

# Language Development in Normal Libyan Children

## Thesis

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## **List of Abbreviations**

Abb. Full Term

**AC** : Auditory comprehension.

**Acq** : Acquired.

**ADHD** : Attention deficit hyperactivity disorder.

**APD** : Auditory processing disorder.

**ASD** : Autism spectrum Disorder.

**BDMH** : Brain damage motory handcapped.

**DLD** : Delayed language development.

**EC** : Expressive communication.

**EEG** : Electroencephalogram.

**EP** : Evoked potential.

**FA** : Fully acquired.

**fMRI** : Functional Magnetic Resonance Imaging.

**HI**: Hearing impairment.

**HS**: Highly significant.

**ID** : Intellectual disability.

**IQ** : Intelligence quotient.

**LAD** : Language acquisition device.

**MR** : Mental retardation.

NS : Non-significant.



## **List of Abbreviations**

Abb. Full Term

**PDD** : Pervasive developmental disorders.

**PET**: Positron Emission Tomography.

PLS-4 : Preschool language scale Fourth edition.

S : Significant.

**SD** : Standard deviation.

**SLI** : Specific language impairment.

**SM** : Selective mutism.

**SPSS** : Statistical Package for Social Sciences.

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## INTRODUCTION

Learning to talk is one of the most visible and important achievements of early childhood. New language skills mean new opportunities for social understanding, for learning about the world, for sharing experience, pleasures and needs. While the nature of the mental activity that underlies language learning is widely debated, there is considerable agreement that the course of language development is influenced by determining factors in at least five fields: social, perceptual, cognitive processing, conceptual and linguistic (*Hoff*, 2009).

Language acquisition is the process by which humans acquire the capacity to perceive and comprehend language, as well as to produce and use words and sentences to communicate. Language acquisition is one of the quintessential human traits. Children acquire language in similar stages across the world. When children are acquiring language, they do not speak a degenerate form of adult language, rather, they speak a version of the language that conforms to the set of grammatical rules they have developed at that stage of acquisition (*Miller et al.*, 2014).

Although individual differences among children do exist, language development has predictable sequences. Most

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children begin speaking during their second year, and by 21 months are likely to know about 100 words and are able to combine them in short phrases (*Diesendruck*, 2007). Language development is a crucial component of early childhood development. Due to the interdependent nature of early child development, any problems that hinder the acquisition of language during these critical years can affect other areas (*Hopkins et al.*, 2013).

It has long been acknowledged that both environmental factors and genetic predisposition impact significantly on the developing brain. In terms of environmental factors, scientists now know a major ingredient in the development of language is the "serve and return" relationship between children and their parents or other caregivers in the family or community. Young children naturally reach out for interaction through babbling, facial expressions, and gestures and adults respond with the same kind of vocalizing and gesturing back to them. In the absence of such responses, or if the responses are unreliable or inappropriate, the brain's architecture or development does not form as expected, which can lead to disparities in learning and behavior (*Paul*, 2001).

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In addition, theorists differ in the emphasis and degree of determination posited for a given domain, but most would agree that each is relevant. There is a large body of research supporting the view that language learning is influenced by many aspects of human experience and capability (*McGregor et al.*, 2002). There is growth and maturation as child moves from learning early communication skills to being able to learn and use language. The prerequisite skills for language are: attention skills, visual skills, auditory skills, tactile skills, imitation skills, and referential knowledge (*McLean et al.*, 1985).

The development of the neurobiological bases of language have provided evidence on the developmental time courses of three linguistic subsystems, specifically phonology (sound system of the language), semantics (vocabulary and word meanings), and syntax (grammar) (*Hoff*, 2003).

Language development started from first day till eight years in this trip the child pass into different stages. Language is central to many aspects of human life, cognition, social interaction, education and vocation, so, valid identification, prevention, and treatment of language disorders is a high priority for the therapeutic professions. Delay and/or difficulty in beginning to use language is one of the most common causes of

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parental concern for young children brought to pediatricians and other professionals. Delay may indicate specific difficulty with language, or it may be an early indicator of a broader problem such as developmental delay (*Rice et al., 2008 and Dale et al., 2003*).

Children with language disorders can be classified according to the aspect of impairment (phonology, syntax, morphology, semantics, and or pragmatics), severity of impairment (mild, moderate, or severe), and its relation to comprehensive abilities (receptive language), production (expressive language), or both (*Clark*, *2013*).

Some of the many condition that cause language development problems include: mental retardation (MR), hearing impairment (HI), brain damage motory hand capped child (BDMH), attention deficit hyperactivity disorder (ADHD), auditory processing disorder (APD), autism, specific language impairment (SLI), and environmental deprivation. Assessment plays an important role in detecting abnormality in language (*Wray et al., 2016*).

Previous studies on Arabic language acquisition included dialects in Jordan, Egypt and Kuwait (*Ayyad et al.*, 2016). Because Arabic varies considerably across regions, information is also needed for other dialects including the Libyan dialect in which, literature, study is lacking information regarding language development in Libya.

## **AIM OF WORK**

The aim of this study is to evaluate language development in normal Arabic Speaking Libyan Children in order to identify the normal developmental language aptitudes in such population.

# Definition and the Nature of Language

#### **Language Definition**

Human language is a form of sonic communication that exhibits remarkable structural complexity (*Rohrmeier et al.*, 2015). Language can also be defined as the ability to produce a practically infinite number of meaningful messages using a finite number of lexical items (*Arshavsky*, 2009).

The ability to process and understand ideas and feelings through spoken speech is one of the most fascinating abilities of the human being. The miraculous ability of infants to acquire linguistic skills start from their very early age (*De Diego-Balaguer et al.*, 2016).

In other definition, language refers to the system of spoken symobls organized with brain. It is a system of communication where by speakers and hearers, using a set of interalized opeartion can relate sounds and meainings (*Balter et al., 2002*).

Language development is a complex, dynamic and progressive process. It involves detection of complex patterns

and improvement of language competencies (Levine et al., 2016).

The process of aquiring language is complex and not yet fully understood. In most children, the potential for language is present at birth. However, its eventual development represents a dynamic interaction between the developing brain and a Child's environment (*Bishop*, 2000).

#### The Nature of Language

Language comprises the following three major aspects: form (structure), content and function. Form includes syntax, morphology and phonology, content includes semantics, and lastly, function or use of language includes pragmatics that constitute the goals of language. Each of the above components is distinct but they are interrelated (*Lahey*, 1988).

#### Language parameters:

#### **Semantics (The study of meaning)**

The study of linguistic meaning takes place within a subfield of linguistics called semantics. Semantics is concerned with the relationship between language form and cognition. Semantics help language users to decide what is meaningful and what is nonsense (*Bates et al.*, 2003).