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**DELAYED SPEECH
IN NORMAL CHILD**

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Yukarıdaki imzaların, adı geçen öğretim üyelerine ait
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ÖZET

Gecikmiş konuşma beklenen sürede beklenen doğrulukla birlikte konuşmayı edinememiş çocuğun bir problemidir. Normal ya da zekâca üstün bir çok çocuk fiziksel olarak sağlıklı olmalarına ve işitme problemleri olmamalarına rağmen bazı nedenlerden dolayı konuşmada ortalamaya göre gecikmişlerdir. Çocukların bir çoğu konuşmaya çalışırken hareketlere güvenirler ya da anlaşılmaz sözler söylerler. Gelişmemiş konuşmaları çocuğun görünüşte kendi icat ettiği yeni kelimeleri oluşturan seslerin tuhaf bileşimlerinden ibarettir. Böyle durumlarda, gecikmiş konuşmalarında çocukların fonetik repertuar eksikliği vardır. Ses dilin başlıca vasıtası olduğundan ses çalışmasının bu çalışmada çok önemli olduğu bulunmuştur. Bu sebepten dolayı, fonoloji bu çalışmanın gerekli ve önemli kısmıdır. Bu tezde normal çocuğun gecikmiş konuşması fonolojik açıdan çalışılmıştır. Ayrıca; konuşmanın gelişmesi çocuğun belirli bir olgunluğuna, teşvik miktarına, güdülenmeye ve tecrübeye bağlı olduğundan dilbilimin branşları olan toplumdilbilim ve psikodilbilim de bu çalışmada göz önüne alınmışlardır. Bu araştırma, konuşma özürlü işitebilen normal Türk çocuklarının dil ve konuşma gelişimlerinde özellikle fonolojik açıdan 'dilbilim'in önemli katkıları olduğunu saptamaktadır.

SUMMARY

Delayed speech is a problem of a child who has not acquired speech at the expected time with the expected accuracy. Many normal or mentally superior children are later than average in speaking because of some reasons, although they are physically healthy and have no hearing problems. Many of the children rely on gestures while trying to speak or they jabber away. Their rudimentary speech consists of strange combinations making up new words which the child has apparently invented himself. In such cases, children have the absence of phonetic repertoire in their delayed speech. Since the primary medium of language is sound, the study of sound is found to be very important in this study. It is for this reason that phonology is the integral and important part of this study. Delayed speech in normal child was studied from phonological point of view in this dissertation. Besides; sociolinguistics and psycholinguistics which are the branches of linguistics were also taken into consideration in this study since the development of speech is due to a definite maturity of the child, amount of stimulation, motivation and opportunities for experience. This research has established that 'linguistics' has important contributions to language and speech development of speech defective normal Turkish children with no hearing problems, especially from phonological point of view.

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FOREWORD

One of the most common problems nowadays is the normal child with delayed speech which is especially critical during the nursery school years. The present dissertation has been prepared for a quite specific purpose emphasizing the normal child with delayed speech with reference to linguistics.

The question of how linguistics can be applied to delayed speech of a normal Turkish child is the central topic of the present dissertation. One of the ways in which linguistics is profitably applied to speech therapy is with reference to the design of programmes of remediation for normal children with delayed speech. Only the linguistic considerations are concerned specifically in this study.

The first chapter gives a brief introduction to the child with delayed speech within the framework of linguistic considerations. The description of linguistics and the working areas of linguistics are cited. The first chapter terminates with the contributions and remediations of 'linguistics' to speech retardation of a child.

The second chapter takes up the general information about the subject and describes the child's language acquisition.

It deals with the delayed speech in normal child and defines the speechless child. After this, the causes of delayed speech and the contributions of linguistics to delayed speech are presented clearly.

Chapter three is concerned with the observations and discussions of the central topic of the present dissertation. The problem, purpose, hypothesis, data collection and materials of this thesis are fully explained in this section. The third chapter ends with the method of analysis used in the course of this study and the evaluation of the whole treatise. The findings are set out and, then, the suggestions are presented in this part.

Chapter four, the conclusion, puts forth a different outlook on the evaluation of delayed speech of a child in reference to modern linguistics, and introduces the remediations of linguistics to speech retardation.

The present dissertation is more about normal children than about mentally retarded ones with hearing problems; therefore, low intelligence, deafness etc... are not taken up in this treatise. Such research proves to be useful in helping children with delayed speech to improve their speech within the framework of linguistics.

CHAPTER I: INTRODUCTION

The world of the child continues to be the most fascinating aspect of human existence. A great deal of that fascination lies in the mystery of the child's language and speech. A child is born, and grows and learns to speak and to understand others when they speak. All children in fact master a large part of their native language at an early age as five. Linguists, physicians and psychologists who focus on the language and speech development in the child do not fully understand how children go about their language learning. Nevertheless, it is realized how extraordinary an accomplishment language acquisition is. In order to understand how language is learned, it is necessary to understand what language is and what speech is.

The child is equipped from birth with the necessary neural prerequisites for language and language use (Fromkin 1974). All normal children, whatever their native language is, go through the same stages of language and speech acquisition as babbling, one-word utterance and two-word utterance but they do not show the same development. According to Baykoç (1986), "the vast majority of children speak words at 12 months, phrases at 18 months and short sentences at 36 months." If the pre-school child has not started to talk by the time he is three years of age, he

should be considered delayed in his speech development and some special help should be provided.

One of the most common problems, and frequently the most baffling to confront the parent of the pre-school child or the speech therapist or the teacher working with the normal children in the lower grades is that of delayed speech which is called 'prolonged alalia' in clinical language. The problem is especially likely to be critical during the nursery school years and in the kindergarten, although children may exhibit the symptoms of speech retardation at any level through the elementary grades and even into the high school years. Symptoms may range all the way from a complete absence of speech through a kind of jargon that only the mother and perhaps a close sibling can understand, to minor examples of sound substitutions that follow the general pattern of baby-talk (McElroy 1972). As Menyuk (1969) cites several research studies on the acquisition and development of language by children have emerged from Chomsky and generative-transformational theories of linguistics. Research tools to analyze children's language were developed through such studies and they provide valuable data among children who develop language in a normal manner as well as those who develop language in a deviant manner. To begin with, in Turkey, there have been numerous studies about the language and speech development of the child, but not from linguistic point of view. Some recent

examples include Özbaydar, B. (1970), Ekmekçi, Ö. (1979), Çapan, S. (1982), Anlar, B. (1983) and Baykoç, N. (1986). Above all, in Turkey, there has not been a serious study about the speech retardation of the normal child in reference to modern linguistics. There are normal children with no hearing problems who are unable to speak in Turkey. The retardation in Turkish child's speech is the central topic of the present dissertation. These children can learn the language spoken to them if the necessary speech training is given to them. When children overcome their speech impairment, they immediately become able to use their language for speaking. The phonetic, psycholinguistic and sociolinguistic dimensions of language performance are taken into consideration in the present treatise. These remedial aspects of the field of linguistics are related to the important area of study for improving the speech of children with learning disabilities. Language is a system of vocal communication. It is for this reason that phonetics—the study of speech sounds, their production, transmission, reception and their acoustic properties—is considered to be an integral and important part of linguistics, and this study has been mostly concentrated on phonology.

In recent years linguistics has been applied increasingly in the field of speech therapy and the use of linguistic analysis is widespread among speech therapy (Grunwell 1989).

The science of linguistics is the study of human language in all its forms, and delayed speech is a language disorder as well as a speech problem; and so, linguists can investigate some problems phonologically in their study of a language. The study of a language is a major key for solving such problems. A linguist is interested in the study of speech sounds and their relationships with one another. The investigation of sound patterns is of great interest in the study of language acquisition which is one of the important concerns in child's speech development.

This study comprises the delayed speech in normal child which is known to be a language problem. The primary medium of language is sound, and so the study of sound is more important in this study since children with delayed speech in the observation group have the absence of phonetic repertoire and they lisp most of the speech sounds in their limited vocabulary. For this reason, the present dissertation is much more concentrated on phonology and the observations about the topic are studied from phonological point of view.

The basic goal of the present dissertation, in accordance with this information, is to determine the language and speech development of the normal Turkish children with delayed speech, and then, to employ a proper method of speech training by using the findings of this research.

CHAPTER II: GENERAL INFORMATION ON THE SUBJECT

This section is concerned with the explanations of the concepts of language and speech development.

A. LANGUAGE AND SPEECH

Language allows people to say things to each other and express their communicative needs. It is used to keep communication channels open. Language is the preliminary part for communication and in the absence of language, there will be a lack of communication. Language facilitates communication and it is a vehicle for communication.

DeVito (1971) defines communication as a means for breaking down the barriers to interaction, a means for achieving mutual understanding and for relating to each other on a more meaningful level, and a means for communion.

In order to understand how language is learned it is necessary to understand what language is, and the discipline dealing with language studies is called "linguistics". Linguistics is the scientific study of language.

Language is a vocal system for communicating meaning. According to Sapir (1921:8) "language is a purely human and non-instinctive method of communicating ideas, emotions and desires by means of voluntarily produced symbols." For Bloch and Trager (1942:5) "language is a system of arbitrary vocal symbols by means of which a social group co-operates." Therefore, language is social whereas speech is individual. There is a close connection between language and speech. The latter presupposes the former. One cannot speak without using language, but one can use language without speaking. Language is independent of speech (Lyons 1981:4). Language faculty is innate and species-specific. According to Chomsky (1972) "every human being has the capacity to acquire language." This is what Chomsky means by UNIVERSALISM. Language is universal. People use language to give vent to their emotions and desires so that language is a medium to convey a meaning.

Speech is an essential means of communication learned in early childhood and developed through social contacts. Brown (1970: 83) defined speech as the tool of language while language is the function of communication. Speech is a verbal behaviour.

"Speech is the production of sounds first reflexively, then repetitively, and finally learned." (McElroy 1972:5).

Speech, which is necessary for communication, has both an individual and a social side. It is many-sided, and it is both physical and psychological.

Speech is the process of communication by using language. The basis of speech is the speech sounds because human beings use them as tools to communicate with each other. According to Demirezen (1984: 8) "the production of speech is due to the respiratory, phonatory, articulatory systems and resonance." The respiratory system comprises the lungs, the muscles by means of which they are compressed and expanded, the bronchial tubes and the trachea; the phonatory system is situated in the larynx, involving the vocal cords; the articulatory system consists of the nose, the lips, the mouth and its contents (Demirezen 1984: 8). "The lungs are the most frequently used initiators in the production of speech sounds. Other initiators are moving larynx, tongue, lips and so on." (Pike 1972:87).

Articulation is the production of individual speech sounds. It is the formation of speech sounds by the speech organs (Demirezen 1984: 19).

In brief, speech is the oral expression of language, beginning with the birth cry and continuing through many stages of development before it becomes a useful communication tool. Speech sounds develop in a series of stages that proceed from prelinguistic utterances through the linguistic use of symbols.

B. CHILD'S ACQUISITION OF LANGUAGE AND SPEECH

Several research studies on the acquisition and development of language by children have emerged from Chomsky and the generative-transformational theories of linguistics (Menyuk 1969). Since the language and speech development of a child is an indicator of his whole development, language acquisition and speech development of the normal children should be observed in order to ascertain the speechless child and to prepare an appropriate programme for this thesis.

"By the acquisition of language is meant the process whereby children achieve a fluent control of their native language." (Lyons 1970:242). Each normal child is born with the ability to speak and he initially learns a limited number of sounds of his native tongue. Chomsky (1972) suggests that children are born with a knowledge of the (allegedly universal) formal principles which determine the grammatical structure of the language. According to Fromkin (1974:254) "when children learn a language, they learn the grammar of that language—the phonological, morphological, syntactic and semantic rules." They are able to use these rules for the construction of utterances that they have never heard before.

Each human being is ready to talk normally after being 18 months old. He learns to produce sounds of his language at the beginning of his childhood and masters them throughout the other

stages up to his adulthood. Fromkin (1974: 243) states that "all normal children are equipped from birth with necessary neural prerequisites for language and language use." In addition to this, Chomsky (1972) drew attention to the fact that every normal child has the innate capacity to acquire a language.

In this study before observing the speechless child and the retardation in child's speech, the facts that how children learn to speak, how they go about it and by what process a child learns language should be known better.

According to Baykoç (1986) "all normal children go through the same stages of language development although not all progress at the same rate." Investigations of children in different areas of the world reveal that the stages are very similar and some of the stages last for a short time while the others remain longer (Mc Elroy 1972: 54). In his essay on language acquisition, Akiyama (1984), states that "language development in the first six months is universal."

Some linguists divide the stages of language acquisition and speech development into prelinguistic and linguistic stages (Fromkin 1974:244).

1. BABBLING STAGE

The infant begins to babble in the first few months, as Fromkin (1974) cites, "usually around the six month period." He can make sounds and begins to use those sounds for his own pleasures and discomforts. The child at one to three months responds to strong external stimuli by crying and these sounds are used as a carrier of emotion in early child language (Jakobson 1968).

According to McElroy (1972:21) "a child learns to manipulate his articulators in this period and his vocalizations become more repetitive." In one of her studies, Acarlar (1991), states that all of the vowel sounds and most of the consonant sounds occur in babbling stage. Child often produces such consonants m, n, p, t, d (Kiray 1982).

"Babbling is necessary for normal language acquisition and speech development." (Fromkin 1974: 245). Palmer (1961:20) also tells that "babbling or vocal play is important, for it affords practice in articulation—in using his tongue, lips, jaw and palate for the production of sounds."

"Every child learns to make the sounds of his own language during the babbling stage." (Holt 1967:56). Deese (1970) states that "if the babbling is developed and prolonged, it acquires the stress and intonation patterns of meaningful speech." So children

perceive and produce the intonation contours in this period since they are experimenting with sounds.

2. HOLOPHRASTIC STAGE

In this stage of child language the maximum utterance length is one word. "At this period, children learn that sounds are related to meanings and they produce their first words." (Fromkin 1974:245).

As Acarlar (1991) states, "there are only a few words in the child's vocabulary early in the one word stage." He may utter "baba" to call for his father or to show his father and he may say "süt" in order to show his hunger.

Holophrastic stage begins when the child is 12 months old and ends at 18 months (Ölçek 1983).

3. TWO-WORD STAGE

Children begin to produce two-word utterances at 18 to 24 months (Baykoç 1986; Acarlar 1991). There is a great variability among children, so this can be earlier or later. The child's lexicon includes hundreds of words in this stage (Kıray 1982).

"There are no syntactic or morphological markers during the two-word stage; that is, no inflections for number, or person, or tense." (Fromkin 1974: 248).

4. TELEGRAPHIC STAGE

After the end of the two-word stage children begin to produce utterances with three, four, five words or longer. Acarlar (1991) states that "early telegraphic speech is characterized by short and simple utterances made up of content words, usually nouns and verbs."

The speech is called telegraphic because the utterances lack function words: tense endings on verbs and plural endings on nouns, prepositions, conjunctions and articles (Clark 1981).

It is accepted that language and speech are acquired universally, at the age of four or five after many stages. McNeill (1970) states that "the span of development for grammatical speech occurs between the ages of one to three."

The child uses and understands almost all the common sentence patterns. Lerner (1971) notes this fascinating characteristic of language learning:

The process by which children learn their native language is in many respects a mystery... The normal child who is reared in a sufficiently rich linguistic environment has usually mastered the all essential parts of the system by the time he is six or seven. The fact that he is able to utter and comprehend thousands of sentences that he has never heard before is evidence of this accomplishment. (Carroll 1966: 577).

5. CHILD'S SPEECH DEVELOPMENT

In this section, child's speech development is summarized in the following scheme by Anlar (1983).

AGE	FORM AND CONTENT
Six months	The child vocalizes with intonation.
Twelve months and onward	The child uses one or more words with meaning—e.g. anne, baba. He understands very simple verbal instructions or commands if accompanied by gestures or intonation.
Eighteen months and onward	The child uses four or five words in all and uses two words together—e.g. "anne gitti" or "süt bitti."
Two years and onward	The child is able to name four or five common objects. He can use prepositions. Sentences and phrases have characteristic child grammar.
Three years and onward	The child can use the pronouns ben, sen, beni correctly; he can use plurals, past tenses and comparatives.
Four years and onward	The child knows the names of the commoner colors, he can use prepositions properly.
Five years and onward	The child can use descriptive words spontaneously. He knows the commonest opposites—e.g. küçük, büyük; yumuşak, sert etc... He knows when to say lütfen and teşekkür ederim . He can count up to ten.

In this part of the present dissertation, language and speech development of a child is described in detail in order to provide a better understanding for the delayed speech. Child's language acquisition is the area of research within the field of psycholinguistics and it is interrelated with sociolinguistics too.

C. DELAYED SPEECH IN NORMAL CHILD

Processes of speech have been divided into those of language and those of speaking. The production of speech sounds is carried out under the direction of linguistic rules. There may be many reasons for a child whose language and speech acquisition has been delayed although he is mentally normal.

What can we say of the child whose language has not developed normally? Why does a child lack speech? To answer such questions, the age boundary for the beginning of a child's speech, and the stages of language and speech development should be taken into consideration (see Chpt. II).

"Delayed speech is a problem of a child who has not acquired speech at the expected time with the expected accuracy." (Wood 1964:22).

According to Grunwell (1989) "delayed speech is the failure to understand or speak the language code of the community at a

normal age." For Mysak (1976) what is delayed is the knowledge of how language works. Semantically, the ability to classify objects with words that carry appropriate meanings can be impaired; phonologically, the ability to detect those words with different speech sounds that have different meanings can be impaired; grammatically, the ability to use morphemic, phrase-structure and transformational rules to signal relations among ideas can be impaired (Mysak 1976). Perkins (1971) states that delayed language does not specify a pathological condition; it specifies that the acquisition has not proceeded according to developmental norms.

This study comprises the phonological properties of language. In delayed speech, there is a delay in the acquisition of speech sounds. Consonants at the end of the words tend to be omitted or consonants at the beginning of the words tend to be replaced by other sounds. Syllables are omitted or replaced by inappropriate sounds.

As Owens (1984) states "children master or acquire the sounds of speech in a rather definite sequence." Besides, Acarlar (1991) cites that some children master sounds earlier than the others but if a child has not mastered a sound by the time he has reached the age 4, he is considered to be retarded in his speech development. "Normally all of the sounds of speech are developed by the time child is 4 years old." (West 1974: 54).

Most children with this problem, like all normal children, learn the meanings of words long before they can articulate them. In milder forms of speech-delay the comprehension of speech is normal; in severe forms the child is not only unable to articulate words, but he cannot understand them either and he cannot find the word which he wants. In the severest form the child almost appears to be deaf because he does not understand anything that is said to him (Ölçek 1983).

Delayed speech in an intelligent child may cause a considerable emotional disturbance. The child is thwarted because he cannot make his wants known. Other children refuse to play with him, so that his problem is aggravated. He may have violent screaming, attacks and show other signs of insecurity. "Deafness is difficult to deal with because in the existence of deafness no treatment is likely to accelerate the development of speech." (Illingworth 1964: 195).

1. SPEECHLESS CHILD

The vast majority of normal children speak words at 12 months, phrases at 18 months and short syntactic sentences at 36 months (Baykoç 1986). All healthy children will not meet this schedule, so the retardation in speech acquisition does not mean impairment.

Comprehension is basic to production. Normal children understand speech before they can speak. Speech handicapped children may have no trouble in understanding the language. They may be unable to produce it adequately.

According to Ölçek (1983) "if the child has gone through the babbling stage if he developed quite normally in other ways such as creeping and walking, if he is healthy and mentally normal, and if the parents are sure that he can hear, parents are probably safe in waiting until he is 36 months old before they seek help or advice." As a matter of fact, some children who mature normally do not begin to speak until the age of 3 years or even later. If the non-verbal child is 3 or 4 years old, there may be some possible causes of delay that are not so normal and this child is called "speechless child".

For Mysak (1976), children with delayed speech may have short attention span generally, show little ability to perceive and organize stimuli, and have problems of learning. These difficulties may be as urgently in need of attention as the language disorder. Indeed, they may contribute to these difficulties. The language-handicapped child presents a confusing picture. According to Anderson (1970) the meager language may bear more resemblance to normal speech in that the words are merely distortions of real words, or it may consist largely of strange combinations of sounds making up new words which the child has apparently invented himself.

The child may seem to understand what is said to him, but he does not try to talk. If he cannot make you understand with gestures, he just gives up. Some of the children understand what is said to them and they can call to their mother or father quite understandably when they want them, and they can say **evet** "yes" or **hayır** "no" distinctly. Sometimes the child jabbars away but nobody can understand a word he says. Apart from these children, a child may seem happy and smart enough but he says **tedi** for **kedi** "cat". His pronunciation needs to be improved.

Some of the reasons why a normal child is late in acquiring speech and some other possible causes of delay are discussed in this thesis. If the child gives evidence of being retarded in his speech, a serious effort should be made to locate the factor, or factors, causing that retardation.

2. CAUSES OF DELAYED SPEECH

It is odd that while speech is universal there is so much about it that is not understood. Delay in the acquisition of speech is one of the common problems. The findings by linguistic standards have shown that speech is defective in vocabulary, grammar and articulation which is the characteristic of a 3 year old child (Grunwell 1989).

The commonest cause of delay in the development of speech is mental subnormality. All mentally subnormal children are later than the average in learning to speak. On the other hand many normal or mentally superior children are later than average in speaking. As Kray (1982) states, the problem is an absence or a poverty of speech rather than a defective articulation in speaking. Einstein at the age of 4 was feared to be mentally defective because he could not talk and even at the age of 9, he was said to speak indistinctly.

Delay in the development of speech is commonly a familiar feature. Normal children with normal hearing who are late in learning to speak are said to have deprivation of the mother's love and normal stimulation (Belgin 1985).

If a child is non-verbal, it does not imply that he has no language. It indicates that he lacks expressive language skills. He may have articulation disability (McElroy 1972).

There are many causes of delay in the development of speech, and the factors causing retardation in child's speech are presented in this section. This research is not dealing with low intelligence, physical deficiencies, impaired hearing and aphasia. For this reason, such causes are not mentioned in this linguistic study.

2.1. Problems of Articulation

Articulation is the most common type of speech disorder among children. If a child has not mastered a sound by the time he has reached the age he has to do, he may be considered to be retarded in speech development (Belgin 1985).

Disorders of articulation are characterized by the omission and distortion of speech sounds. **Tedi** instead of **keddi** "cat", **ayaba** instead of **araba** "car" or **didti** instead of **gitti** "went" and **titap** instead of **kitab** "book" are examples of common articulatory errors. Sometimes only one or two sounds are defective.

Lack of stimulation or motivation may cause an articulation problem. If a child is not talked to, he may not have much opportunity to learn to talk. If his efforts at talking are ignored rather than encouraged, he may feel that speech is not worthy.

If the adults talking to the child use long words and complicated sentences, a child with his limited memory span finds it impossible to imitate them. In order to encourage children to learn to talk, simple phrases or one-word sentences should be used during the speech.

Palmer (1961) states that it is often helpful to give the sound a little distinction or personality in working articulatory problems. According to him, one method of doing this is "to give the sound a special name since it helps to identify the sound and to set it apart from others." A sound may be represented by a variety of spellings. It was seen beneficial to apply such a process for improving the child's delayed speech in this study and a Turkish phonemic chart is formed according to Demirezen's sound classifications in his book (1984). This chart, given below, is used in this research in order to stimulate the child to talk.

SOUND	NAME	IMITATION	ADDITIONAL AIDS
b	drum	[bam-bam]	Lips are shut, then suddenly release with puff of air.
p	calling a cat	[pi:sss-pi:sss]	Lips are shut and suddenly released with puff of air.
m	lamb cat	[mee-mee] [miyav]	Lips are shut, then open.
h	laughing puppy	[ha-ha] [hav-hav]	Breath is emitted through lips that are shaped for vowels which follow.
t	clock	[tik-tak] [tik-tak]	Press tip of tongue against upper gum ridge.
v	fly buzzing car	[v1z-v1z] [v1n-v1n]	Place lower lip lightly against upper teeth. Push air out.

SOUND	NAME	IMITATION	ADDITIONAL AIDS
s	snake	[s-s-s]	Sides of tongue against upper gums, tip of tongue touches front teeth.
l	singing	[la-la-la]	Front of tongue is pressed lightly against upper teeth ridge.
z	bee	[zzz-zzz]	Sides of tongue against upper gums. Teeth come together. Buzz in voice box.
ç	train	[çuu-çuu]	Tongue is pressed against upper gums, draw tongue back to release quickly.
r	growling dog propeller of an airplane	[hırrr-hırrr] [rrrrr]	Produced with the tip of tongue touching to the back of the alveolar ridge and the apex is curved back.

2.2. Problems of Understanding and Use of Words

Problems in understanding and use of words constitute another speech or language disorder. According to Palmer (1961) what the word **keci** "cat" means to the adult depends upon all of the past experiences that he associates with that symbol. A child may know that this small animal likes milk, catches mice and has soft fur, and may be unable to associate the word **keci** "cat" with the animal.

2.3. Voice Problems

Voice problems, which are known as disorders of phonation, are not as common as articulatory problems and many voice problems are the result of imitating poor speech models (Perkins 1971). Sometimes the model is a parent, an older sibling or a favourite aunt.

Voice problems include voices that are too high or too low in pitch, too loud or not loud enough, breathy, nasal or unpleasant, and voices that are monotonous; that is, lacking in flexibility of expression (Grunwell 1989).

2.4. Social Factors

There are various social factors that may cause speech and language retardation in childhood. The establishment of the environmental conditions that will be conducive to the development of good speech and language may do much to rehabilitate the linguistically retarded child.

The child must have the necessary tools for language acquisition and he must have the wherewithal to use these tools. "The child cannot proceed toward competence faster than his experiences will allow him." (McElroy 1972: 26).

"Motivation, the amount of speech stimulation, opportunities for experience and socio-economic status of the family are among the important environmental factors in conditioning the speech development of the child." (Anderson 1970; 112).

"Child will develop speech earliest and best whose environment is one that provides rich experience with good speakers, both children and adults; real need for oral communication on the part of the child; and rewards with encouragements of day-by-day improvement in his speech." (Mysak 1976: 107).

Bruner (1971) defines language acquisition as a step of social development. "A child with delayed speech might be expected to have a lower social maturity quotient than a normal child simply because he cannot communicate adequately." (Wood 1964: 79).

3. CONTRIBUTIONS OF LINGUISTICS TO DELAYED SPEECH

Many children may avoid the handicap of retarded or imperfect speech with a proper teaching. Each speechless child may have his own rate of development which may be faster or slower than the others.

How can the linguists be of most help? The linguists observe the child's speech and study how communication skills fit with

other problems in relation to linguistics. They know the linguistic skills that a child must master to speak normally. A linguist knows about the problems of sociology, psychology and education since linguistics is interdependent with many fields; so he can contribute effectively to the treatment of the whole needs of the language handicapped child.

There are different methods a linguist should apply in order to help a speechless child learn to talk who is mentally normal and healthy. The primary goal of linguistic studies are, of course, to help children learn to speak as accurately and as soon as possible. Especially, the application of phonological studies may be reliable in such cases. In any case, the phonological point of view of language analysis is the focus of this research. As a matter of fact Lyons (1970: 54) states that "phonetics stands at the intersection of all disciplines concerned in any way with the study of speech... ."

The child often appears to have an absence of a phonetic repertoire in delayed speech and language problems. According to Blake (1971) "he has no basic sound repertoire from which he can form speech and language units."

It is found that concentrating on the development of a sound repertoire based on the acoustic structure of the language is often helpful in such studies (Blake 1970). For Kozloff (1974) "every

sound or word the child learns makes it easier for him to learn the harder ones."

The cardinal objective is for the child to explore the repertoire of speech sounds and their combinations in any way he will do so. This kind of a study may improve the pronunciation of the child.



CHAPTER III: OBSERVATIONS AND DISCUSSIONS

A. PROBLEM

The focus of the present dissertation is the delayed speech of mentally normal pre-school child. Children with delayed speech have the absence of phonetic repertoire. They have difficulty in producing the speech sounds. Only a few speech sounds are produced, and so the child cannot construct a word. The lack of sound production may be one of the reasons for the difficulty.

Children have a limited number of words in their speech which consist of strange combinations of sounds. They lisp most of the speech sounds.

Phonology must be the first and the prominent step to be taken into consideration in such cases. This study investigates the delayed speech of a child from phonological point of view.

The child cannot gain the necessary skill for language without a great amount of experience. If the conditions that prevented him from developing normal speech in the first place are allowed to remain, language will be hampered. This research also discusses the interaction of social, psychological and developmental factors linguistically and their impact on the retardation of the pre-school child's speech development.

In the case of the pre-school child it can be said that if he has not started to talk by the time he is three years of age, he should be considered delayed in his speech development.

Linguistics can be a pursuit restricted to the scientific study of language, for it has many concerns and responsibilities. Since the problem—delayed speech—involves language, there is hope that increased understanding of language will lead to some remedies. Language is a medium for speech and the study of language is a major key for solving such problems.

B. PURPOSE

The main aim of the present research is to make a comprehensive study about the speechless child or the child with delayed speech covering many different related aspects within the boundaries of linguistics. The basic purpose of the present treatise is to describe the child with delayed speech from a phonological point of view and to show how the analysis of linguistics may lead to progress towards the goal of providing the speech therapist with a set of communicatively based guidelines for use in the planning of remediation. Therefore, the data consists of speechless children between the ages of 3–7 in order to observe their meager speech and to determine the factors causing that retardation in their speech development.

The stages of language and speech development, the delayed speech and the causes of delayed speech are analyzed in relation to linguistics. The role of linguistics is the focus of this treatise; thus, in order to accomplish a complete study within the boundaries of phonology (the first level in the analysis of language), sociolinguistics and psycholinguistics which are the branches of linguistics have been dealt with.

The importance of this research lies in the fact that it gives a light to the normal child who lacks speech. There are some deficiencies and reasons why a child cannot speak although he is not feeble-minded and deaf. The deficiencies and causes are specified in this study in order to help such a child to develop his speech ability in reference to linguistics.

Children have the absence of phonetic repertoire in delayed speech, and so they cannot form speech and language units. They have difficulty in producing speech sounds and for this reason they cannot utter a word. The main aim is to teach how the sound is made and using the new sounds in syllables and words; then using the new words in utterances. The goal of this step is to provide enough practice so that the child can produce the sound easily in order to construct a word with no difficulty. Phonological studies will help the child to improve his articulation. It would be wise to begin the studies by teaching a sound with which the child has no

difficulty. Only a few speech sounds are produced with movements or placements that are clearly visible (Demirezen 1984), so that the child can see how they are made. Some of the sounds with which children have major difficulty are produced in a manner that the child cannot observe (Palmer 1961). The lack of these visual cues may be one of the reasons for the difficulty. The child will have to search not only for the precise placement of the lips, tongue and palate, but for the exact and small movement that will produce the correct sound.

In Turkey, there have been numerous studies about the delayed speech of a child, but these studies are not analysed from linguistic point of view. In order to study such impairments in speech development of a child, sociolinguistics and psycholinguistics are also taken into consideration. The focus of the present dissertation is to analyse the delayed speech from phonological point of view in order to develop the child's retarded speech.

C. HYPOTHESIS

In this section, the hypotheses formed for the observational studies are presented together with the assumptions of possible outcomes. This research aims at investigating the validity of the following hypotheses:

1. The contribution of phonology
2. Sociolinguistic factors
3. Psycholinguistic factors

In this case children have the absence of speech or a pronounced speech retardation. At this point it is hypothesized that he lacks expressive language skills. It is supposed that they have difficulties in producing speech sounds and combining the sounds in syllables and then in words. Therefore they cannot utter a word and express themselves. If the child is taught how to produce the speech sounds, everything will turn better. While there is much that can be done directly to promote the linguistic development of the child with retarded speech, it is also true that some of the most important steps are fundamental. In such cases 'phonology' is the preliminary part of linguistics to be taken into consideration.

It is also suggested that the child develops his speech if the favourable environmental conditions are given to him. The speech retardation may be due to psychological impairment or environmental deprivation if he is not feeble-minded or deaf. It is suggested that the environmental factors causing retardation in the development of speech of a child are:

1. lack of motivation
2. lack of speech stimulation
3. lack of experimentation
4. socio-economic status of the family

It is also suggested that lack of speech may cause psychological impairments in the child.

The investigations of social and psychological factors in addition to the role of phonological studies are selected for the analysis of this treatise since these features are interdependent with the linguistic performance of children with delayed speech.

It is hoped that this study will pave the way for further studies about the speechless child.

D. DATA COLLECTION AND MATERIALS

Mentally normal children between the ages of 3-7 with delayed speech who are taken from the center of Ankara constitute the universe of this research. Children, at the ages of 3-4-5-6-7, from lower socio-economic level and underprivileged environments who are attending nursery schools are observed in this research. The subjects consist of 2 girls and 5 boys—totally 7 mentally normal children with retarded speech. These children

have no hearing problems. The distribution of children to their age and sex in the observation group is seen in Table 1 below.

TABLE 1: DISTRIBUTION OF CHILDREN ACCORDING TO AGE AND SEX

Age	Sex		Total
	Girl	Boy	
3	-	1	1
4	-	1	1
5	2	-	2
6	-	2	2
7	-	1	1
Total	2	5	7

The typical children of three to seven who show a normal development and the symptoms of being slow in their speech development have been taken into the scope of this research. Children were observed systematically one hour in a week during five months starting from December-1992 to April-1993. During this observation, their oral explanations have been recorded an hour. Meanwhile, the nonverbal communication of the speechless child has been taken into consideration and it has been registered to the observation report. The limited and indefinite words the children use, composed largely of names for common objects which are seriously distorted by sound changes and substitutions or which are consisted largely of strange combinations of sounds

making up new words that the child has apparently invented himself, have been recorded in the course of this research. These children were observed while they were playing with their mother, father, siblings and friends. Besides, the speech between the child and the researcher has been recorded and then registered to the observation report. The observation has been done in a home circumstance in order to provide the families' participation to this study, but only the child and the researcher have existed in the room in which the study was made. However, notes taken by the mothers have been taken in order to support these tape recorder registrations and the observation reports. After a short interview with the mother, the development in the speech of the child has been registered to observation report and then it has been evaluated.

The methods of interview, observation, written and tape recorder registrations have been used in data collection. The books and articles written on children's language and speech development from infancy to the age of five, and subjects on delayed speech in the light of linguistics and its sub-branches as psycholinguistics and sociolinguistics have been the data for this research. All of this study has been done within the framework of modern linguistics and it has been concentrated on the role of phonological analysis as well.

E. METHOD OF ANALYSIS AND EVALUATION

This section is concerned with the observational studies conducted to analyze the problem and hypothesis related to the assumptions and discussions carried out so far in the preceding chapters of the present dissertation. The pilot study presented in this section was conducted in order to test hypothesis stated previously. Within the areas of linguistics, some methods are used for the analysis of delayed speech of a child. This section is concerned with the application of these methods in the course of the children's language analysis.

The analysis of the problem was done according to phonology, sociolinguistics and psycholinguistics. In any case, language development of a child is the subject-matter of psycholinguistics. The textbooks and articles written about the subject have been researched for the evaluation of practical observations, and the children with delayed speech have been observed from time to time in order to ascertain their speech development in reference to phonology, sociolinguistics and psycholinguistics.

Children with delayed speech have started using words at a later age than the average. While, as written in chapter II, the average child starts to use words, meaningfully at approximately fifteen or sixteen months of age, the child with delayed speech was

three to four years of age before he began to speak. Some children in the observation group have started to talk at or near the normal age and then stopped mysteriously.

In this research, the child of three or seven who shows the symptoms of being slow in his speech development has a limited vocabulary composed largely of names for common objects, as mentioned before. These children's vocabulary is meager and consists of a larger proportion of nouns and verbs that are incomprehensible. Grammar of the child with retarded speech is rudimentary. His speech is concerned with concrete things that are for the most part present in the environment and are directly related to his immediate needs and desires. Children with retarded speech cannot construct utterances, and even words. The words children use are merely distortions of real words. Words are distorted by sound changes and substitutions. They consist of strange combinations of sounds making up new words and these words are invented by the child. They mostly jabber away in their garbled language. As mentioned before, children with delayed speech have the absence of phonetic repertoire from which they can form speech and language units. They have difficulty in producing the speech sounds so that they cannot construct a word perfectly. For this reason, phonology must be the fundamental step to be taken into consideration in such cases. This makeshift

language is usually accompanied by a rather elaborate gesture system on which the child often appears to rely for communication more than on oral symbols.

Children with delayed speech who are observed in the present dissertation make strenuous efforts to communicate, and they demonstrate great impatience and exasperation when others fail to understand them. Most of them are likely to be shy and reticent. They apparently understand what is said to them although in individual instances some of these children give no evidence of responding in a meaningful way to their verbal environment. Children seem to understand what is said to them, but do not try to talk to you. If they cannot make you understand with gestures, they just give up. Sometimes, they call "anne" (mother) quite understandably when they need her. They can say "hayır" (no!) distinctly. They often come to you with a toy to play and they sometimes jabber away, but nobody can understand a word they say.

The speechless children in the observation group have the absence of phonetic repertoire so that they cannot form speech. The prominent reason for their being speechless is that they have difficulty in producing some of the speech sounds. While they can utter some of the sounds imperfectly, they can utter a few of them perfectly or sometimes they lisp the sounds they produce. A great

many sounds are found to be omitted, especially the initial and final consonants. Many of the sounds that are retained are distorted or other sounds are substituted for them. The substitutions are likely to follow a rather definite pattern, sometimes referred to as baby-talk. In general, an easier sound—one that occurred early in the child's natural speech development—is substituted for a sound that is normally learned later. For example, **f** [f] tends to be substituted for **v** [v], so that **fare** "mouse" becomes [vaʎe]; **r** [r] becomes **ğ** [ɟ], making **fare** sound like [vaʎe]; **y** [y] becomes **ğ** [ɟ] making **ayak** "foot" resemble [aʎak]; **k** [k] replaces **t** [t] changing **kedî** "cat" into [tedî] or the word may simply degenerate into something resembling the vowel [a] with both consonants missing. For example, [ā] **kaş** "eyebrow" and [ola] **dolap** "cupboard". Thus, such a situation gives rise to a potential source of communicative impairment of the child. This is directly connected with the production of speech. Since the child has articulation problems, his retarded speech exhibits some phonetic irregularities.

In those cases where the child needs to work specifically to produce correct individual sounds, certain songs and jingles were selected that stress the particular sound or sounds. The Turkish phonemic chart prepared for teaching how the sound is made is used during this research (see p.g. 21). For example, 'buzzing'

sound [zzz-zzz] of a bee is used to teach the sound of [z]; [çuuu-çuuu] sound of a train is used to teach the sound [ç]; [bam-bam] sound of a drum is used to teach the sound of [b]; [pisss-pisss] sound of calling a cat is used to teach the sound of [p] and [s]; [mee-mee] sound of a lamb is used to teach the sound of [m]; and [hav-hav] sound of a dog is used to teach the sound of [h]. Besides, pictures of the objects were shown to the child during the study of sound production and they furnished good drill material for the teaching of speech sounds. After teaching the children how the speech sound is made, they can instantly produce those speech sounds and learn to distinguish a sound from other sounds; however, the production of the correct sound was sometimes stumbled upon during their experimentation. When the child did not succeed in the first trial, his attention was focused during the courses by saying "It's my turn". Initially, the child was made watch and listen while teaching the production of speech sounds as he faced a mirror, and so this calls his attention to how the sound is produced. The goal of this step was to provide enough practice so that the child can produce the sound easily. This procedure helped the child to improve his articulation. Improvement was usually more rapid when the mother and father took an active part in the speech lessons. The child should be taught to identify the sounds. He should know when a sound is used in a word and he should learn to distinguish it from other sounds.

According to Blake (1970), chanting speech technique is used to reduce emotional concomitants associated with various sounds, syllables, words, sentences and communication situations. Children may find it amusing, and it is considered to be one of the variations of this work emphasizing melody (inflections), rhythm and accent. When the little songs for children and simple melodies are used, they brought good response from the child in the course of this research. While teaching how the sounds are made, chanting speech was found to be helpful in varying the repetition of the sounds. These methods aim at calling the child's attention to how the sound is produced.

Children have difficulty in producing some of the Turkish consonants while they can utter some of them perfectly. The consonants are indicated in Table 2 below.

TABLE 2: DISTRIBUTION OF CONSONANTS IN RETARDED SPEECH OF THE CHILDREN

TURKISH CONSONANTS	
Child can produce	Child cannot produce
b	ç
c	f
d	g
ğ	h
l	j
m	k
n	p
s	r
v	ş
y	t
	z

Children, at the beginning of this research, were found to utter some of the Turkish consonants perfectly and were found to have difficulty in producing some of them as shown in Table 2 above. Meanwhile, children with retarded speech have shown a great performance in articulating the vowels. They can easily and perfectly articulate the vowels. Children were found to have no problem in the production of vowels during this research. The vowels they produce are given in Table 3 below.

TABLE 3: VOWELS PRODUCED BY THE CHILDREN WITH RETARDED SPEECH

TURKISH VOWELS PRODUCED BY THE CHILDREN WITH RETARDED SPEECH				
Back			Front	
High	ı	u	i	ü
Low	a	o	e	ö

Table 3, given above, shows that all of the vowel sounds are produced by the children with delayed speech. They had no problem in producing the vowels in the course of this research. The speech sounds (consonants) that the children cannot utter are

taught them according to the phonemic chart given in the preceding chapter which was found to be helpful in teaching how the sound is made (see p.g. 21). Initially, the consonants that the children can produce easily and perfectly were established during the analysis of their speech.

In order to establish a friendly relationship between the child and the observer, the consonants which the child has no difficulty are chosen for the beginning. This method encourages the child and he finds the speech lessons entertaining. In this study, the child and the researcher have both faced a mirror while teaching how the sound is made. This was done in order to make the child watch and listen to the researcher, and to call the child's attention to how the sound is produced. As the child experiments, it gives practice in limbering up the muscles of the tongue, lips, jaw and palate and helps to develop the precise movements essential for speech, because the child may have a problem with his muscles. It was found that children can identify the sounds in this way.

In this research, the methods of teaching with games and picture cards were taken into consideration, for it was found that the most helpful approach to speech and language stimulation in cases of delayed speech was the use of games and picture cards. Games are needed for the motivation of speechless child. The child's involvement in these games permitted him to forget

himself and his hesitations regarding speech. The use of this type of activity educationally was found to be helpful in focusing and sustaining the attention of the child. Speech exercises should be funny; for this reason an atmosphere of play was created during this research.

According to Blake (1971: 85), "picture cards show various forms of semantic relationships and communication situations." For this reason, picture cards were used while teaching the sounds and especially the words which did depict the gestures. Such a way was found to be very helpful in the present observation and it was used to evaluate the child's ability to produce the sounds of speech.

Imitation is widely accepted to be one of the most basic ways in which children learn and imitation plays an important role in learning to talk. In the course of teaching how the sound is made, the child was wanted to imitate the sounds. It was found to be a good idea to have the child listen to the sounds of animals and nature and try to reproduce them so that playing games with the child in which the speech correctionist imitates the sounds of a howling wind, a barking dog, cat, cow and other familiar sounds were used in this study. The children with delayed speech have shown an interest to the sounds in this way. This kind of a speech play has encouraged the children to vocalize the repertoire of sounds in ways that charmed or fascinated them. They were

stimulated with the repetition of the sound in a game before asking them to produce it in order to strengthen the production of the sound. For example; in helping to produce /r/ sound, such as saying "That is the growling dog sound; [rrrrr]", the growling dog sound was made several times in order to provide a strong auditory stimulation. The goal of this procedure in this research was to reinforce the linguistic structures of the child's language repertoire. As a result, children were found to be more willing to tackle with the new sound and were found to approach it with greater confidence.

Table 4, given below, shows the speech sounds that the children have improved in their retarded speech during this study.

TABLE 4: NUMBER OF NEW CONSONANTS LEARNED/NEVER LEARNED

CONSONANTS	ç	f	g	h	j	k	p	r	ş	t	z
New consonants learned in two months				h		k	p			t	z
Consonants which are never learned during this study	ç	f	g		j			r	ş		

The number of new speech sounds that children have learned till the end of the research are shown in Table 4 above. It shows the progress of the children's phonetic repertoire. Initially,

children could not produce /ç/, /f/, /g/, /h/, /j/, /k/, /p/, /r/, /ş/, /t/, /z/ sounds in this study; but, after teaching them how the sound is made, almost all of them have shown the same development in their delayed speech. They have learned how to produce /h/, /k/, /p/, /t/ and /z/ sounds in two months. These speech sounds have been taught them by applying the methods cited in the preceding pages of this section. For the sake of the children, it was seen beneficial to develop their phonetic repertoire via these methods, since they had the absence of phonetic repertoire from which they could form speech. In addition to this, children could not learn how to produce /ç/, /f/, /g/, /j/, /r/ and /ş/ sounds although they were taught how to produce these speech sounds till the end of the research. It was observed that children with delayed speech could never produce these speech sounds. It may be due to the child's limited memory span and immature neurological-muscular development which may find it impossible to imitate those speech sounds.

The number of new consonants that the children have learned till the end of this research are shown in Figure 1 below.

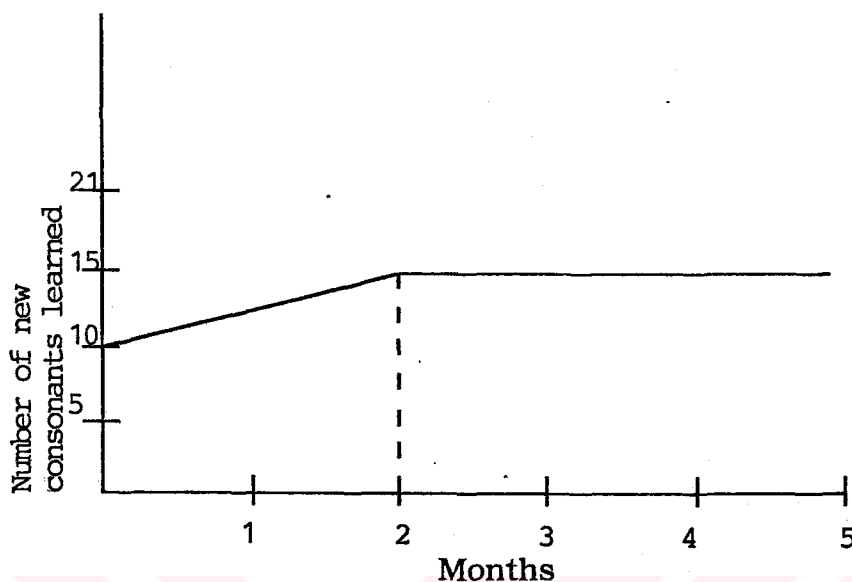


FIGURE 1: GRAPH SHOWING NUMBER OF NEW CONSONANTS LEARNED IN FIVE MONTHS

The speech sounds that are difficult to produce for the children with delayed speech can be taught them with a proper speech training in the lights of phonology. At the end of this study, children have improved most of their phonetic irregularities, so it was found beneficial to study delayed speech from phonological point of view. The primary medium of human language is 'sound'. For this reason, the study of sounds in the child's delayed speech was found to be more important in the present dissertation.

After the child learned to produce the correct consonant sounds in combination with all of the vowels (but not all of them entirely), he was taught to use them in a few familiar syllables and then in words. Most of the children were able to use the new

sounds at the beginning of a word more easily than in any other position. When the child was taught to use the speech sounds and words, he was producing the speech sound that was asked to do and was saying a word correctly; but after a week, during the next speech lesson, the child started to mispronounce the words although he was taught to use the correct pronunciation. This may be due to the child's limited memory span and insufficient practice of the speech sounds, because children could identify the sounds with the necessary experimentation.

Using the speech sounds in syllables and words was the second step of language analysis in this study. Sebeok (1974) has pointed out that "the syllable is the basic unit of speech." First of all, the sounds (consonants) were used in nonsense syllables such as "da, de, do, di, du" and the consonants, which the child had no difficulty in producing them, were chosen in this study. Towards the end of the third month, children were taught to use the new consonants they had learned in the course of this study in syllables such as [hav], [pis], [tis] etc.... It must be pointed out that these sounds were used at the beginning of the syllables in order to make it easier for them to utter. They were able to use the new sound at the beginning of a syllable and a word more easily than in other positions. Then, children were taught to use the sounds at the end of a word and in the middle of a word. When the same

syllable or word was repeated softly several times and when the words were composed of sounds that the child had practiced recently, he was found to be more apt to imitate the speech correctionist. The child was especially taught to name and identify the body parts by using serialization techniques. The child was wanted to reiterate the body parts many times by touching them **göz** "eye", **kulak** "ear", **burun** "nose", **ağız** "mouth". At the end of the fourth month, children have added some words to their limited vocabulary, but they were lisping most of the words they had uttered. It must be remembered that simple words were chosen during this study.

The phonetic analysis approach was found to be helpful in teaching speech to the speechless child in this study. A word like **kuş** "bird" was taken and broken up into its phonetic components as KKKK-uuuu-ş and then it was put back together KKKK-uuuu-ş; Kuş! Such a method had encouraged the child in which he was found to be more willing to tackle with the new word.

In cases of delayed speech, children were found to use one word to represent a complete thought or sentence in this research. One of the words they uttered was **top** "ball" which may mean:

"Where is my pretty red ball?"

"I dropped my ball."

"Give me my ball." etc....

Children with retarded speech in the observation group had no sentence structure. They were unable to construct sentences. When simple sentences were utilized while speaking to them, they were understanding more quickly. It was easier for them to understand simple sentences that accompanied appropriate gestures and facial expressions; so, long words and complicated sentences were avoided in the course of this study while talking to the child in order to stimulate the child learn to talk.

The number of words that children had learned till the end of this research are shown in Figure 2 below. It shows the progress of the children in their speech development.

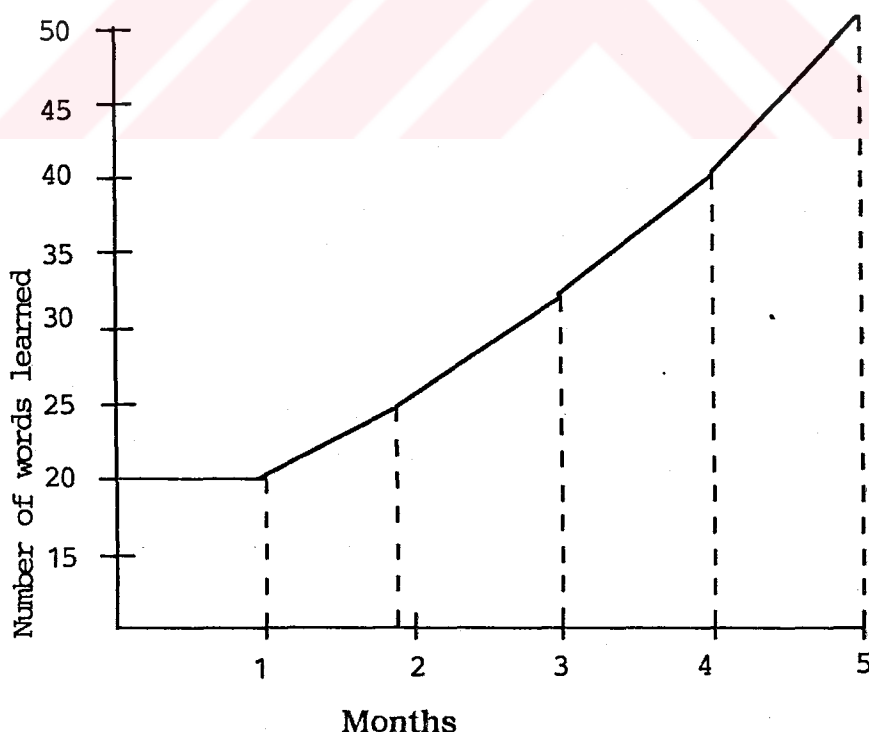


FIGURE 2: GRAPH SHOWING NUMBER OF WORDS LEARNED IN FIVE MONTHS

From the above graph, it is seen that almost all children have shown the same development in their limited speech. It shows that children with delayed speech had twenty words in their limited speech at the beginning of this research. What is to be remembered is that these words were lisped by the children. The words were uttered imperfectly. Towards the end of this study, the number of words have been increased in their limited vocabulary, as seen in Figure 2 above.

The prominent point is that children with delayed speech have shown some difficulties in producing some of the speech sounds. It was seen that the child could not have articulated the correct speech sounds, although those speech sounds were tried to rehabilitate; and so, this was giving rise to the mispronunciations of the words. Therefore, a child of four or seven who lisps or substitutes [ʎ], a voiced velar fricative which stands for ğ in Turkish, or [y], a voiced palatal semi-vowel, should not be catalogued as delayed in his speech development on the basis of this symptom alone.

Children with retarded speech are generally found to have lack of consonant production initially. If the consonants are initial in the words they use, which are limited in number, they mostly cannot utter those consonants. There happens to be a word-initial consonant loss. The sound [ʃ], a voiceless alveopalatal fricative

which stands for [ʃ] in Turkish, is usually substituted with [t], a voiceless dental stop, if it is initial in the word. It is uttered as [s] if it is final in the word. No [ʃ] sound can be heard in the words. For example.

[tus] is substituted for **kuş** "bird"

[tekeʃ] is substituted for **şeker** "candy"

[tapka] is substituted for **şapka** "hat"

Another point is that the child aspirates [p] sound, in which the sound is released with a puff of breath. It was also noticed that the child cannot utter a word beginning with the sound [p], a voiceless bilabial stop, but he can produce it if it is word-medial.

The same situation is seen in the word **köpek** "dog". They utter the word **köpek** as [töpek]. They can produce the sound [p] correctly, but in aspiration, if it is word-medial. None of them could utter [p] sound in the words that are initially uttered.

Children substitute [t] for [k], a voiceless velar stop, if it is word-initial; but it was observed that they can produce the sound [k] correctly if it is used finally in the word.

For example,

[tedi] is substituted for **kedî** "cat"

[tüpe] is substituted for **küpe** "earring"

[tulak] is substituted for **kulak** "ear"

[tazak] is substituted for **kazak** "sweater"

[tız] is substituted for **kız** "girl"

[töpek] is substituted for **köpek** "dog"

[tim] is substituted for **kim?** "who?"

[tuzu] is substituted for **kuzu** "lamb"

It is apparent that children cannot utter [k] at the beginning of a word, but they can easily produce [k] if it is final in the word. However; it was observed that children can utter dark-l [ɫ], a voiced alveolar lateral, and the sound [z], a voiced alveo-palatal fricative, wherever they are used in those words, except for the word **abla** "sister". [Aba] is substituted for **abla** and the sound [l] is dropped in this word.

If the child realizes /k/ as [t], and so, for example pronounces **kedi** "cat" as [tedi], then this is not likely to cause communication difficulties by itself. If, however, not only /k/ but also /ʃ/ were realized as [t], then pairs of words like **kedi** "cat" and **şeker** "candy" would no longer be distinguished, and a functional distinction would have been nullified which gives rise to a communicative impairment.

The speech sound [ç], a voiceless palatal fricative which stands for [ç] in Turkish, was never uttered by the speechless children. Most of them lisp or substitute [c] or [t] for [ç].

[tiyzme] is substituted for **çizme** "boot"

[tok] is substituted for **çok** "much"

[titek] is substituted for **çiçek** "flower"

A word-medial consonant addition is seen in the production of the word [tiyzme]. Sometimes they cannot produce [c] and [t]; and so they drop [ç] at the end of the word. For example, the word **ağaç** "tree" is usually mispronounced as [ağa], and the speech sound [ç] is dropped at the end of the word.

It was also observed that children can substitute [c] for [ç] although it occurs finally such as:

[ac] is substituted for **aç** "open"

[üc] is substituted for **üç** "three"

Therefore, there is no decisiveness that children can never produce [c] in a word. If the child is encouraged to speak, he finds the speech lessons entertaining. As a result, he is more willing to tackle with the new sound and approaches it with greater confidence; but the efforts to improve his speech need a serious and systematic study, and much more time than a year.

Children with delayed speech examined in the present dissertation were found to have an articulation problem with the [r] sound, a voiced alveolar lateral. In these instances, they can never produce the [r] sound. This consonant is mostly omitted in the word, such as:

[yaʎmu] **yağmur** "rain"

[vɛ] **ver** "give"

[būn] **burun** "nose"

Children substitute [y] or [ʎ] for [r] in some of the words they try to utter. For example.

[teylik] is substituted for **terlik** "slipper"

[tekeʎ] is substituted for **şeker** "candy"

[aʎaba] is substituted for **araba** "car"

[ayiʎ] is substituted for **hayır** "no"

It was observed that children with delayed speech can never produce [r] in every position in a word. It does not make any difference whether it is initial, medial or final in that word. Besides; children can utter the [t] sound correctly, as seen above, and they also omit [h], a voiceless glottal fricative, in the word they utter. For example,

halı "carpet" is lisped as [alı]

On the other hand, it must be pointed out that children with delayed speech can produce all of the consonants correctly and mysteriously, except for the [ʃ] and [r], while imitating the sounds of the nature although they cannot use most of them in a word they utter.

[cik-cik] for a bird

[hav-hav] for a dog

[mee-mee] for a lamb

[mööö-mööö] for a cow

[miyav] for a cat

[piss-piss] for calling a cat

[vinnn] for a car

[çuuu-çuuu] for a train

[üüü-üüü] for a rooster

[glu-glu] for a turkey

Generally, children prefer the sounds of nature instead of using the names of objects in order to express themselves in their limited speech. As a result, it may be difficult to determine whether, and to what extent, imitation plays an important role in learning to talk; because almost all of the children with retarded speech in this observation can easily imitate the sounds of the nature. This shows that they can imitate the sounds; and so, they can produce the speech sounds as seen above. Moreover; it shows that children are capable of producing those speech sounds, but they cannot experience because of their poorer motor development. A group of words in the vocabulary of most languages is **onomatopoeic**—the sounds of the words imitate the sounds of nature. However, such a situation indicates that children with

delayed speech are aware of the objects. Most of the children with this problem, like all normal children, have learnt the meanings of words long before they can articulate them. They just have a lack of speech or a pronounced speech retardation.

In general, cases where lack of consonant production is seen have been the underlying problem in retarded speech of a child. In those instances, where lack of sound production was observed, articulation drills and exercises contribute to the development of speech. The child needs to work specifically to correct individual sounds in accomplishing the phonetic awareness.

In addition to these consonants, children were found to have difficulties in uttering [g], a voiced uvular stop; [b], a voiced bilabial stop; and [d], a voiced dental stop. They mostly omit the sound [g] in a word as in [üzel] **güzel** "beautiful", or sometimes substitute the [d] for the initial [g] as in [döz] **göz** "eye"; [dit] **git** "go"; and [del] **gel** "come". They rarely substitute [m], a voiced bilabial nasal, for [b] like [men] **ben** "I" or [menim] **benim** "mine". However, they can easily utter **baba** "father" and **bak** "look" with no errors.

Children lisp or substitute [t] or [d] for the initial [s], a voiced alveolar fricative, although they can easily utter it at the end of a word like [tus] **kuş** as mentioned above. For example,

[tac] is substituted for **saç** "hair"

[dat] is substituted for **saat** "clock"

[dikil] is substituted for **sıkıldım** "I am bored"

[tay] is substituted for **say** "count"

Although children can utter [d] in place of [s] in the beginning of a word, they usually omit [d] at the beginning of a word and say [on] instead of **donmuştu** "had been frozen". This shows that children with delayed speech have no past tense forms, and even present tense forms in their limited speech. They nullify present and past tense forms since they have not acquired the present and past tense morphemes. In this case, the semantic distinction is signalled at the syntactic level by means of difference in structure. The matter of correcting the child when he makes mistakes must be carefully and judiciously handled. Too persistent and too frequent corrections can easily amount to nagging which is likely to end in a negative attitude toward speech or the child may simply grow so accustomed to the constant admonitions that eventually he does not even hear them.

Children with delayed speech can utter some of the words in their limited vocabulary perfectly. These words are:

masa "table"

bak "look"

baba "father"

anne "mother"

annem "my mother"

ayı "bear"

ne? "what?"

az "little"

ev "house"

bu "this"

evet "yes"

top "ball"

palto "coat"

Consequently, it was observed that such children can develop their speech if necessary aids are provided linguistically.

Most of the words in their speech are distorted by sound changes or substitutions and their limited vocabulary consists largely of strange combinations of sounds making up new words which the child has invented himself. For example,

[det] → **getir** "bring"

[tekü] → **teşekkür** "thanks"

[dönyum] → **gömlek** "shirt"

[ımmı] → **yemek** "food"

[ban] → **balık** "fish"

These invented words may probably be the makeshift for their meager speech in order to express themselves.

Meanwhile, children with retarded speech have shown a great performance in articulating the vowels. They can easily and perfectly articulate the vowels, and so they have no problem in the production of vowels; but they rarely substitute some of the vowels in a word. This may be due to their limited memory span and slow motor development which do not permit them to negotiate the quick shifts of position.

For example,

[alma] → **elma** "apple"

[a] is substituted for [e]

[telem] → **kalem** "pencil"

[e] is substituted for [a]

Finally, such a situation does not prove that the child lacks vowel production. He just substitutes one for the other. Speechless children have a problem in consonant production. Consonants at the end of the words are generally omitted or consonants at the beginning of the words are replaced by other sounds. Syllables are omitted or replaced by inappropriate sounds. The phonetic analysis method was found to be helpful for the children in improving the pronunciation of the speech sounds and the words they use in this study.

The point is that the child should be encouraged to vocalize for effective speech teaching. Even if his vocalization is confined

largely to babbling, he should not be repressed. He may simply be late in going through some of the earlier steps in normal speech development.

The combinations of phonetic units should be made clear to the child and his attention should be called to the particular sounds in a special study. It will be helpful to name each speech sounds being studied. For example, the [s] is the snake sound; [ʃ], which stands for [ş] in Turkish, is mother's shushing sound; [z] is the bee sound; [ʈ] is the train sound that stands for [ç] in Turkish; and [r] is the sound the airplane makes. It was found to be a convenient method of identification when referring to the sounds in the speech lessons. Besides, the child should not only hear what it sounds like to make an [r] or [k], but often he must be shown where the tongue is placed for the [r] or [k]. The child should be given a mirror in which he can watch the movements and positions of his own tongue and lips as he forms sounds. This was found to be very helpful for the child to develop the precise movements essential for speech. In this respect, teaching how the sounds are made and articulation drills were found to be beneficial in the case of retarded speech. As a consequence of the application of the procedures mentioned above in speech training, children have shown a conspicuous progress in their speech development. The results of the present study are summarized in Figure 3 below.

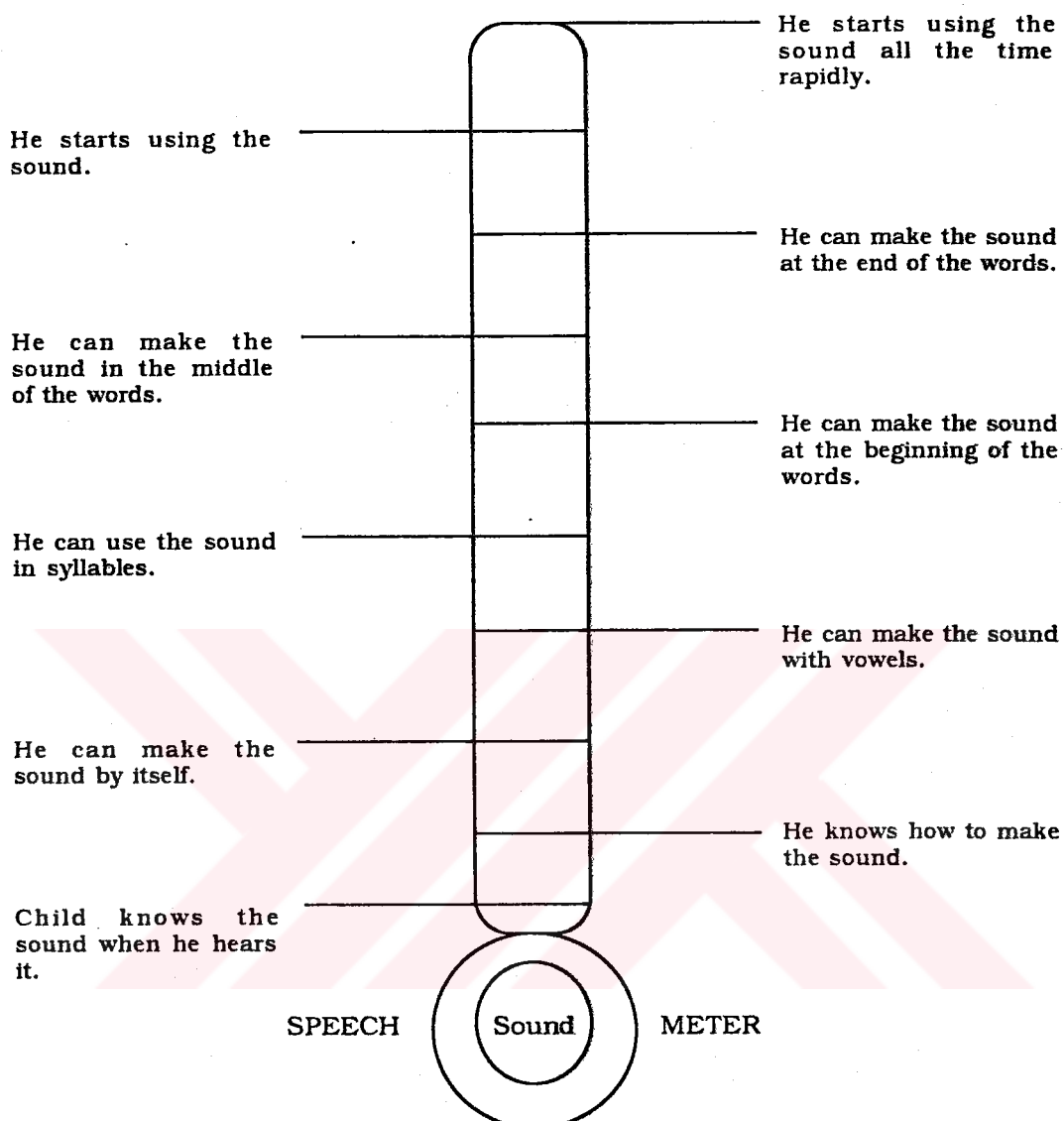


FIGURE 3: PROGRESS OF THE CHILD'S SPEECH

Figure 3, given above, was prepared according to the phonological investigations of the child's delayed speech. It must be remembered that this scale is not available for all speech sounds, since the children have got some more consonants to learn and it must be pointed out that the words they utter are very limited in number. Such a figure, was prepared to show the progress of the child's delayed speech up to the end of this study.

Further, it was discovered from this study that the children with retarded speech were trying to express themselves with the use of suprasegmental phonemes which include stress, pitch and intonation. As Demirezen (1986) states "stress and intonation take up a contrastive role in the process of articulation so that it becomes the cause of changes in the meaning of words." Thus, the intonation patterns help us to recognize commands, request, questions or statements of the child with delayed speech. The meaning of a word becomes different when its tone changes. Children usually apply intonation patterns in order to express themselves since their present tense and past tense morphemes are rudimentary in their limited speech, and even they have lack of sentence construction. It is noticed that children with delayed speech cannot construct any sentences or ask questions. They often use one word from their limited vocabulary which is mostly incomprehensible. They express themselves by using intonation patterns and rely on gestures to a great extent in attempting to make their meanings clear.

Delayed speech cases are often among the most difficult to explain. There are several reasons for this seeming mystery. The causes are too obscure to be easily discovered.

On the other hand, it is known that retarded development of speech results from environmental conditions. There are various

social factors that cause speech retardation in childhood; because language is a result of socialization. Language and society are interdependent. Language, as Wardhaugh (1986) states, is a socially maintained and socially functioning institution. Language as a social phenomenon is closely tied up with the social structures and value systems of the society. As a consequence, language is a tool that helps human beings to transmit information and to control the environment. After all, social factors that cause speech retardation in childhood are related to the individual's environmental background, his personality and his adjustment to his environment. Child develops speech earliest and best whose environment is one that provides rich experience with good speakers, both children and adults.

Most of the children with delayed speech, in this research, were found to have low socio-economic status of family and the parents were found to be uneducated. The **accent** (i.e. restricted to varieties of pronunciation) and **dialect** (i.e. covers the differences of grammar and vocabulary) they use were stigmatized. For this reason children acquire wrong pronunciation of the words. As Lyons (1981: 272) states "such a pronunciation is an indicator of social and educational inferiority."

Several of the children with delayed speech were found to come from educated families who have high status in the society.

They speak the standard dialect that has prestige and which is used by the educated people. Children's being less in number in this research indicate that the educated parents with highest status in the community provide the integral environmental conditions to their children that are conducive to the development of good speech and language. They were found to be more cautious about the speech training of their children than the uneducated parents. They do much to rehabilitate the linguistically retarded child. This shows that parents should themselves set a good speech model for the child. In any case, the superior parents were found to be more aware of their children's basic needs and more interested specifically in activities involving the use of speech and language functions. They display a better sense in the selection of their children's toys and in organizing their leisure-time activities, many of which involve doing things with their children.

The socio-economic status of the families are shown in Figure 4 and Figure 5 below.

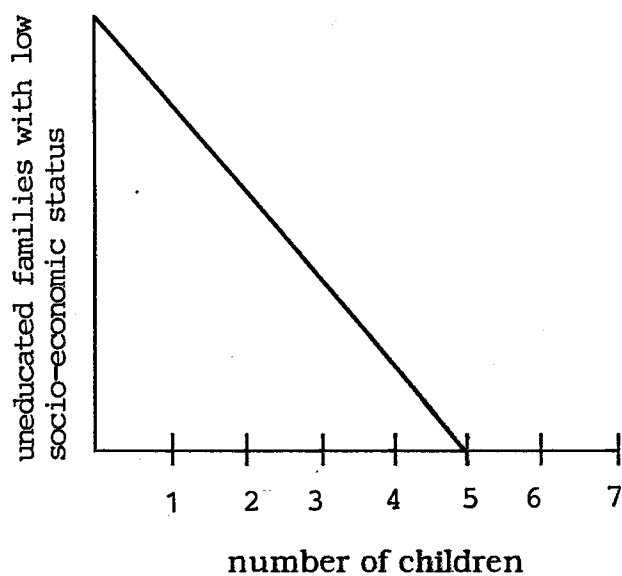


FIGURE 4: CHILDREN WITH LOW SOCIO-ECONOMIC STATUS

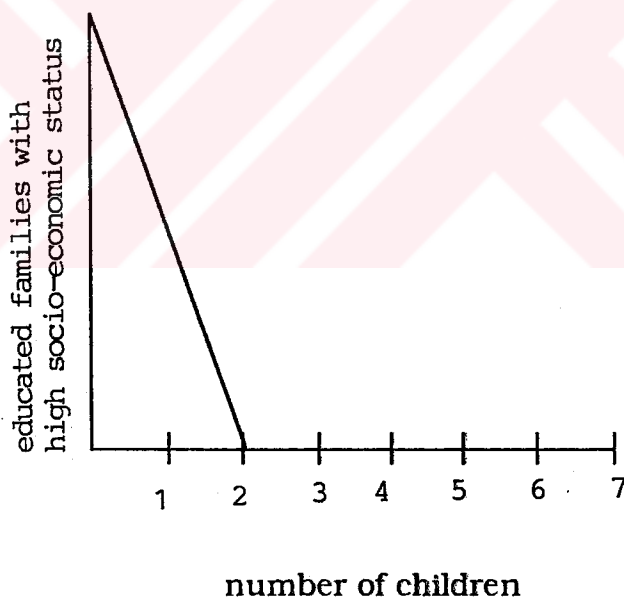


FIGURE 5: CHILDREN WITH HIGH SOCIO-ECONOMIC STATUS

All of these factors indicate that the child with delayed speech mostly comes from a family who has a low socio-economic status with a poorer speech model. The schemata above indicate the differences between the two groups, in the socio-economic

found that these particular factors were most likely to influence speech development of the child. Among children in this research, who come from lower class socially impoverished circumstances, there is a high proportion of learning disability. After all, the child should not be expected to develop speech that is better than the models he imitates. If the adult who takes care of the child's needs uses imperfect speech, the child may be expected to do the same; and so, direct imitation was established to play an important role in speech development in this study.

Further, it was discovered in the present study that the children with retarded speech were considered by their mothers to be immature for their age; and hence, they were inclined to be over-protected. Also the mothers of this group have confessed that they had no consistent or constructive policy for dealing with their children. The mothers of the children with delayed speech were found to spend far less time with them than the mothers (and the fathers too) of the normal and advanced group. In the course of this research, children with uneducated parents were found to be less stimulated in their speech development. However; 'the amount and kind of speech stimulation', and 'opportunities for experience' were found to be important factors in conditioning the speech development of the child. In addition to these factors, 'motivation' was found to be the cardinal point in developing the child's speech.

TABLE 5: SPEECH STIMULATION IN ACCORDANCE WITH THE PARENTS' EDUCATION LEVEL AND PROFESSION

Child	Age	Mother's Education Level and Profession	Father's Education Level and Profession	Speech Stimulation
Ozan Akan	3	University Nurse	University Doctor and Instructor at the University	Perfect
İsmail Keçebaş	4	Primary School Housewife	Secondary School Automobile Repairman	Very little
Merve Özçelik	5	Primary School Housewife	Secondary School Employee	Very little
Hande Ertürk	5	Lycée Housewife	Lycée Officer	Not much
Çağrı Ercan	6	Primary School Housewife	Primary School Employee	Very little
Emre Çelikkol	6	Secondary School Housewife	Lycée Officer	Not much
Hakan Topönder	7	College Housewife	University Civil Engineer and Associate Professor at the University	Perfect

The education levels and professions of the parents, and the speech stimulation they provide to their children are summarized in Table 5 above.

Children, in the course of the research, were found to rely on gestures to a great extent. They prefer gestures to any attempt at speech and sometimes they do not tackle to talk. In such cases, gestures should never be accepted as substitutes for words, if the child is capable of speaking. Children, after serious speech lessons, have shown a great performance in their speech development and at the end of the present research a growth of speech sounds and vocabulary have been noticed (see Figure 3). This indicates that children can develop their retarded speech if necessary speech training is linguistically applied to them, since these children are not mentally retarded and have no hearing problems.

It is observed that an exclamation or pointing a finger gets the child what he wants, and the child was hardly found to be encouraged to exert the extra effort required to talk. As a result, gesturing and unnecessarily crude attempts at vocal communication should be punished; that is, the parents or speech therapists must pretend that they cannot understand the child and as a consequence he will not get what he wants. His efforts to speak should be rewarded with praise and a response. Rewards

with encouragement given to the children have led to improvement in their speech during this study. These observations have indicated that the child develops his retarded speech more or less with special training in relation to linguistics when favourable environmental conditions are given to him.

It is known that boys are inherently less well equipped to acquire a language for their poor performance in comparison to girls. The recent researches done about language and speech development of a child have shown that girls are more skilled in language learning than the boys, and they develop speech earlier than the boys. At the end of the present research, it was determined that girls with delayed speech had a speaking vocabulary of 50 words, whereas boys with delayed speech had a speaking vocabulary of less than 30 words. As a result, boys' motivation in speech development was found to be much weaker than the girls.

The next point to mention is that in the case of a pronounced speech retardation, girls were found to have a conspicuous growth of vocabulary, as shown in Figure 6 below.

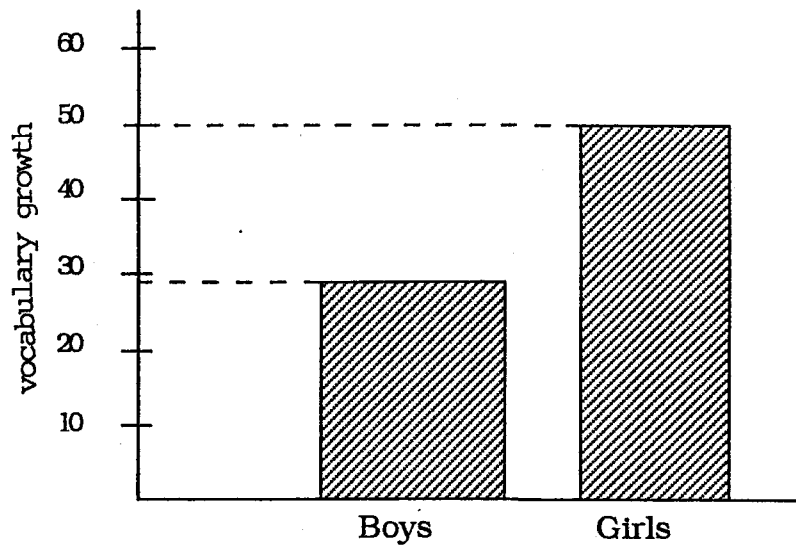


FIGURE 6 : ILLUSTRATION OF THE VOCABULARY GROWTH DUE TO SEX

The data for sex distribution of the children according to their social classes and their ages are shown in Table 6 below.

TABLE 6: AGE AND SEX DISTRIBUTION DUE TO SOCIAL CLASS

Social Class	Age	Girl	Boy
Upper Class	3	-	1
	7	-	1
Lower Class	4	-	1
	5	2	-
	6	-	2
TOTAL		7	

In this study, the findings obtained from the results have shown that sex differentiation is one of the causes of delayed speech in children.

It was found that the environmental factors, especially in the family and nursery school, and the speech training controlled by the linguists are of great importance in improving retarded speech of the pre-school child. The child should be given opportunities for experience. He should be motivated and stimulated to speak, and his endeavor to speak should be rewarded. It encourages the child, so he is more willing to tackle with speech lessons and finds it entertaining. All these factors are found to be important in the child's language and speech development. Moreover, children should be let to play with the peers from time to time since they acquire the varieties of the language from them.

It was observed that if the environment did not allow experimentation, language development was hampered: As a result; here, the retarding factor for language acquisition may be a psychological one, because the child gears his language to his needs. Those needs are set by the relationships with a particular group of people within a particular society. Words were found to be acquired as they were needed and this need was found to be governed by the number of experiences offered by the environment. Children with uneducated parents who come from lower class socially impoverished circumstances were found to

have insufficient variety of experiences which affected their speech development. On the contrary, educated parents with high socio-economic status were found to give favourable environmental conditions to their children. What this dissertation has attempted to do is to prove that the child's progression depends on the variety of experiences offered him by the environment.

Finally, for the emotional development, a child needs good health and adequate intellectual development. He also needs parents who are relatively free from major emotional conflicts, and a community which recognizes his value systems as a human being and encourages his participation in everyday activities.

As a matter of fact in many cases a great deal must be done for the child who is delayed in his speech development. Much of it is directed in the form of games and other teaching devices in reference to phonology. The findings resulted from this study are believed to be the cardinal points in speech training of the child with retarded speech.

CHAPTER IV : CONCLUSION

What the present dissertation puts forth as new is a different outlook on the evaluations of delayed speech of a child in reference to modern linguistics.

In recent years linguistics has been applied increasingly to the field of speech therapy and the use of linguistic analysis is widespread among speech therapy. The term 'clinical linguistics' has been proposed for this branch of applied linguistics (Grunwell 1989). As discussed in the above sections, linguistics is the scientific study of the patterns of language systems, the nature of language, its development, its function and the way it is manipulated. It is an intensive study of language itself. The linguist uses the methodology and objectivity of the scientist in his investigation and analysis of linguistic phenomena. For the child with language and speech disabilities a number of linguistic attitudes and perspectives are pertinent. Linguistics forces to question many of the traditional values and assumptions about language and speech development of a child. A linguist knows about the problems of sociology, psychology, education and neurology since linguistics is interdependent with many fields.

Delayed speech or language development is a multiple problem and requires a multidisciplinary approach. It should be

understood that delayed speech is basically a language disorder as well as a speech problem. Linguistics contributes much to this problem since it is a scientific study of the nature and function of human language. What has been the subject of discussion so far is the retardation in normal child's speech with reference to linguistics and its branches. Among the applied areas of linguistics the child language acquisition, psycholinguistics and sociolinguistics stand out as having been of special importance for particular areas of speech therapy and interpretation. Essentially, how children acquire speech is the subject-matter of psycholinguistics. The 4-year old child who has not yet learned to speak is said to be delayed in his speech development. If the child gives evidence of being retarded in his speech, a serious effort should be made to locate the factors, causing that retardation.

Linguistics has much to do in order to solve such a problem; because a linguist knows the linguistic skills that a child must master to speak normally. As a consequence of the present research, it is shown that one of the primary goals of linguistic studies is to help children learn to speak as accurately and as soon as possible. The tasks of this scheme are to diagnose the defects and to determine the kinds of procedures linguistically that will ameliorate speech development of a normal child.

The findings of this treatise have shown that the child's speech was defective in vocabulary and articulation, especially of

the speech sounds. Disorders of articulation are characterized by the omission and distortion of speech sounds. Problems in understanding and use of words constitute another speech and language disorder. Many children will avoid the handicap of retarded or imperfect speech with a proper speech training dependent with phonological studies. As discussed in the above sections, linguistics is effective in the treatment of the whole needs of the language handicapped child, especially from phonological point of view.

The retardation in child's speech was examined phonemically in order to understand how he can recognize the words with different speech sounds which have different meanings, and how able he is to understand and produce words of the appropriate grammatical category. Children were found to have an absence of phonetic inventory in their delayed speech. The preliminary target in speech training in this study is to teach how the speech sound is made, and then, how to use the sounds in syllables and words. Every sound or word the child has learned made it easier for him to learn the harder ones. This should be the first step that must be taken into consideration in speech therapy.

The environmental factors in the backgrounds of children with delayed speech have produced evidence to indicate that some of these factors are more important than others in contributing to

the speech retardation of the child. There are various social factors that cause retardation in child's speech. Environmental conditions, standardization, sex differentiation of the children, and the family play the basic roles in speech retardation. The most important of these factors had to do with the quality of the speech models set for the children, the amount and type of speech stimulation provided, the available opportunities for experiences conducive to speech development, and the order and stability of the home situation. When the child is given sufficient environmental conditions, he normally develops his speech more or less automatically if he is not mentally retarded and has no hearing problem. The results of this study, which are in line with the research tools and observations, indicate that the child with normal or superior speech tends to come from homes in which the parents are better educated. The superior parents are more aware of their children's basic needs and more interested in activities involving the use of speech and language functions. Mc Carthy (1971) had also advocated that the children coming from a higher socio-economic level have shown much more progress in every aspect of language development.

Any factor in the child's environment that creates retardation in child's speech should be impeded; however, the requirements for his speech development should also be provided. If the causes

that affect child's speech development are studied with reference to modern linguistics, such problems will be solved better. It is believed that phonological studies will shed a light to the problems of the child who lacks speech.

It must be emphasized that the child with delayed speech who has a hearing problem will also be treated via a common study of the physicians and the linguists. Their methods of therapy are believed to be complementary with each other. Besides; it is believed that the knowledge of a physician presupposes the knowledge of a linguist, especially from phonological point of view in such cases or the physicians should have the integral knowledge on linguistics.

In this study, application of the necessary speech training in reference to linguistics was found to decrease speech deficiencies in a normal child.

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