)"
صفر - ١ - ٢ - ٣										٤٥ - التعبير عن الملكيات : اللبس ده بتاع مين ؟ وده ؟ وده ؟

درجة المجموع	الاختبار الثالث			الاختبار الثاني			الاختبار الأول			البند
	المجموع	٢م	١م	المجموع	٢م	١م	المجموع	٢م	١م	٤٦ - اختبار البراجماتيقا : أ - الاسئلة : "النور قطع عمل إيه؟" ب - الحوار : الو ، أزيك ، ...
صفر - ١ - ٢										
صفر - ١ - ٢ - ٣ - ٤ - ٥										٤٧ - اختبار الاطار اللحني : "قول ورايا بنفس النعمة والطريقة" "لما أسمع كلام ماماح تجيب لي حاجات حلوة كثيرة" "أنا باحس بابا وماما وأخواتي وهم بيطلبوني"
صفر - ١ - ٢ - ٣ - ٤ - ٥										٤٨ - عينة من الكلام المسترسل والتعليق على : - طول الجملة : - درجة منهوميته :
صفر - ١ - ٢ - ٣										٤٩ - النطق : بتطبيق اختبار النطق
صفر - ١ - ٢ - ٣										

0 10 20 30 40 50 60 70 80 90 100

Imitation

Auditory memory span

Receptive Language

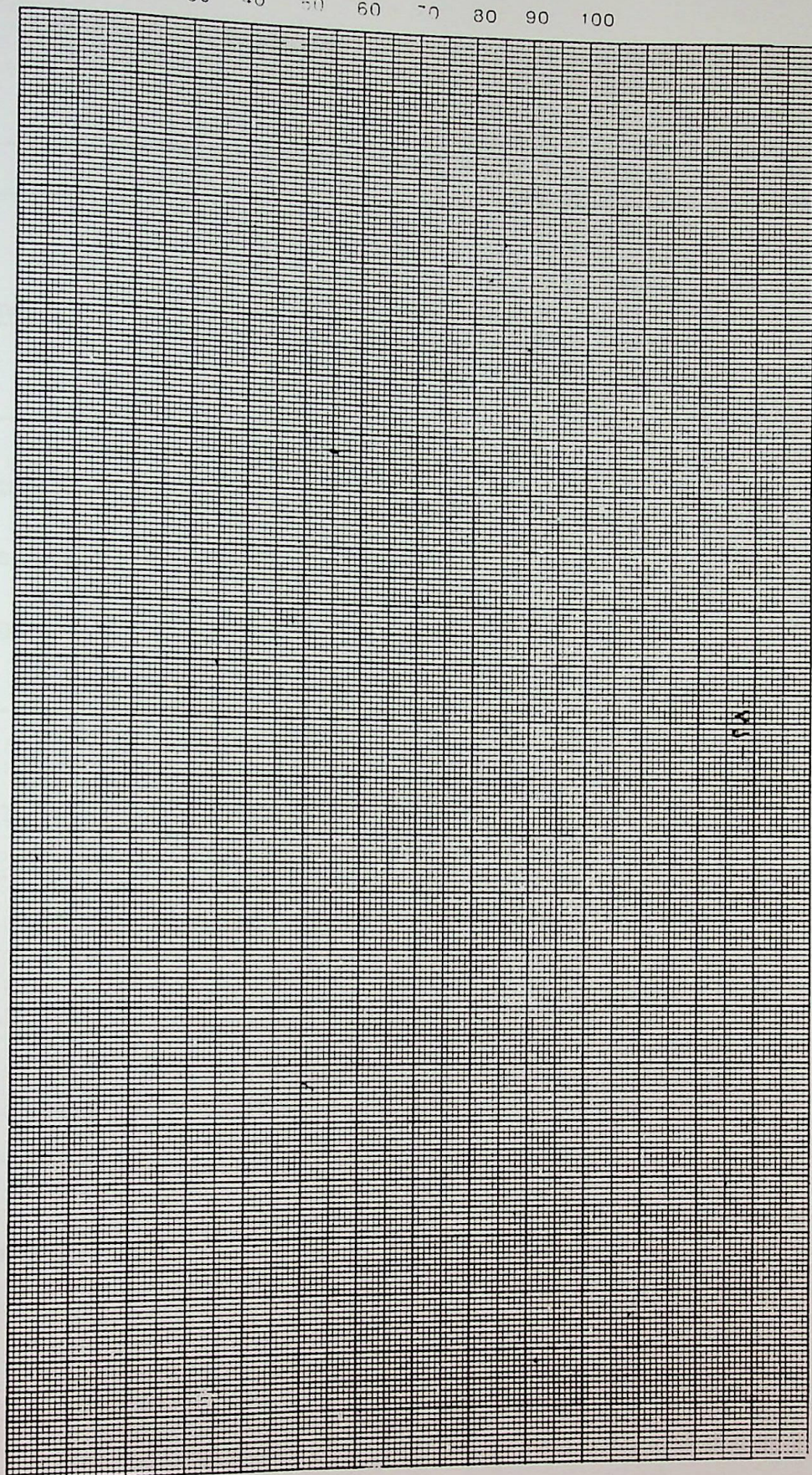
Expressive Language

Semantics

Pragmatics

Prosody

Phonology



Scoring

Name : _____

Date : (1) _____ (2) _____ (3) _____

Scores of Test items:

Percentage

	1	2	3
(1) Imitation <u>6/6</u>			
(2) Auditory memory span <u>0/6</u>		0	
(3) Receptive Language _____		84	
(4) Expressive Language _____		34	
_____		18	
		<hr/>	
		136	
(5) Semantics <u>84/145</u>			
(6) Pragmatics _____			
(7) Prosody _____			
(8) Phonology <u>1/3</u>			

- 19 -

- Receptive language age

- Expressive language age

- Semantics age

- Pragmatic age

- Prosody age

- Total language age

18 7
Expressive

2 16
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1 50

34 1
Receptive

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Semantics

76 3
2 33
3 34
3 35
1 36
84

Appendix D

Original data and statistical analysis

Original data and statistical analysis

Chron.age	Pragmatic	Expressive	Receptive	Prosody	Semantic	Total
5	5	74	64	0	104	249
5	0	33	45	2	104	289
5	4	90	85	1	140	190
5	0	15	77	0	78	170
Average	2.25	53	67.75	0.75	106.5	224.5
STDEV	2.62995564	34.89985673	17.46186	0.957427	25.47548	54.53133656
T(P<) 3:4	0.103891077	0.291434631	0.199659	0.248008	0.280133	0.409164734
T(P<) 4:5	0.40892316	0.347845186	0.149907	0.301055	0.139154	0.121510858
6	2	79	69	0	121	275
6	7	81	75	6	124	293
Average	4.5	80	72	3	122.5	284
STDEV	3.535533906	1.414213562	4.242641	4.242641	2.12132	12.72792206
T(P<) 3:4	0.047297885	0.05652618	0.161361	0.268358	0.018859	0.053677902
T(P<) 4:5	0.048658395	0.058546128	0.140249	0.022491	0.102799	0.033263643
T(P<) 5:6	0.209236345	0.180348584	0.382011	0.158826	0.224983	0.11140774
7	4	90	78	2	128	317
7	4	90	91	4	142	331
7	5	93	87	1	131	298
7	7	100	90	6	138	341
Average	5	93.25	86.5	3.25	134.75	321.75
STDEV	1.414213562	4.716990566	5.91608	2.217356	6.396614	18.64358692
T(P<) 3:4	0.000939668	0.003454276	0.01206	0.118265	0.000711	0.002033225
T(P<) 4:5	0.002427443	0.002215612	0.003827	0.001141	0.005813	0.000788551
T(P<) 5:6	0.057538938	0.031150293	0.044089	0.041932	0.037499	0.007475261
T(P<) 6:7	0.400810148	0.010505255	0.019594	0.462248	0.033104	0.032968813

Original data and statistical analysis

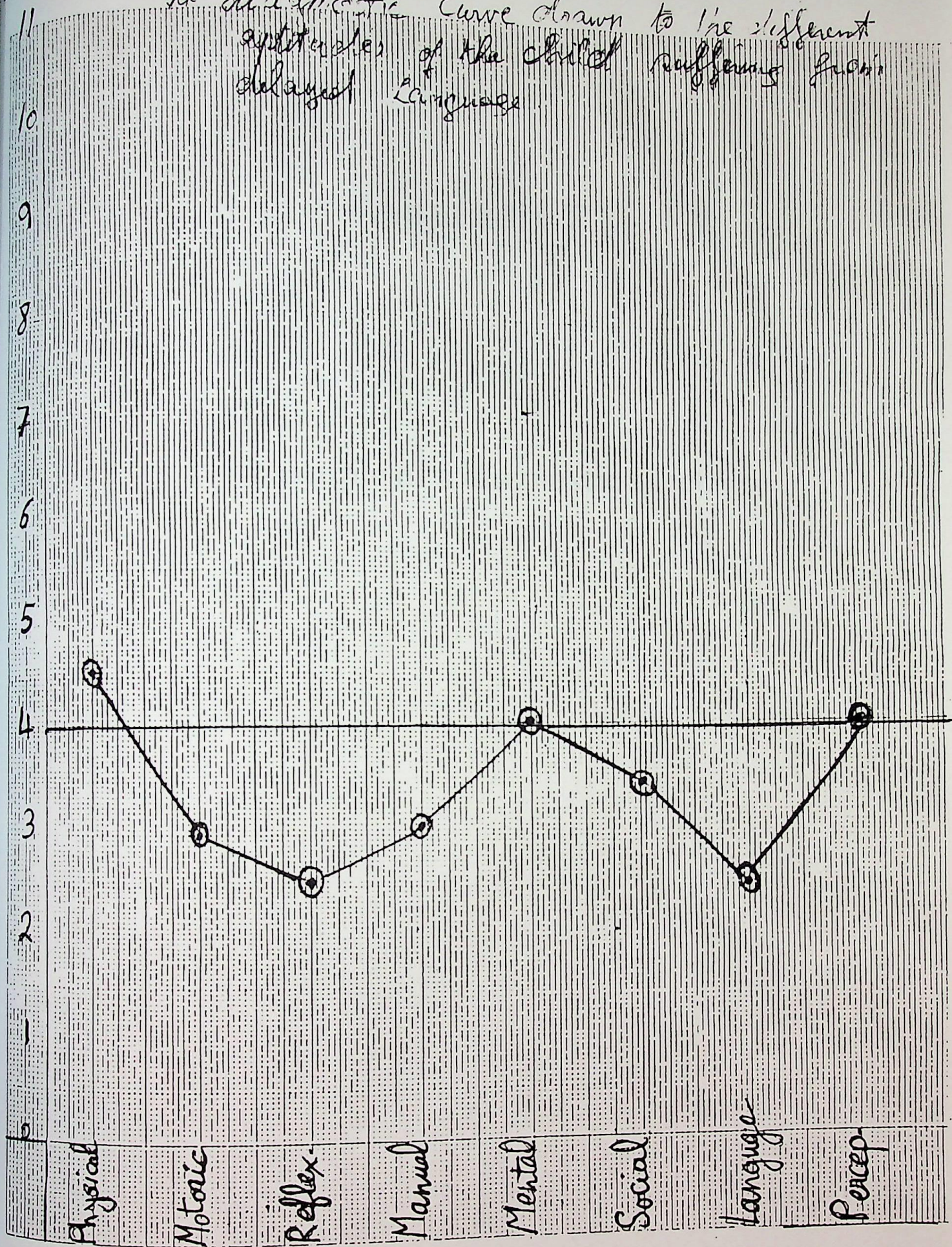
Chron.age	Pragmatic	Expressive	Receptive	Prosody	Semantic	Total
3.5	0	30	57	2	95	252
3.5	0	67	73	2	107	200
3.5	0	20	35	0	88	247
Average	0	39	55	1.333333	96.66667	233
STDEV	0	24.75883681	19.07878	1.154701	9.609024	28.68797658
4	1	71	63	0	121	43
4	2	38	59	0	99	183
4	3	42	62	0	100	298
4	2	62	51	0	110	157
4	4	44	73	0	102	143
4	4	83	76	0	109	100
4	1	60	73	0	109	225
4	0	30	37	0	90	274
4	4	90	73	1	131	224
4	0	11	28	0	61	182
4	4	73	82	1	130	245
4.2	0	18	34	0	84	180
4.3	3	28	54	0	95	136
4.5	0	0	23	4	42	65
Average	2	46.42857143	56.28571	0.428571	98.78571	175.3571429
STDEV	1.664100589	27.5924022	19.18103	1.08941	24.51743	74.876932
T(P<)	0.030285652	0.337089654	0.458714	0.107485	0.443618	0.109080432

Appendix E

**A sample of a diagnostic curve drawn to
show the different aptitudes of the
delayed child.**

Sample of

A diagnostic curve drawn to the different aptitudes of the child suffering from delayed language



Appendix F

A sample of a diagnostic sheet.

مستشفيات جامعة عين شمس
وحدة أمراض التخاطب

تاريخ الكشف:
تاريخ الميلاد:

اسم المريض:
العنوان:
الشكوى:
التشخيص:
التاريخ الشخصي:

الحمل و الولادة:

أول شهر من العمر:

الجلوس:
أول كلمة:
التحكم فى الإخراج:

دلائل النمو و التطور: التعرف على الأهل :
المشي:
أول جملة:

التاريخ المرضى:

التجويف الفمى و البلعومى:

الفحص: الأذنين:
الأنف:
الصوت و اللغة: اللغة الداخلية:

اللغة الخارجية:

النصيحة:

معامل الذكاء:

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