

**SPEECH AND LANGUAGE MATERIAL FOR SLOW LEARNERS
(A STUDY IN SPEECH AND LANGUAGE DELAY)**

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MASTER OF PHILOSOPHY

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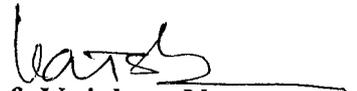
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Certified that this dissertation entitled “**Speech and Language Material for Slow Learners (A Study in Speech and Language Delay)**”, submitted by **Mr. Brajesh Priyadarshi, Centre of Linguistics and English, School of Languages, Literature & Culture Studies, Jawaharlal Nehru University, New Delhi,** for the award of the degree of **Master of Philosophy**, is an original work and has not been submitted, in part or full, for any other degree or diploma of any University. This may, therefore, be placed before the Examiners for evaluation for the award of the degree of **Master of Philosophy**.


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This Dissertation entitled, “**Speech and Language Material for Slow Learners (A Study in Speech and Language Delay)**”, submitted by me to the **Center of Linguistics and English, School of Languages, Literature and Culture Studies, Jawaharlal Nehru University, New Delhi**, for the award of the degree of **Master of Philosophy**, is an original work and has not been submitted, in part or full, for any other degree or diploma of any University.



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For Those Children Who Need Our Special Care....

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BRAJESH

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CHAPTER I

INTRODUCTION, AIMS AND OBJECTIVES

*"An infant crying in the night:
An infant crying for the light:
And with no language but a cry."*

- A.L. Tennyson, In Memoriam H.H.S.

1.1 Prelude:

Many children with speech and language delay appear to be developing normally except that they do not speak at all or speak very poorly. Since they have progressed well in other areas of development, their parents feel that they must be doing something wrong, or that their child is just "lazy" and "not trying to talk" or that their child has some "psychological" problem or "brain abnormality". The parents are given all sorts of advice: "Do nothing", he/she will surely outgrow it, "Einstein was late to talk", "You must force him to talk", or "don't give him anything to eat or drink unless he/she asks for it by name". Other children with clinical language disorders, progress through the early stages of language development without attracting attention. But as they grow older it is noticed that their speech is excessively "vague" and filled with empty referents. They often misunderstand what is said to them and have an unfortunate way of saying inappropriate things and missing the point of humour or sarcasm.

If a child does not talk as much as most children of the same age, the problem may be speech and language delay. A doctor may think that a child has speech and language delay if he/she isn't able to do the following things:

- ◆ Babble by 12 to 15 months of age
- ◆ Understand simple words (like "no" or "stop") by 18 months of age.
- ◆ Talk in short sentences by 3 years of age.
- ◆ Tell a simple story at 4 – 5 years of age.

In the clinical set up, this complex symptom creates a set of problems to the speech pathologist in terms of the management of the patient's speech such as the articulation, voice, prosody and fluency aspects of speech and linguistic ability

including phonology, morphology, semantics, pragmatics and syntax. No clinician can ignore the tremendous influence these defects have on the communication ability as also on the all round growth of the child. However, the extent of the problems posed by this group and the exact nature of these deficits are still obscure. Only very few efforts have been made (almost none in terms of phonology and pragmatics) so far in the Indian context to explore the communicative ability of these children.

1.2 **Clinical application of linguistics:**

In recent years, linguistics has been applied increasingly in the field of speech therapy, in such a way as to challenge the traditional view of 'applied linguistics' has been proposed for this branch of applied linguistics.¹

There is now emerging a change of ethos underlying the clinical applications of linguistics. There is a greater degree of flexibility and adventure in the use of linguistic tools in clinical practice. The search for a clinically applicable linguistic framework of description and evaluation has clearly begun.

Despite its late arrival on the speech and language pathology and therapy scene, linguistics applied to this area has gone through an evolutionary process similar to that witnessed in mainstream linguistics itself and in the field of applied linguistics concerned with language teaching.

The evolution of interest in applying linguistics to the problems of clinical practice can be summarized as follows: first the profession of speech therapy was preoccupied with pronunciation-an era which lasted until the early 1970s in fact. In the next era, grammar gripped the profession, mainly the varieties associated with Chomsky and Quirk, in whose grasp most of the 1970s passed. Towards the end of that decade and in the early 1980s, a small minority in the profession became fascinated with functions. From this position, it has been an easy transition to the present situation of being convinced by communication, devoted to discourse and practicing pragmatics.²

This process has been truly evolutionary in that its more robust and applicable skills and knowledge have been carried forward from each era and these have then been refined and the knowledge of both extended and deepened. This has also entailed another evolutionary process affecting the relationship between linguistics and

¹Crystal D., as written in Grunwell P. and James Allan (Edited), *The functional evaluation of language disorders*, Croom Helm Limited, London, 1989. p.26.

² Grunwell P. and James Allan (Edited), *The functional evaluation of language disorders*, Croom Helm Limited, London, 1989.p.3

clinical speech and language pathology. It is evident that current issues in mainstream linguistics have frequently dominated the clinical applications of linguistics. This has also been the case in regard to the immediately parallel area of applied linguistics, that of child language studies. If examined carefully, it can be easily observed that some of the major contributions from linguistics to the applied study of language disorders have been derived

- a) from particular theoretical stances and
- b) from the application of quite basic descriptive techniques

Theoretical applications of Linguistics have mainly stemmed from Transformational Generative (TG) grammar, which provided a vital stimulus in the application of linguistics in cases of language disorders, during 1960s. The work of Menyuk (1964) raised the interesting and important possibility that groups of language disordered children might be characterised in terms of their acquiring deviant (fundamentally non-normal) systems of grammatical rules, and stimulated further investigations from a TG perspective. Within the same tradition, Morehead and Ingram (1973) showed convincingly that conclusions of the language deviance type could be reinterpreted in terms of **language delay** (i.e. involving rule systems that are essentially normal but immature). One looks to theoretical linguistics particularly in the context of the need to interpret the results of linguistics assessment.

It might seem easy to miss, especially perhaps for the linguist, but one of the most valuable contributions of linguistics to the study of language disorders has been, and continues to be, the application of basic descriptive techniques. The techniques of descriptive linguistics are of particular relevance for the assessment of language: even though this has been a thoroughly worked on area for a number of years, there is still some potential that has yet to be exploited.

James Law, lecturer in Child Language, Department of Clinical Communication Studies, City University, London, says,

The study of child language disorders has expanded considerably over the past fifteen years and it has become subsumed under a variety of different academic and clinical disciplines. Indeed the topic is considered the remit of those interested in neurology, audiology, aphasiology, paediatrics, psychiatry, phonetics, education, occupational therapy, physical therapy, psychology and finally, speech pathology in the US and speech and language therapy in the UK. Some aspects of the subject clearly lend themselves to

one discipline rather than another. Thus the transcription and analysis of language samples obviously falls within the remit of clinical linguistics.³

What is the meaning of speech and language delay?

A child who for one reason or another, does not understand what others say to him or who does not know the basic rules by which our language is structured is truly handicapped indeed, for he cannot send the messages that must be sent in a society that demands constant communication.⁴

There is a little doubt that language is the most important acquisition a child will ever make. Most, if not all, skills or knowledge are learned through language. Relationships with others are mediated through the exchange of messages. But language is more than a vehicle for learning and relating; it is also an instrument that shapes the way in which the user perceives and conceptualizes the world. The child with delayed language is pretty helpless in a world of words.

A language problem may be defined as a disturbance in, or impoverishment of the symbol processing system the child's supply of concepts and use of linguistic rules is either severely limited or is significantly different from the conventional usage of his/her peers. These disorders range from a very mild disturbance to profound or almost total absence of language. Children with delayed language exhibit symbolic functioning that would be considered normal at an earlier age; their verbal skills are, in other words, underdeveloped in relation to what is expected at a given chronological age.

“For many years writers on the subject of language disability have begun their discussion with a list of assumed causes for failure to acquire language mastery. In doing so, they follow the medical model, which, for these and other speech disorders, may not be at all appropriate” (Cantwell & Baker, 1987). Delayed language is not a disease while it is clearly evident, that failure to master our language is often found in the seriously mentally retarded, the congenitally deaf, the brain injured, or in some children with severe emotional problem, we cannot be sure that these conditions cause the language problem.

³ James Law, *The Early Identification for Language Impairment in children*, Campman and Hall, London, 1992, p.xvi.

⁴ Riper Van Charles and Emerick Lon, *Speech Correction : An Introduction to speech Pathology and Audiology*, Prentice Hall, New Jersey, 1990.p. 57.

Since many of the disorders of speech and language have their onset early in life and reflect delays in maturation or acquisition of basic skills or competencies, one should understand something about how speech and language develop normally in the child. From the moment of birth, through the stages of reflexive cooing and crying sounds, period of babbling, and finally, into the acquisition of full fledged language.

Babies just seem to develop speech naturally as they mature, and most parents are not even aware of how the process unfolds. But not all children begin talking at the appropriate time, and to determine where the normal sequence of development failed, the speech pathologist, must review the prerequisites for the acquisition of speech.

1.3 **Child language acquisition**

There are essentially two approaches to account for the acquisition of language. The first approach assumes that language is learned like other behaviours. The second approach assumes that language is innate and that no real learning situation is there or even necessary. However, all the theories accept that language is a developmental process in the sense that there is progressive emergence or learning of the structures of language. This progressive emergence or learning is intimately linked with the progressive emergence of cognitive and physical stabilisation, learning or maturity. Some may tend to view this progressive emergence or the learning of structures that takes place in the cognitive physical and linguistic planes in isolation. Some may not even appreciate the independent status of linguistic maturation. We take the position that a molecular approach alone brings out the totality and the significance of the processes involved in making the child a separate physical, social and psychological entity in his own right. To achieve each of these identities the child needs the linguistic mechanism the superior communicative tool available exclusively to humans.⁵

I personally feel and propose that now the time has come to dissolve the dichotomy between the inner predispositions and environmental inputs which grew out of the Skinner-Chomsky debate. In order to make a more appropriate effort in contributing to the latest demand of the speech and language disorder field, it is necessary to look at a child's language development with a different perspective. This perspective may be an addition/submission of this dichotomy, or something else, whichever is suitable for the particular child at the given period of time. In my opinion biology, cognition, and social-experience operates in different balances with

⁵ Thirumalai M.S., *Language Acquisition Thought and Disorder*, CIIL Mysore, 1990, p.1

respect to each component of language. And to complicate matter further, the relative contributions of these factors may change with age.

Before a child can talk he/she must familiarize himself/herself with an enormously complex linguistic system. The fact that language is arbitrary makes it all the more difficult, as the meanings of words are often difficult to discover. Once the child discovers what certain words mean, he/she then has to figure out how these words, of which he has managed to discover the meaning, can be combined to form sentences. However, that is not the end of it. Once the child has discovered the meanings of the sentences that he is familiar with, he now has to produce sentences he has never heard before. When one considers the huge amount of information that the child needs to gather, language acquisition seems to be an impossible task. Yet, surprisingly almost all children learn to talk, and by five years of age they do so with a great deal of skill. The question then arises as to how this is possible?

Several theoretical perspectives have been adopted in order to explain how a child acquires language. The fact that the term 'acquisition' is often used to refer to the child's learning of his/her native language might suggest that at least some theorists have seen the processes involved in learning to talk as being different in some way from those involved in other kinds of learning.

According to Berry (1969), the one-month-old child shows reflex action in smiling to the tactile and kinesthetic stimulation and mother's voice. The cries consist of some segmentable varieties, which change, in pitch. A two-month old child attends to the speaking voice and shows sings that he is aware of his/her own sounds. In the production side, the child begins his/her babbling at this stage. Some speech sounds make their appearances. The child resorts to vocal play. A three-month-old child is aware of visual and auditory stimuli in environment. The child appropriately vocalises his/her feelings. Yet no true speech sounds have been acquired. In the fourth month some non-verbal expressive signals are acquired. The child stretches out his/her expressive arm in order to be picked. He/she is able to identify the auditory direction- he/she responds to noise and voice by turning his/her head in the appropriate direction. On the production side, the child continues his/her babbling. The utterances

produced may consist of four to five syllables. He/she is engaged in the production of repetitive sound chains. He/she indulges himself in self-initiated sound play. The child acquires responses- an oral communicative chain is established in that now the child responds to angry tone by crying and responds to pleasant speech by smiling and laughing. Babbling continues and the child imitates his/her own noises. In the sixth month the child distinguishes between friendly and angry talk. Utterances with several syllables are produced; the child tries to repeat heard sound sequences. He/she is able to direct his/her utterances towards objects. He/she is able to make appropriate gestures as well. The child uses intonation patterns. In the seventh month the child pays attention to the speech of persons around him/her and his/her family members. He/she listens to his/her own private vocalisations and enjoys imitating sound sequences. When eight months old, the child begins to be alert to all stimuli in the immediate environment. On the production side, back vowels begin to sound more like speech sounds. The child vocalises syllables, interjection and recognition. In the ninth month, the child is able to comprehend the rudimentary symbolic gestures and intonation patterns. He/she comprehends negation and his/her own name. The utterances have a chain of syllables- about 3 or 4. The length varies. **Echolalia** (constant imitation of sounds of the environment), is the chief characteristic of this month. Facial and arm gestures accompany vocalisations. In the tenth month, the child exhibits action response to verbal requests such as 'where is the milk?' He/she can shake his head to express 'yes' or 'no'. The child produces utterances/ attempting to name repeated instances of objects. Many speech sounds clearly can be distinguished. Several non-speech sounds continue to occur. In the eleventh month the child differentiates between family and strangers. There is a likelihood of the appearance of first word in his speech during this month. The single word utterances begin to emerge. These are used to indicate the needs. When the child is one year old, he/she understands phrases, simple grammatical patterns and responds in action to commands. One-word sentences are most common. Between 12 and 18 months, the child understands most linguistic units but does not separate sequences into word units. He/she recognises names of many familiar objects, persons and pets. His/her repertoire consists of about 50 to 75 words out of which about 50 percent are nouns. Many words are made by phonetic reduplication. In the production side, the child begins to use interjectional speech. The child extends the meaning. He/she uses one

word for many unrelated things. He/she repeats syllables or word sequences in an easy manner.

There is much overflow with little or no phonetic value (laugh, sigh, etc). Between 24 to 30 months, the child does not understand many specific words but develops functional equivalents of comprehension. He/she sometimes repeats the request and is able to use prepositions 'in' and 'under'. He/she listens to simple stories, especially linking those he/she has heard before. Of the total response, nouns continue to be more in number, followed by verbs, pronouns and adverbs. Unclassified items continue to occur in large number. Egocentric and socialised speech are found to occur. The meaning extension continues. The child names and describes objects. The transformation seems to be used. All vowels and many consonants are clearly used. Adjectives and adverbs gain steadily at the expense of interjections. Between 30 to 36 months the comprehension of sentence structure, syllable sequence and prosody develops speedily. The child comprehends time, words and identifies actions in pictures. He/she listens to longer stories. He/she understands the semantic difference in subject object position of noun. His/her egocentric speech continues. He/she can give his/her full name. He/she can recite nursery rhymes. He/she uses question-making sentences. He/she makes independent improvisation of syntactic form. Pronunciation of words continues to be unstable.

1.4 Aims and objectives of the present study

Of all the disorders of communication those of language disability most urgently need exploration. Although humans have been talking for thousands of years, language itself still holds many mysteries. and the disorders of language many more. Language disorders are perhaps the most devastating of all communication impairments because the very substance of messages the code or symbol system is disturbed. All language dependent behaviors – speech, comprehension, reading, writing and problem solving are involved. A speech therapist/ clinician cannot do it alone. The task can be handled 'properly' only if a linguist is involved. Linguistics has a much broader perspective than is used at present. It can create wonders in the field of speech pathology as well.

Among the applied areas of linguistics, child language acquisition and adult psycholinguistics stand out as having been of special importance for particular areas of speech therapeutic assessment and interpretation. Child language acquisition studies have provided the developmental dimension that has been used most widely in the assignment and interpretation of a range of child language disorders. Models of child language development have not been so prominent in this respect as descriptive studies providing increasingly reliable normative information for different ages and stages. The growing emphasis on delineating sub-stages of developmental and individual developmental strategies holds out the promise of further rich seams of research, which will feed into speech therapy. At the same time the field of speech pathology provides ample opportunity for exploration and discovery.

In Western countries, Linguistics led to the production of a spate of assessment procedures and aids for clinical training in the various aspects of language. The prodigious work of David Crystal and his associates in Britain Language Assessment, Remediation and Screening Procedures (LARSPP), Profile of Phonology (PROPH), Profile In Semantics (PRISM) and Prosody Profile (PROP) are some examples. In India, on the other hand, there has hardly been any work on these lines. Indian clinicians have had to make do with western aids, which are both linguistically and culturally inappropriate, not to mention expensive. The numerous languages spoken in this country and the lack of explicit knowledge regarding their linguistic structure on the part of our clinicians and trainers, have further compounded the problems.

Going by these facts I have studied some cases of slow learners (especially the cases of Hindi speaking monolingual children) in detail, and tried to develop graded practice material for slow learners.

In my opinion the language material in use in speech clinics alone can't completely help cure the speech and language disabled. As there is a dearth of linguistic material for the assessment, diagnostic and therapeutic procedures especially for the therapists and trainers dealing with the speakers of Indian languages, any such material can add vital inputs for the proper rehabilitation of these kind of disabled. Keeping this view in mind, the aim and objective of the present

research work is to look for any such material and come out with any development in this direction. I have tried to provide the materials keeping in mind the phonology, syntax, semantics and pragmatics of Hindi language. I would like to emphasise that while I have attempted to provide a series of items under the above-mentioned headings, these are by no means comprehensive. I recommend that the user of this material should go beyond what is provided here by using his/her own ingenuity to not only extend the number of items and relate it to the environment of the child, but also to stimulate and facilitate the child's development in each and every aspects of language.

The present study is divided into six chapters. The first chapter deals with the introduction, aims and objectives of the present study. The second chapter gives an insight into the background studies and existing literature, while the third chapter represents the methodology used for this study. The fourth chapter gives the details about case studies and suggestions according to the observations of different cases. The fifth chapter deals with the graded materials for slow learners and the sixth chapter presents the conclusion of this study.

This is an effort, which can be seen as a drop in the vast ocean of the field of clinical linguistics as there remains a lot more to be explored in this direction. This can be considered as a stepping-stone towards the linguistic intervention in the field of speech pathology in the Indian context.

CHAPTER II



BACKGROUND STUDIES AND LITERATURE REVIEW

The literature review reveals that the term, "Problems of language comprehension and expression" was first introduced by Samuel Kirk in 1963. Since then, it has always been included as identifying characteristics of speech and language disorders.

Children who are late in developing language were once seen as experiencing temporary delays that would resolve spontaneously over time. However, in 1980, Snyder predicted that the language-delayed preschooler of today might become the learning-disabled student of tomorrow. A growing body of evidence supports her prediction and suggests that many of these children do not "outgrow" these problems and that "simple" delays in communications may, in fact, be stable predictors of later learning disabilities. (Aram, Ekelman, & Nation, 1984; Thal, Tobias, and Morrison, 1991; Norris and Hoffman, 1993).

A particularly interesting line of research has been conducted by Paul and her colleagues (Paul, 1991; Paul, Sprangle-Looney, & Dahm, 1991). They followed a group of children from ages 2 years to 6 years. The children were at first identified at 2 years of age as "late talkers" on the basis of their lack of expressive vocabulary development. Paul and her colleagues regularly assessed them on a variety of measures of language development until after entry into elementary school. Although the majority of the "late talkers" outgrew their language deficits by age 4, they demonstrated delays in academic readiness at ages 5 and 6. Moreover, these children persisted in demonstrating social skills deficits, even when the language delays had apparently been resolved. This suggests that an underlying deficit exists in the organisation of the rules of symbolic systems (Lockwood, 1994).

Scarborough and Dobrich (1990) similarly concluded that young children might outgrow the present problem, the language delay, but not the underlying disorder in the ability to process symbolic information. They found that the severity of the language disorders in the children they studied decreased over time, giving the

impression of a "recovery" by 5 years of age. They argued that previous studies demonstrating a resolution of early language disorders had failed to investigate fully the relationship between language understanding and its use.

The relationship between early language delays and later learning and social-behavioural disorders is clearly not linear, and additional prospective studies should help to clarify this issue. Based on the literature to date, however, it can no longer be argued that delays in the language development of toddlers do not indicate possible future academic and behavioural problems. What appears to happen is that, although a language disorder may disappear, it tends to reappear in different forms as task and contexts change over time. The "wait and see" approach frequently advised as the treatment for toddlers and preschoolers with communication delays can no longer be supported.

Before going into the details of the literatures available for this type of disorder, it is important to look at the literatures regarding child language acquisition. The study of child language acquisition can help in revealing various facts related to these types of disorders that might affect the assessment, diagnostic and therapeutic procedures.

Depending upon their theoretical basis the characteristics of child speech are explained in several ways by different scholars. These approaches may be roughly put into two broad categories, namely, Generative Transformational theory and S-R theory as represented more effectively by Arthur Staats. Within and apart from these two rather polarized approaches there are several other theories represented by scholars like Palermo, Schlesinger and Braine.

2.1 Generative Transformational Theory:

The generative grammarian finds that the acquisition of language is the result of the interaction between the linguistic experience a child has and the innate linguistic capacities endowed in the child. Hence he aims at a theory of language

acquisition providing a description of the innate capacities of children, their interaction with experience and showing how knowledge and use of language develop in a natural manner. His theory recognizes the tremendous speed with which the language is acquired and notes that for all purposes the acquisition of language is over when a child is four years old. The generative grammarians find that this speed of acquisition is made possible by the emergence of linguistic abstractions, which is directly related to the relations between the deep and surface structures. This theory of acquisitions provides for the acquisition of transformations which relate the deep and surface structures.

The generative grammarians find that the actual speech to which a child is exposed does not show off the deep structures of sentences. Nobody gives programmatic steps for deriving one sentence from the other, which could act as a model. The deep structures are abstract in nature and lie buried deep in the sentences actually spoken. In fact they are inaccessible to any one who does not already know the language or is not equipped with a device to analyse the data one encounters. Every child faces this difficulty and yet overcomes the same. This forces the generative grammarian to eliminate the stimulus - response theories as inadequate to explain language acquisition. For, we are neither in a position to specify the stimulus nor are we in a position to anticipate the response.

In a nutshell, language acquisition, from the point of view of the generative-grammar, is considered as a process of implicit theory construction. But in this theory construction, there is no conscious and explicit intellectual operation.¹

2.2 The S-R Model of Arthur Staats :

A vigorous and forceful criticism of the generative grammarian's approach to language acquisition is presented by Arthur Staats (1968; 1971 a, b). Staats considers that an individual's language is composed of repertoires of skills that he must learn. These repertoires are learned according to different principles. The repertoire of

¹ Thirumalai M.S., *Language Acquisition, thought and disorder*, 1990, p. 15.

speech responses is learned on the basis of instrumental conditioning. Refuting the claim that language is innate and universal aspects of human languages are due to common innate ideas, Staats (1971a : 141-42) claims that these aspects are due to the fact that language is learned in response to the features and principles of the world in which man lives. There is nothing innate about the universals of language.

2.3 Braine's model :

This model came as one of the forceful criticism of the Chomskyan model. Braine (1971 a, b) finds the Chomskyan model to be an active process of formulating and testing hypotheses about the language being learned. That is, the Chomskyan model consists of a process for testing and evaluating hypothetical grammars against the input data. The problem of the child is to find out the correct grammar of the language to which he is exposed, on the basis of information already available to him. Thus, a child cannot achieve his goal unless he/she has access to information about both what is and what is not a correct sentence. Braine finds that the child learns language even without information as to whether a particular utterance to which he/she is being exposed is grammatical or not. There is no one to guide and correct the infants in the real sense. Braine's model is expected to build up a small vocabulary at first and then to begin to register the structure of short strings containing the elements already familiar to it. This model assumes that a wide range of properties of sentences may be built directly into the scanning mechanism itself.

2.4 Schlesinger's Model :

Schlesinger (1971) proposes a model which may be termed as a performance model. When a speaker is programmed in a manner described by the Chomskyan model, he/she will produce grammatical utterances of the language. But this does not provide an adequate description of what the speaker really does so far as it restricts itself only to the specification of processes involved in the production of grammatical sentences. In reality, a speaker produces not only a grammatical utterance but also an utterance appropriate to the occasion, his/her condition, etc. The speaker has certain intentions and he/she realises these intentions in his/her speech. Schlesinger's model

incorporates a grammar mechanism which provides for these intentions as well. The child is assumed to have an innate cognitive capacity and this innate cognitive capacity is 'just' the way the child views the world and will be the same whether he learns to speak, or fails to learn to speak due to some organic or environmental handicap. There is nothing specifically linguistic about the capacity.

Although these models differ from each other in several ways, the problem they try to account for, remains the same. The investigator has to characterize and specify first of all, the input to children. S/He should find ways to control the input. S/He should also discover the structures and processes that help the child to withstand each stage of change and progress towards the form and function of adult speech which is the common code for all.²

2.5 Studies carried out earlier

We have discussed how normal child language acquisition takes place as well as the different models designed by researchers. Now we will proceed to discuss the studies that have been carried out in the past in the field of language disordered children. It will help us to frame our understanding of how school-aged language-disordered children should be treated properly by the use of phonetics, morphology, syntax, pragmatics, discourse, semantics, etc.

The current emphasis on pragmatic aspects of communication has resulted in an investigative trend that has important implications for the structure and context of early language intervention. Studies of child language acquisition have been broadened to include an examination of communication rather than purely linguistic competence. Many early investigations of child language, being largely influenced by Chomsky's works (1957, 1965) focused primarily on the acquisition of linguistic competence (Braine, 1963; Brown, Cazden and Bellugi, 1973; Brown and Hanlon, 1970).

² Thirumalai M.S., *Language Acquisition Thought and Disorder*, CIIL, Mysore, 1990; p. 23.

The influence of such investigations has been manifested in a variety of syntactically based early intervention parameters (e.g. Miller and Yoder, 1972). Recently, a pragmatic view of communication has become important. Specialists concerned with normal as well as language delayed child have come to realise that linguistic competence is only one part of language acquisition (Bates, 1976) Hymes, 1971; Lakoff, 1972; Rees, 1978). As a result of the shift in focus of child language studies from linguistics to communicative competence it generally became accepted that linguistic structures couldn't be studied without reference to the context in which communication normally occurred.

Communicative competence can generally be regarded as the ability to convey effectively and efficiently an intended message to a receiver. This ability not only requires the knowledge of the conventional communicative code, but also the knowledge that is socially appropriate. The areas that have received attention while researchers have attempted to describe the acquisition of communicative competence include communication prior to speech, analyses of the contexts and function of communications, the role of environmental communicative input, and children's observance of socially appropriate communicative conventions.

An important aspect of language-disordered children's communicative competence pertains to their conversational functioning beyond the level of expressing functions. These aspects of communication are frequently referred to as discourse abilities. They are:

- 1) initiating and sustaining a communicative interaction.
- 2) considering a listener's perspective when encoding messages, and
- 3) responding to listener's feedback.

From the research conducted so far, it would appear that language - disordered children recognize the need of clarifying ambiguous message, however, the degree to which their clarifications are successful has yet to be determined. Hence, the ability to clarify an ambiguous utterance successfully also merits consideration for the potential

treatment content (Wilcox, 1984). Several recent trends in child language literature, e.g. the relationship of pre-speech communication to the later verbal communication, the role of environmental communicative input in children's language acquisition and young children's knowledge with respect to socially appropriate communicative convention have important implications for language disordered cases.

The Semantic component of language refers to the meaning carried by words. As Fillmore (1971) has pointed out, one's knowledge of a word includes several components. Much like Webster's, it includes information about the syntactic class to which the word belongs; for example, noun, verb, etc., its primary referential meaning, and any alternate multiple meaning it may carry. The literature suggests that school-aged language disordered children seem to encounter difficulty processing and producing lexical items.

Language disabled/disordered youngsters appear to have particular difficulty comprehending words that express spatial, temporal, and kinship relations. Wiig & Semel (1973) compared the ability of matched normal and language disabled children to comprehend sentences that employed spatial, temporal, and kinship words, as well as passive construction and comparative form markers. They found that language disabled children performed significantly lower than normal children on each of these words and formed categories. A close look at these categories reveal that they are composed of relational words. They do not refer to events, actions, or objects. These words refer to relationships between objects and/or persons. The relational words required that the child keep two or more referents in mind, and it might be this aspect of lexical processing that is more difficult for language disordered children.

Clinical descriptions of language disabled children (De Hirsh, Jansky, & Langford, 1966; Johnson & Myklebust, 1967; Wiig & Semel 1976, 1980) have reported that some of these youngsters have difficulty retrieving or accessing words from their lexicon. In recent studies in this field, empirical support for these reports has appeared in the literature. Mattis, French and Rapin's (1975) neuropsychological study compared the performance of reading-disabled or dyslexic children, brain damaged dyslexics, brain-damaged children with no reading deficits on a variety of

cognitive and linguistic measures. They identified three subtypes of disorders that accounted for most of their subjects. The largest subtype demonstrated language deficits. These were characterised by language comprehension problems, syntactic production deficits, poor speech sound discrimination problems and "anomia" or naming problems.

In the year 1979, Garman compared the ability of matched normal and language disabled children (8 to 11 years of age) on vocabulary comprehension and naming tasks. The group demonstrated comparable age, general intelligence score, Peabody Picture Vocabulary Test scores, and socio-economic status. The subjects were asked to name items in pictures, to complete open-ended sentences, and to name objects described. Garman found that the language disabled children made more word-finding errors than their matched controls. They found low frequency words in the close condition and the naming-to-description condition particularly difficult.

The research of the last decade suggests that many school-aged language disordered children have lexical processing and production deficits, although they often demonstrate comparable understanding of single vocabulary words. However, they often have difficulty understanding relational words. Similarly, a number of school-aged language disordered children have difficulty retrieving words, making more errors in producing names than their normal peers. Thus, selected aspects of the lexicon and ability to access the words it contains, prove difficult for some language disordered children.

Both language disordered children and learning-disabled children are characterised by their intact general cognitive abilities. Their language deficits, therefore, are not related to some form of mental retardation. In fact, the disorder is defined in terms of the discrepancy between the child's linguistic skills-oral/written-and general cognitive abilities.

In addition to this, some of these youngsters also seem to have difficulty comprehending and using the syntax and associated morphology of language. The earlier clinical account of De Hirsh *et.al.* (1966) and Johnson and Myklebust (1967)

reported that language disabled children experienced difficulty comprehending and producing syntactic structures. Johnson and Myklebust's information suggested a considerable range of severity, but De Hirsh *et.al.* account did not reflect this severity. Jansky's (1975) descriptions characterised the syntactic formulation deficits of language disordered children as more 'subtle'. She observed that their spoken language often appears adequate, although it is not really articulate. Sentence formulation is often awkward, characterised by many sentential fragments, simple sentence forms, and the repeated use of stereotypical phrases. Delayed morphological development, particularly in the use of irregular past-tense markers and an over-extended use of pronouns was observed. She suggested that these problems seem to call less attention to themselves, merely giving one the impression that the child has a less verbal cognitive style. Consequently, these language problems often go unidentified until the child enter school and begin to have problems learning to read and spell.

Wiig & Semel (1973) performed the earliest test of the notion that language - disabled children had problems understanding syntactic forms and morphological markers. In addition, they also studied their ability to comprehend passive sentences forms and comparative morphological markers and found that language disabled children performed significantly worse than their age mates on these items.

A number of studies have examined the ability of language disabled children to produce appropriate morphological markers. Wiig, Semel & Crouse's (1973) study of normal, high-risk, and language disabled children examined their performance on Berko-Gleason's (1958) measure and the Auditory Association subtest of the Illinois Test of Psycholinguistic Abilities (ITPA). (Kirk & MaCartly, 1961). The language disabled children performed significantly worse than their age mates on both measures of inflectional-morphology. They also seem to have difficulty processing and producing the pragmatic aspect of discourse. They find aspects of both conversational and narrative discourse problematic and their comprehension of narrative discourse does not seem as complete or organised as their age mates.

Current research suggests that language disordered children sustain significant deficits in processing and production of oral language. Unfortunately, our ability to

identify and document these deficits beyond the experimental setting has been limited. Consequently, we need to translate our empirically derived knowledge of the normal and disordered language development of children into tools for clinical assessment.

This insight into the studies carried out in the field of child language acquisition, would be helpful in understanding the complexities that the child has to encounter in this process. This will form a base for understanding how speech and language delay operates? What are its causes? What are the common ways in which it manifests itself? At what age does speech and language delay become a problem? What level of intelligence does it affect? Can it be cured? How many speech and language delayed children are there? Are girls and boys equally affected? Does this delay cause behaviour problem? How one can assess, diagnose and use linguistic - therapy in a better manner? And so on and so forth!

CHAPTER III

METHODOLOGY

This chapter gives a description of the procedures adopted for the selection of subjects, collection of data, tests, methods of study and analysis, and problems encountered in the analysis.

3.1 Data Elicitation

a) Selecting the sample group (Cases):

The subjects were children in the age group of 3 to 7 years. Though it is difficult to delineate clear-cut stages of development in speech and language learning/acquisition, yet, by 18 months, many children begin to exhibit use of single words. As John B. Carroll observes, the first active voluntary use of vocal language approximating words in adult language is usually found at the end of the first year. From then, the child gradually develops his speech abilities and towards the end of the second year, there is a rapid growth in vocabulary. Due to this reason, the minimum age of the subjects was taken as 3 years, by which time the child is generally able to see the pictures, identify common objects and recognise lexical items representing the same. Words may or may not be pronounced correctly but in most cases, the child's utterances have a distinctive resemblance with words in his/her native language. The child gradually becomes capable of distinguishing phonetics of the language but does not attain full mastery in this respect until the age of 4 to 6 years or even afterwards. By the age of 6 years, the average child masters almost all phonetic distinctions of the language. Therefore, the upper age limit was kept at 7 years. The choice was motivated by the facts of language acquisition by normal children, who, by general accounts, appear to complete most of the basic processes of language acquisition by the period covered by this study. Thus the speech and language profiles of the children of this group could be more easily compared with the stages completed by normal children for practical purposes.

Sex was another important variable that was taken into consideration while selecting the subject group. It was so chosen that some of the subjects were able to speak while others could either vocalise or babble. Their mode of communication was taken into consideration. Some used gestures while others vocalised or cried in order to communicate. The role of gestures and pantomime along with verbal communication was noted.

The subjects were all chosen from Delhi and nearby places where Hindi is the main language. It was seen that all children included in the study had Hindi as their mother tongue (language of household). Some of the subject's parents had the knowledge of other languages such as Punjabi. Thus all the subjects of the study had Hindi as their mother tongue, but some of them were exposed to a little Punjabi as well.

All the subjects came from the urban set up. Some parents were educated while some were not. The subjects could be placed in lower to upper middle class categories in term of socio-economic status.

Only the subjects with normal hearing were taken. Hearing within 20dB HL of audiometric limits was ascertained with audiometric testing by an audiologist.

Intelligence was another criterion of selection. An intelligence quotient of 85 to 100 and / or clinical psychologist's opinion concerning presence of normal intelligence was ensured in each subject of the study.

All the subjects of the study had either minimal amount of therapy or no therapy (chosen before beginning any therapy) at the time of study.

3.2 Elicitation Procedures:

For each case, the initial one or two sessions were spent on building a working rapport. The actual data collection commenced when the child was comfortable with me and he/she could verbalize freely with me. Thirty cases were taken into account in a random manner, out of which ten 'suitable' cases were taken into consideration as they reflected the speech and language delay. A detailed questionnaire was used in order to elicit the data from both, the patient as well as the parents. The format is given below:

CASE HISTORY:

Date: _____

Name: _____ Age/D.O.B. _____ Sex: _____ C/A(Congenital/Acquired): _____
Address: _____ Occupation: _____ Income: _____
Religion: _____ Education: _____ Community: _____

Referred by: _____

Father's /Guardian's name: _____ Mother's name: _____

Age: _____ Age: _____

Education: _____ Education: _____

Occupation: _____ Occupation: _____

Income: _____ Income: _____

Religion: _____ Religion: _____

Child's Mother tongue/Other languages known: _____

Informant: _____ Complaint: _____

Age at which the defect was first noticed: _____

Nature of the problem: _____ Present status: _____

Earlier investigations/Treatment: _____

Prenatal History: _____

Delivery:- Home/Hospital
Fulltime/Premature/Post-mature
Normal/Instrumental/Delayed/Feeble

Birth cry:- Normal/Delayed/Feeble

Birth weight: _____ Blueness(Cyanosis): Yes/No

Post-natal History: (State the age of onset and duration of illness)

Viral infections: _____ Respiratory infections: _____

Neurological problems: _____ Head injury: _____

Allergic conditions: _____ Convulsions (with or without fever): _____

Visual problems: _____ Ear discharge: _____

Earache: _____ Vertigo: _____

Nausea: _____ Headache: _____

Exposure to noise (Give details) _____

Any other (Specify): _____

Family History:

- a) Nuclear/joint family: _____ b) Consanguinity: _____
c) History of family deafness/Other handicap: _____

Developmental History:-

a) Mother development: _____

Head control: _____

Turning over: _____

Sitting: _____

Crawling: _____

Standing: _____

Walking: _____

Bowel and Bladder control: _____

Handedness: _____

b) Social and Behavioural History:

Recognises parents: _____

Refuses to go to strangers: _____

Goes to strangers without any discrimination: _____

Makes eye contact: _____

Prefers to play by him/her self: _____

Indulges in parallel play: _____

Socialises with peers/elders: _____

Exhibits temper tantrums: _____

Irritable: _____

Span of attention & concentration: _____

Distractible: _____

Hyperactive: _____

Aggressive: _____

Withdrawn: _____

Restless: _____

Educational History:

Attends regular /special school: _____

Indicate change, if any, in educational setting: _____

Age of admission: _____

Medium of instruction: _____

Mode of Communication: _____

Performance in school: _____

Failure at any level: _____

Specifically deficient in: _____

Comprehension/word/word finding: _____

Reading/writing/memorising: _____

SPEECH & LANGUAGE TEST:

speech Development History:

Vocalisation:- Spontaneous / On Demand: _____

Babbling: _____

First word: _____

First sentence: _____

Communication behaviour:

Mode of Communication: Verbal/Non verbal/Both

1) Verbal Communication

Expression

Uses: a) Vocalizations

b) Words

c) Phrases

d) Simple sentences

e) Complex sentences

Comprehension

a) Words

b) Phrases

c) Simple sentences

d) Complex sentences

2) Non-verbal Communication

Expression

Uses: a) Signs

b) Gestures

Comprehension

a) Signs

b) Gestures

c) Facial expressions

Language background: _____

Language exposure at home: _____

Language used by the child: _____

Speech & language stimulation at home: Adequate/Inadequate

Oral Peripheral Examination:

Appearance

Functions

Lips

Tongue

Teeth

Hard Palate

Soft Palate

Mandible

Articulation at phonological level:

Vowels:

Consonants:

Blends:

Voice:

Pitch:

Loudness:

Quality:

Breath control and phonation duration:

Suprasegmental Aspects:

Accent:

Emphasis:

Intonation:

Rate of speech:

Imitation Skills:

Gross body: Good/Fair/Poor

Speech: Good/Fair/Poor

Speech Intelligibility: 0 1 2 3 4 5 6 7

Stimuli used (Informal Testing): Toy/Pictures/Other material/Verbal

Formal Testing-Tests Administered:

Reading & writing skills:

Letter recognition

Copying

Word recognition

Writing to dictation

Reading comprehension

Spontaneous writing

(Mention whether above skills are adequate, and give details)

Language Evaluation:

Diagnostic Formulation:

Provisional Diagnosis:

Recommendations:

General Description

Spontaneous speech, elicited and narrative speech along with the use of some pictures , and an imitation task were used to arrive at the data for language analysis of each child.

Tape recording and diary keeping of each session of speech interaction were made. Each recording session lasted 20 to 30 minutes, and sometimes longer depending on the child's comfort. The recording sessions lasted for six or seven days for each child at the rate of one session per day. Thus nearly three hours speech sample in total was sought for each child.

3.2.1 Recording of Verbal Interaction

The data was collected both at home and at the Special Centres the child had been visiting.

Verbal interactions were pursued between the child and me directly, mother and the child, mother/father and me, and so on.

Positive reinforcements were used for each session of verbal interaction. The incentives were either sweets or small pictures for each child at the beginning or at the conclusion of each sessions. This was adopted to ascertain the desired verbal interactions in the sessions.

Attempts at tape recording the conversations with or without the child's awareness was made. In cases where the child was aware of taping of speech, it was used to positively reinforce the verbal utterances as the child showed positive reactions to the same.

Diary keeping for each session of verbal/non-verbal interaction with the child was made with the view to draw adequate contextual information for the data collected. List of participants in each interaction, the context and period of conversation, the mood of the participants, the locale of the conversation, and other chief characteristics of conversation for each session were noted. Interpretations offered by the adults around for the forms uttered by the child were also noted.

3.2.2 The Data for Recording

Spontaneous Speech: Spontaneous verbal interactions with the attendants and with me. The child's interaction in natural free play with toys and picture books were also recorded.

Elicitation of speech samples: Speech was elicited using pictures and picture books of kindergarten, which were likely to elicit long utterances and discourses from the children. Elicited speech samples were either independent conversation by themselves or were part of the longer attempts at verbal interaction.

Narrative Speech: Story telling and describing picture stories.

Imitation: In order to overcome the possible lacunae in the spontaneous utterances and the data collected in this manner a set of imitated utterances was used as adjuncts to the analysis of spontaneous speech.

3.2.3 Use of testing material:

In order to assess whether the child had the speech and language delay problem, a few tests were also carried out. These included the Bzoch-League Receptive-Expressive Emergent Language Scale for the measurement of language skills, Weiss & Curtis Test of development of language and speech, and 3-D Language Test. The formats of these tests are attached at the end of this chapter.

3.3 Analytical Procedures: Tabulation and Classification:

The speech and language characteristics were recorded by a broad IPA transcription of the tape recorded speech interaction. This transcription was also aided by diary keeping, observation and testing. The transcription and analysis followed neo-Bloomfieldian procedures. The phonological analysis, morphological analysis and analysis of syntactic aspects were made in terms of distribution of linguistic forms and the structural patterns they form in the speech of the child. The following items were covered in the linguistic analysis. (The choice and scope were also determined by the nature of the speech studied):

1) Phonology

- a) Vowels
- b) Consonants
- c) Phonemic analysis
- e) Phonemic distribution
- f) Paralinguistic features:

Clarity of speech, Speech rate, pauses, Quantity of speech, Juncture, Intonation

2) Syntax

- a) Nouns
- b) Pronouns
- c) Gender

- d) Number
- e) Case
- f) Conjunction
- g) Verbs
- h) Tense
- i) Adjectives
- j) Numerals
- k) Adverbs
- l) Interrogation
- m) Negation
- n) Kinship
- o) Reduplication
- p) Onomatopoeia
- q) Relationship between syntax and discourse.

3) Semantics:

- a) General characteristics.
- b) Single word utterances and their characteristics.
- c) Two/multiple word utterances with their characteristics and functions.

4) Pragmatics:

Language used in different context.

Both longitudinal as well as cross sectional studies were done. The aim of the investigation was not to obtain a detailed linguistic analysis but to obtain a comprehensive profile of speech and language structures in each of the children studied.

After the evaluation of each child's speech corpus, an intra group comparison of the speech and language characteristics of the whole group was made. Finally an inter group analysis between this group and another group of children having normal speech and language of the same age group, was made by comparison. Thus the analysis was three fold:

- a) Individual description of each patient.
- b) Intra-group pattern establishment for speech and language delay group.
- c) Inter-group comparison of the speech and language profiles obtained, for the two groups and the general observations for the disordered group as a whole.

3.4 Problems encountered in the analysis:

The retrieval of a word/sentence from an utterance was difficult in the speech and language delayed children because of the following reasons:

- a) Poor articulation of speech sounds including distortion, substitution, omission or deletion, free variation and abbreviation of speech sounds, partial variations and neologisms in place of target words.
- b) Poor clarity because of the above problems leading to poor intelligibility and understandability of speech.
- c) Reduced/Limited quantity of speech output.
- d) Reduced rate and abnormal stress patterns in their speech.
- e) Abnormal/Absence of appropriate intonation patterns.
- f) Problem of identification of an utterance as a word because of inappropriate pauses and intonation

3.5 Points aiding in Analysis:

However, in spite of the difficulties in retrieval of words from utterances, identification of the linguistic units, sounds and words was made by some guiding hints:

- a) Intuitive judgments
- b) Contextual information gathered from diary keeping.
- c) Familiarity with target words.
- d) Intuitive assessment of the internal coherence of the data.
- e) Parental/ Attendants' guidance
- f) Knowledge and reference of Hindi.
- g) The presence of initial syllables of a word in utterances.
- h) Distribution of phonemes.

On the basis of the elicited data and its observation, few suggestions were made keeping different cases in consideration. These suggestions were for the proper handling of cases keeping in mind the assessment procedures, the diagnostic procedures and the therapeutic procedures targeting the Hindi speaking speech and language delayed children.

These suggestions helped me to prepare a graded material for the slow learners, which was done simultaneously, side by side with the case studies, rather than in a linear or sequential order.

The scales used for assessment of speech and language delay are as follows:

The Bzoch League Receptive expressive emergent language scale for the measurement of languages skills :

Name _____ Date: _____ Born on: _____
 Age: _____ Sex: _____
 Father: _____ Occupation: _____
 Mother: _____ Occupation _____
 Sisters _____ Brothers _____
 Informant: Mother Father Both Others

(Specify -----relationship)

Receptive Language Expressive Language Combined Language
 (RLA) _____ (ELA) _____ (CLA) _____

(RLA + ELA) divided by 2 = CLA

To obtain quotients, divide each of the above language age (RLA, ELA & CLA) by the child's Chronological age and multiply by 100.

Receptive Expressive Language
 Quotient Quotient Quotient

Age Period

	Receptive Language		Expressive Language
R1	Startle response to loud sudden	E1	Frequent crying

	noises		
R2	Activity arrested when approached by sound	E2	Begins random vocalising other than crying
R3	Often quieted by a familiar friendly voice	E3	Vowel –like sounds similar to ‘E’ & ‘A’ predominate
One to Two Months			
R4	Frequently given direct attention to other voices	E4	Has a ‘special’ cry for hunger
R5	Appears to listen to	E5	Sometimes repeats the same syllable while cooing or babbling
R6	Often looks at speaker & responds by smiling	E6	Develops vocal signs of pleasure
Two to three Months			
R7	Responds to speech by looking directly at speaker’s face	E7	Occasionally responds to sound stimulation or speech by vocalising
R8	Regularly localises speaker with eyes	E8	When played with laughs and uses other vocal expressions of pleasure
R9	Frequently watches lips and mouth of speaker	E9	Often vocalises with two or more different syllables

Three to Four months			
R10	Turns head deliberately towards the source of the voice	E10	Often laughs during play with objects
R11	Looks about in search of speaker	E11	Babbles (regularly repeats series of same sounds, especially when alone)
R12	Usually frightened or disturbed by angry voices	E12	Often uses sounds like ‘P’, B’, or ‘M’.
Four to Five Months			
R13	Regularly localises source of voice	E13	Uses vowel-like sounds similar to

	with accuracy		'O' & 'U'
R14	Recognizes and responds to his/her own name	E14	Expresses anger or displeasure by vocal patterns other than crying
R15	Usually stops crying when someone talks to him/her	E15	Usually stops babbling in response to vocal stimulation, but may occasionally continue babbling for a short time.
Five to Six Months			
R16	Appears by facial and bodily \gestures to be able distinguish general meanings of 1) warning, (2) anger and/or (3) friendly voice patterns	E16	Takes the initiative in vocalising and babbling directly at others.
R17	Appears to recognise words like 'daddy' 'bye-bye', 'mama' etc.	E17	Occasionally vocalises with 4 or more different syllables at one time
R18	Stops or withdraws in response to 'no' at least half of the time	E18	Plays at making sounds & noises while alone or with others
Six to Seven months			
R19	Appears to recognise names of family members in connected speech, even when the person named is not in sight	E19	Begins some 2-syllable babbling (repeats combinations of 2 or more different sounds)
R20	Responds with appropriate gestures to such words as 'come''up''high''bye-by' etc.	E20	At least half of the time responds with vocalisations when called by name
R21	Gives some attending to music of singing	E21	Uses some word like vocal expressions (appears to be naming some things in his own 'language')
Seven to Eight Months			

R22	Frequently appears to listen to whole conversations between others	E22	Occasionally vocalises in sentence like utterances without using true words
R23	Regularly stops activity when his/her name is called	E23	Plays speech-gestures games like 'pat-a-cake' or 'peak-a-boo'
R24	Appears to recognise the names of some common objects when their names are spoken	E24	Occasionally 'sings along' with some familiar song or music without using true words
Eight to nine Months			
R25	Appears to understand some simple verbal requests	E25	Uses some gesture language (such as shaking head appropriately for 'no' etc.
R26	Regularly stops activity in response to 'no	E26	Often mimics the sounds and number of syllables used in vocal stimulation by others
R27	Will sustain interest for up to a full minute in looking at pictures if they are named	E27	Utterances now contain more consonants than at the 6 months stage.
Nine to Ten Months			
R28	Appears to enjoy listening to new words	E28	Speaks first words often da-da' 'ma-ma' bye-bye or the name of a toy
R29	Generally able to listen to speech with out being distracted by other sounds	E29	Uses some exclamations like 'oh-oh'
R30	Often gives toys or other objects to a parent on verbal request	E30	Often uses jargon (short sentences like utterances of 4 or more syllables with out true words)
Ten to Eleven Months			
R31	Occasionally follows simple	E31	Usually vocalise in varied jargon

	commands like 'put that down'		patterns while playing alone
R32	Appears to understand simple questions like 'where is the ball?'	E32	Initiates speech-gestures games like 'pat-a-cake' or 'peek-a-boo'
R33	Responds to rhythmic music by bodily or hand movements in approximate time to the music	E33	Occasionally tries to imitate new words
Eleven to Twelve months			
R34	Demonstrates understanding by responding with appropriate gestures to several kinds of verbal requests	E34	Uses 3 or more words with some consistency
R35	Generally shows intense attention and response to speech over prolonged periods of time	E35	'Talk' to toys and people throughout the day using long verbal patterns
R36	Demonstrated understand making appropriate verbal responses to some requests for example 'say bye-bye	E36	Frequently responds to songs or rhymes by vocalising
Twelve to Fourteen Months			
R37	Appears to understand some new words each week	E37	Uses 5 or more true words with some consistency
R38	Seems to understand the psychological feeling and shades of meaning of most speakers	E38	Attempts to obtain desired objects by using voice in conjunction with pointing and gesturing
R39	Will sustain interest for 2 or more minutes in looking at pictures if they are named	E39	Some true words now occur in jargon utterances
Fourteen to Sixteen Month			
R40	Demonstrate understanding by carrying out verbal request to	E40	Consistently used 7 or more true words

	select and bring some familiar object from another room		
R41	Recognises and identifies many objects or pictures of objects when they are named	E41	More frequent of consonants like 'T' 'E', 'W', 'N' & 'H'.
R42	Clearly recognises names of various parts of the body (such as hair, mouth, ears, hands etc.	E42	Most communication is now accomplished by using some true words along with gestures
Sixteen to Eighteen Months			
R43	Comprehends simple questions and carries out two consecutive directions with a ball or other objects	E43	Begins using words rather than gestures to express wants and needs
R44	Remembers and associates new words by categories (such as foods, clothing animals, etc.)	E44	Begins repeating words overheard in conversation
R45	From a single request identifies 2 or more familiar object from a group of 4 or more familiar objects	E45	Evidence of a continual but gradual increase in speaking vocabulary
Eighteen to Twenty Months			
R46	Upon verbal request points to several parts of the body and various items of clothing shown in large pictures etc.	E46	Imitates some 2 word and 3 word sentences
R47	Demonstrate understanding by appropriate responses to such action words (verb forms) as 'sit down' 'come here', 'stop that', etc.	E47	Imitates environmental sounds (such as motors, animals, etc.) during play.
R48	Demonstrate understanding of distinctions in personal pronouns	E48	Has a speaking vocabulary of at least 10 to 20 words.

	(such as give it to her' 'give it to me' etc.)		
Twenty to Twenty Two months			
R49	Follows a series of 2 or 3 very simple but related commands	E49	Begins combining words into simple sentence (like 'go', bye-bye' 'daddy come' etc)
R50	Recognises new words daily at an ever increasing rate	E50	Speaks more and more new words each week.
R51	Recognizes and identifies almost all common objects and pictures of common object when they are named	E51	Attempts to tell about experiences using a combination of jargon and some true words
Twenty Two to Twenty Four Months			
R52	Upon verbal request selects an item from a group of 5 or more varied items (such as comb, spoon, etc.)	E52	Occasionally uses 3 words sentences (such as 'There it is', 'Play with bricks' etc.)
R53	Appears to listen to meaning and reason of language utterances, of just words of sounds.	E53	Refers to self by using his/her own name
R54	Understands most complex sentences (for example, 'when we get to the stores, I'll buy you an ice cream')	E54	Begins using some pronouns but makes errors in syntax.
Twenty Four to Twenty Seven months			
R55	Demonstrates an understanding of several action words (verbal forms) by selecting appropriate pictures (for example, correctly chooses which picture shows eating)	E55	Usually uses 2 words or 3 words sentences

R56	When asked, points to smaller parts of the body (such as chin, elbow, eyebrow, etc.).	E56	Often uses personal pronouns correctly (I, you, he , it, me, etc.)
R57	Recognises and identifies general family name categories (such as baby, grandma, mothers, etc.)	E57	Asks for help; with some personal needs (such as washing hands, going to the toilet, etc.)
Twenty Seven to thirty Months			
R58	Demonstrates an understanding of word association through functional identification (correctly answers such questions as ‘What do you eat with’? ‘What do you wear?’ etc.)	E58	Names at least one colour correctly.
R59	Understands size differences (correctly, selects ‘the little doll’, the small book’s, among a group of similar objects)	E59	Refers to self by using a pronoun rather than by his/her proper name
R60	Recognises the names and pictures of most common objects	E60	Repeat two or more numbers correctly

Thirty to Thirty Three months			
R61	Demonstrates an understanding of all common verbs	E61	Tells gender when asked ‘Are you a boy or a girl?’
R62	Understands very long and complex sentences	E62	Names and talks about what he/she has scribbled or drawn when asked.
R63	Demonstrates an understanding of most common adjectives	E63	Gives both first and last name when asked.
Thirty Three to Thirty six Months			
R64	Shows interest in explanations of	E64	Regularly relates experience from

	'why' things are and 'how' things functions		the recent past (what happened while he/she was 'out' or separated from parent
R65	Carries out 3 simple verbal commands given in one long utterance	E65	Uses several verb forms correctly in relating what is going on in action pictures
R66	Demonstrates an understanding of prepositions (such as on, under, front, behind, etc.)	E66	Uses some plural forms correctly in speech.

The Bzoch-League Receptive – Expressive Emergent Language Scale for the Measurement of language Skills

0-1 month	R1	E1
	R2	E2
	R3	E3
1-2 months	R4	E4
	R5	E5
	R6	E6
2-3 months	R7	E7
	R8	E8
	R9	E9
3-4 months	R10	E10
	R11	E11
	R12	E12
4-5 months	R13	E13

	R14	E14
	R15	E15
5-6 months	R16	E16
	R17	E17
	R18	E18
6-7 months	R19	E19
	R20	E20
	R21	E21
7-8 months	R22	E22
	R23	E23
	R24	E24
8-9 months	R25	E25
	R26	E26
	R27	E27
9-10 months	R28	E28
	R29	E29
	R30	E30

Development of Language & Speech

- WEISS & CURTISS

Age	Receptive Behaviour
6 months: sits alone	Responds to sounds at home & mother's voice. Responds appropriately to friendly or angry voice (Quietness if

	mother calls out)
12 months: stands alone, walks along furniture	Show voluntary control over the responses to sounds. (Selectively responding) Understands 10 words and one simple direction. (No, Tata), (give it to me)
18 months: walks by himself, crawls downstairs	Development of gross discriminations (Father's voice). Understands 50 words Identifies 3 body parts Understands simple commands unaccompanied by gestures. Give me doll, Open your mouth)
24 months: runs well, walks up and down stairs	Up to 1200 words. Understand in, on, under. Distinguishes between one & many. Understand simple stories, simple directions. Responds by point to show me questions. Distinctions between you and me.
30 months: good hand and finger co-ordination, manipulates objects well	Up to 2400 words. Identifies action in pictures and objects by use. Carries out one and two parts commands. (Pick up your shoe and give it to mummy. What we cut with?) Understands plurals, questions, concept of one. Difference between boy and girl.
36 months: runs smoothly and negotiates sharp turns, can jump	Up to 3600 words. Carries out 2&3 item commands, (Give me ball, pick up the doll and sit down, what we do when hungry etc.) Identifies several colours. Is aware of past and future.
42 months:	Up to 4200 words. Questions – what, where, how. Answers questions appropriately (which is the boy. Where is the dress). No.

	concept upto 2.
48 months:	Up to 5600 words Carries out 3 items commands consistently . Knows at least one nursery rhyme. No, concepts to 4. Can complete opposite analogies. Brother is a boy, sister is a _____.
54 months	Up to 6500 words. Understands differences in texture and composition. (House, book, made up of, Begins to name coins.
60 months	Up to 9600 words. Knows numbers to 5. Knows & names colours. Begins to understand right and left. Defines words in terms of use.
66 months	Up to 13,500 words. Knows No. concepts to 7. Discriminates right and left. Knows most simple, compound and complex sentences. Knows functions of body parts.
72 Months	Up to 15,000 words. Knows No. concepts to 10. The meaning of morning, afternoon, night, summer & winter. Can relate differences between objects, animals and clothing (How dog & bird are different)

Age	Expressive Behaviour
6 months	Babbling (dadada) Imitate sounds

	<p>Repeats self produced sounds.</p> <p>Vocalises to persons.</p> <p>Vocalises displeasure.</p>
8 months	Echolalia.
12 months	Uses 3 words (tata, mama) Difference intonation patterns. Imitates sounds you made. Vowels sounds & consonants sounds appear.
18 months	Up to 20 words. Jargon & echolalia are present. Uses names of familiar objects. One-word sentences. (Go, no, mine)
24 months	Up to 270 words. Jargon & echolalia gone. Talks in words, phrases & 2-3 word sentences. (I want. Go bye-bye). One pronoun appears. (I, me) Adjective and adverbs begins to appear.
30 months	27 phonemes. Up to 425 words, chair, box.. Relates immediate experience. More adjectives and adverbs. Begins to ask questions. Can articulate all vowels.
36 months	Up to 900 words in simple sentences averaging 3-4 words per sentence. Can repeat 3 digits. Can name one colour. Begins to use plurals, prepositions. Pronouns, adjectives and adverbs. Is aware of past & future. Articulation of /p/b/m/ acquired.
42 months	Upto 12 words (mostly complete sentences) Sentences are compound or complex. Rate of speech is faster. Relates experience & tells about activities in sequential order: What, Where. Articulates rising diphthongs /aI/ /eI/ /I/ /ou/
48 months	Up to 1500 words. (5 word sentences) Count to 3. Repeats 4 digits. Names the primary colours and some coins. Relates fanciful tale. Questioning is at a peak. Can recite a poem. Articulates /n/ /w/ /n/ /h/

54 months	Up to 1800 words. Can define 10 common words. Can count to 20. Articulates /t/ /d/ /k/ /g/. Asks questions for information and learns to control and manipulate persons and situations with language.
60 months	Up to 2200 words. Sentences averaging 6 words. Can define ball, policeman. Makes serious inquiries. (what is this for?) Language not essentially complete in structure and in form. Reads by way of pictures and prints simple words. Articulation of /f/ /v/ /j/.
66 months	Up to 2300 words. Sentence length averages to 7 words. Grammatical errors continue to decrease as sentences and vocabulary become more sophisticated. Articulation /o/, /l/
72 Months	Up to 2500 words. Asks meaning of words. Completes analogies. (A table is made of wood, a window of _____) 5 digit from memory. By 6½ years articulation of /r/ /s/ /z/ /t/ /dz/ . At 7 years, all consonant clusters such as /kr/ /str/ /bl/ etc. are acquired.

3-D Language Acquisition Test

Group 1: Age 9-11 Months

Comprehension	Expression	Cognition
1. Does the child point to or indicate in some way when an object is named? E.g. Where is the light? Where is Ram? (When object within immediate reach)	1. Does he point to and name father and mother sometimes?	1. Does he engage in some what structured play? E.g. Hide and Seek, throwing kicking the ball accompanied by much vocalisations but verbalisations.
2. Does he comprehend simple commands such as “Say bye	2. Does he ask for desired things by	2. Does he make attempts to sing?

bye”?

point, stretching hand
or some times
accompanied by give.

(Vocalise tunefully?)

- | | | | | | |
|----|---|----|--|----|--|
| 3. | Does he mime when an action is named? For example, how does a car go? | 3. | Does he say ‘finished’ to signify completion of action (eating?) | 3. | Is he/she beginning role playing with dolls with vocalisations and some verbalisation? E.g.: Going to sleep? |
|----|---|----|--|----|--|

Group II: Age 12-14 Months

- | | | | | | |
|----|--|----|--|----|---|
| 4. | Does he point to named body parts? | 4. | Does he express need by saying ‘give’ or naming the object. E.g.: bikki? | 4. | Is he interested in looking at picture books? Does he pretend to read verbalizing name words Papa, Mama etc. |
| 5. | Does he point to himself when asked questions such as ‘whose shirt is this?’ | 5. | Does he begin naming objects, animals, eatable’s etc.? | 5. | Does he show increased activity in manipulating objects?
(a) Turning on the radio.
(b) Picking up a shoulder bag and swinging it on shoulder? |
| 6. | Does he follow simple commands that require action or verbalisation on his part? e.g.: Good, Bye, bring (Your) shoes, sing a | 6. | Does he describe an event by naming the person involved along with some action? E.g. : Daddy Waving on | 6. | Does he show better structure? Dance movements in play? E.g. Ring-a-ring-a-roses. |

song (Child says a.a.a.)

hand (to indicate
daddy has gone out)

Group III: Age 15-17 Months:

- | | | | | | |
|----|--|----|--|----|---|
| 7. | Does he respond appropriately to “Where” question. E.g. Where is mama? – taa-taa.
Where is papa? Office (Object not within immediate reach) | 7. | Does he make appropriate animal and vehicle noises when asked? | 7. | Does he identify familiar voice by naming the individual concerned? |
| 8. | Does he understand ‘who’ and ‘what’ questions? E.g. :who/what is this? What is in the bottle? – Medicine | 8. | Does he repeat when asked to repeat? | 8. | Does he see reflection of himself in mirror or spectacle and latter his name? |
| 9. | Does he understand instructions like – ‘call mummy’ Wash your face, bring a plate. | 9. | Does he signify disappearance with one-two word utterance? E.g. Papa gone. | 9. | Is he interested in using a pencil/pen for sustained scribbling on paper/walls. |

Group IV: Age 18-20 Months:

- | | | | | | |
|-----|--|-----|---|-----|--|
| 10. | Does he comprehend questions querying action of agents in pictures? (Responds other by naming the action baby talk from or more often by miming) e.g. What is this man doing bathing (BT form) | 10. | Does he ask for objects using “where” e.g.: where ball? | 10. | Is he increasingly moving away from baby talk to more standard form of vocabulary? |
| 11. | Does he comprehend questions concerning habitual behaviour of | 11. | Does he use possessor/possession relationship? E.g.: | 11. | Does he remember past events in which he was a participant |

- | | | | | | |
|-----|--|---------------|--|--|---|
| | named agents? Responds with one word answer. E.g.: What does mummy cook? Chapati. | Mummy chappal | | and respond to queries about details? E.g.: Where did we go yesterday? | |
| 12. | Does he comprehend question-quarrying states (attributes) of objects? Responds with one-word answers. E.g. How does this coffee feel? Hot. | 12. | Does he use more kinship terms? E.g.: aunt, uncle, elder sisters and proper names? | 12. | Does he comprehend one/many distinction? Does he count 1-2-3- as a response to 'How many (counts, but not used meaningfully). |

Group VI: Age 24-26 months:

- | | | | | | |
|-----|---|-----|---|-----|--|
| 16. | Does he comprehend questions with case markers and respond approximately? E.g. Whose is this? Ramya's What happened to Vinod? Vinod has pain in the ear | 16. | Can he initiate conversative by asking a questions, drawing attention to something in a book. E.g.: What is this? | 16. | Does he use sophisticated tools? E.g. :Passing paper, making arrow with paper, use scissors etc. |
| 17. | Does he comprehend 'where' questions and respond using words/suffixes, indicating spatial relationships? E.g. Where is he playing? In the water, Where is the book? On the table. | 17. | Does he use past and present tense in sentences to described | 17. | Does he use basic colours? blue, green red, etc. |
| 18. | Does he comprehend 'How' questions and aspect evacuating its quality. E.g. :How was that? It was nice/good/bad etc. | 18. | Does he use some prepositions and adverbs? E.g. up, down, behind, later after words. | 18. | Does he exhibit social knowledge? – Knowing about holidays for people at home, talks about |

letters, reprimands
dolls to buy things
have to go to a shop.

Group VII Age: 27-29 Months:

- | | | |
|---|--|--|
| <p>19. Does he comprehend ‘How’ question and respond giving the cause? E.g. How did you get hurt? I fell like this.</p> | <p>19. Does he use ‘if then’ construction? E.g. If the eyes hurt, they will put medicine.</p> | <p>19. Does he involve in preteen roll switching activities an extensive way? E.g. Mends clothes (Shirt, button) clearness. Utensils, wash clothes, involves in repair work (Hammering etc.)</p> |
| <p>20. Does he comprehend ‘what’ are you going to do and answer correctly? What are you going to do? I am going to write.</p> | <p>20. Does he/she produce a sequence of instructions to get agent to perform task? E.g. : I am going out, you get up. Put on your chappals.</p> | <p>20. Does he join blocks and make configurations like chair, table or build house with bricks, in sand etc.</p> |
| <p>21. Does he comprehend ‘why/what for’ questions and respond giving reasons? E.g.: What do you want the pen for? I am going to write.</p> | <p>22. Does he use conversation to describe events?</p> | <p>22. Does he exhibit the concept of reasoning while statement? E.g.: Won’t take bath. Have fever. I am hungry I want to eat.</p> |
| <p>23. Does he comprehend ‘how many’ question and respond by counting? How many? – two (use is meaningful)</p> | <p>23. Does he involve himself in conversations ever a longer period and with greater self-assurance?</p> | <p>23. Does he exhibit the concept of reasoning while asking or responding to questions? E.g.: Why</p> |

E.g.: Child – I want sweets
Mother-in the evening
Child – How shall we go- bus or walk?

don't you want that? It fell down. It is dirty.

24. Does he comprehend 'Why' question queering reasoning and give correct answer?
Applied medicine, did you not?

24. Does he ask question for reasons? E.g.: Why don't you go there?

24. Does he talk about people in their absence? E.g.: Where is papa? When will he come back.

Group IX: 33-36 Months:

25. Does he comprehend questions imaginary situations? E.g. What will you do if it rains when we go out?

25. Does he demonstrate ability to imitate dramatically others behaviour including speech? E.g.: Imitating mother scolding the child or imitating the teacher in class.

25. Does he exhibit the concepts of job and salary? E.g. if one goes to work, will get salary.

CHAPTER IV

CASE STUDIES

"Case study deepens our perception and gives us a clearer insight into life it gets at behaviour directly and not by an indirect and abstract approach."

—Charles Horton Cooley

Only few people's experiences can be learned by observing him/her in action. To understand his/her behaviour fully and intimately, he/she must supply a detailed penetrating account of what he/she does and has done, what he/she thinks he/she does and has done, what he/she expects to do, and says he/she ought to do. A fairly exhaustive study of a person or group is called a life or case study.¹

In a field such as "a study in speech and language delay", for a better understanding of the problems, case study plays a pivotal role.

Treating a child's language problem is more a question of carefully detailing how the conditions unfold and what the child's response is to therapy programme. It is therefore necessary to know how severe the problem is and what the child's strengths and weaknesses are in this regard. This process of assessment of the case generally starts with recording of a case history. It is important to establish a rapport with the child and the family. The best way to do that is to informally interview or rather chat with the whole family. The child has a chance to settle down and interact with the person taking the assessment, as he/she is not expected to perform straight way. Wherever appropriate the child should be asked to contribute to the case history with names of the other siblings, school attended, etc.

On this basis, a preparation of case descriptions should be done. To prepare a case description, the fullest possible information about the child needs to be available. It is important to document what all possible variables in each case might be. A full history of

¹ Pauling V. Young, Scientific Social Surveys and Research, 1994.p246

the child should be given, including the family history. When describing the particular behaviour of interest, care should be taken to make this as clear as possible.

The use of objective measure will be important in achieving this, because it will help others to identify similarities in other children. Where possible, a profile of identifying features should be included. Subjective language can form a part of case descriptions, but should be relevant and not extraneous. Most case descriptions form the initial basis for identifying a condition or behaviour, or for describing a possible management strategy so that it can be further defined, evaluated or tested through a more stringent procedure.

A case history must contain name of the child, a description of child's activity, the size of the family, linguistic background, family history if any, history of development of the child, any past medical history (prior to or during pregnancy or after birth), the child's transitions to school, his/her social relations, etc.

During the course of study of these cases AYJNIHH (Ali Yavar Jung National Institute for Hearing Handicapped, New Delhi) helped me a lot. This institution basically deals with persons having speech and hearing problem.

CASE STUDY 1

Name : Kavita **Age/Sex** : 6 years/F

Linguistic Background

- Father's language: Hindi
- Mother's language: Hindi
- Languages spoken at home: Hindi
- Languages spoken at school: not yet
- Languages spoken among peer group: Hindi

Income group: Low

Age at which the problem was first noticed: at 3 years of age

Nature of Problem: can't speak

Earlier investigations/Treatment: AIIMS (All India Institute of Medical Sciences)

Number of Siblings: nil

Consanguinity: No

Medical history:

- was born through normal delivery
- She has no reported medical problems

Pre natal History: At 5th month of pregnancy her mother had cholera.

Developmental History:

(a) **Mother development** – Normal

- Handedness – Right

(b) **Social and Behavioural History:** Irritable and Aggressive

Educational History: Nil

Speech development history:

- Vocalisation: At the age of one year.
- Babbling : At the age of 1½ year
- First word: /mummy/ at the age of 4 years
- First sentence: Not spoken yet.

Communication behaviour:

- Mode of Communication is both verbal and non-verbal

Verbal communication

- Expression: one word
- Comprehension: few words

Non-verbal Communication:

- Expression: Gestures and Pointing out
- Comprehension: Gestures and Facial expressions

Language background:

- Language exposure at home – Hindi
- Speech and language stimulation by others: Inadequate

Oral peripheral Examination

- Lips, tongue, Teeth, Hard palate, soft palate, Mandible, etc. are normal.

Hearing Test: Normal

Articulation:

- Vowels : /a/, /i/, /u/
- Consonants: /m/
- Word: /mummy/ (only)

Voice:

- Perceptually adequate during vocalisation

Imitation skills

- Gross body – poor
- Speech – poor

Stimuli Used (Informal Testing) : Toys, Pictures and Verbal stimuli.

Formal Testing – Tests Administered:

The Bzoch – League Receptive – Expressive Emergent Language Scale (REELS)² for the measurement of Language skills in children. Chronological age of the child = CA = 6 years.

Receptive Language age = RLA= 25 months

Expressive language age = CLA = 7 months

C.L.A.= (25+7) divided by 2 =16 months

C.A.= 72 months

L.Q.= 22.22

Result: Speech and language delay.

Language Evaluation:

- Communicates through gestures, pointing out and crying.
- Uses few basic gestures for her need.
- Vocalises very few sounds (only /a/i/u/, distinct)

² In order to obtain a Language Quotients, the CLA is divided by the Chronological Age of the child and then it is multiplied by 100.

CLA divided by CA and multiplied by 100 = LQ

Note: the scale is given in chapter on Methodology

- Says 'No' by shaking head (if asked to do any activity)
- Identifies few basic objects
- Span of concentration, attention is limited
- Gross body imitation skill is fair (like- cutting vegetables or washing dish)
- Speech imitation skills are very poor
- Doesn't like to play with children of peer group.
- Indulges in stereotypical behaviour

Diagnostic Formulation: (Summary of the overall speech & Language Problem)

- Gestural communication
- Poor imitation skill (speech)
- Eye contact is present.
- Self stimulating behaviour is present
- Inadequate stimulating environment

Provisional Diagnosis

- Delayed speech and language development

Recommendations: Speech and language therapy; speech and language stimulation at home.

Speech & Language therapy:

- Paralinguistic Skill development
- Eye contact, attention concentration and developing a need to communicate
- Linguistic skill development
- Syntactic: One-word utterances, two words utterances and simple sentence.
- Semantic: Vocabulary development, Receptive and Expressive aspects of language.
- Phonological: Vocalisation development (Material almost nil)
- Pragmatic: (Material almost nil),
- Guide the parents to communicate according to real life situation.

As the problem in this case is at single word level, therapy is done by:

- Expanding the utterance at the single word level and rising to the next level.

- Using activities and material: puzzles, shapes, colours, sizes, flash card, pictures, games, real objects, activities like sorting fruits from vegetables, matching different items, using various word games.
 - Story telling
 - Re-enforcing/rewarding for positive and negative behaviour respectively
 - Lots of counselling to the parents.
 - Improving the language input given by parents to children – Child Directed Speech (CDS)
 - Improving quantity and quality of the utterance used with the child.
 - Analysing the parent child interaction and making the necessary modification accordingly.
-

CASE STUDY –2

Name : Navneet Singh **Age/Sex** : 4.5 years/M

Linguistic Background:

- Father's Language: Hindi /Punjabi
- Mother's language: Hindi/Punjabi
- Languages spoken at home: Hindi/Punjabi
- Languages spoken at school: Hindi
- Languages spoken among peer group: Hindi

Income Group: Middle

Age at which the problem was first noticed: At the age of 1.5 years.

Nature of problem: Cannot speak

Earlier investigations/Treatment: AIIMS (All India Institute of Medical Sciences)

Number of Siblings: Nil

Consanguinity: parents are first cousins.

Medical History:

- Was born through normal delivery

- He has no reported medical problems

Pre-natal History: bleeding had occurred to the mother from conception period to the 7th month.

Developmental History

- (a) **Mother development** – Normal
 Handedness – left

(b) **Social and Behavioural History:** Irritable and Aggressive

Educational History: Attends special school: **Sahas Vishesh Sansthan** since February 2001.

Speech development history:

- Vocalisation: At the age of one year
- Babbling: At the age of 3 years
- First word: At the age of 4 years /aao/ (come)

Communication behaviour:

- Mode of communication is both verbal and non-verbal.

Verbal Communication:

- Expression: Vocalisations, few words
- Comprehension: few words

Non-Verbal Communication:

- Expression: Gestures & Pointing out
- Comprehension: Gestures & facial expressions

Language background:

- Language exposure at home: Hindi
- Speech and language stimulation by others: Adequate

Oral Peripheral Examination:

- Lips, Tongue, Teeth, Hard Palate, Soft Palate, Mandible = Normal

Hearing Test: Normal

Articulation:

- Vowels /a/, /i/, /u/
- Consonants: /p/, /t/, /m/
- Words: /papa/, /aao/ etc.

Voice:

- Perceptually adequate

Imitative Skills

- Gross body – Good
- Speech – Fair

Stimuli used: (Informal Testing)

- Toy, Pictures and Verbal

Formal Testing – Tests Administered**REELS**

CA=54 month (4.5 years); RLA = 18 months; ELA = 14 months; CLA = (18+14) divided by 2 = 16 months; L.Q. = CA divided by CLA and multiplied by 100 = 29.63

Results: Profound speech and language delay

Reading and writing skills: Inadequate

- Can copy letters and numbers
- Can count – 1 to 10
- Draw, Figures, Circles, Square
- Can colour various figures

Language evaluation:

- Gross body imitation is good
- Eye contact is good
- Identifies colours
- Can write alphabet from A to I , but can't write G (copy)
- Can write numbers from 1 to 10 (copy)
- Can copy different figures
- Speaks some vowels - /a/, /i/, /u/ and some consonants - /p/, /t/ , /m/
- Can identify pictures but can't speak their name
- Can understand lip movement
- Comprehends gestures, facial expression and some words - /aam/, /aao/ , /tota/
- Expresses using gestures

Diagnostic Formulation

- Delayed speech and language development
- Gross body imitation is good
- Oral peripheral examination seems to be normal
- Speech imitation is fair
- Communicates through both verbal as well as non-verbal mode

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Speech therapy (same as case 1)
 - Start pre- schooling
-

CASE STUDY –3

Name: Golu

Age/Sex: 6 years /M

Linguistic Background:

- Father's Language: Hindi
- Mother's language: Hindi
- Languages spoken at home: Hindi
- Languages spoken at school: Not yet
- Languages spoken among peer group: Hindi

Income group: Middle

Age at which the problem was first noticed: since birth

Nature of problem: Can't speak properly

Earlier investigations/Treatment: AIIMS (All India Institute of Medical Sciences)

Number of Siblings: Two

Consanguinity: No

Medical History:

- Was born through Caesarean delivery

- He has no reported medical problems: No
- Pre-natal History: None as reported

Developmental History:

(a) Mother development – Delayed motor milestone

- Handedness – Right

(b) Social and behavioural History:

- Makes eye contact
- Indulges in parallel play
- Does not exhibit temper tantrums

Educational History: Not yet

Speech development History:

- Vocalisation: at the age of one year
- Babbling: At the age of two years
- First word: Not yet

Communication behaviour: Non verbal

Verbal Communication:

- Expression: vocalisations
- Comprehension: a few words

Non-Verbal Communication:

- Expression: gestures and pointing out
- Comprehension : gestures and facial expressions

Language background:

- Language exposure at home: Hindi

Speech and language stimulation by others: Adequate

Oral Peripheral Examination: Normal

Hearing Test: Normal

Articulation:

- Vowels /a/
- Consonants: Nil
- Words: Nil

- Sentence: Nil

Voice: perceptually adequate

Imitative Skills:

- Gross body – Fair
- Speech – Poor (no imitation)

Stimuli used: (Informal Testing): Toys, pictures, etc.

Formal Testing – Tests administered: REELS

CA = 6 x 12 = 72 months, RLA = 11 months; ELA = 9 months; CLA = 20 divided by 2 = 10 months; LQ = CLA divided by CA and multiplied by 100 = 13.88

Results: Profound speech and language delay

Reading and writing skills: Inadequate

- Can copy different shapes,
- Spontaneously draws circles
- Can't recognise letters

Language evaluation:

- Communicate through cry, vocalisation and pointing out
- Can articulate only /a/ vowel
- Can match different shapes and sizes
- Use gesture and facial expression

Diagnostic Formulation

- Mode of communication is gesture, oral periphery is normal, speech-language stimulation is inadequate and imitation skill is fair.

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Speech therapy (same as case 1)
- School placement
- Speech and language stimulation at home.

CASE STUDY – 4

Name: Sonam

Age/Sex: 6 years /F

Linguistic Background:

- Father's Language: Hindi
- Mother's language: Hindi
- Languages spoken at home: Hindi
- Languages spoken at school: Not yet
- Languages spoken among peer group: Hindi

Income group: Low

Age at which the problem was first noticed: not known

Nature of problem: can't speak

Earlier investigations/Treatment: AIIMS (All India Institute of Medical Sciences)

Number of Siblings: Three

Consanguinity: No

Medical History:

- Was born through Normal delivery
- He has no reported medical problem.
- Pre-natal History: Normal

Developmental History

(a) Mother development – Normal

Handedness – Right

(b) Social and behavioural History:

- Exhibits temper tantrums
- Irritable

Educational History: Not yet

Speech development History:

- Vocalisation: at the 6th month
- Babbling: At the 12th. month
- First word: Not yet

Communication behaviour: Non verbal

Verbal Communication:

- Expression: Vocalisations
- Comprehension: few words

Non-Verbal Communication:

- Expression: Gestures and pointing out
- Comprehension : gestures and facial expressions

Langage background:

- Language exposure at home: Hindi

Speech and language stimulation by others: Inadequate

Oral Peripheral Examination:Normal

Hearing Test: Normal

Articulation:

- Vowels /a/,/o/
- Consonants: Nil
- Words: Nil
- Sentence: Nil

Voice: perceptually adequate

Imitative Skills

- Gross body – Poor
- Speech – poor

Stimuli used: (Informal Testing): Toy, pictures, Verbal

Formal Testing – Tests administered: REELS

CA= 6 x 12 = 72 month; RLA = 7 months; ELA = 6 months; CLA =13 divided by 2 =6.5

LQ = 9.02

Results: Profound speech and language delay

Reading and writing skills: Inadequate

- Can do scribbling

Language evaluation:

- Communicate using gestures, point out and cry
- Rarely vocalises

- Looks at pictures, but attention concentration span is limited
- Recognises absence of parents
- Can do scribbling, comprehends basic gestures
- Identifies common house hold objects (like shoes, comb, chair) as reported
- Cannot do colour matching
- Comprehends facial expressions like – ‘No’, anger, etc.

Diagnostic Formulation

- Communication is through gestures, pointing out & crying
- Imitation skills are not good
- Writing skill is absent
- Responds to social smile
- Follow simple commands
- No response to name call
- Localise loud sound

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Speech and language treatment (same as case 1)
- School placement
- Speech and language stimulation at home.

CASE STUDY – 5

Name: Anuj

Age/Sex: 5 years/M

Linguistic Background:

- Father’s Language: Hindi
- Mother’s language: Hindi
- Languages spoken at home: Hindi

- Languages spoken at school: Not yet
- Languages spoken among peer group: Hindi

Income group: Low

Age at which the problem was first noticed: at 1 year of his age

Nature of problem: can't speak

Earlier investigations/Treatment: Nowhere

Number of Siblings: One

Consanguinity: No

Medical History:

- Was born through Normal delivery
- He has no reported medical problems
- Pre-natal History: Normal

Developmental History

- Motor development – Delay in motor milestone
- Handedness – Right

Social and behavioural History:

- Span of attention and concentration is negative
- Hyperactive

Educational History: Not yet

Speech development History:

- Vocalisation: at the 4th. Months
- Babbling: At the 8th. Months
- First word: at 2nd year

Communication behaviour: Both verbal and non-verbal

Verbal Communication:

- Expression: vocalisations and words (only one: /mama/)
- Comprehension: few words

Non-Verbal Communication:

- Expression: Gestures & Pointing out
- Comprehension : Gestures & facial expressions

Language background:

- Language exposure at home: Hindi

Speech and language stimulation by others: Inadequate

Oral Peripheral Examination: Normal

Hearing Test: Normal

Articulation:

- Vowels: /a/ distinct
- Consonants: /m/ distinct
- Words: /mama/
- Sentence: Nil

Voice: perceptually adequate

Imitative Skills

- Gross body – Good
- Speech – poor

Stimuli used: (Informal Testing): Toy, pictures

Formal Testing – Tests administered: REELS

CA= 6 x 12 = 60 months; RLA = 20; ELA = 16; CLA = 36 divided 2 = 18 months

LQ= 30

Results: Profound speech & Language delay

Reading and writing skills: Inadequate

Language evaluation:

- Communication is through vocalisation and few basic gestures
- Comprehends common pictures and common house hold objects through basic gestures
- His expression vocabulary consist only one word i.e. /mama/
- Cannot identify colours, cannot match shape and sizes

Diagnostic Formulation

- Communication is through vocalisation and basic gestures
- Gross body imitation skills are good, whereas speech imitation skills are poor
- Inadequate speech and language stimulation at home
- Absence of reading and writing skills

- Poor attention – concentration
- Normal vegetative function

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Speech and language therapy (as case 1)
 - School placement
 - Speech and language stimulation at home.
-

CASE STUDY – 6

Name: Shivam

Age/Sex: 6 years /M

Linguistic Background:

- Father's Language: Hindi
- Mother's language: Punjabi
- Languages spoken at home: Hindi & Punjabi
- Languages spoken at school: Not yet
- Languages spoken among peer group: Hindi

Income group: Middle

Age at which the problem was first noticed: at 1 year

Nature of problem: can't speak

Earlier investigations/Treatment: AIIMS (All India Institute of Medical Sciences)

Number of Siblings: Two

Consanguinity: No

Medical History:

- Was born through Normal delivery
- He has no reported medical problems
- Pre-natal History: Normal

Developmental History

- Mother development – Normal

- Handedness – Right

Social and behavioural History:

- Exhibits temper tantrums
- Hyperactive

Educational History: Not yet

- Speech development History:
- Vocalisation: at 1 year
- Babbling: At 2 year
- First word: at 4 years /papa/, /mama/

Communication behaviour: Both verbal and non-verbal

Verbal Communication:

- Expression: vocalisations and few words
- Comprehension: few words

Non-Verbal Communication:

- Expression: Gestures & Pointing out
- Comprehension: Gestures & facial expressions

Language background:

- Language exposure at home: Hindi and Punjabi

Speech and language stimulation by others: Inadequate

Oral Peripheral Examination: Normal

Hearing Test: Normal

Articulation:

- Vowels /i/, /a/
- Consonants: /p/, /m/, /b/, /d/, /g/
- Words: /papa/, /mama/
- Sentence: Nil

Voice: perceptually adequate

Imitative Skills

- Gross body – Good
- Speech – poor

Stimuli used: (Informal Testing): Toys, pictures

Formal Testing – Tests administered: REELS

CA= 6 x 12 = 72 month; RLA = 18 months; ELA = 22 months; CLA = 40 divided by 2
=20 months; LQ= 27.77

Results: Speech and Language delay

Reading and writing skills: Inadequate

He can copy some numbers

Language evaluation:

- He communicates through vocalisation and pointing out things
- He understands gestures and facial expressions
- Plays meaningfully
- Utter vowels like /i/ and /a/
- Attention concentration span is limited
- He demonstrates use of common objects through gestures
- Proper eye-contact
- Proper matching of common things

Diagnostic Formulation

- Mode of communication – gestures and pointing out
- Oral peripheral mechanism is normal,
- Speech language stimulation is inadequate at home
- Fair imitation skill

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Speech and language therapy as case 1
- Admit in school
- Speech and language stimulation at home

- Expression: Vocalisations, simple sentences
- Comprehension: simple sentences

Non-Verbal Communication:

- Expression: Gestures, writing
- Comprehension: Gestures & facial expressions

Language background:

- Language exposure at home: Hindi

Speech and language stimulation by others: Inadequate

Oral Peripheral Examination: Normal

Hearing Test: Normal

Articulation:

- Vowels - all
- Consonants : almost all
- Words: many
- Sentence: few

Voice: perceptually adequate

Imitative Skills

- Gross body – good
- Speech – poor

Stimuli used : (Informal Testing): Toy, pictures, writing

Formal Testing – Tests Administered : REELS , Weiss & Curtis

CA= 6 x 12 = 84 month; RLA = 24 months; ELA = 30 months; CLA = 54 divided by 2 = 27 months; LQ= 32.14

Results: Speech & Language delay

Reading and writing skills: Inadequate

- Can read and write to an extent
- Can understand what is written
- Can write simple sentences

Language evaluation:

- Gross imitation skills are good, can do clapping, folds her hand; oral peripheral examination comes out to be normal, vocalisation: babbling started at the age of one and one and a half year, respectively.
- She can utter all vowels and many consonants.
- Stimulating environment is inadequate (Father communicates through writing).
- She can understand facial expression and gestures. She can identify colours and express through writing. She attends special school. She can write simple sentences also. She comprehends well, can understand and write many words. She is left-handed.

Diagnostic Formulation

- Oral peripheral examination is normal
- She can respond to noise
- Speech and language stimulation is inadequate
- She expresses through writing
- Gross body imitation skills are fair

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Regular speech therapy
- Speech and language stimulation at home
- Continue schooling

CASE STUDY – 8**Name:** Ramnik**Age/Sex:** 4 years /F**Linguistic Background:**

- Father's Language: Hindi & Punjabi

- Mother's language: Hindi
- Languages spoken at home: Hindi
- Languages spoken at school: Hindi
- Languages spoken among peer group: Hindi

Income group: High

Age at which the problem was first noticed: 1 year

Nature of problem: can't speak

Earlier investigations/Treatment: at Safdarjung Hospital, Delhi

Number of Siblings: One

Consanguinity: No

Medical History:

- Was born through caesarean delivery
- He has no reported medical problems
- Pre-natal History: Normal

Developmental History

- Mother development – Normal
- Handedness – Right

Social and behavioural History:

- Restlessness
- Does not go to strangers without discrimination

Educational History: Nil

Speech development History:

- Vocalisation: at 7 month
- Babbling: At 8 months
- First word: 1 year

Communication behaviour: Non verbal

Verbal Communication:

- Expression: Vocalisations
- Comprehension: Many words

Non-Verbal Communication:

- Expression: Gestures
- Comprehension : Gestures & facial expressions

Language background:

- Language exposure at home: Hindi

Speech and language stimulation by others: Inadequate

Oral Peripheral Examination: Normal

Hearing Test: Normal

Articulation:

- Vowels /a/
- Consonants : /p/, /k/, /m/, kh/, /g/
- Words: Nil
- Sentence: Nil

Voice: adequate

Imitative Skills

- Gross body – Poor
- Speech – poor

Stimuli used : (Informal Testing): Toy

Formal Testing – Tests Administered : REELS

CA= 6 x 12 = 48 month; RLA = 18 months; ELA = 12 months; CLA = 40 divided by 2
=20 months; LQ = 41.66

Results: Speech & Language delay

Reading and writing skills: Inadequate

- He cannot recognise letters or words
- He can't copy
- Can do scribbling
- He can't read

Language evaluation:

- He can vocalize spontaneously but cannot vocalize on demands
- Babbling started at the age of 8 months

- Uttered first word at the age of 1 year
- Mode of communication is non-verbal
- He can express in gestures and can understand gestures of facial expressions
- Eye contact is good

Diagnostic Formulation

- Mode of communication is non-verbal.
- Oral peripheral examination is normal.
- Uses actions and few words.
- Produces specific sounds and vocalises with varying intonation patterns regularly.
- Speech imitation skills are poor. Maternal input is based on imitation of speech sounds

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Speech therapy (same as case 1)
- Speech and language stimulation at home.

CASE STUDY - 9

Name: Rahul Rai

Age/Sex: 5 years /M

Linguistic Background:

- Father's Language: Hindi
- Mother's language: Hindi
- Languages spoken at home: Hindi
- Languages spoken at school: Not yet
- Languages spoken among peer group: Hindi

Income group: Middle

Age at which the problem was first noticed: not known

Nature of problem: can't speak

Earlier investigations/Treatment: Safdarjung Hospital, Delhi

Number of Siblings: One

Consanguinity: No

Medical History:

- Was born through Normal delivery
- He has no reported medical problems
- Pre-natal History: Normal

Developmental History:

- Mother development – Delayed (Walked at the age of 3 years)
- Handedness – Right

Social and behavioural History:

- Distractible; Aggressive; Hyperactive

Educational History: Nil

Speech development History:

- Vocalisation: 2 years
- Babbling: 3 years
- First word: Not yet

Communication behaviour: Non verbal

Verbal Communication:

- Expression: Vocalisations
- Comprehension: few words

Non-Verbal Communication:

- Expression: Gestures and pointing out
- Comprehension : Gestures

Language background:

- Language exposure at home: Hindi

Speech and language stimulation by others: Inadequate

Oral Peripheral Examination: Normal

Hearing Test: Normal

Articulation:

- Vowels /a/, /i/, /u/

- Consonants : /m/, /p/
- Words: Nil
- Sentence: Nil

Voice: adequate

Imitative Skills

- Gross body – Poor
- Speech – poor

Stimuli used : (Informal Testing): Toy

Formal Testing – Tests administered: REELS

CA= 6 x 12 = 60 months; RLA = 18 months; ELA = 12 months; CLA = 30 divided 2 = 15 months; LQ = 25

Results: Profound Speech and language delay

Reading and writing skills: Inadequate

Language evaluation:

- He communicates by pointing out, crying, screaming
- Whenever he faces any difficulty he speaks /amma/
- He comprehends anger or love
- Attempts to fulfil his needs by going to places
- No eye contact
- Stereotypical movements such as rocking observed
- Temper tantrums thrown when needs not met
- Communicative intent limited

Diagnostic Formulation

- Communicates by pointing out, crying, screaming through temper tantrums when needs are not met.
- Stereotypical movement observed
- Communicative intent limited

Provisional Diagnosis

- Delayed speech and language development

Recommendations:

- Speech therapy (as case one)
 - Special school placement
 - Speech and language stimulation at home.
-

CASE STUDY – 10**Name:** Parvesh**Age/Sex:** 3 yrs /M**Linguistic Background:**

- Father's Language: Hindi
- Mother's language: Hindi
- Languages spoken at home: Hindi
- Languages spoken at school: Not yet
- Languages spoken among peer group: Hindi

Income group: Middle**Age at which the problem was first noticed:** 2 years**Nature of problem:** can't speak**Earlier investigations/Treatment:** AIIMS**Number of Siblings:** One**Consanguinity:** No**Medical History:**

- Was born through Normal delivery
- He has no reported medical problems
- Pre-natal History: Normal

Developmental History

- Mother development -- Normal
- Handedness -- Right

Social and behavioural History:

- Aggressive; exhibits temper tantrums

Educational History: Not yet

Speech development History:

- Vocalisation: 1 yr
- Babbling: 1.5 yrs
- First word: 22 months

Communication behaviour: Non verbal.

Verbal Communication:

- Expression: Vocalisations
- Comprehension: many words

Non-Verbal Communication:

- Expression: Signs, Gestures
- Comprehension: Gestures

Language background:

- Language exposure at home: Hindi

Speech and language stimulation by others: Inadequate

Oral Peripheral Examination: Normal

Hearing Test: Normal

Articulation:

- Vowels – all vowels
- Consonants: /b/,/m/,/p/
- Words: /papa/, /baba/, /mama/
- Sentence: Nil

Voice: Perceptually adequate

Imitative Skills

- Gross body – Good
- Speech – Poor

Stimuli used : (Informal Testing): Toys and Pictures

Formal Testing – Tests administered: REELS

CA= 6 x 12 = 36 months; RLA = 10 months; ELA = 12 months; CLA = 22 divided by 2= 11 months; LQ = 38.88

Results: Speech and Language delay

Reading and writing skills: Inadequate

- He can do scribbling
- He can draw lines

Language evaluation:

- He communicates through gestures and point out
- He can recognise his family and parents
- He does identify body part and some fruits
- Eye contact is good
- Concentration span is limited
- Can articulate all vowels and some consonants
- He speaks some simple words i.e /papa/, /baba/, /mama/
- He plays meaningfully with toys

Diagnostic Formulation:

- He can do scribbling and can draw line.
- He communicates through gestures and pointing out.
- Gross body imitation skills are good viz., clapping, etc.

Provisional Diagnosis:

- Delayed speech and language development

Recommendations:

- Speech and language therapy (as case one)
- Pre-school placement
- Speech and language stimulation at home.

Observation and Suggestions

Speech and language characteristics of the target group:

- (1) Speech and language deficits and deviances are significant features of the abnormality are speech and language delay. These features help identify the disability in terms of specific combinations of linguistic and paralinguistic features, although each

child should be treated as an individual patient for therapeutic rehabilitation owing to a wide variation seen between each of the ten subjects in the study.

(2) Age can be a significant variable as seen in the improvement in terms of speech and language characteristics. Severity also can be considered as an important variable in that mild cases perform better than the moderately severe group of cases.

(3) It was also found that the development in speech and language abilities did not stimulate the normal sequential pattern. No correspondence can be established between speech and language development of speech and language delayed children and normal children for the following reasons: This, presumably, also indicates the basic cognitive inadequacies.

- There is no open-pivotal class distinction seen even in the oldest subject in the study.
- Within the same subject there is no uniformity of increase in the length and complexity and variety of utterances.
- There is no proper distribution of phonological and grammatical units and there is no tendency towards distribution of phonological and grammatical units in the same proportion as found in normal language. One linguistic category such as nouns or kinship terms, for example, is found more in number than other categories. Thus, some of the linguistic units are better acquired or more complex while the others are not.

Thus, there is no progressive and steadfast increase in terms of length and complexity of utterances as seen in normal development of speech and language.

(4) Phonological disability is found even in older cases of speech and language delay in the study. They exhibited phonological disturbances in terms of absence or difficulty with sounds and deviant distributions of speech sounds.

(5) Morphological affixation was severely affected in speech and language delayed children. Even in cases where it was found, inadequacy characterized the acquisition as well as the use of morphological suffixes. Because of the lack of affixation the semantic notions involving case relations tense, gender, number, time, manner, location, and other qualitative characteristics are not indicated explicitly.

The interpretation of such notions is left to the imagination of the listeners based on the context and knowledge of the target utterance/utterances.

(6) The speech and language delayed speech does not also distinguish clearly between various grammatical categories such as nouns, verbs, adverbs, adjectives and other categories. Nouns, are, however, found more than verbs and other categories.

(7) The utterances are heavily simplified/distorted/deleted by phonological modifications/operations by the cognitive inadequacy that could be due to any other sort of disabilities, the consequent inadequate functioning as well as restricted exposure to the environment.

(8) Language comprehension was found to be much better than expression in all the speech and language delayed children studied. On recognition/comprehension the children tend to perform much better while expression was affected in a conspicuous manner. Expressive language difficulties were seen in the form of longer response time that could not be attributed to articulatory difficulty since they could come out with same responses such as naming an object/ action, quite quickly at times. This difficulty seemed to be one of central language processing. The word-finding difficulty in the form of groping behaviour was other expressive language difficulty seen. The groping behaviour could not be simulated to stuttering behaviour as these instances were also found in subjects who did not show any stammering behaviour otherwise.

(It was not studied in detail due to the time constraint.)

(9) The speech and language delayed children in the present study spoke very less in a given amount of time. The speech output was extremely limited and consisted mostly of single word utterances. Whenever two/multiple word utterances were seen they were in the form of elliptical telegraphic utterances with only nouns or verbs disjointedly presented.

It was found that incomplete utterances were more predominantly found than complete sentences in the speech of the speech and language delayed children.

Let us now examine the procedures carried out in speech clinics for different cases. Amazingly, it is the same in almost all the cases despite the age difference of various cases.

Formal testing:

The Bzoch-league Receptive-Expressive Emergent Language Scale (REELS) for the measurement of Language skills in children.

Speech and Language Therapy provided to the patient:

- (i) Expanding the utterance: at single word level and raising to the next higher level
- (ii) Using activities and material:- Puzzles, shapes, colours, sizes, flash card, pictures, games, real, objects, activities like sorting fruits from vegetables, matching different items, using various word games.
- (iii) Story telling.
- (iv) Re-enforcing/rewarding for positive and negative behaviour respectively
- (v) Lots of counselling to the parents
- (vi) Improving the language input given by parents to children –Child Directed Speech (CDS)
- (vii) Improving quantity and quality of the communication used with the child.
- (viii) Analysing the parent child interaction making the necessary modification accordingly.

There is no distinct method for therapy for different cases related to the Hindi speakers. As mentioned in the table, the children are from different age groups ranging from 3 yrs. to 7 yrs. But the therapy procedure is almost the same for all of them. Also, they are having different L.Q. (Language Quotients) and can articulate in different manner. Some of them can articulate vowels distinctly (as in cases 1,2,7,9,10,) but others can articulate consonants more distinctly (as in case 6 and 8). Some of them can utter a few words (as case 1,2,5,6,7,10,) on the other hand; some of them can't utter a single word (as in case 3,4,8,9,). Only case 7 can utter a few sentences. In my opinion, these are different types of cases and should be handled differently. (Consult the table given in the next page.)

Cases such as 1,2,7,9,10, should be given stress on the articulation of consonantal sounds at the beginning (as shown in Listening-Repeating Drill section of chapter on Graded material for Therapeutic procedures). These children should join the Drill from step 1 onwards.

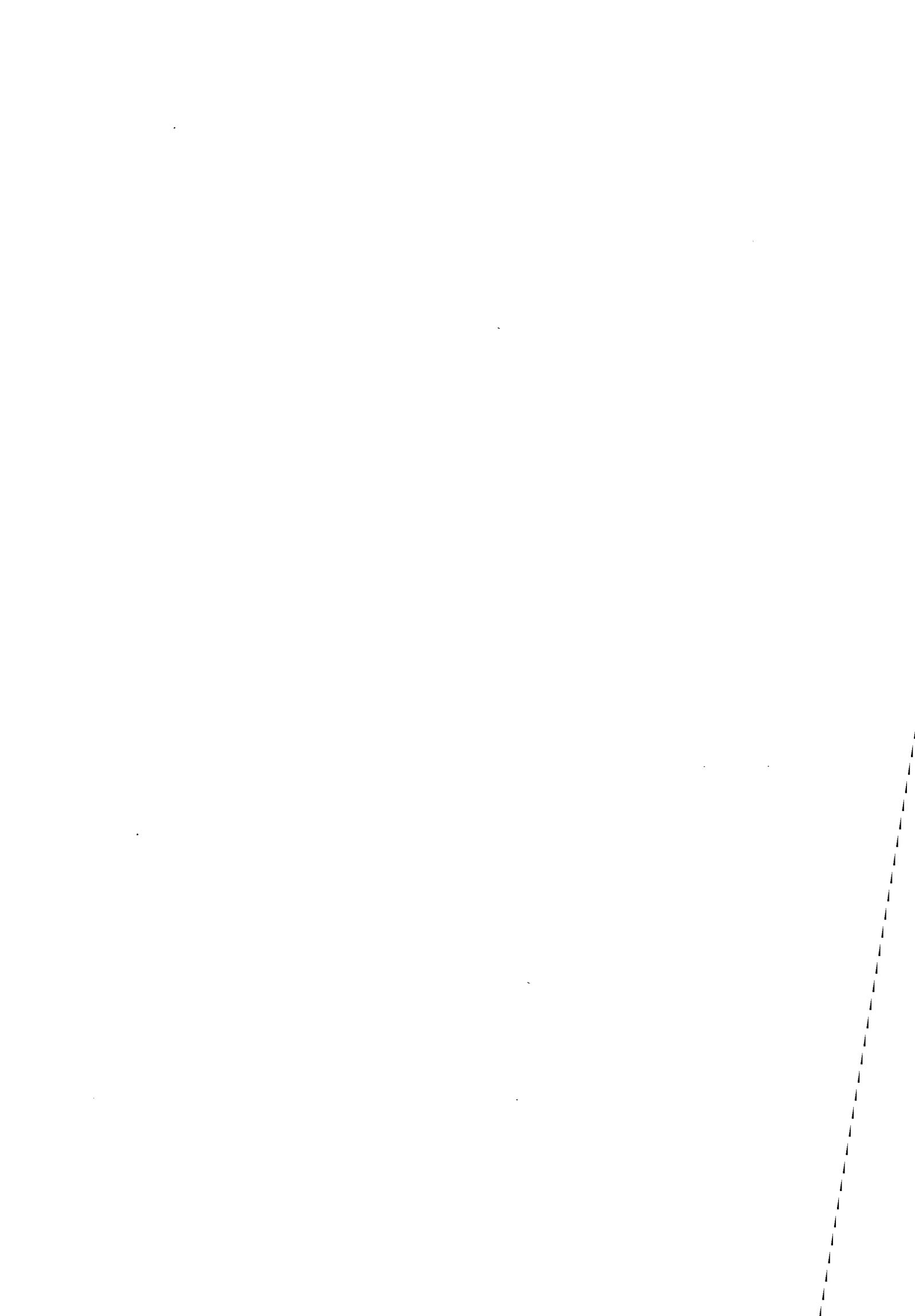
But cases like 6 and 8 should be given stress on the articulation of vowel sounds firstly (as shown in the chart). These children should join the Drill from step 4 onwards. Cases such as 3, 4, 8, 9, who can utter few words should join the Drill from step 12 (i.e, picture cards)

For case 7, a sentence level drill can be used, starting from step (16) i.e. part-1 (semantics). As the age range is between 3 yrs to 7 yrs. the receptive as well as the Expressive skill of the normal child develops to a greater extent at this level. So, drill up to the sentence level can be easily carried out; but of course, starting from one word level to two word level and then to three word level, and so on.

Case Study

Case	Age/Sex	Voicing	Babbling	Vowels	Consonants	Word	Sentence		RLA	ELA	LQ
1.	6 yrs./F	1 yr.	1.5 yr.	/a/, /i/, /u/ distinct	/m/ distinct.	/mummy/	Nil		25 months	7 months	22.22
2.	4.5 yrs./M	1 yr.	3 yrs.	/a/, /i/, /u/	/p/, /t/, /m/	/papa/ /aao/, etc.	Nil.		18 months	14 months	29.63
3.	6 yrs./M	1 yr.	2yrs.	/a/, distinct	Nil	Nil	Nil		11 months	9 months	13.88
4.	6 yrs./F	5 months	6 months	/a/, /o/ distinct	Nil	Nil	Nil		7 months	6 months	9.02
5.	5 yrs./M	4 months	8 months	/a/ distinct	/m/ distinct	/mama/	Nil		20 months	16 months	30.00
6.	6 yrs./M	1 yr.	2 yrs.	/i/, /a/ distinct	/p/, /m/, /b/, /d/, /g/ distinct	/papa/, /mama/	Nil		18 months	22 months	27.77
7.	7 yrs./F	1 yr.	1.5 yr.	all	almost all	Many	few		24 months	30 months	32.14
8.	4 yrs./F	7 months	8 months	/a/ distinct	/p/, /k/, /m/ /kh/, /g/	Nil	Nil		18 months	12 months	41.66
9.	5 yrs./M	2 yrs.	3 yrs.	/a/, /i/, /u/ distinct	/m/, /p/ distinct	Nil	Nil		18 months	12 months	25.00
10.	3 yrs./M	1 yr.	1.5 yr.	all	/b/, /m/, /p/ distinct	/papa/ /mama/ /baba/	Nil		10 months	12 months	38.88

CHAPTER V



GRADED MATERIAL

5.1 Assessment Procedure

For assessment purposes, I would like to divide the whole process into two sections i.e.

- a) Verbal comprehension, and
- b) Expressive skills.

5.1.1 Verbal comprehension:

For Verbal comprehension – assessment, there are different models, but in my opinion the Derbyshire Language Scheme (Knowles and Masidlouer, 1982) is the most suitable for Hindi speakers. The model enables users of the scheme to assess verbal comprehension and expressive language skills at various levels of complexity via structured play situations . The therapists can adopt the general principles of the model and perhaps include similar ideas within their own informal assessment. The areas of focus include the following:

Information carrying words:

It should be of prime concern to know that how much information the child can process or rather, what is the information processing capacity of the child? To begin with, single word commands are called key words. When combined within commands, the number of information carrying words present will vary depending on the situational clues provided.

1. To assess comprehension of key words the following can be used: objects, pictures of objects, miniature toys, actions, pictures of actions, parts of body, (own and others)

2. Relating two bits of information: / t̄kije ko p̄l̄l̄ŋ p̄r r̄kho / . / gur̄ia ki nak k̄h̄a he / . / s̄bzi kato / , / kursi p̄r k̄n betha he / , / gād k̄ha c̄rti he / , / gur̄ia ka m̄h dhovo / , / tum kisse khate ho / .
3. Relating three bits of information (Prepositions, relative size) / gend ko kursi ke nice r̄kho / , / gur̄ia ke cehe ko saf k̄ro / (from a choice of doll, teddy, comb and soap). / gend ko b̄kse ke ð̄nd̄r r̄kho / , / gur̄ia ko kursi p̄r n̄cao / , / choti c̄mm̄c gur̄ia ko do / . / c̄mm̄c ko papa ke k̄p me dalo / .
4. Relating four bits of information. / papa ko teb̄l ke nice bethao / . / gur̄ia ko b̄re p̄l̄l̄ŋ ke nice r̄kho / .

Six categories of test for word level comprehension are suggested:

1. Plurals (regular and irregular):
/ kitab - kitab̄ / , / l̄r̄ki - l̄r̄kija / , / kutta – kutte / ,
2. Possession: / ramu ki m̄ / , / meri kitab / , etc.
3. Tense (Present / Past / Future) / likhta he -likhta tha - likhega / ,
/ soja he -soja tha - sojega /
4. Personal pronoun: - / mera / , / uska / , / tumhara / .
5. Demonstratives: - / wh / , / we / , / je / , / j̄h̄ / , / v̄h̄ / ,
6. Wh - questions

Comprehension of Syntax:

This can be examined at both sentence and word level. Once again, both play and picture material can be used to assess them. Ten types of units are suggested.

- (1) Verb phrase - / l̄r̄ka am kha r̄ha he / .
- (2) Prepositional phrase – / kutte or billi ke bic me b̄nd̄r he / .
- (3) WH question/ sequences: / w̄h k̄n he /? .

- (4) Modifier: / l̥r̥ke ke pas ek choti lal gend he /.
- (5) Negatives: / l̥r̥ki d̥r̥ n̥d̥hi r̥d̥hi he /.
- (6) Passive : / l̥r̥ke ko d̥d̥nde se pita ja r̥d̥ha he /.
- (7) Infinitives : / l̥r̥ka n̥d̥i ke par t̥d̥k terna cahta tha /.
- (8) Subordinate clauses: / b̥d̥cci ro r̥d̥hi he kjonki use bhukh l̥d̥gi he /.
- (9) Indirect request: / kja tumh̥e d̥pne k̥d̥pre saf n̥d̥h̥i k̥d̥rne cahije /?

Comprehension of Vocabulary:

The child should be familiar with the vocabulary from the areas of the home situation as well as from other familiar environments. It may be assessed using play and picture material in a variety of ways:

Home Environment

- Family names, address terms,
- Common everyday activities: meals, bath time, eat, drive, sleep, etc.
- Specific name items including clothes and furniture.

Other familiar environments

- Activities that directly relates to the child: running, sliding, falling, rolling, sleeping etc.
- Places the child is familiar with: park, playground, shop,
- Items in those places: Swing slide, trolley, bat, ball, etc.

The vocabulary of basic concepts

- Direction and position: - / up̥d̥r̥ /, / nice /, / d̥nd̥d̥r̥ /, / bah̥d̥r̥ /, / khula /, / b̥d̥nd̥ /, etc.
- Size: - / b̥d̥r̥a /, / chota /, / mota /, / p̥d̥tla /.
- Emotions: - / khus /, / udas /,
- Other attributes: / th̥d̥n̥d̥a /, / g̥d̥r̥d̥m /, / c̥d̥mkila /, / cikna /, / k̥d̥r̥a /.
- Time: - / purana /, / nja /, / aj /, / k̥d̥l /, / p̥d̥hla /, / uske bad. /

- Number: The numbers 1 to 10, / d̪ʒada /, / k̪m /, / b̪rab̪r /,
- Colour:- / lal /, / h̪ra /, / nila /, / kala /, / s̪fed /.
- Shape:- / gol /, / tara/, etc.

The wider environment

Two different topics could be chosen like the city, village, seaside, zoo, space or market place. A range of items such as transport, animals and other living things, people doing different jobs or wearing different clothes, and more unusual things like weather, could be provided in picture form. It must be checked if the child can classify and cross-refers his or her knowledge when selecting which items belong in which environment. It is also interesting to see if the child is able to give further examples from his or her experience (eg: - / h̪mlog riksha se jate h̪ /, / us dukan me b̪hut seb h̪ /)

5.1.2 Expressive skills

This section aims to look at more than just verbal skills as a measure of expressive ability in language-disordered children. Severely reduced verbal output may well be an obvious feature, or conversely the child could be a fluent speaker whose utterances are characterized by bizarre and inappropriate content which appear tangential in nature which is not easy to assess (see Adams and Bishop, 1989 Bishop and Adams, 1989). However, it is important to observe the child's behaviour and evaluate what he or she does in response to difficulties with sentence formation. A range of coping strategies may emerge. These may be positive (uses gestures and cues to aid communication), negative (bites those who fail to understand) or there may be no strategies at all (child loses interest in communication and walks away) The types of strategies a child employs will be important when considering treatment programmes aimed at increasing effective communication.

Here are some of the factors, which need to be considered in the assessment of a child's expressive skills:

- Situational aspects

- Paralinguistic aspects (the use of intonation and other vocalisations)
- Use of mime, gesture and facial expression.
- Verbal skills.

It can be helpful to have a quick checklist of verbal language, which can be used, in the clinic or while visiting the home or nursery. This checklist, with examples amalgamates several different approaches.

Expressive language checklist:

1. Single nouns and verbs:

/ mā /, / gōi /, / ɔr /, / nōhī /, / sōb gōje / / wōhā /, / papa /,

2. Two-word phrases (N/V phrases):

/ nōhī pina /, / papa wōhā /, / gend mar /, / mera bhalu /, / ma khelo /, / gōi kar /,

3. Three-word phrases (wh-questions, negatives prepositional phrases):

/ wōh ɔccha p^hul /, / mā kōhā gōji / ?, / ɔb khelne cōlē / ?

4. Four plus word phrases (possessives, plurals, past tense):

/ hōm log khelne gōje /, / mujhe nōhī cahije /, / mere papa ki pen kōhā he / ?

/ mene dzute pōhōn li je /

5. Complex phrases (coordinations, subordination, tagged and comparatives clauses) :

/ mā ɔr mē bazaar gōje ɔr mēne mithai li ɔr mē

gīr pōṛa / . / jeh usse bōṛa he / . / ɔccha hoga ki tum jeh na kōro /.

6. Complex phrases (passive, complex verb phrase complement) :

/ mujhe kisi ne mara /

Also the use of:

/ hona cahīe /, / ho sōkta hē /, / hoga /, / sōbhi /, / dono /, /

d̄z̄jada /, / b̄dhut /, / k̄m /, etc.

However, syntax is not the only variable. It is also important to assess the child's range of phonological expressions and expressive vocabulary. Language disordered children may have difficulty in learning, storing and retrieving vocabulary (Haynes, 1982). Typically this is manifest as paucity in the context of expressive language. Children may continue to use the wrong words (preservation) or, in failing to produce the target words, produce phonemic, or semantic errors instead (par aphasias). A look at expressive vocabulary and phonology could be carried out using the same material recommended for vocabulary in the comprehension section. Once again a range of techniques might be required to elicit an adequate sample of this, including pretend play, role-playing and story telling. These elicited data can be used to compare the data of the speech of normal children of the same age group. Thus on the basis of the comparison chart, proper assessment can be done. Phonological assessment can also be done on the basis of the production of sounds of the Hindi alphabet. A checklist comprising vowels and consonants can be used for this purpose. On the basis of this check list assessment can be done accordingly.

Other than the verbal comprehension and expressive skills the assessment of pragmatic ability is also important for the proper rehabilitation of a language-delayed child.

Three main areas of pragmatic ability have been identified which interact depending on the child's context:

1. Communicative intent: Both the form and range of these intents should be considered. The range includes such intents as requests, comment, greet, gain attention, protest, respond, reject or regulate conversation. The form might be either verbal or non-verbal ranging from gesture, one word, to many words.
2. Organisation of discourse: This would include turn taking, topic initiation and maintenance, topic breakdown and repair and termination of discourse strategies.
3. Presupposition: This includes sharing information and understanding communication from the perspective of the listener. The child needs to be aware of different social contexts, settings and communication channels.

Dore (1975) identified six types of behaviour that he termed speech acts. These acts were said to account for all the intended messages used by a fluent speaker at the multiword stage of development. These behaviors are presented here in the form of a checklist, which could be used as a framework within which the evaluation of the pragmatic abilities of the language impaired child can be done.

Check list of pragmatic abilities :

1. Range of communicative intents:
 - (a) Requesting information :/ mā kḁhā he /?
 - (b) Requesting action: / guṛiṛa jhā lao /.
 - (c) Prohibition: / mḁt /, /na /
 - (d) Responding to requests: / t^hik he /, / le lo /.
 - (e) Stating or commenting: / jeh meri gaṛi he /. / mujhe kutte ḁcc^he nḁhi lḁgte /.
 - (f) Regulating conversation: / ḁcc^ha, aisa he . /, / kja bḁtau . /

- (g) Other performatives including teasing, warning or conveying humour: / dek^ho, dek^ho / . / kja bat hε /

2. Organisation of discourse:

- a. Turn taking: when to change the subject and interrupt as well as how to use questions, eye gaze or facial expression to complete a clause.
- b. Attention seeking and directing devices: non-verbal including touch, gesture and facial expression as well as verbal requests and regulators like / hã /, / lekin..... ja / , / ðcc^ha /
- c. Initiation: in the young child these will be directed to the self: / mujhe gend mil gði /.
- d. Reinitiation: a whole or part repetition of the phrase or a rephrase: / kja mē le lū kja mē le lū / / mujhe cahije... muj^he cahije /
- e. Responding: there might be no response, inappropriate, response, appropriate response, minimal response or a response with additional information.
- f. Initiation with response: this is usually a response to the previous utterance which also initiates a reply: / mere kðpre kðhã hē /, / kja almari mē nðhī hē /, / nðhī /
- g. Follow-up that is evaluative or acknowledgement: used a lot by parents and therapists so the pragmatically impaired child may well pick this up: / hã, yeh gaṛi ek admi cðla rðha hε /.
- h. Topic maintenance: non-verbally this may be a gesture, nodding or eye gaze and verbally such things as: / ðccha, aisa hε /
- i. Topic change: this is usually sensitive to context unless an abrupt change is intended for social reasons. The

pragmatically impaired child rarely advances to this level of sophistication, and inappropriate topic change is usually about non-comprehension of these rules.

- j. Identification of break down which requests clarification: /
kja tumne jeh māi ga t^ha /
- k. Repair: this can be self initiated or due to another person: /
ðpni guṛia lao /, /..... c^hot i wali /, or / ðpni guṛia lao
..... jeh c^hot i wali? /
- l. Termination: may be non-verbal by eye gaze, facial expression or gesture or verbal using words like: / tata /, /
d^hðnjwad / .

3. Presupposition:

Shared information may be established from:

- (a) An earlier sentence: / meri caci kðl k^hane pðr aji t^hi [/kja
sðcmuc /] / hā, or wðh mujhe pyar bhi kðrna cahti t^hi /.
- (b) Previous knowledge of the person or the experience.
- (c) Knowledge of the world
- (d) Knowledge of social contexts and personal characteristics:

The different behaviour, verbal and non-verbal, may be appropriate in different situations and with specific speakers, like adult-to-child v/s child-to-child interactions.

- (e) Awareness of the physical context and its limitations: The monitoring of break down in language- disordered children can be done on the basis of comparison with the normal children's pragmatic abilities.

Apart from these procedures, if the patient cannot utter a single utterance (nonverbal), his/her parents must be involved to answer this questionnaire so that the proper assessment can be done.

Parents must answer all of the following questions;

NAME OF CHILD: _____

DATE OF BIRTH: _____ AGE: _____ SEX: _____

GRADE: _____ SCHOOL: _____

HANDEDNESS: RIGHT _____ LEFT _____ BOTH _____

This questionnaire has been completed by:

MOTHER _____ FATHER _____

1. Motor Skills

- a) My child has problems with balance (e.g. never learned to ride a bicycle).
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- b) My child displays impaired fine motor skills (e.g. significant difficulties learning to tie shoes).
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- c) My child has problems with writing (or extremely slow writer)
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- d) My child seems unusually clumsy.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___

2. Visual-Spatial Skills

- a) My child has difficulty remembering and organizing visual or spatial information (e.g. has difficulty lining up numbers to do a math problem or lining up words neatly on a page).
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- b) My child appears disoriented, lost, or confused when entering a new situation.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___

- c) My child is slow to become familiar with new physical locations (e.g. continues to appear lost or disoriented after repeated exposures to the same location).
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- d) My child has difficulty remembering the faces of people he or she has met.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- e) My child has an auditory memory like a tape recorder.
Yes ___ No ___ I don't know ___
- f) My child loses his or her way and needs help finding his or her way around.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- g) My child has unusually strong verbal skills (e.g. an impressive vocabulary or early speech).
Yes ___ No ___ I don't know ___

3. Interpersonal Skills

- a) My child often does not get the humour in a joke because he or she interprets everything so literally.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- b) When interacting with others my child has difficulty reading the other person's non-verbal cues, such as tone of voice or facial expression.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- c) My child interprets what I say very literally.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___
- d) My child has difficulty transferring what he or she learns in one social situation to similar social situations. For e.g. my child appears confused when confronted with slight changes in a frequently encountered social situation.
Never/Rarely ___ Sometimes ___ Often/Always ___ I don't know ___

Guidelines for Scoring

This questionnaire is a checklist of characteristics that may be indicative of a Nonverbal Learning Disability. A referral for a more detailed

evaluation requires that the parent report symptoms in all three spheres of deficiencies viz., in motor-skills, visual-spatial skills, and interpersonal skills.

A child should be referred to a neuro- psychologist or for a more in-depth evaluation if the parent reports deficits "Sometimes" or "Often" on over half the items examining motor skills (at least 3 of the 4 items), visual-spatial skills (at least 4 of the 7 items), and interpersonal skills (at least 3 of the 4 items).

5.2 Diagnostic Procedures

At this point a wealth of information, test scores, and observations should be available. It is unlikely to have been accumulated in one visit or in one situation. The more complex the problem, the more time the clinician will need to spend on assessment. In some respects, the assessment process is never finished, for even during the treatment phase reassessment and re-evaluation of progress is important to ensure that therapy is useful and targeted at the child's needs. The assessment can be used in the differential diagnosis of language – disordered children.

Differential diagnosis begins from first seeing the child. For those with complex language disorders, it may take many years of careful evaluation of intervention and consequent progress before the condition can be named. In others the name of the syndrome is obvious from the early stages because it has a characteristic phenotype. However, a careful description of the unfolding of a disorder is more important than its name.¹

The major purposes of carrying out diagnosis, in the field of speech and language disorder can be observed in the following manner:

- a) To establish a baseline for the individual child's language disorder.
- b) From there to help in setting up an appropriate treatment /management plan.

¹ (Janet Lees, Shelagh R., *Children with language disorders*, Whurr Publishers, London , 1992, P.P. 67.)

- c) To help the child, family and others involved coming to terms with the history and implications of the condition.
- d) To help these people recognise the condition if it recurs, either in the same family or another.
- e) To allow cross-child comparisons which would be helpful in clinically based research.

Each purpose may be used as a guideline for the diagnostic – procedure.

5.2.1 Establishing a Baseline of the Child's language Disorder:

Prior to any decisions, it is necessary to know how severe the problem is and what the child's strengths and weaknesses are. This is the process of assessment, which has a number of essential components.

A. The case history: Some of the things, which may be included in a case –history discussion:

i. Understanding the present situation:

- a) A description of how the child is now
- b) The usual timetable of a typical day
- c) How the child copes with everyday activities
- d) The present input from professionals
- e) The present family structure and relationships
- f) The facilities presently used by the family. Whether, these are helpful or not.
- g) The family's present understanding of the child's needs.
- h) A description of the child's preferred method of communication.

ii. Understanding the past:

- a) How the family situation became established
 - i. the size of the family
 - ii. the family dynamics

- iii. any previous history of developmental problems in other family members
- iv. how the family functions. the burden of care, other family anxieties
- b) The child's story:
 - i. the history of the pregnancy and birth
 - ii. the early developmental history with an emphasis on early communication development
 - iii. any history of medical problems, childhood illnesses, significant hospitalisations
 - iv. depending on the age of the child, the transition to school or other group
 - v. the child's social relationships
- iii. *Looking for progress or deterioration:*
 - a) the order and rate at which the child passed the usual developmental milestones (smiling, sitting, walking, babble, etc).
 - b) the skills that the child has acquired in the last six months.
 - c) Any suggestion that the child is not making progress now, or period of static development in the past
 - d) Any suggestion that the child lost skills in the past
 - e) Any suggestion that the child's abilities appear to fluctuate
 - f) Any events related to static or deteriorating development social, emotional and medical
 - g) The child's rate of development in relation to sibling and peers, and parental expectation

B) Other investigations:

Other than the case history, there are many more investigations to be carried out for the proper diagnosis. These are as follows:

- a) Hearing test

- b) Examination of fine and gross motor skills
- c) Physical examination including neurological examination
- d) Medical investigations and tests
- e) Assessment of general cognitive function

C) Assessing language abilities:

The major role of the speech therapists is to determine the nature and extent of the child's language problem. How this is done will depend on the age of the child, the time available and the amount of relevant previous information he or she has access to.

The therapist should aim to produce as comprehensive a profile of the child's language as the circumstances allow. It is necessary to sample as many skills as possible. For example,

- i) Auditory- Verbal comprehension.
- (ii) Word –finding and lexical organization.
- (iii) Auditory-Verbal memory and discrimination
- (iv) Expressive language.

These samples will lead the therapists to formulate a preliminary hypothesis for treatment programmes. They are also helpful in providing initial ideas to discuss with family and teachers about how to cope with the language problem in the everyday situation.

5.2.2 Treating or Managing the problem from the Baseline:

Once the diagnosis and the baseline is established, it is possible to use this as a point from which to evaluate the effects of treatment. This will also require longitudinal observations of the child's response to a variety of informal situations, which cannot be measured by test scores alone. These include the child's integration into the peer group, the child's relationships with individual adults and children, and the child's effective communication both

with individuals and within the group. Sometimes the treatment to be evaluated is not language therapy. Occasionally it may be necessary to monitor what effect the treatment given by another professional has on the child's language development.

5.2.3. The History and Implications of the Condition:

Reviewing the history of the condition with the parents, and careful discussion of the results of language tests and other investigations, is vital for an opportunity to come to terms with the implications. It is a process, which cannot be rushed but needs to be handled sensitively so that everybody (the parents, patient and the therapists) get the feeling of progress. The results of a clinical picture built up over time are not meant to influence them to adopt a particular view. Rather, such results contribute to the long-term perspective, which an individual assessment cannot provide.

5.2. 4. Recognising the condition when it recurs:

In evaluating the risk of the recurrence of language disorder among siblings of the affected child, Robinson (1987) reports figures ranging from 1: 4.5 to 1: 5.2 with brothers being more at risk than sisters (between 1:3.7 to 1: 4.4). Some recent attempts to chart the occurrence of language disorder in extended families have met with some success.

Sometimes, where the anxiety about the genetic implications of the condition cannot be answered by the professionals, then genetic counseling may be the next step. This will allow the parents to discuss the situation both in respect of further pregnancies for themselves and future generations of the family.²

5.2.5 Research implications of differential diagnosis:

In order to understand further language disorder, differential diagnosis and long term follow up is a useful part of clinically based research initiatives, Differential diagnosis can help to establish patterns within the clinical population

² Lees & Urwin, Children with Language disorders, Whurr Publishers, London, 1992. p.p.91.

progress can be determined established

- (v) Further assessment of the child by other professionals or a multidisciplinary team for further investigation and assessment if necessary should be initiated
- (vi) Strengths and weaknesses in the child's language profile, which could be used in the planning of an intervention programme should be looked for
- (vi) Evaluation of the child's progress, by formal and informal measures should be continued

5.3 Therapeutic Procedures:

5.3.1 Phonological-level:

To teach phonological awareness, beginning should be done by demonstrating the relationships of parts to wholes. Then it should be modeled and demonstrated how to segment short sentences into individual words, showing how the sentence is made up of words. Chips or other manipulative to represent the number of words in the sentence can be used. Once the patient understands part-whole relationships at the sentence level, the process should be moved to the word level, introducing multi syllable words for segmentation into syllables. Finally, moving to phoneme tasks by modeling a specific sound and asking the patient to produce that sound both in isolation and in a variety of words and syllables. It is best to begin with easier words and then move on to more difficult ones.

Five characteristics make a word easier or more difficult (Kameenui, 1995):

1. The size of the phonological unit (eg., it is easier to break sentences into words and words into syllables than to break syllables into phonemes).
2. The number of phonemes in the word (eg., it is easier to break phonemically short words).
3. Phoneme position in words (eg., initial consonants are easier than final consonants and middle consonants are most difficult).

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2. The number of phonemes in the word (eg., it is easier to break phonemically short words).
3. Phoneme position in words (eg., initial consonants are easier than final consonants and middle consonants are most difficult).
4. Phonological properties of words (eg., continuant such as /s/ and /m/ are easier than very brief sounds such as /t/).
5. Phonological awareness challenges. (.g., rhyming and initial phoneme identification are easier than blending and segmenting.)

Examples of phonological awareness tasks include phoneme deletion ("What word would be left if the /b/ sound were taken away from /billi/"), word to word matching ("Do /am / and /ag / begin with the same sound?"); Blending ("What word would we have if we blended these sounds together: /m/ /o/ /p/?"); phoneme segmentation ("What sounds do you hear in the word /mitha/"); phoneme counting ("How many sounds do you hear in the word roti?"); and rhyming ("Tell me all of the words that you know that rhyme with the word /am/")

Beginners require more direct instructional support from trainers / clinicians in the early stages of training. This is illustrated in the following example: The trainer models the sound or the strategy for making the sound, and helps the child use the strategy to produce the sound. It is very important that the trainer/clinician model the correct sounds. This is done using several examples for each dimension and level of difficulty. The children are prompted to use the strategy during guided practice and more difficult examples are then gradually

introduced. A sequence and schedule of opportunities for children to apply and develop facility with sounds should be tailored to each child's needs, and should be given top priority. Opportunities to engage in phonological awareness activities should be plentiful, frequent, and fun (Kameenui, 1995).

Babbling should be encouraged, as it is essential for language acquisition. The trainer/clinician should play vocally with the child using various sounds to express love, affection, delight, surprise, etc. It is necessary to use a mirror and to make silent faces first so that the child becomes interested in lip and tongue movements. It is best to start with the /p/,/b/,/m/ and /w/ sounds with vowels moving to /t/, /d/, /g/, /k/, /n/ sounds plus vowels when he/she is able to imitate the more visible bilabial sounds.

Speech sounds should be selected which are within the child's productive ability. This group usually includes the spoken vowels and the bilabial (/p/, / b/, /m/, /w/) and sometimes the tongue tip (/t/,/ d/,/n/) consonants. In this exercise the child is not taught to say new sounds. Instead, attempts are made to teach her/him to attend to the voice carefully, perceive the message accurately, and then hold it in his/her memory long enough to give it back in exactly the same order in which it was originally given. Thus, a stimulation of /oo/, /ah/,/ e/, must be repeated /oo/, /ah/, /e/, and not / e/, /ah/, /oo/ or something else.

Drill begins then with vowels. It may be needed to start with two vowels, varying their order of presentation. As quickly as possible the movement should be to three vowels. Any three vowels may be chosen and after various orders of presentation are exhausted, three other vowels are substituted for a new series.

After success with vowels, one of the simple bilabial consonants can be used in front of these same vowels making a more difficult series like /pa/, /po/, /poo/, or /pah/, /pi/, / pow/.

The third order of difficulty of sounds for listening and repeating would be different consonants used with the same vowels as in /pah/, /tah/, /mah/, or /bah/, /dah/, etc. Finally the most difficult listening and repeating task would be combining various easy consonants with various vowels for example, /tee/, /go/, /bah/ or /pa/, /dah/, /mi/. When the child is able to repeat accurately these letter combinations in exactly the same order as originally given, he/she should be ready to better “separate out” spoken sounds. Thus he/she can gain from the speech stimulation which goes on about each day and from which he/she initially derives little benefit.

In order to keep his/her attention and interest, and motivate her/him to want to work with the trainer on this game, the therapist should provide a reward activity, which is effective for the particular child. Only thought, imagination, trial and error, and experimentation will establish what the best activities should be. For example, putting a marble through a hole in a box each time a listening repeating task is satisfactorily completed.

Competition games between child and parent are usually exciting and enjoyable. Examples of these might be two ladders drawn on paper which are progressively mounted rung by rung – one for the child when his/her repetition is correct, one for the parent when he/she is wrong.

Pairs of small simple toys should be obtained (such as, train, car, airplane, etc.) Should be worked with one toy at a time. It should be held up near the lips, so that the child can take advantage of the lip movement cues. Then the object should be named. Then it should be handed to the child, and the object should be renamed as she/ he touches it.

If it is an object that has noise associated with it, the noise should be made as well. For example, the child identifies the cat by touching it or handing it to the trainer when he/she says “meow”. Dog, airplane, car, train, cow, and similar

sound-object combinations can be used (but of course, in Hindi language). One can also play a game where the child matches objects to pictures. One will have to help the child a great deal with the matching in the beginning.

Simple pictures can be cut out from magazines or catalogues. It should be made sure that there is only one picture on a card. It is wise to get pictures of objects which have sounds as well as a single name associated with them (for example, car- noise of horn – picture of a car, moving airplane- noise of airplane- picture of an airplane, cow-moo- picture of a cow, cat- meow- picture of a cat).

- (a) Cards should be shown one at a time to the child.
- (b) As the card is presented, the noise associated with the picture should be made and then the name should be pronounced.
- (c) The noise and name should be uttered many times while talking about the card.
- (d) Child should be asked to hold the card. Then the noise should be made and the card should be taken from him/her. It should be repeated several times.
- (e) After making the noise, the card should be named, and the trainer should extend his hand for him/her to give the card to him/her. Repeat a number of times.
- (f) Several cards which have been used in the previous steps, should be given to the child and can be asked for one by making noise and sound, and helping him/her select the correct card and deposit it in the trainer's hand. It should be done many times.
- (g) The child should be asked for one of the cards by name and hand should be extended for him/her to give the correct card to the trainer.

Consistent drill will result in closer speech approximations.

Listening – Repeating drill

The best thing to start with is of course, the Hindi alphabet, Hindi being the native language of the informants. Once the child gets acquainted with these sounds, it becomes easier for him/her to take up these steps. Then these steps should be followed:

1) /p/, /b/, /m/ and /w/ sounds with vowels, moving to /t/, /d/, /g/, /n/ sounds plus vowels. (A mirror can be used for this purpose).

2) /pa/, /pe/, /pi/, /po/, /pu/
/ba/, /be/, /bi/, /bo/, /bu/
/ma/, /me/, /mi/, /mo/, /mu/
/wa/, /we/, /wi/, /wo/, /wu/

3) /ta/, /te/, /ti/, /to/, /tu/
/da/, /de/, /di/, /do/, /du/
/ga/, /ge/, /gi/, /go/, /gu/
/ka/, /ke/, /ki/, /ko/, /ku/
/na/, /ne/, /ni/, /no/, /nu/

4) /oo/, /ah/ /ee/, /ah/ /aa/, /ah/ /ii/, /ah/ /uu/, /ah/
/oo/, /ih/ /ee/, /ih/ /aa/, /ih/ /ii/, /ih/ /uu/, /ih/
/oo/, /eh/ /ee/, /eh/ /aa/, /eh/ /ii/, /eh/ /uu/, /eh/
/oo/, /oh/ /ee/, /oh/ /aa/, /oh/ /ii/, /oh/ /uu/, /oh/
/oo/, /uh/ /ee/, /uh/ /aa/, /uh/ /ii/, /uh/ /uu/, /uh/

5) 'h' can be replaced by other consonants

/oo/, /ah/, /e/ /ee/, /ah/, /e/ /aa/, /ah/, /e/
/oo/, /ah/, /i/ /ee/, /ah/, /i/ /aa/, /ah/, /i/

/oo/, /ah/, /a/	/ee/, /ah/, /a/	/aa/, /ah/, /a/
/oo/, /ah/, /o/	/ee/, /ah/, /o/	/aa/, /ah/, /o/
/oo/, /ah/, /u/	/ee/, /ah/, /u/	/aa/, /ah/, /u/

/ii/, /ah/, /e/	/uu/, /ah/, /e/
/ii/, /ah/, /i/	/uu/, /ah/, /i/
/ii/, /ah/, /a/	/uu/, /ah/, /a/
/ii/, /ah/, /o/	/uu/, /ah/, /o/
/ii/, /ah/, /u/	/uu/, /ah/, /u/

Vowels can be replaced by consonants and vice-versa in the similar pattern.

6) Varying the order of vowel's presentation:

Two vowels -

/a/, /o/	/a/, /e/	/e/, /a/
/e/, /o/	/a/, /i/	/o/, /i/
/i/, /o/	/a/, /a/	/u/, /a/
/o/, /o/	/a/, /o/	/i/, /e/
/u/, /o/	/a/, /u/	etc.

(Patterns can be changed with different vowels).

7) Three vowels-

/a/, /o/, /e/
 /e/, /o/, /a/
 /i/, /a/, /o/
 /u/, /o/, /i/
 /e/, /a/, /u/
 /i/, /e/, /a/

etc. (Patterns can be changed with different vowels).

8) One of the simple bilabial consonants should be used in front of these same vowels, making a more difficult series. For example,

/pa/, /po/, /poo/
/pah/, /pi/, /pow/
/ma/, /mo/, /moo/
/mah/, /mi/, /mow/
/ba/, /bo/, /boo/
/bah/, /bi/, /bow/
etc.

9) Bilabial consonants should be replaced by other consonants. For example,

/ta/, /to/, /too/
/dah/, /di/, /dow/
etc.

10) Combining various consonants with various vowels. For example,

/t/ + /ee/ = /tee/
/g/ + /o/ = /go/
/b/ + /ah/ = /bah/
/p/ + /a/ = /pa/
/d/ + /ah/ = /dah/
/m/ + /i/ = /mi/
etc.

11) Separation of the combined sounds. For example,

/tee/ = /t/ + /ee/

/go/ = /g/ + /o/

/bah/ = /b/ + /ah/

/pa/ = /p/ + /a/

/dah/ = /d/ + /ah/

/mi/ = /m/ + /i/

etc.

12) Picture-cards:

Cards containing pictures can be used. The trainer/clinician should name the object in the picture card and try to make a similar sound to the sound made by the object represented in this card. For example,

Picture card	Name of the object	Sound made by the object
Picture of a cat.	<i>/billi/</i>	<i>/myãu/</i>

(Any number of picture cards can be used in the same manner using different objects).

13) Now, the sound made by the given object should be made by the trainer /clinician and the child should be asked to name the object or show the particular card to the trainer or the clinician.

Sound made by the object	Name of the object	Picture-card
<i>/myãu/</i>	<i>/billi/</i>	Picture of a cat.

14) Now, only the name of the object should be used. The child should be asked to show the particular card when the name of the object is called.

/billi/ ----- The child will show the picture card in response.

Toys can also be used in place of picture cards. In this way, a speech and language delayed child can be trained using different replacements of picture-cards/toys of different objects, such as animals, flowers, vehicles, body-parts, commodities of daily use, etc.

15) When child masters the listening-repeating drill (up to the stage 14), he/she must be provided with another chart of meaningful words such as,

A) Body parts:

/sir/	-	Head
/bal/	-	Hair
/nak/	-	Nose
/āk ^h /	-	Eye
/kan/	-	Ear
/gōrdōn/	-	Neck
/bāh/	-	Elbow
/hat ^h /	-	Hand
/aṅuli/	-	Finger
/pet/	-	Stomach
/pɛr/	-	Leg
/eṛi/	-	Ankle
/hōddi/	-	Bone

B) Clothing:

/topi/	-	Cap
/k̄mid̄ʒ/	-	Shirt
/p̄ɛ nt /	-	Trousers
/c̄pp̄l /	-	Sandle
/ mod̄ʒa /	-	Socks
/ ḡnd̄ʒi /	-	Vest
/ d̄ʒuta /	-	Shoes
/ d ^h oti /	-	Dhoti
/ ḡmc ^h a /	-	Towel
/ cad̄r /	-	Bed sheet

C) Objects about the house:

/curi /	-	Bangle
/ c̄mm̄c̄ /	-	Spoon
/ k̄lc ^h i /	-	Ladle
/ handi /	-	Pot
/g ^h ḍ̄ra /	-	Earthen pot
/c̄mra /	-	Leather
/ bic ^h aw̄n /	-	Bed
/ ag /	-	Fire
/ l̄r̄ki /	-	Girl
/ culha /	-	Oven
/ roti /	-	Chapatti
/ ata /	-	Flour
/ khana /	-	Food
/ sil /	-	Grinding stone
/ mez /	-	Table

/ kursi /	-	Chair
/ k ^h at /	-	Cot
/ rediō /	-	Radio
/ kitab /	-	Book
/ kəḷōm /	-	Pen
/ pensil /	-	Pencil

Names of various fruits and flowers, etc. can also be used.

D) Relationships between people:

/ papa /	-	Father
/ ma /	-	Mother
/ beta /	-	Son
/ caca /	-	Uncle (paternal)
/ mama /	-	Uncle (maternal)
/ caci /	-	Aunt (paternal.)
/ mami /	-	Aunt (maternal)
/ beti /	-	Daughter
/ b ^h ai /	-	Brother
/ bəhōn /	-	Sister
/ dada /	-	Grandfather (paternal)
/ dadi /	-	Grandmother (paternal)
/ nana /	-	Grandfather (maternal)
/ nani /	-	Grandmother (maternal) , etc.

E) Name of animals, birds & insects:

<u>Hindi</u>		<u>English</u>
/gaə/	-	Cow
/bhēs/	-	Buffallo.
/ghoṛa/	-	Horse.

/bɛl/	-	Ox
/suər/	-	Pig.
/kutta/	-	Dog.
/bɪlli/	-	Cat
/b ^h ēr/	-	Sheep
/bəkri/	-	Goat.
/gəd ^h a/	-	Donkey
/ʃer/	-	Lion.
/bagh/	-	Tiger
/tendua/	-	Leopard.
/hat ^h ɪ/	-	Elephant.
/hippo/	-	Hippopotamus.
/genda/	-	Rhinoceros
/hirən/	-	Deer
/bəndər/	-	Monkey
/sāp/	-	Snake.
/cɪl/	-	Hawk
/gid ^h /	-	Vulture
/kəbutər/	-	Pigeon
/tota/	-	Parrot
/goreɟja/	-	Sparrow
/mæk ^h ɪ/	-	Housefly.
/mæcc ^h ər/	-	Mosquito

/məkr̩ɪ/	-	Spider
/cīt̪ī/	-	Ant

F) Geographical and astronomical objects :

<u>Hindi</u>		<u>English</u>
/nəɖɪ/	-	River
/dʒ ^h ərnə/	-	Spring
/talab/	-	Pond
/pək ^h ər/	-	Pond
/pəhər̩/	-	Mountain
/dʒəɳəl/	-	Forest
/k ^h et/	-	Field
/p ^h əsəl/	-	Crop
/tara/	-	Star
/surədʒ/	-	Sun
/cand/	-	Moon
/badəl/	-	Cloud
/wərsa/	-	Rain.

G) Colours :

<u>Hindi</u>		<u>English</u>
/pila/	-	Yellow
/lal/	-	Red
/nila/	-	Blue
/həra/	-	Green

/gulabi/	-	Pink
/bēgni/	-	Violet.
/asmani/	-	Sky blue
/kala/	-	Black.

Although these terms are mentioned in different sub-sections, these should not be introduced separately to the child.

5.3.2 Semantic Level:

Part – I

(Introduced at the initial level, at the lower L.Q. level.) Stress should be given on the development of Receptive skill.

1. Naming

/kəŋhi/, /sabun/ etc.
(Comb) (Soap)

2. Semantic discrimination

a) Body Parts :

/nak/, /kan/, /gəla/, etc.
(Nose) (Ear) (Neck)

b) Colours :

/lal/, /həra/, /nila/, /pila/, /gulabi/
(Red) (Green) (Blue) (Yellow) (Pink).

3. Lexical Category [Verbal Items]

/dʒanwərō ke nam/ - (Name of animals)

/subdʒijō ke nam/ - (Name of Vegetables) etc.

4. Semantic similarity:

/citt ^h ɪ - lik ^h na/	/kəhani - kəhna/	/kəpṛa - sina/
(letter) (write)	(story) (tell)	(cloth) (stitch)

5. Semantic Anomaly:

	<u>Response</u>
/dud ^h səfəd hota hɛ/ -	/səhi/
(Milk is white)	(correct)
/nību miṭ ^h a hota hɛ/ -	/gələt/
(Lemon is sweet)	(wrong)

6. Semantic Contiguity

/bərsat - pani/	=	/səhi/
(Rainy - water)		(correct)
/kələm - pəṛna/	=	/gələt/
(Pen - read)		(wrong)
/sona - har/	=	/səhi/
(Gold - Garland)		(correct)
loha - response/	=	/kil/
(Iron) ?		(nail)

7. Paradigmatic Relations :

	<u>Response</u>
/pita, mata, bhai -?/=	/bēhən/
(father, mother, brother)	(sister)
/am ka per̄, nim ka per̄,	
(Mango tree) (Neem tree)	
bərgəd ka per̄ -?/	= /pipəl ka per̄/

- (Banyan tree) (Peepal tree)
8. Syntagmatic Relations [verbal items].
- Response
- /ag-gəɾəm; pani- t^həɳɖa/ = /səhi/
 (fire - hot); (water-cold) (correct)
- /tota tētē; billi-bobo/ = /gələt/
 (parrot - tētē) (cat- bobo) (wrong)
9. Polar Questions [Verbal Items].
- Response
- /kja rat kali hɛ/ = /hā/ (Yes)
 (Is the night dark)
- /kja kutta bhōkta hɛ/ = /hā/ (yes)
 (Does dog bark)
- /kja pət^ht^hər celta hɛ/ = /nəhī/(no)
 (Does stone walk)
10. Antonymy :
- Response
- /c^hota - bəɾa/ = /səhi/
 (small) (big) (correct)
- /nice - kəm/ = /gələt/
 (down) (less) (wrong)
- /pətla/ - response? = /mota/
 (thin) (fat)

11. Synonymy:

		Response
/gənd - bɔl/	=	/səhi/
(ball) (ball)		(correct)
/pita - bæcca/	=	/gələt/
(father) (baby)		(wrong)
/kəm - Response?	=	/thoʊa/
(less)		(less)

12. Homonymy :

		Response
/har/	-	/pəhənəka har or har dʒana/-
(garland) /(defeat)		(garland and defeat)
/sona/	-	/har bənane wala sona or nind se sona/-
(gold)/(sleep)		(garland making gold and to sleep).

PART II

(Introduced at the later stage, after Part I is introduced to the child properly).

In this part the stress should be given on the development of the expressive skill of the child.

Lexical Category:

Birds:

/kəbutər/, /tota/, /mor/, /murga/, /murgi/, /bətək^h/, /goraija/,

(Pigeon), (Parrot) (Peacock) (Cock) (Hen) (Duck) (sparrow)

/ullu/, /cil/, /həns/
(Owl) (Hawk) (Swan)

Animal :

/gæ/, /kutta/, /billi/, /ghora/, /cuha/, /suər/, /mɛc^hlɪ/, /bəndər/
(Cow) (Dog) (Cat) (Horse) (Rat) (Pig) (Fish) (Monkey)
/k^hərgosh/, /hat^hɪ/, /bəkri/, /sāp/, /mendək/, /bagh/, /ūt/,
(Rabbit), (Elephant) (Goat) (Snake) (Frog) (Tiger) (Camel)

/gəd^ha/ /hɪrən/
(Donkey) (Deer)

Colours :

/lal/, /həra/, /nila/, /pila/, /kala/, /safed/, /gulabi/, /bɛ̃ɳi/
(red), (green) (blue) (yellow) (black) (white) (pink) (violet)
/b^hura/, /narəɳɪ/, /asmani/
(brown) (orange) (sky-blue)

Dress :

/kəmidʒ/, /sari/, /frɔk/, /topi/, /kurta/, /luɳi/, /dhoti/, /gəndʒi/,
(shirt) (sari) (frock) (cap) (kurta) (Lungi) (dhoti) (vest)
/modʒa/, /dʒuta/, /chappal/
(sock) (shoes) (sandal).

Parts of body :

/bal/, /sir/, /ank^h/, /nak/, /kan/, /gal/, /dāt/, /dʒiv/, /mūh/,
(hair) (head) (eye) (nose) (ear) (cheek) (teeth) (tongue) (mouth)
/gəla/, /pet/, /hat^h/, /əɳuli/, /nak^hun/, /pit^h/, /pɛr/, /dʒaɳ^h/,

(neck) (stomach) (hand) (finger) (nail) (back) (leg) (thigh)

/g^hutna/, /eɾi/

(ankle) (toe)

Vegetables:

/alu/, /pjadʒ/, /təmatər/, /mirci/, /bēgan/, /mətər/, /gob^hī/,

(potato) (onion) (tomato) (chilli) (brinjal) (pea) (cauliflower)

/kəddu/, /bin/, /gadʒər/, /b^hɪndī/, /pərwəl/

(pumpkin) (bean) (carrot) (lady's finger) (parwal)

Fruits :

/seb/, /am/, /kela/, /narəŋi/, /narijəl/, /əŋur/, /pəpita/,

(apple) (mango) (banana) (orange) (coconut) (grapes) (papaya)

/kəthal/, /naspati/, /əmrud/, /ənanas/

(jackfruit) (pear) (guava) (pineapple)

Furniture and parts of House:

/k^hirki/, /dərwadʒa/, /diwar/, /c^hət/, /get/,

(window) (door) (wall) (roof) (gate)

/sir^hi/, /pələŋ/, /k^hət/, /almari/, /mez/.

(stairs) (bed) (cot) (almirah) (table).

Vehicles :

/saikil/, /kar/, /bəs/, /riks^ha/, /bəlgaɾi/, /tempo/,

(bicycles) (car) (bus) (cycle rickshaw) (bullock cart) (Auto rickshaw)

/relgaɾi/, /dʒip/, /həwaɪdʒəhadʒ/, /nao/

(train) (Jeep) (Aeroplane) (boat)

Utensils :

/glas/, /t^hali/, /handi/, /cəmməc/, /kəp/, /kəlchi/,
(glass) (plate) (pot) (spoon) (cup) (ladle)
/botəl/, /cəkla-belən/, /mæg/, /c^hənni/, /tava/,
(bottle) (rolls-pin) (jar) (strainer) (tava)

Professions :

/dakija/, /d^hobi/, /dɔktər/, /pulis/, /kisan/, /nərs/,
(postman) (washerman) (doctor) (police) (farmer) (nurse)
/məc^huara/, /naɪ/
(fisherman) (barber)

Flowers:

/gulab/, /genda/, /surədʒmuk^hi/
(rose) (merigold) (sunflower)

Insects :

/məkk^hi/, /titli/, /cīti/, /mæechər/
(housefly) (butterfly) (ant) (mosquito)

Antonyms:

/mota/, /pətla/, /bəra/, /c^hota/, /upər/, /nice/
(fat) (thin) (big) (small) (up) (down)
/əndər/, /bahər/, /dʒjada/, /kəm/, /nəja/, /purana/, /gərəm/,
(inside) (outside) (more) (less) (new) (old) (hot)
/t^hənda/, /k^hula/, /bənd/, /pəhla/, /əntim/, /duk^hɪ/, /k^hus/,
(cold) (open) (close) (first) (last) (unhappy) (happy)
/gənda/, /sap^h/, /ləmba/, /chota/, /nikət/, /dur/, /bur^ha/, /bəcca/

(dirty) (clean) (long) (short) (near) (far) (old) (young)
 /b^həra/, /k^hali/, /tej/, /dhima/, /kəṭ^hɪn/, /asan/, /piche/, /age/,
 (full) (empty) (fast) (slow) (difficult) (easy) (back) (front)
 /bhari/, /həlka.
 (heavy) (light).

Polar Questions:

/kja gaə cərti hɛ/ - Does cow graze?

/kja meʒ pər seb hɛ/ - Is there apple on the table?

/kja mā k^hana bənati hɛ/ - Does mother cook?

/kja k^hirki k^huli hɛ/ - Is the window open?

/kja usne dʒute pəhne hɛ/ - Does he have shoes on?

Paradigmatic Relations:

Different activities and stuffs can be used in order to show this relation
 viz.:

/tərna/, /k^hana/, /lik^hna/, /pəɾna/, etc. and

(to swim) (to eat) (to write) (to read)

/gaə/, /billi/, /dʒip/, /seb/ etc.

(cow) (cat) (jeep) (apple)

Syntagmatic Relations :

/ek k^helta bəcca/ - A child playing.

/ek tərta bəcca/ - A child swimming.

/ur̥ti cir̥ra/ - Flying bird.

/ur̥ti pətəŋ/ - Flying kite

/ur̥ti titli/ - Flying butterfly.

/d̥or̥ta g^hora/ - Running horse.

/t̥erti m̥echli/ - Swimming fish.

/hat^hɪ b̥əra h̥ɛ / - Elephant is big.

/cuha c^hota h̥ɛ/ - Mouse is small.

Semantic Anomaly: (Whether right or wrong)

/dud^h lal h̥ɛ/ -Milk is red.

/c^hand rat m̥ē c̥əməkta h̥ɛ/ - Moon shines at night.

/cini k̥ərw̥i h̥ɛ/ - Sugar is bitter.

/p̥ət^hər mulaj̥əm h̥ɛ/ - Stone is soft.

/b̥əkri paltu d̥ʒanw̥ər h̥ɛ/ -Goat is a domestic animal.

Semantic similarity: Showing the picture - card in which particular activity is taking place.

/l̥ər̥ka t̥ər r̥əha h̥ɛ/ - Boy is swimming.

/l̥ər̥ki citr b̥əna r̥əhi h̥ɛ/ -Girl is drawing.

/ɔ̥r̥ət k̥əp̥r̥ə d^ho r̥əhi h̥ɛ/ - Lady is washing clothes.

/l̥ər̥ka gend p^hēk r̥əha h̥ɛ/ - Boy is throwing ball.

Semantic contiguity:

Say whether right or wrong:

(s̥əhi) (g̥əl̥ət)

/b̥əlb - roshni/ → s̥əhi (Response)

/seb - ənaj/ → g̥əl̥ət (Response)

/kitab - p̥ər̥na/ → s̥əhi (Response)

/kələm - lik^hna/ → səhi (Response)

Synonymy:

Say 'səhi' if the meaning of both the words are the same, otherwise say

'gələt':

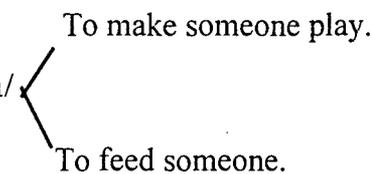
/mā - mummy/ → səhi (Response)

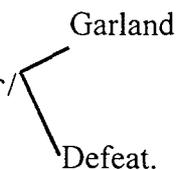
/dʒjada - ədhik/ → səhi (Response)

/nana - nani/ → gələt (Response)

Homonymy:

Tell a word, which has two meanings as supported by two cards, and ask the child to point out these two cards for the given word.

/k^hilana/ 
To make someone play.
To feed someone.

/har/ 
Garland
Defeat.

(It can be used for both "Reception" and "Expression" purposes).

5.3.3 Syntax

Plurals: Different cards can be used in order to show different singular and plural forms. It can also be used for the purpose of expression.

/ek ghoṛa/ - /do ghoṛe/

(one horse) (two horses)

/ek lərki/ - /do lərkiĵā/

(one girl) (two girls)

/ek lərka/ - /do lərke/

(one boy) (two boys)

/billi kali hε/ - /billijā kali hē/

(cat is black) (cats are black)

Tenses :

Different cards can be used.

/lərki k^hana k^ha rəhi hε/ - The girl is eating

/lərki ne k^hana k^ha lija hε/ - The girl has eaten.

/lərki k^hana k^hajegi/ - The girl will eat.

/lərka kəpra d^ho rəha hε/ - The boy is washing clothes.

/lərke ne kəpra d^ho lija hε/ - The boy has washed clothes.

/lərka kəpra d^hoega/ - The boy will wash clothes.

Questions can be asked in different ways in order to seek responses (regarding tenses) from the patients.

Person - Number - Gender:

/lərki gana gati hε/ - The girl sings.

/lərka gana gata hε/ - The boy sings.

/we log gana gate hē/ - They sing.

/ek lərka k^helta hε/ - A boy plays.

/do lərke k^helte hē/ - two boys play.

/wəh dzata hε/ - He goes.

/we log dzate hē/ - They go.

Case Markers:

/lərki ne lərke ko gend dija/ - The girl gave the ball to the boy.

/lərki ne lərke ko pita/ - The girl beat the boy.

/lərki ne lərke ko dēnde se pita/ - The girl beat the boy with a stick.

/mez pər seb hε/ - The apple is on the table.

/pani balti mē hε/ - Water is in the bucket.

/lərka pər se p^həl tor̄ta hε/ - The boy plucks fruit from the tree.

/jeh uska ghər hε/ - This is his/her house.

/wəh kar se dzata hε/ - He goes by car.

Transitive:

/lərka p^hulō ko dek^h rəha hε/ - The boy is looking at flowers.

Intransitive:

/lərki nac rəhi hε/ - The girl is dancing.

Causatives :

/lərki ko k^hana k^hilwaja dza rəha hε/ - The girl is made to eat by someone.

Affirmative vs. Negative forms :

Different types of questions can be asked after showing different picture cards.

/kja jeh mez hε/ - Is this a table (question)

/hā, jeh mez hε/ - Yes, this is a table (patients reponse)

/kja billi kali hε/ - Is the cat black (Question).

/nəhi, billi kali nəhi hε, jeh səp^hed hε/ - No, the cat is not black; it is white (patient's response).

Interrogatives:

/jeh kya hε/ - What is this?

/dʒuta kəhā hε/ - Where is the shoe.

/tumhē kən sa cahije/ - Which one do you want?

/billi kəhā hε/ - Where is the cat?

/ləṛki kjō ro rəhi hε/ - Why is the girl crying?

Comparatives:

/ləṛki ləṛke se ləmbi hε/ - The girl is taller than the boy.

/redro se ghəri choti hε/ - Watch is smaller than the radio.

/us per̄ per̄ is per̄ se dʒjada tote hē/ - There are more parrots on that tree than this tree.

/wəh ləṛka us ləṛki se dʒjada mota hε/ - That boy is fatter than that girl.

Conditionals:

/əgər t^hənd ləge, swetər pəhən lena/ - If you feel cold, wear the sweater.

/mē tumhē kəhani sunauja əgər tum k^hana khaoge/ - If you eat, I will tell you a story.

Conjunctives and Quotatives :

/mā ɔr papa dʒa rəhə hɛ/ : Mother and father are going.

/lərki ro rəhi hɛ kjõ kɪ wəh gir pərɪ/ - The girl is crying because she fell.

/usne puc^ha, tumhẽ choklet cahije ja gend/ -She asked "Do you want chocolate or the ball?"

Participial constructions:

/cəlti kar se admi gir gəja/ - The man fell off the moving car.

/lərki lik^hte-lik^hte pani pi rəhi hɛ/ -The girl is drinking water while writing.

5.4 Pragmatics:

The patient should be made acquainted with not only the function of language but also the context in which language occurs. The language context refers to the environment in which utterances are used as well as such listener variables as age, sex, and relation of the listener to the speaker. Environmental variables also include the physical, cultural, and social setting in which speech occurs.

The basic objective should be to train a patient by using his/her social context. Therapy might address social interactive skills with trainers and peers, conversational skills (discourse) how to make requests, how to ask for help, how to clarify statements that people do not understand, and so forth. It should be done according to the child's age group.

(1) Between 2 and 10 months:

Eye contact and gaze exchange can be used to regulate joint attention on an activity- a prerequisite to learning reference. If the child is able to make proper

eye contact or smiles at someone, it is quite sure that child is taking notice of the person.

Activities such as vocalisation and pointing should be improved; that can be done by hiding the stuff or person what so ever demanded by the child. But of course, it should only be done for a minimum time period.

(2) Between 10 and 16 months:

At this stage, the regulatory function of language should be strengthened. Gestures of giving, pointing and showing should be developed. For the development of conversation, turn taking in the play should be emphasised.

Early words must be used by the trainer so that the child develops the tendency to articulate instrumental (“mujhe do”), regulatory (“yehi karo”), interactional (“ta- ta”),

(3) Between 18 and 30 months:

In this time period, symbolic play, use of imaginative speech, beginning of discourse, answering questions, use of description, expressing some feeling, deictic use of pronouns, and ability to change topics are to be emphasised.

(4) Between 3 and 4 years:

The child should be exposed to different people so that he/she might be able to change the code and understand the phenomenon of code switching. The child gets easily attracted towards any baby. Usage of taboo words should be emphasised at this stage. It increases ability to maintain a conversation beyond several turns.

(5) Between 4 and 5 years:

At this stage, stress should be given on the production of antonym, synonym, and rhyming words. Child should be made capable of handling meta-linguistic use of language, Making indirect requests should be taught.

(6) Later stages:

The child should be made capable of narrating discourse, understanding jokes and sarcasm.

It seems to me that normal children at the age of 2 years are able to participate in few discourses. For example, a story once narrated to the child can be re-narrated to him/her and questions can be asked in between the story viz; what is the next part of it, or 'who did what?' in the story. Children of this age group can give the answer to such questions normally. But surprisingly, I used this method in interacting with several speech and language delayed children, a few of them responded positively, especially, when there was one word answer or 'fill in the blank' type of questions.

Therefore, the point that I want to emphasise on is that; cases of this type (speech disordered child) can be tackled more efficiently by the use of pragmatics. It not only affects the comprehensive and expressive skills of the child but also the cognitive skill which, in my thinking is the most essential part to motivate a speech and language delayed child to try to speak out his/her mind. Of course, it can come out in the form of gestures, but there are chances that he/she might utter a few words, or even sentences as well.

CHAPTER VI

CONCLUSION

The basic goal behind the preparation of the present material is to fill the lacunae of appropriate, graded Linguistic material in speech clinics or speech training centres. As per my observation the materials, which are in use in these speech clinics presently are not up to the mark in terms of Assessment procedures, Diagnostic procedures, or Therapeutic procedures. For proper functioning, these speech clinics need Graded Linguistic material, which can be used in handling various cases of speech and language delay according to the nature and extent of problem/delay in individual patient.

In India, Hindi is one of the major languages, which is spoken amongst a large section of its population. But when we look at the speech and language material in various speech training centres or the speech clinics, hardly any original language material in Hindi is found. The materials which we find, is either adapted or acquired as such in foreign tongue or translated which has been used by the speech pathologists or language trainer in 'their' country, within 'their' contexts and in 'their' environment. These materials are not of much help for the patients who are alien to these languages and cultures. We need to use the material, which has a direct relationship with 'our' language, with 'our' contexts and with 'our' environment.

Speech pathologists, or language trainers should view their essential role as being that of a provider of simplified language model (of patient's mother tongue) so that the child may discover the basic patterns and rules which seem to have escaped his/her attention. They must insist that the goal is not to have the child, through imitation, simply repeat the clinician's modeling of phrases and sentences of increasing complexity. Instead, they must desire that he/she discover how words and phrases can and must be joined together (in his/her mother tongue) to express meanings. As Laura Lee (1969) puts it,

“ The clinician’s task is to unravel the linguistic complexity for the child, to help him recognize the information bearing kernel sentences, and to build up a slow but meaningful set of transformational operations which he can use both receptively and expressively” (p. 273).

Keeping these facts in my mind, I started working in this area in order to -

- a) study the material currently in use in speech and language clinics in Delhi, India in Hindi language
- b) to study the speech and language delay cases so as to find out their requirement of material
- c) to suggest and develop sample material in Hindi language for these children.

For this purpose ten cases of slow learners were studied (six males and four females). The subjects ranged in age from 2 to 7 years. Children had average or above average intelligence, and normal hearing.; The children came from a middle level socio-economic background. The speech and language abilities were studied by a subjective evaluation and recording of spontaneous and elicited speech samples by tape recording and diary keeping. The data obtained was transcribed with broad IPA transcription. This was also aided by diary keeping, observation and testing. A detailed description of each case was done and the profiles of the slow learners were drawn in this manner.

The analysis was made in terms of phonological features - linguistic and paralinguistic, selected semantic morpho- syntactic and pragmatic abilities. These speech and language characteristics were examined separately for each case after working out individual profiles for each subject. Then, the general characteristics of speech and language delay as a whole in terms of speech and language characteristics were identified. The results were as follows:

- (1) Speech and language deficits and deviances are significant distinguishing features of the abnormality in slow learners.

- (2) The whole group presents speech and language deficits/ defects.
- (3) The language of the speech and language delayed child is marked by the occurrence of only a few limited number of grammatical categories and limited lexicon, besides inadequate and deficient phonology. The categories available are not acquired and used to their maximum extent appropriately. Even among the categories, no single item/unit (none of any grammatical categories) whether of phonology, morphology or of syntax is fully mastered.
- (4) Besides limited language output, absence of linguistic forms deficient/inadequate language abilities, there are also several language abnormalities seen such as expressive aphasic tendencies as evident in longer response times, word finding difficulties, use of circumlocutory expressions, disfluency in speech, pronominal reversal (confusion in use of pronouns) and neologisms (occasional use of new terms). These need to be explored in detail.
- (5) Language comprehension is much better than expression.
- (6) Phonological deficits are more stable features than the grammatical ones
- (7) The speech and language defects of each of subjects studied are found to correspond with the overall group patterns identified by this investigation, in spite of the wide variations noticed in terms of speech and language characteristics.

After noting these results the material for tests and practice methods in use in speech clinics were studied in detail and analyzed in terms of different levels of linguistic structure such as, phonological, morpho-syntactic, semantic, pragmatic, etc., and in both, oral and written comprehensive as well as productive skills.

On the basis of the above investigations, three different sub- sets of the graded material were prepared. These are:

- Material for Assessment procedures,
- Material for Diagnostic procedures, and
- Material for Therapeutic procedures.

6.1 Material for Assessment procedures:

This is designed primarily to measure a subject's receptive (verbal comprehension) and expressive language. It also shows the extent of language acquisition.

For *comprehension – assessment*, Derbyshire Language Scheme (Knowles and Masidlouer, 1982) is taken as a model. The model enables users of the scheme to assess verbal comprehension and expressive language skills at various levels of complexity via structured play situations. The areas to focus on include the following:

Comprehension of information carrying words:

- (1) To assess comprehension of key words the following can be used: objects, pictures of objects, miniature toys, actions, pictures of actions, parts of body (own and others).
- (2) Relating two bits of information: / t̄kije ko p̄l̄l̄ŋ p̄r̄ r̄k̄ho /, / s̄bzi kato /, / tum kisse khate ho /.
- (3) Relating three bits of information (Prepositions, relative size) / gend ko kursi ke nice r̄k̄ho /, / guṛia ke cehre ko saf̄ k̄ro / (from a choice of doll, teddy, comb and soap)
- (4) Relating four bits of information. / papa ko teb̄l̄ ke nice bethao /

Comprehension of Syntax:

This can be examined at both sentence and word level. Once again, both play and picture material could be used to assess them. These types of units are suggested.

- (1) Verb phrase - / l̄ṛka am kha r̄ha h̄ /.
- (2) Prepositional phrase – / kutte or billi ke bic m̄ẽ b̄nd̄r̄ h̄ /.
- (3) WH question/ sequences: / w̄h̄ k̄n̄ h̄ /?.
- (4) Modifiers: / l̄ṛke ke pas ek choti lal gend h̄ /.
- (5) Negatives / l̄ṛki d̄r̄ n̄h̄ĩ̄ r̄hi h̄ /.
- (6) Passive – / l̄ṛke ko d̄nde se pita ja r̄ha h̄ /.

(7) Infinitives- / lðrka nðdi ke par tðk terna cahta tha /.

(8) Subordinate clauses:- / bðcci ro rðhi he kðk: use bhukh lðgi he /.

(9) Indirect request :- / kja tumhe . ðpne kðpre saf nðhi . kðrne cahije / ?

Comprehension of Vocabulary:

The child should be familiar with the vocabulary from the areas of the home situation as well as from other familiar environments. It could be assessed using play and picture material in a variety of ways:

Home Environment

- Family names/ address terms
- Common everyday activities
- Specific name of items including clothes and furniture.

Other familiar environments

- Activities that relates directly to the child
- Places the child is familiar with
- Items in those places.

The vocabulary of basic concepts

- Direction and position
- Size
- Emotions
- Time
- Number
- Colour
- Shape

The wider environment

It must be checked if the child can classify and cross-reference of his or her knowledge when selecting which items belong in which environment. It is also

interesting to see if the child is able to give further examples from his or her experience (eg:- / hɔ̃mlog riksha se jate hẽ̃ . / , / us dukan me b̃chut seb hẽ /)

The *verbal skill - assessment* section aims to look at more than just verbal skills as a measure of expressive ability in language-disordered children. It is important to observe the child's behaviour and evaluate what he or she does in response to difficulties with sentence formation. The types of strategies a child employs will be important when considering treatment programmes aimed at increasing effective communication.

Some of the factors which need to be considered in the assessment of a child's expressive skills:-

- Situational aspects
- Paralinguistic aspects (the use of intonation and other vocalizations)
- Use of mime, gesture and facial expression.
- Verbal skills.

It can be helpful to have a quick checklist of verbal language, which can be used, in the clinic or while visiting the home or nursery. This checklist, with examples amalgamates several different approaches.

Expressive language check list:

1. Single nouns and verbs:
/ mã̃ . / , / gɔ̃i /
2. Two-word phrases (N/V phrases):
/ nɔ̃hĩ̃ pina / , / papa wɔ̃hã̃ . / , / gend mar /
3. Three-word phrases (wh-questions, negatives prepositional phrases):
/ wɔ̃h ɔ̃ccha phul /
4. Four - word phrases (possessives , plurals, past tense):

/ mujhe n̄hi cahije /, / mere papa ki pen k̄hã . he /.

5. Complex phrases (coordinations, subordination, tagged and comparative clauses):

/ m̄ã or m̄ẽ bazaar ḡoje or m̄ẽne mithai li or m̄ẽ . gir p̄ra /.

6. Passive, complex verb phrase complement)

/ mujhe kisi ne mara /.

Phonological assessment can also be done on the basis of the production of sounds of Hindi alphabet. A checklist comprising vowel and consonant can be used for this purpose. On the basis of this check list assessment can be done accordingly.

Other than the verbal comprehension and expressive skills the assessment of pragmatic ability is also important for the proper rehabilitation of slow learners. Three main areas of pragmatic ability have been identified which interact depending on the child's context:

1. Communicative intent
2. Organisation of discourse
3. Presupposition

Checklist of pragmatic abilities :

1. *Range of communicative intents*

- (a) Requesting information :-/ m̄ã k̄hã he /?
- (b) Requesting action: - / gurija j̄hã lao /.
- (c) Prohibition: - / mat / , /na /
- (d) Responding to requests: / thik he /, / le lo /.
- (e) Stating or commenting: / jeh meri garī he / . / mujhe kutte ðcche n̄hĩ . l̄gte /.
- (f) Regulating conversation: / kja b̄taũ . /
- (g) Other performatives including teasing, warning or conveying humour.

2. *Organisation of discourse:*

- a. Turn-taking
- b. Attention seeking and directing devices
- c. Initiation
- d. Reinitiation
- e. Responding
- f. Initiation with response
- g. Follow-up that is evaluative or acknowledgement.
- h. Topic maintenance
- i. Topic change
- j. Identification of break down, with requests, clarification.
- k. Repair
- l. Termination

3) *Presupposition:*

Shared information may be established from:

- (a) An earlier sentence: / meri caci kōl khane pōr aji thi [/kja sōcmuc /] / hā, or wōh mujhe p'ar bhi kōrna cahti thi /.
- (b) Previous knowledge of the person or the experience.
- (c) Knowledge of the world
- (d) Knowledge of social contexts and personal characteristics
- (e) Awareness of the physical context and its limitations

Apart from these procedures, if the patient cannot utter a single utterance (nonverbal), a questionnaire is provided for the parents (mentioned in the assessment procedures section of the previous chapter) so that the assessment of the non-verbal child can be done.

6.2 Material for Diagnostic procedure:

- (a) Taking a detailed case history of early communication development.

- (b) Drawing up a series of formal and informal observations of the child's communication skills.
- (c) Establishing a base line of the child's language difficulties against which progress can be determined.
- (d) Looking for strengths and weaknesses in the child's language profile that could be used in planning of an intervention programme.

6.3 Material for Therapeutic procedures:

This material is required to deal with the problem at four different levels, viz.

- Phonological
- Semantic
- Syntactic
- Pragmatic

6.3.1 Phonological:

The guiding principle is that the child's faulty articulatory patterns may be a result of a phonological system that is different from the standard adult model and that thorough analysis of the child's rule system will lead to efficient management based on remediation of error patterns. The phonological therapeutic procedure material is based on the mandatory facet of both the approaches, viz:- distinctive- feature theory and phonological processes. Other than this, a drill chart is also provided so that the child can be taught step by step.

The trainer models the sound or the strategy for making the sound, and helps the child use the strategy to produce the sound. This is done using several examples for each dimension and level of difficulty as mentioned in the last chapter. The children are prompted to use the strategy during guided practice and more difficult examples are introduced. A sequence and schedule of opportunities for children to apply and develop facility with sounds should be tailored to each child's needs, and should be given top priority.

6.3.2 Semantic:

1. *Naming*

/kəŋhi/, /sabun/, etc.
(Comb) (Soap)

2. *Semantic discrimination*

a) Body Parts:

/nak/, /kan/, /gəla/, etc.
(Nose) (Ear) (Neck)

b) Colours :

/lal/, /həra/, /nila/, /pila/, /gulabi/
(Red) (Green) (Blue) (Yellow) (Pink).

3. *Lexical Category [Verbal Items]*

/dʒanwəro ke nam/ - (Name of animals)

/subdʒijō ke nam/ - (Name of Vegetables) etc.

4. *Semantic similarity:*

/citt^hi - lik^hna/ /kəhani - kəhna/
(Letter) (Write) (Story) (Tell)

5. *Semantic Anomaly :*

<u>Question</u>	<u>Response</u>
/dud ^h səfed hota hɛ/?	- /səhi/
(Milk is white?)	(Correct)
/nību mīt ^h a hota hɛ/	- /gələt/

(Lemon is sweet) (Wrong)

5. *Semantic Contiguity*

/bərsa - pani/ = /səhi/
(Rain - water) (Correct)
/kələm - pərna/ = /gələt/
(Pen - read) (Wrong)

7. *Paradigmatic Relations:*

	Response
/pita, mata, bhai ?/ = (Father, mother, brother)	/bəhən/ (Sister)
/am ka per, nim ka per, (Mango tree) (Neem tree)	
bərgəd ka per ?/ =	/pipəl ka per/ (Peepal tree)
(Banyan tree)	

8. *Syntagmatic Relations [verbal items]:*

	Response
/ag-gərəm; pani- t ^h ənda/ = (fire - hot); (water-cold)	/səhi/ (correct)
/tota- tētē; billi-bobo/ = (Parrot - tētē) (Cat- bobo)	/gələt/ (Wrong)

9. *Polar Questions [Verbal Items]:*

	Response
/kja kutta bhōkta hε/ =	/hā/ (yes)

(Does dog bark)

/kja pət^ht^hər cəltə hɛ/ = /nəhī/(no)

(Does stone walk)

10. *Antonymy* :

Response

/c^hota - bəɾə/ = /səhi/

(Small) (Big) (Correct)

/nice - kəm/ = /gələt/

(Down) (Less) (Wrong)

/pətla/ - response? = /mota/

(Thin) (Fat)

11. *Synonymy* :

Response

/gənd - bəl/ = /səhi/

(Ball) (Ball) (Correct)

/kəm - Response? = /thoda/

(Less) (Less)

12. *Homonymy* :

Response

/har/ - /pəhənəka har ɔr har dʒana/-

(Garland) or, (garland and defeat)

(Defeat)

/sona/ - /har bənane wala sona ɔr nind se sona/-

(Gold) or, (garland making gold and to sleep).

(Sleep)

6.3.3 Syntactic:

1. *Plurals:*

Different cards can be used in order to show different singular and plural forms.

It can also be used for the purpose of expression.

/ek ləɾka/ - /do ləɾkə/

(One boy) (Two boys)

/billi kali hɛ/ - /billijā kali hē/

(Cat is black) (Cats are black)

2. *Tenses:*

Different cards can be used.

/ləɾki k^hana k^ha rəhi hɛ/ - The girl is eating

/ləɾki ne k^hana k^ha lija hɛ/ - The girl has eaten.

/ləɾki k^hana k^hajegi/ - The girl will eat.

Questions can be asked in different ways in order to seek responses (regarding tenses) from the patients.

3. *Person - Number - Gender:*

/ləɾki gana gati hɛ/ - The girl sings.

/ləɾka gana gata hɛ/ - The boy sings.

/we log gana gate hē/ - They sing.

4. *Case Markers:*

/ləɾki ne ləɾke ko pita/ - The girl beat the boy.

/ləɾki ne ləɾke ko dənde se pita/ - The girl beat the boy with a stick.

/ləɾka peɾ se phəl toɾta hɛ/ - The boy plucks fruit from the tree.

/jeh uska ghər hɛ/ - This is his/her house.

/wəh kar se dʒata hɛ/ - He goes by car.

5. *Transitive:*

/lɔɾkə p^hulō ko dek^h rəha hɛ/ - The boy is looking at flowers.

6. *Intransitive:*

/lɔɾki nac rəhi hɛ/ - The girl is dancing.

7. *Causatives:*

/lɔɾki ko k^hana k^hilwaja dʒa rəha hɛ/ - The girl is made to eat by someone.

8. *Affirmative vs. Negative forms:*

Different types of questions can be asked after showing different picture cards.

/kja jeh meʒ hɛ/ - Is this a table (question)

/hā, jeh meʒ hɛ/ - Yes, this is a table (patients reponse)

9. *Interrogatives:*

/jeh kya hɛ/ - What is this?

/billi kəhā hɛ/ - Where is the cat?

/lɔɾki kjō ro rəhi hɛ/ - Why is the girl crying?

10. *Comparatives:*

/us pɔɾ pɔɾ is pɔɾ se dʒjada tote hē/ - There are more parrots on that tree than this tree.

/wəh lɔɾka us lɔɾki se dʒjada mota hɛ/ - That boy is fatter than that girl.

11. *Conditionals:*

/mē tumhe kəhani sunauᅇa əgər tum k^hana khaogē/ - If you eat, I will tell you a story.

12. *Conjunctives and Quotatives :*

/mā ɔr papa dʒa rəhe hē/ : Mother and father are going.

/usne puc^ha, tumhē chəklet cahije ja gend/ -She asked, "Do you want chocolate or the ball?"

13. *Participial constructions:*

/cəlti kar se admi gir gəja/ - The man fell off the moving car.

/ləᅇkɪ lik^hte-lik^hte pani pi rəhi hē/ -The girl is drinking water while writing.

6.3.4 Pragmatic:

The emphasis should not only be on the function of language but on the context also, in which language occurs. The language context refers to the environment in which utterances are used as well as such listener variables as age, sex, and relation of listener to the speaker. Environmental variables include the physical, cultural and social setting in which speech occurs. The basic objective of the present material is to train the speech and language delayed child by using his/her environmental variables and his/her social context.

Therapy might address social interactive skills with trainers and peers, conversational skills (discourse) how to make requests, how to ask for help, how to clarify statements that people do not understand, and so forth.

In order to develop the pragmatic abilities of speech and language delayed children, the steps mentioned below should be followed according to the child's age-group.

1. *Between 2 and 10 months:*

Eye contact and gaze exchange should be enhanced. Activities such as vocalisation and pointing should be improved; which hiding the stuff or person what so ever, demanded by the child can do.

2. *Between 10 and 16 months:*

The regulatory function of language and gestures of giving, pointing and showing should be developed. For the development of conversation, turn taking in the play should be emphasised.

Early words must be used by the trainer so that the child develops the tendency to articulate instrumental (“/mujhe do/”), regulatory (“/jəhi kəro/”), interactional (“/ta-ta/”), etc.

3. *Between 18 and 30 months:*

Symbolic play, use of imaginative speech, beginning of discourse, answering questions, use of description, expressing some feeling, deictic use of pronouns, and ability to change topics are to be emphasised.

4. *Between 3 and 4 years:*

Taboo words usage should be emphasised at this stage. It increases ability to maintain conversation beyond several turns.

5. *Between 4 and 5 years:*

Stress should be given on the production of antonym, synonym, and rhyming words.

6. *Later stages:*

Child should be made capable of narrating discourse, understanding jokes and sarcasm.

On the basis of the above recommendation it has been attempted to formulate a graded language learning system for speech and language disabled children. The procedures discussed above however, should not be used separately but, rather they should be used simultaneously by the clinician/therapist according to the needs of the child. This study has given me a whole new insight into the linguistic deficiencies faced by speech and language disabled children. There is a huge amount of study that remains to be done in this area; this study is simply a preliminary account. Time constraints in the M.Phil. programme, have unfortunately, not allowed me to do a more in-depth study. Given the opportunity, I would like to continue to work on this topic for my Ph.D. and focus on the area of child language disorder in the future.

BIBLIOGRAPHY

Adler Sol and King A. Deborah (Edited), *Oral communication problems in Children and Adolescents*, Allyn and Bacon, Massachusetts, 1994.

Aram, D.M. and Nation J.E., *Child Language Disorders*, Mosby, St. Louis, 1982.

Bai Lakshmi B. and Vasanta D. (Edited), *Language Development and Language Disorders : Perspectives from Indian Languages*, Centre of Advanced study in Linguistics, Osmania University, Hyderabad and Bahri Publications, New Delhi, 1995.

Baken, R.J., *Clinical Measurement of Speech and Voice*, College-Hill Press, Boston, 1987.

Bamford, J. and Saunders E., *Hearing Impairment, Auditory Perception and Language Disability*, 2nd edition., Whurr, London, 1990.

Berk E. Laura., *Child Development* (Third Edition), Prentice Hall of India, New Delhi, 2001.

Bevli K. Updesh., Ghuman S. A. Paul. and Dasen R. Pierre (Edited) *Cognitive development of Indian Child*, N.C.E.R.T., New Delhi, 1989.

Bevli K. Updesh (Edited), *Researches in Child Development*, N.C.E.R.T., New Delhi, 1990.

Bhutani K., Ramachandran K., Beena C. and Sen Manisha, *Understanding Psychology of Human Behaviour*, N.C.E.R.T., New Delhi, 1999.

Bishop D.V.M., *The Test for Reception of Grammar*, Published by the author at the University of Manchester, Oxford Road, Manchester M13 9PL, 1983.

Bishop D.V.M., "The causes of specific developmental language disorder.," *Journal of Child Psychology and Psychiatry* 28, 1-8., 1987.

Bloom L. and Lahey M., *Language Development and Language Disorders*, John Wiley and Sons, New York, 1978.

C.K. Shyamala, *Speech and Language Behaviour of the Cerebral Palsied*, C.I.I.L., Mysore, 1991.

Clark E. and Clark H.F. *Psychology and Language, an Introduction to Psycholinguistics* Harcourt Brace Jovanovich, New York, 1977.

Clark K.J. and Yallop C., *An Introduction to Phonetics and Phonology* Blackwell, Oxford, 1990.

Clezy G., "The modification of the mother – child interchange," *British journal of Disorders of Communication* 113.93-106., 1978.

Creaghead A. Nancy, Newman W. Parley and Secord A Wayne., *Assessment and Remediation of Articulatory and Phonological disorders* (Second Edition), Macmillan Publishing Company, New York, 1989.

Cruttenden A., *Language in Infancy and Childhood*, Manchester University Press, Manchester, 1979.

Crystal D., *Profiling Language Disability*, Edward Arnold, London, 1982.

Crystal D., "Time, terms and teeth – Esile Fogarty Lecture." *British Journal of Disorders of Communication* 17,3 – 19., 1982.

Crystal David, *Linguistic Encounters with Language Handicap*, Basil Blackwell, New York, 1984.

Crystal D., *Clinical Linguistics*, Edward Arnold, London, 1981.

Crystal D., *The Cambridge Encyclopedia of Language* Cambridge University Press, Cambridge, 1987.

Crystal David and Varley Rosemary, *Introduction to Language Pathology*, Whurr Publishers Ltd., London, 1993.

Dale, P.S., *Language Development Structure and Function*, 2nd edn. Rinehart and Winston, New York, 1976.

Darley F. and Spriestersbach D., *Diagnostic Methods in Speech Pathology*, 2nd edition., Harper & Row, New York, 1978.

Eastwood J., "Qualitative research: An additional research methodology for speech pathology." *British Journal of Disorders of Communication* 31, 171 – 184., 1986.

Fromkin Victoria, *Speech Errors as Linguistic Evidence*, The Hague : Mouton, Errors in Linguistics Performance Slips of Tongue, Ear, Pen and Hano, Academic Press, London, 1980.

Fry D.B., *Homo - loquen: Man as a Talking Animal* Cambridge University Press, Cambridge, 1977.

Gaag der Van Anna and Dormandy Klara, *Communication and Adults with Learning Disabilities*, Whurr Publisher, London, 1993.

Goodglass Harold and Kaplan (Edit), *The Assessment of Aphasia and Related Disorders*; Lea and Febiger, Philadelphia, 1983.

Goswami Usha and Bryant Peter, *Phonological skills and Learning to Read*, Lawrence Embacy Association Limited, Hove, Sussex, 1990.

Griffiths P., "A follow up of children with disorders of speech." *British Journal of Disorders of Communication* 4, 46 – 56, 1969.

Grunwell P., *Clinical Phonology*, 2nd edn., Croom Helm, London, 1987.

Grunwell P., (ed.) *Development Disorders of Speech*, Whurr, London, 1990.

Grunwell P. and James Allan (Edited), *The functional evaluation of language disorders*, Croom Helm Limited, London, 1989.

Hutte E., *Teaching Language Disordered Children: A structured curriculum*, Edward Arnold, London, 1986.

Karant Pratihba, Manjulov R., Geetha V.Y. and Prema S.K. *With a little bit of help, Books for Change*, A unit of Action Aid Karnataka Projects.

Kirsner Myra (Edited), *Tests of Voice, Speech and Language*, A.I.T.B.S. Publishers and Distributors, Delhi, 1995.

Krishnaswamy N., Verma K.S. and Nagarajan M., *Modern Applied Linguistics*, Macmillan India Limited, Madras, 1992.

Law James (Ed.), *The Early Identification of Language Impairment in Children*, Champman and Hall, Madras, 1992.

Lees and Urwin, *Children with Language Disorders*, Whurr Publishers Limited, London, 1992.

Lester D. James Sr. and Lester D. James Jr., *The Research Paper Handbook*, Good Year Books, Scott, Foresman and Company, Illinois, 1992.

McDade H.L., "A parent – child interaction model for assessing and remediating language disability." *British journal of Disorders of Communication* 16, 175-183., 1981.

Morgan T. Clifford and King A. Richard, *Introduction to Psychology*, Tata McGraw-Hill Publishing Company Limited, New Delhi, 1975.

Morris W.H. David, *Dictionary of Communication Disorders*, A.I.T.B.S. Publishers and Distributors, Delhi, 1994.

Morton John and Marshall C. John (Edited), *Psycholinguistics 2 : Structures and Processes*, The MIT Press, Cambridge, Massachusetts and London, 1979.

Muller D.J., Munro S.M. and Code C., *Language Assessment for Remediation*, Croom-Helm, London, 1981.

Nation J.E. and Aram D.M., *Diagnosis of Speech and Language Disorder*, 2nd edn., Mosby, St. Louis, 1984.

O'Connor J.D., *Phonetics*, Penguin, Harmondsworth, 1973.

Palmer F.R., *Grammar*, 2nd edn., Penguin, Harmondsworth, 1984.

Perkins W.H., *Speech Pathology: An Applied Behavioural Science*, 2nd edn., Mosby, St. Louis, 1977.

Peterson A. Harold and Marquardt P. Thomas, *Appraisal and Diagnosis of Speech and Language Disorders*, Prentice Hall, New Jersey, 1994.

Poizner Howard, Klima S. Edward, and Bellugi Ursula, *What the Hands reveal about the Brain*, MIT Press, London, 1987.

Pring T., "On choosing a methodology to assess the effectiveness of therapeutic intervention: a reply to Fitz Gibbon?" *British Journal of Disorder of Communication* 22, 163 – 166., 1987.

Reynell J.). *The Reynell Development Language Scales – Revised*, Windsor. NFER, 1985.

Rieber.W. R. and Brubaker S. R. (Edited) *Speech Pathology*, North-Holland Publishing Company - Amsterdam, 1966.

Riper Van Charles and Emerick Lon, *Speech Correction : An Introduction to speech Pathology and Audiology*, Prentice Hall, New Jersey, 1990.

Semel E. and WIIG E., *Clinical Evaluation of Language Functions*, Psychological Corporation, Harcourt Brace Jovanovich, London, 1973

“Silva P.A., McGee R.O. and Williams S.M., "Developmental language delay from three to seven years and its significance for low intelligence and reading difficulties at age seven." *Developmental Medicine and Child Neurology* 25, 783 – 793., 1983.

Smith P .K. and Cowie H., *Understanding Children's Development*, 2nd edn. Blackwell, Oxford, 1991.

Stevenson J. and Richman N., "The prevalence of language delay in a population of three years old children and its association with general retardation." *Developmental Medicine and Child Neurology* 18,431 – 441., 1976.

Stevenson P., Bax M. and Stevenson J., "The evaluation of home based speech therapy for language delayed preschool children in an inner city area." *British Journal of Disorders of Communication* 17, 141 – 148., 1982.

Thirumalai S .M., *Language Acquisition Thought and Disorder*, C.I.I.L., Mysore, 1990.

Travis L.E. (ed.) *Handbook of Speech Pathology*, 2nd edn., Appleton -Century-Crofts, New York, 1971.

Urwin S., Cook J. and Keely K., "Pre-school language intervention: a follow up study." *Child Care Health and Development* 14,127 – 146., 1988.

Williams P. (ed.), *A Glossary of Special Education*, Open University Press, Milton Keynes, 1988.

Young V. Pauline, *Scientific Social Surveys and Research*, 4th edn., Prentice-Hall of India Private Limited, 1994

Yule W. and Rutter M. *Language Development and Disorders*, MacKeith, Press, London 1987.

Woolfolk- Carrow Elizabeth and Lynch I. Joan., *An Integrative Approach to Language Disorders in Children*, The psychological corporation Harcourt Brace Jovanovich, Inc., 1981.

M. Phil. Dissertations: -

Gupta Meenakshi, *Acquisition of Fricatives and Affricates in Hindi*, CLE, SLL & CS, JNU, New Delhi, 1993.

Ranjan Kumar Nishant, *Patterns of Morphological Impairment in Hindi speaking Aphasics : A Neurolinguistic study*, CLE, SLL & CS, JNU, New Delhi, 1998.

Mathew Susan, *Formatting Linguistic Profiles of Dyslexic Children : Case studies in Delhi*, CLE, JNU, New Delhi, 2001.

