CHAPTER II
NATURE OF READING

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CHAPTER II
NATURE OF READING

Learning to read is a life long process. Each period of life from birth to old age contributes to the development of reading ability. It also forms the part of individual's total development of personality. Although this is true, very few people have the clear concept of reading ability. To many people, reading is a simple process. All that the reader has to do, is to decipher the sounds of the letters and speak them one after the other; as they occur in words and sentences. But this is not the scientific concept of 'reading'. It is layman's concept. It is the concept of the man in the street who is not familiar with physiological and psychological aspects of reading process. To some 'reading' appears to be a process of pronouncing printed words with or without comprehension of meaning. Some restrict their concept of reading to the ability to read aloud. But reading is much more complex process. "Reading, as we now view it, is more than seeing words clearly, more than pronouncing printed words correctly, more than recognizing the meaning of individual words".¹

Reading is a complex process composed of different skills namely, perception, recognition, understanding, interpretation, judgment and making use of the material read. Therefore, reading means understanding the thing read.

In order to understand our own people, our own land, our own cultural heritage, our old literature, teaching reading is a must. The vast treasure of old literature in classics and language of the people requires to be made meaningful to the reader.

The concept of reading when put to practice in actual teaching helps the learner in developing his perceptions and quick recognition and understanding the matter being read quickly and correctly. It makes the reading meaningful and develops the comprehension, which is very much required in learning various subjects.

Reading is indeed a complex process and is one of the four fundamental linguistic skills to be developed among pupils as one of the requisites in any language learning. Therefore, 'reading' forms one of our important objectives of teaching Hindi. To do our job better in much more effective way, it will be better to understand the meaning of reading process. For this the physiological and psychological aspects of reading should be studied.
2.1 Physiological Aspect of Reading

It has been described in the foregoing paragraph that reading is a much more complex process. There are many factors contributing to the progress of reading process which make the act of reading a complex one. Some activities take place when we read. Which are these activities when we read? This can be answered by examining the physiological aspect of reading. Generally the physiology of reading is defined as "Reading relates to the visual, auditory speech or articulatory and other bodily process that function in the act of reading".2

2.1.1 Eye-Movement in Reading

Before researches about the visual process in reading began, it was believed that the eye moves steadily and continuously along the line of the material to be read. But Javal in 1879 proved that eyes do not move steadily and continuously along the line, in reading. When an individual reads, his eyes hop or glide, from stop to next, from left to right. "He does not read in smooth sweep along line but only when the eyes are at rest in each

Photographic records of the eye-movement have also shown that eyes move in a series of stops called fixation pauses and starts. It is during this fixation that the word perception occurs. Sometimes the eyes make backward movement also. That is the eyes retrace their progress across a line of print. This is known as regressive movement in reading. The regressive movement generally occurs when:

i. a reader's thought is blocked by an unfamiliar word,

ii. he reads to re-examine the sentence to understand it better or to relate it to other ideas in the passage,

iii. his perception of successive words is inadequate,

iv. he picks up the wrong clues the first time or

v. his eyes move more quickly than his thoughts.

"Regression movement of eyes occur near the beginning of the line when the return sweep of the eye is too short to take in all the first words."


Therefore, the important point in reading act is fixation pauses. "The reading depends upon what the reader perceives during this fixation pause. If he perceives only individual letters or a small group of letters, he will not be reading because meaning is constructed not from letters but from whole words." This does not mean that individual letters do not play role in perceiving the word as a whole. They do but the reader must perceive the whole word or group of words during the fixation pauses. The efficient reader usually sees one or two words at each fixation. The cluster of words a reader can see in one fixation is called the recognition span. If the recognition span is more, the number of fixation per line would be less. Therefore, "Good reading is characterized by a wide recognition span, smaller number of fixation per line and a small number of regressions."  

From the above discussion one would like to conclude that the good readers show fewer fixation pauses, and less number of regressive movement and so on. But this is not always true. Following are the characteristics of


A person who would become a good reader must develop basic reading skills and techniques.

One who would become a good reader must develop the ability to group words into thought units.

An able reader must have study skills at his command.

A person who would become a good reader must develop many vivid and varied backgrounds of understanding.

A good reader must develop a wide repertoire of comprehension abilities.

A good reader is a purposeful reader.

A good reader builds an attitude of demanding an understanding of what he reads.

A good reader must be able to perceive relationships between what is read and problems he faces.

A good reader must be able to read critically.

A good reader develops many and varied reading interests as well as improves the quality of his reading tastes.

A good reader must be able to read for enjoyment.

A good reader must be skilled in interpretative oral reading.
A good reader is an independent reader who makes a full use of his reading ability.

The number of fixation pauses, regressive movement, recognition span etc., depend upon many factors such as difficulty of the material, size and the types of the print, kind of material to be read and the purpose of the reader. Therefore, Ruth Strang has pointed out that the photographic records of the eye-movement should be interpreted with care and caution. This statement is strengthened and supported by the following:

"A good reader who is intently trying to comprehend the author's thought in a difficult passage or to remember all the important details may pause frequently on each line and occasionally go back over the line. His eye-movements tend to be irregular though not erratic or inconsistent. Properly interpreted eye-movement may give some indication of the ways in which the mind and eyes work while the person is reading". 7

While the processes of understanding and pronouncing one word are going on, the eyes move ahead and secure the visual stimulus for the next following response.

7. Ruth Strang and others. op. cit., p. 6.
In silent reading the psychologists talk about the eye memory span. This has been defined as "the distance eyes have travelled a head of the print at which the interpretation occurs". The mature reader generally have large word recognition span. In silent reading the mature reader has a span of 15 to 20 letters. Therefore, the studies of eye movements in reading have led some people to define reading as an act of visual exploration.

2.1.2 Speech and Articulatory Process

There are two kinds of reading namely, oral reading and silent reading. Oral reading is preceded by silent reading. Oral reading involves speech and articulatory processes. These processes are as complex as visual processes in reading. The children are first taught oral reading. Therefore, they carry over some speech movements into silent reading, as audible whisphering and later as silent lip or tongue movement. The extent to which the organs of speech were involved in silent reading was a matter of discussion and research during the first quarter of the country. Huey directed attention to the fact that most people move their lips to a greater extent or less while reading silently. "Even when such movements are not visible

inner speech occurs which takes the form of incipient movements in larynx, the tip or the base of the tongue, the palate or other parts of the vocal apparatus. Because of this complicated movements adequate records are lacking for their studies. But it is certain that silent reading is accompanied by movement of the vocal apparatus. As a result of these inner speech movements, it has been proved that the speed of reading is decreased. This may be considered as the draw back of muscular movement of the tongue during reading. But there are persons working in this field who believe that "meaning and language are so closely related in consciousness that the recognition of meaning in reading cannot occur without the reinstalment of the movements involved in vocationalization." Others believe that the presence of vocal movement in silent reading is a bye-product of current methods of teaching pupils to read.

The facts concerning auditory discrimination are these:

1. Children have varying degrees of ability in auditory discrimination.

10. Ibid.
2. The maturation of auditory discriminatory skill is gradual and rarely is fully developed before the age eight.

3. Poor auditory discrimination is related positively to inaccuracies in articulation and pronunciation and or to poor achievement in reading.

4. The relationship between auditory discrimination and intelligence is essentially negative.

5. As auditory discrimination matures and is developed through instruction the learner becomes capable of producing more and more of the sounds of the language. The child gradually learns to fashion his own speech after the speech that he hears.

The foregoing discussion of the physiological aspect of reading may seem to be unimportant and technical to classroom teachers, but the knowledge of this aspect of reading would definitely help the researchers and teachers who try to improve upon the reading of their pupils by proper coordination of eyes, the true eye-span, lip movements etc., if they want to be successful. We have seen that during fixation pause visual perception takes place in reading. It is because of this visual perception that the reader is able to perceive sentences, which involve the ability to
identify the words by configuration, outstanding letters, initial syllabus, skills to recognize simultaneously both the outline and the details of the word in relation to each other. Perception is the process that makes the visual impression meaningful in the light of the post experiences.

2.2 Psychological Aspects of Reading

Many mental processes are involved in reading. They are subtle complex and difficult to study. Still however, significant progress has been made through researches in identifying their nature.

The term reading includes both oral reading and silent reading. In both the kinds of reading skill of word recognition is important and fundamental. "Words are the bricks with which the thoughts are built, and when a child cannot recognize many of the words which author has used he is at great disadvantage in trying to extract meaning from the printed page". Therefore no progress can be expected in either oral or silent reading unless the pupils develop this skill to an adequate extent. The ability to recognize words while reading depends upon the reader's fund of knowledge of words, that is vocabulary. The term

word recognition refers to the ability to recognize the sound and meaning of words as they appear on the printed page. The word recognition is not a simple step process, it can be divided into two component parts. The first is the process of the perceptual reaction to the printed word form. The second is the process of deriving meaning in the context. In psychological term the perception is defined as the preparation for response or as a process which intervenes between presentation of stimulus and ultimate response to it. "In reading this sequences include the stimulus of printed word, the process of recognizing this word and attributing meaning to it". Therefore it can be said that reading is also a perceptual act.

As we have described that word recognition depends upon the stock of the knowledge of words in other words, vocabulary. This leads us to state the reader must have a good vocabulary. By mastery of vocabulary we mean the three essential elements of the words namely, their spelling, pronunciation and meaning. Reading and mastery over vocabulary are closely related to each other because one leads to the improvement of the other. We have seen that knowledge of word meaning or word recognition skill is fundamental

in reading process. But sometimes it happens that the reader might not have come across some word or words in a sentence or a passage. In this situation he must be able to understand or make out the meaning of that particular word in context. All good readers always make use of context clues in recognizing the word and obtaining meaning from the unfamiliar words in sentence or passage. "Accurate word recognition and knowledge of word meaning are closely related to readers' comprehension". Therefore, word meaning is a fundamental and important factor in reading process, without it, the reader would not be able to recognize word or differentiate one word from the other promptly and accurately. Reading becomes easy and enjoyable affair to the pupil if he has enough vocabulary.

2.3 Dr. William S. Gray's View of Reading

From whatever has been described about reading process, it is evident that reading is not a simple, single step process. The psychologists and neurologists have given informations about different steps that are involved in reading process. Educators have tried to state this technical information in a simple way.

Dr. William S. Gray of University of Chicago a man who spent his life in studying the process of reading, has tried to summarize the steps as follows:

1. The printed words either in isolation or in sentences.

2. The eyes of the reader receiving the impression of the print, observing the writing from left to right, making a series of stops along the line of print.

3. The message is sent to the brain.

4. If the reader has seen the word many a time, the sound and meaning of the word "reach the brain". If the reader does not recognize the word 'at sight', he has to 'figure the word out' by one or more ways, the teacher has taught him or he has discovered for himself.

5. As the words in a sentence are recognized one by one, the reader builds the meaning of the whole sentence. Meanings are modified as words are added and familiarity with spoken sentences help the reader to decide the relationships of words within a sentence. The same is true of sentences added to sentences and paragraphs to paragraphs.

6. After the reader has decided what a sentence conveys, he tests the meaning against his experiences. Does it have a large meaning? a figurative meaning? Is it true? Does it agree with other experiences? Is it an opinion or a fact?

7. The reader responds emotionally to the idea he believes the author intends. He agrees or disagrees partly or fully. He resents, applauds, grieves or laughs inwardly.

8. The reader selects what he thinks worth keeping and fits it in with the ideas, he has met and kept before. Perhaps he discards one idea and puts the new one in its place, adds or alters. He is now ready to use this idea along with others in his mind as and when the occasion arises.

The steps one to four in the above series of steps are summarized by Gray as word perception. The step no. five is described as comprehension. Steps six and seven are described as reaction to what is read. Step eight is described as the fusion of new and old ideas. Thus, attempts have been made to study the nature of reading process and thereby to define reading, but no one definition includes, all steps involved in reading. To realize this let us examine a few definitions of reading.
2.4 Some Definitions of Reading

"Reading ability is the ability to perceive and interpret the sounds and symbols".

- Robinson

The point that have discussed so far regarding reading process would help us to understand this definition. The definition includes the term 'perceive' and 'interpret'. The term 'perceive' describes the mechanical aspect of reading that is seeing and perceiving the words. The term 'interpret' describes the intellectual process involved in reading. It means to bring or obtain meaning to what is perceived or read. Thus the final product of the process can be said to be comprehension.

"Reading is an active process of reaching and searching for meaning".

- John J. DeBoer.

According to this definition, there is no meaning on the printed page. Each mark is a signal which arouses same concept that is already in the mind. While reading image and concepts are evoked by these marks or symbols, which help the reader to gain the meanings. The reader after finding out the meaning tries to interpret it in order of search what the author wants to say. Therefore, reading
is an activity which involves comprehension and interpretation of ideas symbolized by printed page. The task of interpretation depends upon the meaning of the words. The meaning of the word is sometimes different in different context. Therefore contextual meaning of the words also plays an important role.

"Reading is a process of thinking".
- Betts

Mostly, all reading involves physical factors, thinking and feeling. Thinking is implicit in every aspect of reading. In reading one tries to find out what author says. In order to achieve this goal he tries to see the details and finds out the main idea of what he reads. It is said that a good reader thinks with the writer. As his experiences are different from the writer, he thinks beyond or differently from the writer. As thinking-reading involves a whole complex of skills and abilities, Thorndike suggests that reading of a paragraph involves the same sort of organization and analysis as does thinking. "It includes learning, reflection, judgment, analysis, synthesis, problem solving behaviour, selection, inference, organization, comparison of data, determination of relationships and critical evaluation of what is read". 15

For all these mental processes, comprehension is fundamental while words are the tools for thinking.

Reader feels satisfaction when he accomplishes his purpose. He may feel pleasure or displeasure, satisfaction or annoyance with the content or style. He may approve or disapprove the author's ideas. Sometimes his emotions are aroused by some incident or character that has been described by the author. These feelings may either facilitated or hinder the thinking process.

"Reading is a process of reasoning".
- E.L. Thorndike.

Thorndike was the first man to attempt to describe reading as reasoning. It consists in selecting the right elements of the situation and putting them together in right relations and so with the right amount of weight or influence or force for each. This was a penetrating analysis of the reading process and provided a basis for more detailed research. Frederick B. Davis, described reasoning in 'reading' the general mental ability that is involved in reading. This is made up of two identifiable kinds of reasoning (a) facility in weaving together several ideas to see their relationships and ability to draw correct inferences from writer's statements, that is to go beyond the literal interpretation.
Reading involves many skills. John J. DeBoer in his book on 'The teaching of Reading' has described them in detail and they could be summarized as follows:

1. Reading to find the main idea or thought.
2. Reading to select significant details.
3. Reading to summarize and organize ideas. (This is possible only if the reader is able to see the relationship between the main idea and significant details as well as inter-relationship of the details).
4. Reading to arrive at generalization. (In order to arrive at generalization the reader must be able to decide whether the given data are sufficient to warrant up the significant conclusion. That is he must be able to find out what is relevant from the irrelevant.
5. Reading to predict outcomes or draw inferences.
6. Reading to follow directions. (This depends upon the ability to note details, to organize and to note sequence of events).
7. Reading graphs, tables, charts and maps.
8. Reading to find out the sequence of events.
9. Critically reacting to what is read.
All these discussions lead us to formulate that the immediate goal of all reading is comprehension. Comprehension is thus a complex skill. Some consider these skills as the behavioural changes or the specifications of comprehension which are generally expected to be developed as a result of teaching reading comprehension. In the present study these components are called as behavioural changes in the terminology of evaluation. This forms the basis of constructing the tool for measuring comprehension. It is obvious that all these behavioural changes enumerated in this chapter cannot be measured through one single test.

2.5 Silent Reading

There is hardly any need to insist that silent reading as well as oral reading should be taught in schools. But in Indian schools very little provision is made for the teaching of silent reading. The arguments in favour to silent reading are based upon the following two considerations:

1. Most of the reading outside the school is silent reading.

2. Silent reading emphasizes comprehension rather than sound.
Almost all skills which are employed in silent reading are also present in oral reading. All oral reading is preceded by silent reading. In addition to these, skills of correct pronunciation and clear articulation are involved in oral reading. In silent reading, the emphasis is on comprehension skills such as recognising vocabulary, speed and accuracy. The comprehension will depend upon, "the size of the vocabulary, rate of accuracy of reading textual materials. Therefore most silent reading tests contain some short of vocabulary section". 16

Speed is desirable characteristic of silent reading, but this should not be stressed in primary schools, that is in the beginning of teaching reading. When children are concentrating upon eye-movements, return sweeps and the association of symbols with meaning. Also undue emphasis upon speed even in upper classes, that is high school and colleges, may affect comprehension unfavourably, particularly when reading to note details or to follow sequence of events or ideas. A moderate speed of reading average materials is better than slow one for most types of comprehension.