CHAPTER-II

SECTION I

Theoretical Frame Work

2.1 Introduction

This chapter provides an attempt to define language in the context of present study incorporating its various components. The stages of language acquisition are mentioned to have an idea of the language status of the child when he is five years old. The various theoritical approaches to the study of language have been described to have a perspective of the theoritical approach of the present investigation.

2.2 Theoretical Background

Communication is a form of social cohesion. It is a means by which members of social group share their experiences and knowledge and form relationships. Communication can be through language, gestures, codes or impulses. Not only man, but also animals also posses communication systems. Von Frisch (1932) has described the activities of worker honey bees by which location

of supplies of nectar or pollen can be transmitted. Similarly ants, termites and many insects have some mode of communication devices. Inframammalian vertebrates also communicate with each other in many ways. Birds use variety of sounds to direct behaviours of individuals of same species and of potential predators (Armstrong 1947). All animal communication devices relate to biological needs. Not only that, inspite of extra ordinary diversity of animal signals, individual species use only a small number of signals.

Like animals, man also uses gestures expressions, postures and touch for communication. But man also uses language. There is a great disparity between the communication system of animals and these of man. Man has a range of signals in the form of words which may number hundreds or thousands. Language is complex, symbolic, productive and arbitrary in nature. Human language has evolved through a complex process by which sounds which are meaningless alone are put together into sequences which have meaning. There is nothing like this in animal communication where basic signals are restricted to their meaning. There is no grammar which enables the animals to arrange their signals in sequences to provide a different meaning. Language is composed of plurality of arbitrary conventional signs which have a common significance independent of immediate situation that are produced as well as received by users; it is a system in which the signs are articulated by certain rules of combination (Morris 1946).

Feature of human language is specifically human. According to Lenneberg (1964) the capacity to acquire human language does not depend upon the fact that it is a human organism. The linguistics behavior correlates highly with a large number of morphological and functional developments. Libermann (1978) feels that human beings probably do have some special species specific neural mechanisms that at least facilitates the perception of speech. No normal person is without speech and no other species is known to posses it.

Language, which is uniquely a human characteristic is a means of expressing thoughts and ideas. But, the concept of language which is the essential foundation of life's experiences is difficult to explain precisely. In popular mind, language is what is written in books and learned in school. Language can be a system of human expressions by means of words. It can be a mental organization within a community. The very concept of language changes from individual to individual and from context to context. "Our language is such an intimate aspect of our thoughts and behaviors that it is difficult to appreciate it objectively" (Lenneberg 1967).

Actually in the Central band of language, spectrum the audio lingual is primary and generative. The gestural, the visual and the graphic are only derivatives. So in a context of how and

what children are learned and taught, language can be described as a "code whereby ideas about the world are represented through conventional system of arbitrary signals for communication (Blom and Lahey 1978).

A code is a means of representation. In that sense language is a code. An object or event or relationship can be represented also by a picture map, word or sentence. But there is a major difference between these representations and a language. Picture, map and graph owe direct schematic representations of whatever being represented. But words and sentences represent an object event or relationship without reproducing it directly or indirectly.

In language sounds correspond with all objects and events, thus forming an arbitrary system where sounds function as words and sentences representing objects and events. But language can function as a code of representation only if speaker and hearer know the language. In language, ideas about objects, events or relationships in the world are coded forming its contents. An individual learns these contents and understands language.

In any language sounds, words and sentences combine according to certain rules. The number of elements and rules for permutation combinations are finite and limited in any language. But with this finite elements and rules infinite combinations are

possible which can be described as linguistic creativity. Linguistic creativity of the speaker of any language reflects his/her understanding about the rules of his/her language. This system can not function by the perception of the individual only unless the classification is not accepted by other persons of the community, the message can not be accepted. Thus the conventions among the speech community co-ordinate the form and content of that particular language. It is very important that language is the main mode of communications. It is used for interacting with people, maintain contacts with people, gain informations from people, give instructions to people etc. Language varies according to needs and contexts. Same idea can be put in different ways according to different situations and also depending upon the relationship of speaker and hearer.

2.3 Dimensions of Language

Language has three major components namely content, form and use. Language consists of some content or meaning represented by forms for some use in a particular context.

2.3.1 Content

In a message, words and relation between words represent the meaning. Language content is a general categorization of the topics that are encoded in the message. It can be objects in

general like candies, toys, books etc. or can be actions like eating, playing, reading etc. It can also be possession relations in general like child and toy, father and his scooter, teacher and the chalk etc. What is important is that child and doll may be topic of a message but the concept represented is concept of possession relation. There is a continuity of language content from infant language to adult language. In the course of development of language, content depends on the interaction between children's knowledge and the context. Thus the content of the language is actually the representation of what persons know about the world of objects, events and relations which is actually meaning itself. Meaning can be represented by words and by relations between words. This depends on the conventional system of arbitrary signals which in turn gives form to the language.

2.3.2   Form

Form of any language can be described acoustically or phonetically. It can be described in terms of phonology (units of sound) morphology (units of meaning) or syntax (ways in which units of meaning are combined).

Sounds can be explained in three ways. They can be described according to their articulatory feature or with International phonetic Alphabet or with phonatory features.

Words can be classified as nouns, verbs, adjectives etc.
Sentences can be described as declarative, negative,
interrogative or as clauses or phrase structures. Sequences of
clauses or phrases can be described as complex or compound
sentences. Thus there are different levels of description of
language. Form in language is a means of connecting sound to
meaning. It is the purpose and context of utterance that
combines with the content to determine the form.
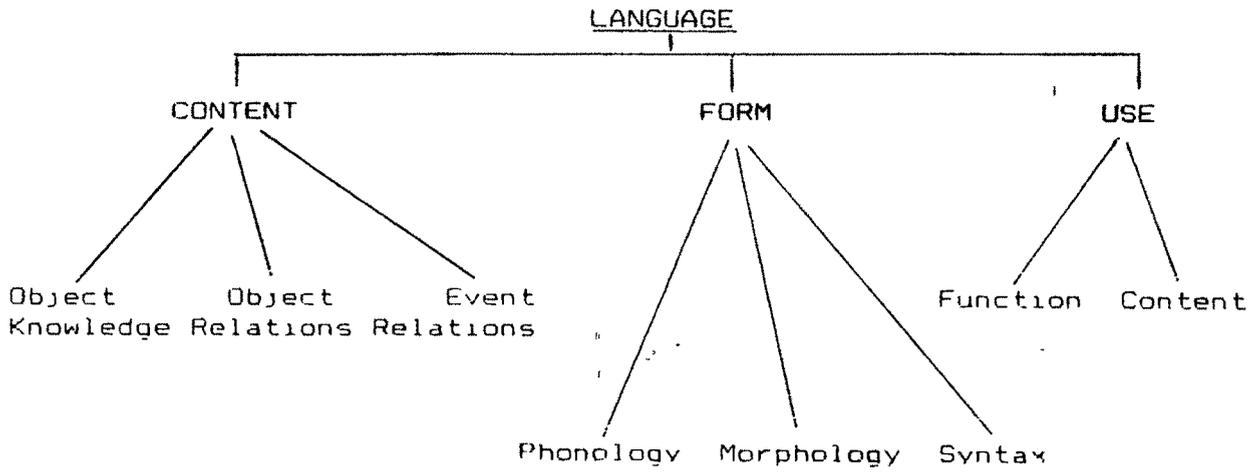
2.3.3   Use

Use of language has two aspects namely functions of language
and influence of linguistic and non linguistic contexts.
Functions of language can be represented in linguistic structures
as declarative, interrogative, imperative and exclamatory
grammatical moods. Language use also consists in the socially
and cognitively determined selection of behaviors according to
the needs of speaker and hearer. Second aspect of the use
depends upon the purpose of the message, who all are participants
in the process and what is the situation. Nature of language
used for the message depends on who are the speakers and what is
their relationship and what is the context.

The three components of language intersect with each other.
The integration of context, form and use is the knowledge of
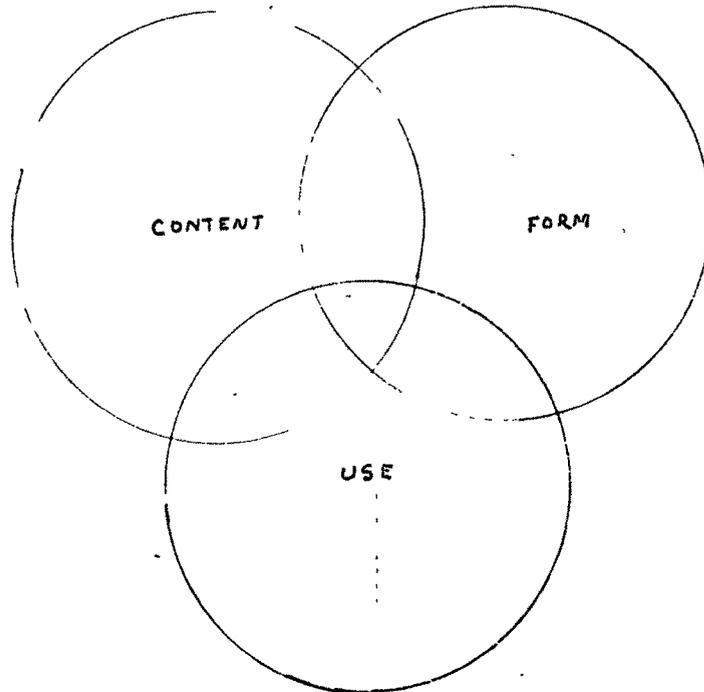language (Bloom and Lahey 1978). This knowledge of language is

what Chomsky (1965) describes as competence knowledge about language or competence can be conceived as a plan in the sense of heirarchichal process in the organism that can control the order in which a sequence of operation is to be performed (Miller, Galamtar and Pribram 1960). The knowledge of content, form and use underlies the behaviors of speaking and hearing.

Chomsky (1965) describes competence in terms of the child's ability to produce, understand and determine any and all the grammatical sentences of a language. But apart from this certain other aspects like its use regarding persons, places and purposes and also patterns of use of language in conversation, address and inquires influence the language behavior. Thus the grammatical knowledge about language, system of language use regarding communicative events and patterns of language use in different contexts reflects the communication competence of the child. The communication competence which includes social, cognitive and emotional competencies, develop as the individual integrates thoughts and emotions in a social setting. Thus he makes meaning out of experiences. The communicative competence in the language can be described as competence in language use or as the language abilities of the speaker and listener (Hymes 1972).

DIMENSIONS OF LANGUAGE

LANGUAGE

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                    LANGUAGE
        ┌──────────────┼──────────────┐
     CONTENT         FORM            USE
    ╱    │    ╲      ╱ │ ╲           ╱   ╲
Object  Object  Event              Function  Content
Knowledge Relations Relations

              Phonology  Morphology  Syntax
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INTERSECTION OF LANGUAGE COMPONENTS

2.4 Development of Language

All normal human infants are born with the potentiality of acquiring language. The capacity to acquire language does not depend upon the intelligence of the organism or the size but upon the fact that is is a human organism (Lenneberg 1964). Language acquisition has always been regarded as natural learning situation. Language develops automatically, naturally, effortlessly and quickly (Mcneill 1971). Individuals develop language systematically. In the process of acquisition, the sequence of acquiring various forms is stable among children. All children go through the same stages in developing different language forms. Though the rate of development may vary with children of different languages and cultures, patterns mastered at every stage and sequence will be almost same. According to Menyuk (1968, 72) there is a common sequential order in the mastery of distinctive features of sounds among children speaking different language - American English and Japanese.

Although there is no clear-cut stage of development in language acquisition, stages can be traced arbitrarily. Children start vocalization very early. Crying, cooing and other nondescript sounds are significant in the first three months. These nondescript sounds gradually develop into much more phonetically diversified type of vocalization. This is called babbling stage. Both vowels and consonants may be used at this

stage. The sounds may not have attained semantic distinctiveness. In the latter part of the babbling stage is from eight to ten months, child develops evidences of understanding and recognizing certain symbolic gestures, words and phrase structures. The child is then gradually capable of distinguishing some phonemes. The first active meaningful language usage begins towards the end of first year. This is the period of one word utterance or holophrastic stage. Soon utterances with definite phonetic structures will be learned and by eighteen months word units will be acquired. This is the period of two word utterances or telegraphic stage. Towards the end of second year, child's experiments with the language vocabulary must have grown rapidly. The linguistic advancement continue for quite some time (Bloom and Lahey 1978). Between three and five years transformations begin (Dale 1976). A large amount of syntax is known to the four year olds. (Berko 1958), Slobin 1966) when children reach school age they have already developed quite a variety of language skills they are producing compound and complex sentences and are proficient in making certain social distinctions in their language behaviors. It is also contended that children by the age of six or so have mastered basic syntax and phonology of their language whatever basic is (De Stefano 1978).

Language acquisition of children is systematic . From the very beginning of word combinations, the language is structured and the content and form interrelated. The words and sentences the child produces will be phonologically lexically and syntactically correct. The semantics or meaning system which involves cognitive element also develops. Small set of meaning relation exists prior to cognitive development (Bloom 1970, Bowerman 1973, Park 1974). Along with this the child learns how to talk to different people on different occasions. He uses forms of address to different people and acknowledges relative and social status. Language fosters social inter course and vice versa (Lewis 1963).

2.5 Language Acquisition Theories - A Perspective

People have studied language development since at least 200 years. Earliest noted attempt was by German Philosopher Tidermann. He published his observations in 1787 followed by physiologists in mid-nineteenth century. Though he was pioneer in the field, the systematic and detailed description of language was by Preyer in 1882. Darwin and other scientists also were concerned with understanding of the nature of language development in children since they felt that it was key to the understanding of the phylogeny of mankind itself.

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Process of language acquisition has been studied within a wide range of disciplines as wide a range of perspectives. Observational and experimental reports in the vast literature reflect changing foci of interest within each of the disciplines represented as well as shifting theoretical concepts of nature of language, data collecting procedures and interpretive frames. Understanding of theoretical basis is essential to understand the current knowledge of language development (Encyclopedia of Educational Research - V Volume 1983)

2.5.1   Structuralist Approach

Structuralistic model was dominant in fourties and fifties. It followed and empiricist approach to the study of language and language acquisition.   Structuralists suggest that language is determined entirely by environment and child was striving "to learn the language exactly as his environment speaks it" (Leopold 1948).   The approach was augmented by concepts of selective reinforcement borrowed from behaviorist psychology.

A behaviorist theory stresses the influence of the environment in the learning of language as opposed to any innate ability that the child brings to the task.   Skinner (1957) has

attempted in detail to explain verbal learning by means interviews of conditioning. Skinner introduced an elaborate system of terminology. Utterances are called verbal operants and a functinal typology of such operants is set up which consists of four types - the mand, the tact, the autoclitic and the intraverbal. They are of unequal importance and refers to diverse aspects of language. Behaviorist approaches to language learning place great importance on the role of parental and social approval.

The structuralist paradigm includes researches on frequency of different speech sounds produced at various age levels, amounts of language produced in particular unit of time, number of words understood, ratio of different words to total words produced (type token ratio) length of sentences and percentage of words produced in different grammatical categories. The methodology of observation included both observation of children in naturalistic contexts to controlled experimental study of elicited language data from a large number of children. This approach did not give much importance to individual variation. This approach led to the categorization of words in early child language as Class I, II and III (Operators or A B C (new operators)) by Miller and Ervin (1964) and to Braine's suggesting a "pivot grammar" at the stage when children producing two words in sequences with the words seen as belonging to pivot and open class roughly comparable with function and content words in

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traditional analyses. Although Braine accepted the use of generative rules in his descriptive model, his approach basically reflected the structurlist philosophy and is now displaced by other models.

2.5.2   Nativist Approach

Noam Chomsky (1965), belived that children must have an innate disposition to language. He suggested the existence of language universals which can be of two types namely formal universals or substantive universal. Mc Neil (1966) came out with the proposition that the child comes to the task of learning language with a language acquisition device (LAD) which has among other things, a notion of hierarchy of grammatical categories, which first shows itself in the pivot-open distinction. The pivot class splits up into various classes of function words and open class into nouns and verbs and later adjectives and adverbs. These theorists also claimed that language is unique to man.

Chomsky (1965) argues that the adult speech which a child hears around him will he poorly structured and the child could not possibly learn the language unless the child has very specific capacity. In short, the child must be pre timid to some of the formal universals by which the language operates. He also believed that language cannot be learned with speed unless the child is programmed to do so.

Lenneberg (1966, 1967) compares the language development with the development other skills in man (primarily motor skills) and with the development of skills in other animals. He thinks that language development is due to the process of maturation. According to him language development is neither very sensitive to the differences of environment nor does socio economic status affect the basic ability to use language although it may affect style and vocabulary to some extent. With regard to language acquisition a minimum exposure is what is important and practices do not seem crucial. Lennberg (1966) feels that there is definitely a critical period with regard to language learning roughly between the ages of two and thirteen. Krashen (1975) favours a much earlier upper limit, contending that most of Lenneberg's evidence is as consistent with the age five as with thirteen. Odyama (1976) also supports the notion of sensitive period particularly with phonology.

Lenneberg (1966) has discussed the question of language as a specific skill. He has suggested that in certain abnormal cases speech can develop without general motor development. He believes that language comprehension can develop without speech (Lenneberg 1962). He, however, does not deny the need for a specific ability for language from other than the cognitive abilities.

With Chomsky's innate hypothesis and transformational generative approach, most of the early researches within this frame work was concerned mainly with demonstrating the process of rule formation in language learning (Brown and Fraser 1963) and also regarding the universal features for language development (Slobin 1970). The focus of study within this model was the question of syntax and relatively little attention was paid to phonology and semanties. In late sixties the distinction between syntax and semanties was challenged by Fillimore (1968) and Mc Canley (1968) who consider the two systems essentially integrated and semantics as the more basic component of language. Theoretical interest in speech acts based on pragmatic philosophy has discussed the speaker's intent in making an utterance like reporting, commanding and inquiring (Austin 1962 Searole 1969). In this speech act theory the concept is that some utterances accomplish certain functions just by being said and is distinguished from referential use of language. This mode has been applied to study children's communicative intent and how it is related to lexical development (Bates 1976, Clawk and Clawk 1977; Greenfield, Smith 1976; Esjenberg 1978)

2.6 Language and Cognition

The relationship between language and cognition has been of much interest since long. Humboldt (1949) considered language to be the thought forming organ. The same idea has been put forth by Cassirer (1931) in philosophy, Sapir (1931) and Whorf (1935) in Ethnology Wesgerber in (1931) in Linguistics and Korzybskin (1949) in General Semanties Whorf has put forth two propositions that language determines thought and language embodies a definite world view. Brown and Lenneberg (1954) and Lenneberg (1956) have tried to support these ideas by empirical evidences. Brown and Lenneberg studied the relationship between codability and availability. Lenneberg has studied on variation of linguistic condition matched with variation of non-linguistic behavior.

It was Piaget who first focussed the attention on the importance of cognition on language development. He has discussed thoroughly the important role of sensorimotor action as preparation for language and thought. Vygotsky (1962) has discussed in detail the influence of language on cognition. According to Vygotsky anthropoids have some speech components of a phonetic emotional and social kind, but the components never form a language if the component of specifically human intelligence is absent. He feels that in the phylogeny of

thought and speech, there is a pre-linguistic phase of
development of thought and pre intellectual phase of development
speech. In his view "thought development is determined by
language. The child's intellectual growth is contigent on his
mastering the social means of thought, that is language". The
notions of language acting as a regulatory mechanism receives
support from Luria's work (1956, 1959, 1961).

By focussing the sensorimotor origins of language, Piaget
rejected Chomsky's innate hypothesis. For Chomsky, the human
mind can itself be the exhaustive source of its competence, for
external stimuli serve only as occasions for activating what is
already dispositionally in the mind's own structures. Discussing
the sensorimotor roots of language, Piaget (1968) describes the
role of language as three major stages of child development. At
concrete operational stage, logical operations are thus
co-ordinatives among actions before they are transposed into
verbal form. Language indefinitely tends the power of these
operations and centres on them a mobility and universality which
they would not have otherwise, but by no means, the source of
such co-ordination (Piaget 1968).

Piaget substantiates his stand by drawing data from learning
experiments of Sinclair (1969) to demonstrate that language is
not sufficient to explain development because possession of the
correct linguistic expression does not bring about immediate

corresponding operating charges. He argues from the data of Furth (1960) from deaf children that language is not even necessary for the development of cognitive structures comprehensive studies of language acquisition and sensorimoter heuristics have been done by Sinclair de Zewart (1967), Sinclair and Ferreiro (1970) Inhelder (1972) and Sinclair and Bronkart (1972). All these investigators stress the sensorimoter roots of language. Cromer (1974) argues that humans are able to and productively use particular linguistic structures only when their cognitive abilities enable them to do so.

According to Bruner (1975) grammer is acquired because of the isomorphism between syntactic categories and psychological events and processes. He believes that grammer arises by analogy with the conceptual frame work that is constructed for the regulation of joint attention and joint activity.

2.7 Sociological Theories

Sociological Theorists suggests that language develops because the child has to interact with the society. Bloom (1973) Nelson (1974) and Halliday (1975) claim that children use language in part to construct their conceptual frame work that a child constructs a reality for himself largely through language. Halliday (1975) describes language as developing to serve needs

which exist independently of language as features of human life at all times and in all cultures. This theory emphasizes language as learnt purposes of interaction with other human beings. It sees child as encoding his knowledge of the world for the purposes of interaction. The task of constructing the system of meaning which represents his own model if social reality and it takes place in the context of social interaction.

Very much like behaviorist theories it regards social situation as playing an important role but unlike behaviorist theories, it sees the child playing an active role in interactng with the situation. Grammar may indeed develop as a response to the need for utterances which combine both and interpersonal and an ideational function.

Social class differences are apparent in the ways in which children use their language. According to Bernstein (1973) families from different social class have different attitude towards child rearing which is mainly responsible for the kinds of relationships formed between parents and children and thus in turn affect the use of language by children. Bernstein and Henderson (1969) has drawn conclusions from their research work with working class the way in which different types of social inter action that develop after the child's use of language. He suggested the possibility of restricted and elaborated codes. Works of Jeam Jones (1966) Rackstraw (1967) also confirm that the

speech and language depend upon socialization and family subculture. Bernstein's work has been stringently criticized on methodological grounds Coulthard (1969) Labov (1969) who was working within a linguistic model rather than a sociological or psychological frame work. They criticized language deprivation as a myth. In Labov's view no child is non verbal or verbally deprived. His vernacular may be different from standard English but this itself would not impede logical thinking or retard him in school. According to him it is actually the teacher's refusal to accept and understand the vernacular language of the children that does make school learning impalatable. Rosen (1972) also is strongly against the idea of working class speech being second-rate and inappropriate for learning Wells (1981) refutes the notion of linguistic incompatibility between the home and the school and doubts whether it is the main reason for the under achievement in school.

REVIEW OF RESEARCHES ON LANGUAGE DEVELOPMENT

2.8 Introduction

The previous section describes different theoritical ap-
proaches to the study of language acquisitin. What is presented
in this section is empirical evidences to these various ap-
proaches in the form of review of research reports. Studies
reviewed in this section are broadly classified into two groups:

1. Studies conducted abroad

2. Studies conducted in India

2.9 Studies Conducted Abroad

Studies conducted abroad are classified into three sections
namely;

1. Studies pertaining to language acquisition

2. Studies pertaining to correlation between language and cog-
    nition, and

3. Studies related to factors influencing language acquisition

Language acquisition studies can be unstructured observations or structured tests to see the language status.

2.9.1 International Studies Pertaining to Language Acquisition

Studies can be very structured to see a particular morphological or syntactical category alone or can be in a natural setting where the interferance of the investigator is not affected.

Unstructured Studies

(1) <u>Longitudinal studies</u> Earlier studies on language acquisition are in the form of parental diaries. The study of Gregorie (1937) can be considered to be first of that sort. Gregorie studied the language development of his two sons Charles and Edmond. They grew in Belgium and learned a French somewhat affected by Walloonian dialect. A significant study of this type was by Leopold (1949). He described and discussed the first two years in the grammatical development of his daughter Hildegard. Hildegard lived in a bilingual environment and learned both English and German. Though it pertained only to the first two years, he had valuable observations. According to him. "The child whose attention is at first drawn only to the major

elements of the mechanism of communication neglects the morphological devices for a considerable length of time. The elements affected by this neglect are not only morphological endings and other modifications of the word stem, but also form words, that is small word like prepositions and auxiliary verbs used for the same purposes". He noticed that the use of nouns without plural endings continued along with a sporadic use of nouns with plural endings (even beyond two year limit) Chaos (1951) has reported the language development of his grandson Canta, who was learning Mandarin. It is also in the form of parental diary and pertains to early development of speech. Burlings (1959) accounts the development of language of his son Stephen. The language is Garo and study is restricted to the earliest stage. Ruke Dravina' (1963) has studied the acquisition of Latvian by her son Dainis. It is also a parental diary regarding early phases of language development. Braine (1963) has published an analysis of the first phase of grammar in, three boys Gregory, Andrew and Steven. Data are collected from the records their mothers had kept of all comprehensible utterances that were not imitative of immediately antecedent models. They began recording before their children produced any word combinations and the verbal repertoire consisted of only ten to twenty single words. Braine has listed all distinct combinations the boys have made in the first four months after they have started combinations. Brown and Fraser (1963) has reported a small experiment on the imitation of sentences by six children.

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The sentences were short and simple. They included single instances of morphemes like progressive, plural, in, post regular, third person irregular, third person regular, contractible copula and contractible auxiliary. In addition there were eight instances of articles a and the. The age group ranged from twenty five and half months to thirty five and half months. Performances showed general improvement in age. The youngest child could not accurately produce even one sentence whereas the oldest accurately reproduced ten out of thirteen. Brown and Bellugi (1964) has reported the early sentence development of two children. It is a longitudinal study and they have collected data through imitation and spontaneous utterances.

Cross Sectional Studies   Paula Manyuk (1963 & 1964) has presented cross sectional data on several hundred children between the ages of three and seven and longitudinal data on few children below three years. In the cross sectional study samples are grouped into nursery school, Kindergarden and first grade. Samples have high I.Q. and high socio-economic status. Sex is also evenly balanced. The situational sampling for spontaneous speech are (1) Children's responses to pictures of the blacky test, a projective technique for young ones (2) Children's remarks in conversation with the researcher, who draws upon a standard set of inquiries (3) Children's talk among themselves, playing in the family in groups of three. Besides spontaneous speech Manyuk has used the method of imitation of well formed

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sentences and deviant child sentences. Menyuk's work is relevant
to the generality of the order of acquisition. Significant
evidences regarding the inherent variability of production of the
morphemes, the appearance of the progressive -ing before
auxiliary 'be', with auxiliary oscillating between presence and
absence till MLU is 3.6 in contractible contexts and auxiliary
have coming after auxiliary be.

Wick Miller and Susan Ervin (1964) have described the early
sentences of two children Susan and Christy. Utterances were
collected in weekly sessions of forty five minutes each Susan's
records begin when she was 1.8. According to her parents she
started multi-word utterances when she was 1.7. Christy's data
has been taken between 2.0 and 2.3. Study was on how they used
operators and non-operators, closely parallel to Braine's pivot
and open class. Cazden (1965) has done an experimental study on
expansion training and found them to be not significantly
effective.

Blount (1967) has studied the development of language of
eight children speaking Luo, language spoken by Nyanza Province
in Kenya in east Central Africa. Age of the children range from
twelve to thirty five months. Data were collected through
spontaneous speech at home. Because of the cultural differences,
fifty four visits of half and hour long, Blount could get only
191 multi-word utterances. Two of the children were at babbling

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and one word stage and utterances of other six children have been ordered in terms of their complexity of surface structure. MLU was not calculated since the utterances were few. Language structure is different and stages of development do not agree completely with that of English language.

Gruber (1967) has found evidences from one child - Mackie - that early sentences have as their immediate constituents a topic and a comment, rather than a subject and a predicate. Kernan (1969) has used a semantically based approach to study the language development of two children Silpi and Tofi. Silpi is a boy of 2.6 years Tofi is a girl of 2.2 years. The grammar of Silpi was based on two visits in one week which yielded a total of 852 utterances, taped on the scene and transcribed later. The MLU was 1.52. Grammar of Tofi was based on three visits in one week when MLU was 1.6.

Lois Bloom (1978) conducted a study of three children (Kathryn, Gio and Eric) Bloom used tape recorded spontaneous speech and reported MLU (minimum length of unit of utterance) values Grammatical analyses have been worked out from larger samples. For the period of interest from 1.0 to 2.0 two grammars have been found for Kathryn, three for Eric, over two for Gio. Mc Neill (1970) undertook the study of two little girls in Tokyo when they were 2 years old. They were visited and taped twice monthly. One girl produced only seventeen word combinations

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while the other produced a great many combinations. These combinations were two to five morphemes long.

Park (1970) has studied the language development of his daughter Susan. She was speaking Korean and study started when she started two word utterances. He made on the scene transcriptions for four to six hours at each of three ages 2.2, 2.5 and 2.8. He did not collect MLU. But he has reported that by 2.8 years inflections, postpositions and even some embeddings and co-ordination had appeared. Korean language has extensive use of inflections and employs post positions as case markers. Also word order is free. Park (1970) also studied the language development of three children Ulrike, Angela and Geng who speak German. During the conduct of Study Ulrike was 1.7 years old at the start, 2.2 at the end. Angela's range was 2.1 - 2.6 and that of Gurg 2.4 - 2.9. Sampling schedule was two hours a month. Utterances were conversation at home with mother. Park has counted MLU are different. But at the construction level the children have already started using grammatical and semantic changes.

Bar Adon (1971) studied the development of language of Gil, a male child and Gila, a female child. Hebren was their first language. Records begin with the first word and extended until the age of six. He reports that the children started multi word utterances when Gil was 1.2 and Gila 1.

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Tolbert (1972) has reported the language development of Pepe. Utterances were collected from two visits in one week. 791 utterances were collected. Study was conducted when Pepe's MLU was 1.85. Rydin (1971) has discussed the language development of Viveka whose native language is Swedish. Utterances were collected in three sessions in one month. He taped and transcribed 895 utterances.

Bowerman (1973) studied the language development of two children, a boy Seppo and a girl Rina. Their first language was Fennish. She collected 713 utterances and analyzed the grammar. MLU was found. She has compared their language development with that of children speaking American English. Bowerman (1970) has also analyzed the speech of an American child Kendall. Utterances were transcribed on two full days when Kendall's MLU was 1.10 and 1.48.

Brown (1972) has studied the development of 14 grammatical morphemes and modulation of meaning in three children - Adam, Eve and Sarah. He concluded that (1) the developmental order of fourteen morphemes are quite constant; (2) although developmental order is constant, rate of development varies; (3) chronological age is a poor index of development.

De Villers and De Villers (1973) conducted a cross sectional study of the utterance of 21 children speaking English, in the age range of sixteen to forty months. They collected 200-900 utterances and scored the presence or absence of fourteen grammatical morphemes in obligatory contexts. The order of acquisition was found to be very similar to what was found in study.

Other types of studies   Apart from the longitudinal data and grammatical analysis of languages, studies have been conducted where only one aspect of language development namely phonology, morphology or syntax is taken into consideration.

Studies on infant vocalizations have been conducted by Irwin (1937) and Lewis (1951). The course of development of the child in learning the phonemic structure of language has been studied by Cohen (1952), Grogoria (1937-1947), Jacobson (1941), Velton (1943) and Voegelin and Adams (1934). The age range in all these studies is 24-36 months which is crucial with regard to sound discriminations. Templin (1957) has conducted a study on sound discrimination ability and articulation ability with carefully constructed sampling of 240 children - 30 each of eight age levels from 3 to 8 years old. Polter and Peter Sen (1948) found the ferments of vowels uttered by children are systematically different from those observed by adults. Williams (1937) and

Schneiderman (1955) found that there is relationship between articulation ability and other indices of language development.

Studies have been conducted with regard to the development of morphology especially grammatical inflections. Studies have been reported across languages and language families by Ferguson and Slobin (1973), Blound (1975), Bowerman (1981) and Dale (1976).

In syntax also certain aspects are studied, Guillaume (1927) and Carroll (1939) have shown that the child learns syntax by first imitating the whole sentences or phrases and then differentiating out the component parts as functions of these parts Brown (1957) has reported that pre-school children have already learned the distinction between mass and singular nouns Shipley and Gleitman (1969) have found that conjunctions appear around the age of four. Frank (1981) has conducted a study on the early stages of development with Spanish as first language. Investigator has assessed the early morphological development present indicatives, imperatives personal inflections, use of inflections on nouns and their modifiers (articles and plurals etc.) and use of gender inflections in nouns as their modifiers. Waterson (1967) has conducted a study on an English child's acquisition of his mother tongue. Study covers phonetics, phonology and grammar and is made synchronically and diachronically with particular reference to the relationships of

child's language to the adult's which is the model. Lyons (1968) took up an investigation of the development of language in very young children, with particular reference to their acquisition of tense and mood personal pronouns and pre-positional phrases. Children are visited regularly in their homes and speech is recorded in partly controlled situatins. Hallidey and Hason (1976) reports that the order of acquisition is related to semantic complexity and `and' occurs before but. Maclure and Steffenson (1980) in their study has come out with the finding that `because' precedes `even though'. Clark (1971) French and Brown (1977) Hatch (1971) and Johnson (1975) report that when children use complex sentences, (embedded or subordinate) order in which events happended is usually the order in which they are mentioned; but grammatical structure is also involved. Amidan and Carly (1972) and Coker (1978) have come out with the finding that main clauses are ordered first Amidan (1978) reports that Children have difficulty in remembering information mentioned in a subordinate clause. Devillers et al (1979) conclude that in relative clauses those that follow main clauses are easier than those that are center embedded.

Structured Tests to Assess Language Development

Jean Berko (1958) is the first one to evolve a basic method to study the language development in controlled studies. Berko used eliciting techniques for progressive inflection, and for the

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past tense, possessive and third person singular inflections to test morphological rules, nonsense materials were used. Pictures to represent the nonsense words were drawn on cards. There were 27 picture cards and pictures were brightly coloured, depicted objects, cartoon like animals and men performing various functions, sample consisted of 26 boys and 35 girls. Age group ranged from one and half years to seven years. Results showed that there is no difference between boys and girls with regard to language matters. First graders did significantly better than pre-schoolers. The children could use forms calling for the most common of those allomorphs long before they could deal with allomorphs that appear in limited disribution range.

Cratbree (1963) has developed Houston test for language development. The test has two parts. Part I is for children between 6-36 months. Part II is for children between 3.6 years. Part I stresses on general developmental items part II is to see the development of vocabulary identification of body parts, gestures counting, geometric designs and drawings. It also provides for a language development of ten responses. Test is standardized on a small sample of white children. There is no validity data and only limited report on test retest reliability.

Dunn (1967) has developed the Peabody picture vocabulary test. In this test children are shown four pictures and asked to show correct picture of the word he utters. Godstein (1964) has

developed a test which has taken into consideration the inadequancies of Peabody picture vocabulary test. Utah test of language development consists of 51 items selected from various standard sources like Geisel Sale, Peabody picture vocabulary test and stanfod - Binet scale.

Fraser, Bellugi and Brown (1963) designed a set of paired pictures to test children's comprehension and production of ten picturable grammatical form. In each item only clue available to the child is a single grammatical contrast. Melton etal (1968) developed this idea into twenty items. Lee (1969) further developed this idea into twenty test items both in production and comprehension with a variation from original Fraser, Bellugi and Brown test. Lee had added two decoy pictures to each pair of receptive items reducing the probability that the child will point correctly by chance alone. Bellugi and Klima (1969) developed a test using manipulation of objects. In the test, objects for each problem should be set upon the table in such a way that they do not give cues to the solution of the problem and in such a way that the child has to make some changes or movement to demonstrate comprehension. If the problem has more than one part, it is not given in any fixed order. The examiner should make sure at the inset of the problem that the child understands the words and actions involved. Bellugi and Klima (1969) has developed oral completion items to test grammatical knowledge, especially pronouns and verbs. Children begin to use tag

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questions relatively late in their grammatical development. Children first start using less elegant forms of tag questions and then use elegant forms. Tag questions are interesting because the shape of the tag is explicitly determined by the syntax of the statement it follows.

Imitation test is also used to test children's knowledge of grammar. Examiner says a sentence and child repeats it. It can be used to asses the knowledge of grammatical structures and also grammatical transformation. Sentences for testing comprehension and production of Fraser, Bellugi and Brown test (1963) has been used for imitation also. Osser wang and Zaid (1969) have designed an imitation test involving only grammatical transformations.

Relexive :   The boy dries himself with a towel.

Conjuctive: The boy slides and another boy slides.

Relative clause: The girl who sites is very fat.

The responses are scored according to correctness in length, complexity or both or according to number of morphemes retained from all the sentences.

Sentence: The boy is not sitting.

Imitation: The boy not sitting.

Stern (1968) has constructed an Elicit Response Inventory for children with twenty sentences graded in length and complexity.

Eg: 1. Dogs bark.

2. The young girl is sitting in the park.

3. If the ground is wet, children won't be able to play in the park.

Honig and Caldwell (1968) have developed an early language assessment scale to get the informations regarding crying, laughing, smiling, babbling, responses to noises and human voices, word imitation and vocabulary items that are learned and used during the child's early years. Zammorman, Sleiver and Evalt have developed the preschool language scale for children of age range 2-7 years. The total test has three sections test for auditory comprehension, verbal ability and articulation. Reliability and validity are not available. Overall development of the child can be assessed using Denner developmental screening test developed by Framkenburg, Dodds and Pandal (1970). It provides information regarding four general categories of social, fine motor adaptive, gross motor and language skills. It can be administered to children from one month to six years. There are 21 items in the language area. Some items deal with basic hearing. Others deal with comprehension such as comprehending three prepositions or adjectives.

The Receptive Expressive emergent language project (REEL) was undertaken by Bzoch and Heague (1971). The rationale of the REEl scale is based on the fact that there is universality and predictable pattern to receptive and expressive language development during the first 36 months of human life. It is based on three principles (1) the auditory modality is the primary means of acquiring language (2) the language is an innate capacity of man (3) speech development and cognitive development are inseparably interconnected.

A short test of verbal comprehension termed full range picture vocabulary test was developed by Ammors and Ammors (1958). It is a measure of auditory comprehension of language. Test can be administered to children from age of 2 years to adulthood.

The Michigen picture language inventory aimed at yielding quantitative data on the vocabulary and language structure of children in the age range of 3-9 years. Test demands naming and pointing to the picture. Test assesses comprehension and production of vacabulary and certain language structures.

The Illinois test of psycholinguistic abilities developed by Kirk, Kirk and McCarthy (1969) is a test to identify the strengths and weaknesses of communication of children.

Carrow (1968) has developed an Auditory test of language comprehension. The test satisfies three purposes - assessment of (1) comprehension (2) sequence of grammatical forms and (3) logical features in children of different population. The test consists of set of plates each with three black and white drawings. One drawing represents the reference for the linguistic forms and other decoys. It requires no oral expression from child. The final version of test was designed to children of age range from 2 years 10 months to 7 years 9 months. Modern version of the test of auditory comprehension has 101 plates which test comprehension of selected nouns morphological structures and principles of grammar and syntax. Items are arranged by grammatical category and not by level of difficulty. It takes 20-30 minutes to administer the test. The final version of the test (TALL - 1973) has new forms added, nouns omitted and order of presentation is varied. Test-retest reliability is not obtained.

Comprehension test developed by Foster, Giddan and Stark (1972) also is concerned with child's understanding of grammatical units. This is applicable for children in the age range of 3-7 years. Assumptions for constructing the test are (1) learning of language proceeds from simple to complex units (2) children with language impairments have short auditory memory span.

A test of syntactic abilities (TSH) was developed by Quigley, Stein Kamp and Power (1978). The test of syntaltic abilities consists of 17 battery of twenty individual diagnostic tests, each containing seventy multiple choice items and also a screening test containing 120 items selected from diagnostic battery.

Lesser, Fifer and Clark (1965) have developed a test to assess the receptive and productive mental abilities of children in different social and cultural groups. To test the receptive vocabulary, the teacher says the word in the presence of a set of pictures and asks the child to point to appropriate picture. To test the productive vocabulary, the teacher points to a picture or part of a picture and asks for a name, probing further if the child says something but not the desired word.

Eg. (1) (Noun). : Say, "What is this thing"?
If the child gives function or description of object

Say: "What is it called"?
If the child does not know name of object, or girl's gives incorrect or unclear response.

Say: "Tell me about it".

(2) (Verb) Say: "Tell me in only one word what these people

are doing".

If child gives description.

Say: "Tell me in only one word".

If child does not know name of activity or gives incorrect

or unclear responses.

Say: "Tell me about it".

Child's answers can be then scored on a 0-2 scale.

Mailman   2   -   mailman, postman, letter carrier,

           1   -   man who carries letters

           0   -   Policeman

Painting   2   -   Painting

           1   -   Working

           0   -   Fixing

Stern (1968) has developed an Expressive Vocabulary Inventory which includes pronouns, prepositions etc. as well as nouns and verbs.

A language assessment, remediation and screening procedure was developed by crystal, Flectcher and Garman (1976). The aims of the procedures are (1) it must be capable of providing frame

work for use of a screening procedure i.e. as a technique for determining whether or not there is a case for more systematic linguistic examination. (2) It must provide a comprehensive description of the samples syntactic output at any stage (3) it must be able to provide a principled therapeutic methodology.

Loban (1967) compared the language production of 30 children in high language ability and of 24 children exceptionally low in language ability. Results showed that as children grew older they increased the number and length of their communication units. The high ability group used more communication units and more subordination within units than did the low ability group.

Hunt (1964; 1965) conducted series of studies of the syntactic structures found in written composition of students at various grade levels of students in two ability groups and of skilled adults. He developed measures which he found to be more reliable means of studying syntactic growth than sentence length. These measures were T unit length, number of short T units and clauses per T unit. T unit is main clause plus any subordinate clause attached to it. Hunt reported T unit length increased from 8-6 words at grade 4 to 11 words at grade 8 and 14.4 words in grade 12.

O'Donnell Griffin and Norris (1967) used the measures developed by Hunt with samples, discourse of 180 children in grades K.G., 1,2,3,5 and 7. Data suggested that although use of syntactic remarks in speech increases so that at grade 3 speech is more mature than the newly learned writing skills, a shift is emphasis occurs by grade 5 which causes writing to catch up and surpass skills in speech. Seventh grade showed another spurt in speech development and in nearly all constructions. Writing development improved markedly in grade 5 and 7 in adverbial clauses complex structures functioning as direct objects in co-ordination with T units, genitive forms and relative clauses. There was no major preference trend in the use of sentence patterns, even younger children used all patterns.

2.9.2   Language and Cognition

The relationship between cognitive development and language acquisition has puzzled researchers since several decades. According to Piaget (1962), the emergence of representation rests upon a sensory motor equilibrium between the twin processing - assimilation and accommodation Sinclair de Lwart (1969) has pointed out that language is a symbolic system through which the knowing person expresses his or her knowledge. Russian research suggests that words at first function as signal triggering behaviour but not directing or regulating it (Luria 1971). In an

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attempt to pintpoint the origins of meanings, Cromer (1974) argues that humans are able to understand and to productively use particular linguistic structures only when their cognitive abilities enable them to do so. Many studies have been conducted to discuss the relationship between the appearance and use of certain semantic concepts in child language and transition from Piagetian sensorimotor period to Piagetian pre-conceptual period (Ingram 1971, Bloom 1973, Brown 1973, Edwards 1973 and Edmonds 1980).

McNeill (1970) supports the existence of basic language definitional universals which reflect a specific linguistic ability that may not be a reflection of cognitive ability at all Slobin (1971) thinks that many linguistic forms can not appear in child's speech until he is capable of grasping their meaning.

2.9.3   Studies Related to Social Factors
Influencing Language Acquisition

The role of social interaction in language acquisition has been studied by various researchers (Cazden 1965, Carskaddon and Bowvillian 1973, Cross 1977, 1978 and Gleitman and Gleitman, 1977), Bellard Amisworth (1972) suggest that infants whose mothers have been sensitive and responsive to their prelinguistic cries develop other modes of communication more rapidly.

Mc Carthy (1954) supports the general prediction that the quality of a child's early linguistic environment is the most important external factor affecting the role of language development. Milner (1957) has demonstrated that the variations that exist in the role of language in family is associated with children's language performance in the first grade Templin (1951) feels that language development is faster in upper socio economic levels. Noel (1953) found no significant correlation between children's grammatical errors and occupational level of parents. Davis (1937) found only children who would have more dealings with adults develop language facility faster than children with siblings Orphaned or institutionalized children develop language slowly (Moore 1947). According to McCarthy (1930) degree of association with adults is an important factor in language development. But Cazdern's research with Brown and Bellugi (Cazden 1972) shows Sara, the child who got the least parental expansion of her speech, was most syntactically developed at an earlier stage. Casder notes "basic grammatical structures seem to be learned despite the differences in the child's linguistic environment. Labov (1963) and Keddie (1973) have strongly opposed the influence of cultural deprivation on language acquisition. Labov and Kohem (1967) reported native speakers of non-standard dialect posses standard forms which they do not reproduce. The meaning of many standard forms which they do not provide themselves. Labov's hypotheses and models for sociolinguistic

research within the school has generated considerable data to influence the teaching of language in both elementary and secondary schools.

2.10   Studies in Indian Contexts

Though in the international scene a number of studies are reported in various languages and with different theoritical back grounds this trend does not seem to have caught up in India. Very few studies are reported pertaining to language acquisitin. For convenience studies are classified into two (1) Studies related to language acquisition, and (2) Studies related to language education.

Language acquisition studies Studies on language development in natural settings are very scanty in Indian conditions. The first reported study is by Nirmala Cheruvala (1981). She studied the language acquisition of children of the age group 1 - 4 years. The study was naturalistic observation of the children in home environment. Ushadevi (1985) studied the acquisition of certain syntactical patterns by Telugu children. It was an experimental study to see he acquisition of negatives, reflexives, relatives sentences and multiple propositional sentences. Karanth (1976) constructed the Kannada version of Boston test of Aphasia Examination Development of morphological rules in children of 6-8

years of age was investigated by Subramanyaiah (1978) Development was assessed with the help of Kannada version of Wug test (Berk 1958) A test for assessing Syntax in Kannada (TASK) was developed by Vijayalekshmi (1981) TASK is a test of verbal comprehension and expression. The test is standardized. Rathi Menon (1983) studied the development of plural markings in Malayalam bilingual children.

Studies related to language education Studies related to language education can be categorized in three groups language ability tests, language development studies and language achievement tests. Srinivasan (1968) and Pandya (1973) have developed language, ability tests to compare the language ability and scholastic achievement of secondary school children belonging to certain social categories and standaridised a language ability test in Gujarathi for College entrants respectively. 22 studies on developing achievements tests have been reported. Of this 9 studies are in Hindi, 11 studies in Gujarathi, 1 in Oriya and 1 in Marathi. Mehta (1964) studied the language development of 800 Gujarathi children up to the age of twelve. Merchant, (1961) has studied the language development of Gujarathi, speaking Vohra girls of standard IV of typical Vohra Girls High School. He scrutinized composition as well development of subject matter, vocabulary, grammar phonology, orthography, punctuation, abbreviation, length of sentences and structure of sentences of 70 students. Chatopadhya (1971) studies the language development

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of nursery and primary school children. The linguistic studies reported the comparative study of Gujarathi and Hindi syllables (Modi 1966) Hindi and Tamil words having same source and different meaning (Jaganathan 1969) Hindi and Tamil phonetic sounds (Viswamitra 1969) HIndi speech sources in different Hindi speaking areas (Chatturvedi 1972) and Bridge course in Kannada for College entrants (Pattanayak 1972).

A report on research studies in reading and language pedagogy includes 127 studies. 75 studies deals with different aspects of reading and 52 deals with language pedagogy. studies mainly concentrate on reading comprehension.

From a perusal of studies conducted in Indian it appears that the attempts are sporadic. Studies pertaining to language status seem to reflect linguists perspective rather than an educationalist's. Even in the studies related to language education focus has not been given to the constraints in the actual classroom and frame a suitable model of instruction to suit the needs of the class room and reorganise the curriculum frame based on a sound theory of instruction. Although studies related to mother tongue teaching are conducted in class rooms they are not made use of in reorganising curricular experiences. It is in this background that the present investigation is planned and the details of the investigation are presented subsequently. (Appendix - Chapter II)

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