CHAPTER II
ORIGIN AND DEVELOPMENT OF LANGUAGE

The previous chapter has spotlighted the present position of English including the objectives of teaching it in the non-English medium schools and different aspects concerning the problem of vocabulary selection. In the light of them the present author has located the specific area of his investigation.

The area of the present study being the vocabulary in English of the pupils of a given age level, the author considers it quite advisable to trace, in brief, the origin, nature, growth and the factors affecting the development of language in children. This will be done because vocabulary has an intimate relation with language which is evident from the dictionary definition of vocabulary. Dictionaries define vocabulary in some such words as these: 'the words of which a language or the characteristic or habitual speech of a class or individual or that matter of a book consists'. Though this definition does not allow an equation of vocabulary with language, yet the intimate relation between vocabulary and language and the fact that vocabulary is an important and integral constituent of language have been emphasised.

Therefore, any discussion on vocabulary without reference to language may prove to be slipshod. For this reason, the investigator deems it advisable to dilate in brief, in this chapter, the
origin and development of language and the factors affecting the growth of language in children. While discussing the aforesaid aspects of language development, the central thesis has always been kept in view so that it may throw some light on the problem and illuminate the same in clearer terms.

Language

Out of the matrix of interstimulation - animal, child, or group that language arose, when the human organism achieved some symbolising power.¹

A Genetic Approach

Animals can learn to connect a sign with the object signalled but there is no clear evidence as to their ability to connect a symbol with that which it symbolises. An animal's power to grasp a symbol is dependent upon its ability to grasp intrinsic meaning coined in the symbol. Some psychologists² point towards certain experiments with animals to claim that animals can react to symbols and grasp meanings.

According to them raccoons, cats, dogs and other forms definitely³ below the primate level do carry on some kind of symbolic processes.

Delayed reaction experiments⁴, poker-chips experiments⁵ etc. are some of the attempts at proving that lower animals use language.
Moreover, field studies of the behaviour and social relations of monkeys and variety of vocalisations made by them to call to their mates and elicit from them appropriate responses show that vocal sounds clearly play their part in group coordination, control and integration by inter-individual stimulation.

Communication among animals is a fact. Karl Van Frisch's findings on bees indicate that even among bees some communication of a kind could be observed. Not to speak of dogs, cats and monkeys. But the main thing that is to be noticed in these communications is this that they are conducted not by means of symbolic substitutes, by words or gestures but by some emotional contagion.

Moreover, animals' ability to communicate anything referring to the past or future or to abstract contents has not yet been proved experimentally. On the contrary, their inability to communicate ideas through symbolic processes has been accepted as a fact pending revelations that may come from future experimentations on animals. However, their inability has been attributed not to the lack of appropriate vocal apparatus but to their lack of symbolising power.

**Whistling, drumming and Gestures**

Anthropological investigations have thrown much light on the earlier and simpler forms of human culture when people communicated with one another by the use of symbols, adopting distinct methods vis., whistling of messages, drumming of messages, facial reaction patterns, gestural signals etc. In many parts of Africa,
The use of gestures is almost universal among North American Indians, and it is also widely spread in South America. The American Indians developed gestural signs to a high degree because of the great variety of languages among their different tribes. An interesting finding indicates that there are some signs in their gestural language for which there are no corresponding words in their vocal languages. Many of the signs were used in an identical way from the Gulf of Mexico to Hudson Bay.

The total number of gesture-vocabulary is as high as 700000. The meanings like fast, fight, fish, fond, house, hot, hungry, snake snow, etc., are communicated through gestural signs involving arms and fingers (Helen Keller described). The world of words

But words are highly symbolic and possessed of immense potentials and capacities. Extension of man's world to include the remote past and the unknown and unknowable future has been made possible only by the colossal symbolism of words. It has opened man's horizon, awakened his 'soul' given it 'light, hope, joy and set it free'. The exact nature of the symbolism of words could be best realised by reading between the lines from one only who, or very few other like her, can say something from the first-hand and revealing experiences of it. (Helen Keller described in an inimitable style her first realization of language. She stated that she felt a resty consciousness as of something forgotten - 'a thrill of returning thoughts'
and some how the mystery of language was revealed to her.

**A thrill of returning thought**

The expression 'Thrill of returning thought' is significant because it touches the inmost springs of the language - the intimate relationship between thought and language.

**Thought and language**

The Greeks used the word 'logos' to describe human speech. As the word also meant 'the power of thought', they used 'aloga' for animals - signifying that the animals were without either kind of logos vis-à-vis, speech and the power of thought. This indicates their conviction of the intimate relation between speech and thought.

Even in modern time three typical views are maintained regarding the relation of thought and language:

- **First**: they are identical
- **Second**: words are the garb or clothing of thought, necessary not for thought but only for conveying it
- **Third**: while language is not thought, it is necessary for thinking as well as for communication.

The, subscribe to the view that language is necessary for thinking is to accept that 'signs' are essential. Thought does not deal with bare things but with their meanings, and meanings are embodied in sensible and particular existences called 'symbols'.

The words go, dog, room, hand, man, point, are vehicles of meanings; they are signs, they are language and not complete things. They are intended and invented, like any artificial tools and utensils, for the purpose of conveying meaning.  

Three aspects in language have favoured its becoming the tools of thought:

First: the direct and sensible value of faint sounds and minute written or printed marks is slight. Accordingly attention is not distracted from their representative function.

Second: their production is under our control. They may be produced when needed. There is no need to wait for real rain for the use of the word 'rain'.

Third: arbitrary linguistic signs, being compact, portable and delicate, are easy and convenient to manage.

Spoken and Written

The signs which constitute a language may be spoken or written. The advantages which speech enjoys over writing are as follows:

a) While speaking or listening, the hands and eyes of the speaker are left free.

b) Speech can express wider ranges and subtler shades of meanings as a result of the use of speech as a medium of expression by countless generations of speakers. Though writing is also
capable of countless variations; these variations have not come to be associated with particular meanings.

The advantages that writing has over speech are:

a) Writing can be preserved and reproduced with ease.

b) The ear can detect sounds only in succession but the eye can see a number of objects at a single glance.

c) The listener has no other alternative than to accept the speech chosen by the speaker but the reader can go at his own speed, skipping, skimming and lingering.

Origin and Development of Orthography:

Written language has passed through four stages of development viz., pictographic, hieroglyphic, phonetic and alphabetic.

PICTOGRAPHIC: Writing originated with the drawing of pictures such as a circle to represent the sun. These pictographs or ideograms represented concrete objects and were understandable to everybody. They were, as a matter of fact self-explanatory. Knowledge or writers' own language was not necessary for understanding the meaning of those ideograms. There was no relationship between such writing and the sounds one made in oral speech, when referring to the same object.

HEIROGLYPHIC: Later these pictures became schematic or
symbolic. The American Indians drew a pipe to represent 'peace' and a bird with extended wings to symbolise 'haste'. The Peruvian hieroglyphics of 'hearing' as large ears only, evolved out of two stages vis., a picture of a man with a large ear, then only a head with large ears. These were understood by the initiated.

At the next stage of development, several ideograms were combined to express ideas. The Chinese ideogram to represent 'heart' and 'white'. The Chinese elaborated signs for 40,000 words.

PHONIC The great step in the development of writing came when these hieroglyphics came also to stand for sounds made in the vocal naming of the objects. They became phonic.

ALPHABETIC Another long step towards simplification made the phonograms represent a syllable instead of the entire word. Eventually an alphabet was arrived at when the signs symbolised the minimal element of sound.

Alphabetic writing dates back about 7000 years.

Origin of language

It is an unquestionably accepted fact that speech came much earlier than writing. In the maiden days of the science of language,
The linguists were much engrossed about the origin of human speech. The ancients ascribed their speech to the gods. Moderns have propounded various theories. At present four chief theories hold the field. They are as follows:

**The Bon-Boy Theory:**
According to this theory, earliest speech was produced by man's attempted imitations of some characteristic sound of the creature or the object to which he was referring. Words that had this origin are often said to be 'Onomatopoeic'. Examples that are cited by the propounders of this theory are the use of words containing a short 'i' to express smallness, 'sl' to express dislike; 'ft' to describe movement and 'st' to express stability. Snake has a hissing sound, in wind there is an imitative of the whistling sound of the gust among the tree tops, water has a liquid sound in it. Puff, whine, wail, whistle, bubble have onomatopoeic elements in them.

But this theory can explain a small portion of the vocabulary of a language. According to Max Muller, this theory goes very smoothly so long as it deals with 'cackling hens and quackling ducks, but round that poultry yard there is a dead wall and we soon find that it is behind that wall that language really begins'.

**The Linguistic Theory:**
According to this theory, 'specific kinds of objects so affected the primitive man so as to elicit from him, or to make use of an Muller's metaphor ring out of him, correspondingly specific utterances.'
This theory also falls back on the tendency to imitation, but the imitation of movement rather than of bow-wow sound. Zig-zag, Zass, Dazzle, etc., are examples of Ding-dong or Pathogenic theory.

The POOH-POOH Theory:

This theory searches the origin of the speech in emotional interjections evoked by pain, surprise, pleasure etc. This theory takes its stand on the psychological fact that different perceptions excite different feelings, and there is an appropriate sound to express each human feeling.

A cry of pain may be at first involuntary but it produces certain effects when heard by others, and when it is deliberately used to achieve those effects, for example when it is used as a protest or a warning, it becomes a language. Thus the words 'fie' and 'fiend' are expressions of horror, according to this theory. But this explains very few words.

The Milestone Theory:

Wilhelm Wundt and Richard Wagner are propounders of this theory. According to this theory man's earliest instrument of communication gesture and sign, made with the hands was accompanied by a corresponding movement of the tongue, the lips or the jaws. The evolution of spoken language from gesture language was marked by a process of displacement of the hand-gesture by the tongue, lip or jaw gestures. According to Hume, 'this theory suffers from the weakness that a large number of our more essential words cannot be brought under it.'
Yet there are a good many words that owe their vitality to their association with gestures. This association, though completely erased out of the conscious level of the mind, stays as a part of the deep level complexes whose activity gives the words its significance.

These four theories explain only small parts of language. Each is correct up to a point. Only up to a point.

**Origin and development of Language in Children**

Some philologists and psycholinguists express the view that by investigating the way in which a child learns to speak, the origin and development of language could be traced as the origin and development of language has been accepted as due to the psychological processes within the human brain.

Psychologists differ as to whether the 'birth cry' constitutes the first attempt at communication or should be regarded merely as a reflex. Hut and Gibby point out that language is a two-way communicative system and such a system cannot be used by any infant until he or she is conscious of a 'me' and 'not me', is aware of something outside to which he directs his communication.

**PRE-VOCAL NON-SYMBOLIC CONTROL**

Very early in infant life, particular objects and situations cause special responses which serve as signs to adults and which, as means of communication and control, represent a primitive sort of language.
According to Allport, these responses are essentially preliminary reactions involving adaptation at a distance. As such they take possible a certain measure of 'control' by adults or, later, by the child.

Vocalisations also become important as signs. The adult soon learns that certain cries are associated with pain, others are anger responses and some others are 'shouts' of joy.

Initially these vocalisations, which may be said to represent the first stage in the development of language, carry no symbolic meaning to infants but before the end of the first nine months, there are indications that these are beginning to mean something to the child himself. At this stage, the two way communicative system begins to be established between the infant and the other members of the family. Another important point that can be deduced from this is that infants long before learning to speak possess ideas of things not present.

**Stages in the development of Speech**

**RANDO ARTICULATION**: During the first month of life the infants produce many simple sounds. Fifty percent of all sounds uttered are the aspirate 'p'. L. W. Alberg working under Gasself's direction observed and recorded as well as he could the total vocal output of a six-months old baby for 24 hours. Analyses of these early sounds reveal that vowels predominate in the first year of life. By the middle of the first year of life, babies produce...
meet of the vowel elements and about half of the consonants. The findings of the study of Irwin and his co-workers is worth mentioning. During the neonatal period the ratio of vowel and consonant sound is 5:1. But the ratio begins to approach that of adults by the beginning of the second year when sounds such as 'p', 'b', 'wh' begin to occur. 42.

MacCarthy has stated 43 that in the field of linguistic development, there is some evidence that gross motor development precedes finer motor coordination in the speech musculature. Vowel sounds may therefore, be thought of as the raw material of language, somewhat analogous to the mass activity of the infant in the motor realm, and consonants may be considered to involve the specific movements which become individuated in order to produce true speech.

**BABBLING STAGE:** This stage is marked not only by a gradual increase of sounds produced by the infant but also by an increasing definiteness of utterance of various sounds. First vowels are combined with consonants in 'da', 'ma', 'ugh', and then through practice vocal control makes it possible to repeat these, stringing them together as 'ma ma ma' or 'ugh ugh ugh'. This is real babbling. 44.

According to McCarthy 45, babbling is a form of vocal gymnastics, voluntarily produced but with no real meaning or association value for the baby. It is a form of 'play speech' in that sounds are uttered for the mere delight of uttering them.
In babbling the child selects those sounds which give him pleasure and continues to repeat them for his own satisfaction and probably for the delight of his parents who encourage him in this practice. But how long the baby will go on babbling and when he will abandon babbling in favour of 'speech' depends upon the development of his vocal mechanism and also upon incentive to use speech.

**WHOLE-BODY LANGUAGE STAGE:** As a substitute for speech, the infant uses gestures and whole-body movement to enable him to express his wants, feelings and emotions. Some of the gestures of early childhood are:

- a) pushing the nipple from the mouth
- b) turning the head away from the nipple
- c) allowing food to run out of the mouth
- d) smiling
- e) holding out the arms
- f) squirming
- g) wriggling
- h) crying
- i) pouting
- j) reaching movements.

If parents take interest and time and make necessary endeavour, the meanings of most of the gestures could be understood.

When an adult uses gestures, he uses that as a supplement to
speech. But a child uses gestures as a substitute for speech, and when the baby learns to speak he has less and less need for gestures. In communities where the frequent use of gestures is looked down upon as bad taste, the young child gradually abandons the use of gestures. Gestures have more frequency in lower socio-economic group where as in upper class words have more frequency.

Learning to speak

The maturation of the various parts of the speech mechanism viz., lip, tongue, throat muscles, larynx, oral cavity, teeth etc. helps speech development of the children. The child needs to be biologically ready to learn to talk. Infact, the period of 'speech readiness', when speech is more easily acquired, ordinarily occurs between the ages twelve and eighteen months in most babies. In some cases, due to emotional disturbances the children cannot make use of this period.

Imitation

Towards the end of the first year of life 'readiness to imitate' comes. The child is found imitating sounds which he did not articulate during the babbling stage. The child attempts to imitate the words commonly used by his mother. His efforts to imitate standard words increase with age, though increase in correctness of imitation proceeds slowly. This stage may best be called 'the parrot stage'.
The ability to associate meaning with words develops slightly later than the ability to imitate sounds heard. According to classical behaviourist, association of meaning with different sounds follows the technique of conditioned response. B.F. Skinner introduced the concept of operant behaviour and operant conditioning to provide a better explanation of language behaviour.

In the last ten years a new linguistic theory, transformational grammar, has arisen, in direct opposition to the behavioural structuralist theories. According to this theory, language is not learnt through the technique of a mechanical conditioned reflex but "language learning clearly involves rule formation or generalization from raw data". This theory presupposes certain intuitive powers possessed by the child which adults have lost and postulates that the child with these powers can derive the rules from raw data with no help from anyone.

Gestalt school refers to the fact that a considerable degree of linguistic comprehension precedes ability to speak. Stern remarks that the difference between talking and comprehending what is said is never so great during the first months of linguistic acquisition. Koffka observed a little girl who could not speak a word, yet understood everything of importance that her mother said to her.

In the development of comprehension, the child responds eme-
tionally to both the intonational pattern of what he hears and to the situation in which he hears it. Later, when he hears the word alone, he is able to respond to it without the situation in which the meaning was learned.

Building a vocabulary

About the middle of the second year of life, the child's vocal expression undergoes a sudden development due to the 'most important discovery of his life; which is that everything has a name'. As Hoffka has accepted Buhler's view that discovery of naming of objects is a perfect parallel to the chimpanzees', the naming can be regarded as a configurative achievement. As a result to the child, names become as real as the objects to which they belong. Piaget also has confirmed this view. Some examples from Piaget may clarify the point:

Question: Could one have called the Jura 'Saleve' and the 'Saleve' 'Jura'?
Answer: (A boy/child seven years old) No
New Question: Why not?
Answer: Because they are not the same.
Another Question: Could one have given another name to the sun?
Answer: (By a child 9' 0) No
Question: Why not?
Answer: Because the sun is just the sun, one could not have given it another name.
Infact, to the child, words are not mere symbols but have their roots in the world. For, more and more knowledge of that which constitutes child's world, he needs more and more words. In order to satisfy this need, the child adopts various methods of finding names for things, besides that of asking questions:

a) The child invents some names. Koffka refers to a child who gave the name 

b) Child extends the range of application of words. Koffka refers to a child of 2-3 to whom 

Further development in the language takes place around the end of the second year, when the predominance of nouns, which marks the earlier stage, is counteracted by verbs, articles, conjunctions, prepositions, pronouns.

McCarthy observes that between the ages 15 and 30 months, the child's use of noun-like words drops from about 50% to 20%. Verb-like words increase from 15% to around 25%, and other parts of speech show corresponding rise.
4.8. Hurlock observes: 'The greatest change' in the proportions of the different parts of speech used by the young child comes before he is three years old. By the time the child is using complete sentences with a fair degree of grammatical accuracy, the percentage of the various parts of speech he uses are determined by the conventions of the language he speaks. 71

Size of the vocabulary

Vocabulary grows remarkably slowly during the first two years of life when the child acquires a spoken vocabulary from 20 to 500 words but his comprehension vocabulary is bigger.

During the pre-school years, vocabulary increases more rapidly and when the child is directly exposed to the formal agency of education vocabulary shows signs of accelerated growth. This accelerated growth of vocabulary is due to:

a) direct teaching of words in the school;

b) usages by teachers;

c) usages by fellow students;

d) association with new objects and experiences;

e) child's reading for pleasure;

f) listening to the radio

The estimates of the size of vocabulary at different ages computed by empirical studies indicate that the child's vocabulary is really prolific and belies everybody's guess.
a) the average first grader knows between 20,000 to 24,000

b) by the sixth grade, he knows 50,000 words

c) when he enters high school, he knows 80,000

Development of the second language in the children: Bilingualism

The learning of a second language means the formation of a new speech habits. The child has already passed through all the pre-speech stages of random articulation, babbling, and gesture and also through the imitation, comprehension and production stages of the first language learning. His speech mechanism is fully developed now. Is he ready for the second language? Or, would exposure to the second language adversely affect his learning of both the first and the second languages?

Some research findings indicate that bilingualism renders a retarding impact on the language development of the child. Smith in a study of children of Chinese ancestry in Hawaii, found out that only the superior bilingual child could achieve the vocabulary level of monolinguals. In another study she concluded that monolingual children of preschool used a greater variety of words than bilingual children.

Leopold reports that a young child when learning two
languages simultaneously, is likely to combine the two languages into one and not be able, until he is older, to separate them into two separate language systems.

Smith's study of the effects of bilingualism has revealed that while bilingualism does not delay the first use of words, it becomes increasingly more handicapping with each passing year.

Runeberg reports that the use of the same language facilitates, and the use of different languages hinders group processes. The affectation of the group-processes retard language development.

According to Thompson, a child reared in a bilingual environment is handicapped in his language growth. Smith also rings the same note when she observes that it would be unwise to start any in any but children of superior linguistic ability a second language unnecessarily during the pre-school years.

Boota K. refers to McCarthy to have criticised these studies on the ground that they are affected by the factor of socio-economic status, as most bilingual children of the type included in the research either hailed from highly cultured homes of the upper social strata where first language is deliberately emphasised for cultural reasons or they come from lower socio-economic bracket where they have not been sufficiently intellectual to acquire the second language.
Dr. Wilder Panfield, Director of the Montreal Neurological Institute, in his address to the scientists who participated in the Conference of the National Research Council at Ottawa explained the findings of his researches into the human brain, particularly the area of the human cerebral cortex devoted to vocalization, and challenged the efficacy of the earlier findings and pedagogical methods that recommended teaching of foreign language after students had long passed the age when they could easily and effectively learn them.

Panfield further reports that the child has a remarkable capacity to utilize the four separate areas of the dominant hemisphere of the human brain for the learning of several languages. But with appearance of capacity for reason and abstract thinking the early ability is greatly lost. Panfield puts his views with all emphasis in such interrogatives as :

Why should foreign languages make their appearance long after a boy or girl has lost full capacity for language learning?

Why should the efficient methods so long employed at the mother's knee be replaced by the technique of grammar and syntax at a time when the mechanisms of the brain employed in learning speech are relatively inflexible and senescent?

J.W. Tomb repeats that multiple languages may be learnt by the young children with little effort if they are taught in the
proper method and at the proper age. On the intuitive capacity of children to understand spoken language, he gives his readings of the English children of the age group 3, 4, who converse freely at different times with their parents in English, with their nurses in Bengali, with their garden coolies in Santali, and with their house servants in Hindustani.

Gatensby also, against the background of immense scientific evidences postulates that the second language should commence at the earliest possible age.

V.K. Banerji investigated into the correlation between the first and the second language and noticed that there is a close connection between the two subjects. He found that there was positive correlation of 0.95 between English and another language that was the mother tongue. Of the 100 students, 53 failed in English and 57 in the mother tongue; 47 failed in both subjects; 10 failed in the mother tongue but passed in English. Only 1 student failed in the mother tongue, passed in English. In other cases the difference in the marks in the two subjects was small.

These figures indicate that 'contra-active inhibition' does not occur when 1st and 2nd languages are learnt simultaneously in the early childhood.

E.B. de Saune, has called the period before puberty as the
'bilingual period' in view of the power of the child to learn more than one language easily.

Andersson T. prefers\textsuperscript{91} to call this period 'multilingual' but the whole of this period is not equally multilingual as the 'intuitive linguistic power' of the child decreases gradually from infancy to adolescence.

Hockett reports\textsuperscript{92} in the light of his experiences with teaching foreign languages, that at the age of the puberty, linguistic habit somehow solidify in such a way that new phonemic systems become much more difficult to acquire.

Factors affecting language development

A number of factors have been found by the researches to be responsible for the variations of speech, the rate of development, the size and quality of vocabulary and the correctness of pronunciation at every age level. The most common of these factors are: general growth rate, intelligence, sex, family relationship, bilingualism, socio-economic status etc.

General growth rate and Physical fitness

Crow and Crow cited\textsuperscript{93} evidence to show that the children whose general growth sequence was 'ahead' of itself, the speech mechanisms were so far advanced in their development that the
early stages of vocalizations appeared to be 'telescoped'.

On the contrary, the beginning of the speech and the use of sentences have been found to be delayed due to severe and prolonged illness during the first two years of life. Deaf child has a smaller vocabulary as a result of his inability to imitate any model.

**PHYSICAL HEALTH** : Glandular disfunction, hemoglobin variations, vitamin deficiencies, nervous disorders, nutritional and circulatory problems, heart conditions, infected tonsils, poor teeth, rickets, asthma, allergies, tuberculosis, rheumatic fever, or prolonged illness can affect language development and postpone or prevent language readiness.

**AUDITORY ADEQUACY** : The three things - auditory acuity, auditory comprehension and auditory discrimination constitute Auditory Adequacy. The auditory acuity is the transmission of sound waves from the external ear to the auditory centres of the brain. It causes the recognition of the discrete units of sound. This recognition is followed by comprehension and interpretation. Studies have indicated that the ability to recognise, comprehend and interpret speech sounds is important for speech and reading development. Without it, child cannot isolate the separate sounds in words and thus finds phonics training incomprehensible.
The ability to focus at a distance of 20 inches or less and skill in depth perception and in binocular coordination, and the ability to centre and to change fixation at will, the ability to see clearly, singly and for sustained periods constitute Visual adequacy. The visual adequacy is an important condition of formal language development.

The interference with the frontal-occipital fasciculus affects auditory memory and creates difficulties in the learning of phonics. Other interferences in the association areas affect eye movement and eye span.

The visual projection area is surrounded by an association area known as the parastriate cortex. A second association area, known as the peristriate cortex, surrounds the parastriate cortex. If the parastriate cortex is injured, the person may be able to recognise what he sees, but he cannot recall the appearance of objects when they are not in view.

The nerve impulse travels from the retina along the optic nerve to visual areas (Cfr Fig.2) in the occipital lobe. This area is concerned with seeing without recognition. In areas 18 and 19 (Cfr Fig. 2), recognition and visual memory occur. There the words are recognised as words. In area 39, the angular gyrus, the meaning of the word is comprehended. This part of the brain has to do with the interpretation of symbols (letters, words, syllables) and combines the functions of
recognition and visual memory for word forms. It is an established neurological fact that any affectation here will affect the development of language in the child.

**Word Blindness:** The word blindness which is the inability, permanent or temporary, structural or functional, to remember word forms affects language development to a great extent. In reading disability cases exhibiting neurological defects the parts (letters) are seen as separate units rather than as parts of a whole; and the whole (words) are seen as undifferentiated whole.

**Intelligence**

The claim that the child's speech is a gross indicator of his intelligence has been substantiated by research findings concerning connexions between intelligence and size of vocabulary at different ages throughout childhood. The correlation between speech sounds and level of intelligence up to two years is very high, after which there is a close relationship between speech development and I.Q.

Studies of mentally deficient children report that the lower the intellectual rating, the poorer the speech. But children with high I.Q. have remarkable linguistic superiority both in size of vocabulary and in length and correctness of sentence structure.
Grow and Grow refer to some cases of children who display a precocity in their early speech behaviour but by the time they are ready for elementary school or later, their reactions seem to have slowed down to a point of average; on the other hand, the slow beginners may seem to have a sudden spurt during their elementary school days and excell the point of average.

As to whether intellectual ability is responsible for language development or language development is responsible for intellectual differences, McCarthy admits the inadequacy of the research findings to predict.

**Hemispheric Conflict**: The left hemisphere of the brain commonly is the language hemisphere. In language development, memory traces from words are retained in the dominant hemisphere and the non-dominant hemisphere; but those in the non-dominant hemisphere normally are mirror images of the former, and thus are suppressed.

In case of well developed cerebral dominance, language development is smooth but in the case of the dominance of the mirror-image hemisphere, language difficulties occur; besides in case of equal dominance, the engrams of both the left and the right hemisphere create language confusion and indecision in language execution.
Sex

McCarthy cites evidence which indicates that girls develop language competence faster. Girls show a greater mastery of speech sounds even before they begin to talk than do boys. McCarthy has explained the sex-difference in terms of family relationships. Girls identify themselves with mothers and this closeness of mother-daughter relationship throughout childhood helps the girl to learn to speak better than the boy who identifies himself with an often unavailable father. Sievers and Templin have shown a substantial number of differences favouring boys. Olson and Kostzle observed that although boys may talk less, they talk faster. Speech defects of different types are much more common in boys than in girls. The ratio is 2:1 to 8:1 in favour of the boys, and this becomes large as children grow into years.

Clark investigated sex differences in mental ability and achievement and it is of particular significance for, eight measures of mental ability and six measures of achievement were used in his study involving third, fifth and eighth grades with a nation wide sample.

His findings indicate no significant differences in reading, vocabulary, reading comprehension and arithmetic reasoning. Clarke concluded that the sex differences that are noticed in the classroom conditions are to be attributed to environmental factors as well as to interest.
A comparative study of reading in Germany and the United States indicate that the mean reading scores of fourth and sixth grade German boys exceed those of German girls and that the variability of scores is greater among the girls than among the boys.

The findings of this study suggest that sex difference may best be explained by cultural and environmental factors. The findings of some other studies are:

a) the girls have an inherited language advantage
b) they reach maturity earlier and that contributes to their language advantage
c) Today's schools are more fitted to the needs of the girls as most of the teachers are women;
d) Teaching methods are more suited to the girls.

Effective quality

Studies indicate the key role that the mother-child relationship plays in language development. It is difficult to test the specific influence of the relationship but warm feelings and intimate talk contributes a lot. The differences in language development of the institutional and orphanage-brought up children prove the role of the 'effective quality.' The children reared up in orphanages are slow in learning to talk and are retarded in language development throughout their lives.

Orphanage babies cry more but bubble less and make fewer different sounds than do family babies, even than those from
families in the lowest socio-economic groups.

**Adults versus Children**

The relative amounts of talk of children with adults and with peers vary greatly. On the question of which variable has greater influence on language development of the children, the views of the linguists are divided. Stewart recently observed that it is easy to find cases involving second or third generation Washington (D.C.) Negro families in which the parents are speakers of a quite standard variety of English, but where the children's speech is much closer to that of the newer immigrants from the South. This phenomenon seems to support the theory that children learn more language behaviour from members of their own peer group than from their parents, and suggests that educators' concern over the quality of language in the home may be misplaced.

Linguistic investigation reported by Jesperson indicate that languages are variants of the adult language being learnt. Smith's analysis of the mean length of utterance of 220 children, from 18 to 70 months in age, in two situations:

a) at play with other children

b) at home with adults

reveals that the children used longer sentences in conversation with adults and shorter sentences with other children.
Some research findings indicate that variety in family activities increases verbal interaction. Some emphasised the desirability of a wide range of objects which can serve as referents for speech; some other report that a group of children of age 4 had difficulties with some words that lack stability of word referent relationship. The process of generalisation and discrimination involved in learning the meanings of more abstract words does not come about simply through 'receptive exposure' but through 'active participation' with a more verbally mature individual. The benefits of variety in non-verbal experience may depend on the availability of help in encoding that experience in words.

Still, during the period of language learning, confinement to a restricted range of personal contacts leads to economical mode of communication whereas communication with a greater variety of social contacts leads to widening of vocabulary.

It is a fact that all language functions in a context and words owe their existence to contexts. The utterances in an English lesson, isolated segments of grammatical exercises, the unconnected vocabulary work on the use of words operate within a context. Television programmes in the States are examples of contextual teaching. Context consists of a speaker, a listener, the objective environment and the behaviour - both verbal and nonverbal - that arises from the interplay of the first three elements.
Even the lack of attentive listener is no drawback to the children, if the language exercise go on in a context. Children often hold conversation with themselves or their play things. 'A boy who was setting out all the animals in the Noah's Ark talked to each animal as he took it out. When he came to Mr. and Mrs. Noah he took part of each in turn. Finally Mr. and Mrs. Noah quarrelled, because Mr. Noah ordered the animals back into the Ark, and Mrs. Noah said they should step out now.'

Travels and events which are also examples of contextual variety, are followed by increase in vocabulary.

**Stimulation**

The differences in quantity in language stimulation through frequency of exposure may affect language development up to an extent but beyond the threshold no additional benefit may be gained.

But response to the child's speech - reinforcement or feedback is necessary and helpful to language development. Studies of infant vocal behaviour have been widely quoted as proofs of reinforcement theories of language learning.

Irwin's experimental study with slightly older children indicates the value of added stimulation in language learning. Moreover correction feedback is believed to be in good supply where language development has satisfactorily or speedily taken place.
Multiple births

Hurlock refers to studies that indicate that the children of multiple births are slower in beginning to speak, and the size of their vocabulary, the length and correctness of their sentences, and their articulation is inferior to the children of smaller families. This is due partly to the fact that they picked up "second language instead of imitating adult model and partly to the lack of "Affective quality" that mother-child closeness breeds as from the moment of birth, they hardly experience the same close personal relationship with the mother that a singleton has.

The children from the higher socio-economic group overcome their retardation to a considerable extent by the time they are nine years old. This is largely due to their ever expanding contacts with out-of-home mould. But the children from the lower socio-economic bracket continue to communicate with one another in their own secret jargons combined with gestures, grunts and facial expressions. In a word, they lack the motivation to learn to speak as secret jargons serve their purpose.

Socio-economic status

Research evidences indicate that between the babies of high and low classes, differences in the forms of instinctive vocalizations such as babbling, crying etc. have not been detected but when the babies outgrow their pre-speech stage, differences become pronounced.
The children of poor social background are marked by delayed speech development as compared with the children from their socio-economic counterpart. As they grow older, the children from the higher socio-economic bracket surpass their counterpart in the size of vocabulary, sentence form, correctness and spontaneity, profusion and eloquence.

These variations are as ascribable to intelligence as to environmental factors including variables like children's books, constructive play, reading and hearing stories and fables, contacts with adults and playmates. Moreover, the encouragement for improvement of language that the children from the upper socio-economic status receive from their parents is not received by the children from the lower socio-economic groups.

Noel found no significant correlation between children's grammatical errors and occupational levels of parents, although quality of language usage was related to the extent to which parents participated in outside activities involving language.

**Parental neuroticism**

Research evidence points out that not only the presence of articulatory defect in children tends to be associated with parent neuroticism, but that psychotherapy given to mothers yielded improvement in their children's articulation.
Practices in child rearing like over solicitousness, excessive use of baby talk and unconscious attitudes of rejection, stem from some kind of neuroticism, and their contribution to the retardation of language development has been pointed out.

**Aptitude**

The children are found to differ from one another in certain important respects so that some children are found to be proficient in certain abilities and others in others. Thus some children are good in manipulative abilities, some others in verbal activities.

Since the researches of Kelley and Stephenson, it has been known that most intelligence tests are measuring a verbal group factor 'V' in addition to 'g'. Professor Burt spoke of 'verbalisers' - children whose ability of verbal expression was obviously far in advance of their intelligence.

**School**

Investigation into the possible nature of relationship among teacher attitude, teacher adjustment and teaching efficiency reveal that there exist some degree of positive correlation between the variables - teacher attitude and teaching efficiency, teacher adjustment and teaching efficiency, showing that superior efficiency goes with good adjustment. These variables then may affect language development of the pupils.
Further studies\textsuperscript{160} in the field of research indicate that teaching effectiveness in various subjects including language depends on

a) teacher's intellectual, social and emotional equipments;

b) teacher's interest in children and teaching

c) professional knowledge and skill;

d) acquaintance with principles of psychology etc.

These factors also may affect language development of the pupils.

Some studies\textsuperscript{161} in the area of classroom interaction analysis process indicate that more domineering classroom behaviour of teacher which is characterised by more of direct influence and less of indirect influence in the classroom, produces a type of classroom climate which is not conducive to better learning whereas integrative classroom behaviour, which is characterised by more of indirect influence and less of direct influence of a teacher, creates a conducive classroom climate. Studies on teachers' classroom behaviour, may reveal more facts about its contribution to language development of children.

Further study\textsuperscript{162} on methods of teaching indicates that the achievement of pupils taught by using audio-visual aids was greater than those taught by the usual method and the use of audio-visual aids did not require more time than what was required for ordinary teaching.
Somartin has discussed the role of aids in language and vocabulary development basing his ideas on the findings and views of foremost writers in the field. He has emphasised particularly the role of the following aids:

a) Visual aids: the blackboard, the class-room windows, class-room chart, films, film strips, the epidiascope, the flannel board, the electric puzzle board.

b) Aids through reading: the wall newspaper, the class library, magazines, first step in the use of dictionary, speed in silent reading.

c) Mechanical aids - listening and speaking: the school radio, the gramophone, the tape-recorder, the class telephone (improvised).

d) Practical aids: speaking and writing, spelling and dictation, reading aloud, vocabulary, dramatization, the class inquiry office, original story writing, note books.

e) Social aids: the field trips, language clubs, the school assembly, projects.

Some of the studies institute comparisons between the effectiveness of two procedures like the structural approach and the traditional, the direct and the translation method.
The effectiveness of using graded sentence structures, graded vocabulary etc., have also been studied. The findings of these studies and similar other studies reveal the fact that processes, methods and devices of teaching are conditions of language development.

Textbooks:

Textbook is the centre around which teaching and study revolves throughout the course of formal education and that its contribution to language is as important as other essential factors, if not more. A good textbook provides:

a) all the words, phrases and idioms of which the pupil has to acquire knowledge and command, i.e., all the reproductive vocabulary properly graded in difficulty;

b) all the expressions which the pupil has to learn to read but not to use i.e., recognition vocabulary

c) all the grammatical construction to be learnt, properly graded in difficulty.

The latest and in many respects the most satisfactory survey of this field of research is the monograph by Chall. She breaks the concept of readability into three parts:

readability as legibility
readability as interest and
readability as measure of understanding.

For readability as legibility the speed of reading has been used
as the essential criterion. Readability as interest gives special attention to content. The quest for interest has also resulted in certain well-defined specifications for guidance in writing and in selecting material for children to read. Under the sub-title of the degree of ease comes the lists of words, sentences and syntactical elements which condition the degree of readability through their effect on ease of understanding.

**Functions of language in the life of the child**

At the early stage language satisfies the immediate physiological needs and wants of child.

Towards the end of the second year of life, the normal child begins profuse use of language to explore his relation with people and things. By asking questions, he learns the names of various things from the adults or the other children. Gradually the affective-motivational role of the language in the life of the child is replaced by the cognitive role of the language.

Some of the researchers point to the role of language in play and self-stimulation. Babbling is a form of play. And after the child has learnt some words he indulges in talking to himself. There is the enormously significant role played by talking to oneself in the carrying formed of a more or less continuous train of behaviour. This function is beautifully exemplified in simple arithmetical computations. When a boy first adds a column of figures
of ten articulate a and 4 are 10 and 7 more are 17 etc.
At the termination of each vocal operation the next response originates from it. The precise character of the response is a stimulation partly determining the next response.

A more complicated form of self-stimulation is 'soliloquy' when a child speaks to himself, his spoken words provide stimulations which determine his subsequent language reactions alone.

In self-stimulation, language may be reduced in intensity to the point of being implicit rather than overt, it is still speech. The speech that silently goes on in a person is undoubtedly not for communication of ideas, emotions or connections to others it is simply talking to one-self.

Piaget propounds that the speech of the young child is primarily egocentric. Socialised speech attains importance only at a later stage. To demonstrate egocentricity of children's speech, Piaget employed techniques of content analysis. He found 30% of the remarks of two children aged six and a half to be egocentric.

McCarthy has summarised the findings of many investigators who by changed rules of analysis found high percentage of ego-centricity in children's speech.
But sole and Hubbell showed\textsuperscript{173} that with such a criterion even adult speech proved to be highly egocentric.

Metranx's profiles\textsuperscript{174} of speech development point out that the child has a tendency to verbalise his own and others' behaviour.

Hahn's findings indicate\textsuperscript{175} high correlation between child's leadership abilities and his inclination to 'class speeches of the show and tell variety'. This shows that even in childhood language is used as an instrument of social control and social success.