CHAPTER II

THEORY OF READING
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The earlier chapters of this thesis concentrate on the importance of reading. It is also necessary to know what reading is:

Reading: Different point of Views:

There are many misconceptions about reading. To some people words are merely a supplement to pictures or an adjunct to television. To others, reading is a passive process . . . expecting the book to come to you, as one student said. Many people believe that reading is synonymous with word calling; if you can pronounce the words correctly, you are reading even though you have no idea what the author said. For them it is just barking at the print.

"Reading is more than seeing words clearly, more than pronouncing printed words correctly, more than recognizing the meaning of isolated words. Reading requires you to think, feel, and imagin. Effective reading is purposeful. The use one makes of his reading largely determines what he reads why he reads, and how he reads."¹

The teachers' concept and its influence:

The teacher's overall concept of reading strongly influences his methods of diagnosing reading difficulty and of teaching reading. If he thinks of reading primarily as a visual task, he will be concerned with
the correction of visual defects and the provision of legible reading material if reading to him is word recognition skills. If he thinks reading is merely reproducing what the author says, he will direct the students' attention to the literal meaning of the passage and to check his comprehension of it. If he views reading as a thinking process, he will be concerned with the reader's skill in making interpretations and generalizations, in drawing inferences and conclusions. If he thinks of reading as contributing to personal development and social welfare, he will provide his students with reading material that will help them develop sound values and that will have some application to their lives and to the modern world. From this we learn that reading is a multifaceted activity.

As a result of his historical approach to research into causes of reading disability, Douglass (1963, p.5) wrote that "Little attention has been directed towards developing understanding of the nature of the reading process, of building is theoretical framework to help us comprehend the complex nature of what we call "reading". If the process is not understood, the methods will be inadequate.

The term reading is not a pedagogical term, since the employee reads the mind of the boss from his body
language that is, the way he enters the room and the set of his features. Husbands read their wives in the same way, though a folklore suggests that women are much better at reading their husbands. Pupils read their teachers, using signs and symbols, such as posture, tension, pace, energy and voice. Young children read picture books and comic strips before they are able to read the word symbols that accompany the pictures. Often the childrens' translation of illustrations are surprisingly accurate. Carpenters read blue-prints that tell how a house will be put together. Operators of earth moving machinery read slacks and flags that tell which mountains to move and which valleys to fill. All reading uses symbols to represent a reality situation.

The reading process begins with the translation of signs and symbols to acquire their meanings.

The psychology of reading should be seen in the wider context of seeing non-verbal signs as well as the symbols that appear in books, magazines, or news papers.

Staußer (1969) reviewed numerous descriptions of the reading process and reported that there is universal agreement among authorities on one point only that is comprehension is an invariant condition of reading.
Reed (1970) disagreed that reading necessarily involved understanding and repudiated the whole word, or meaning, approach to beginning reading.

"Reading is the identification of linguistic forms from strings of written configurations that represent them, as evidenced by producing the conventional signs for the same linguistic forms in some other system of representation."³

Carroll expresses the view of most experts on reading when he identifies the, "essential skill in reading as getting meaning from a printed or written message."⁴

Some writers have defined reading as a sequence of cognitive events. Huey (1908), in the psychology and pedagogy of Reading, suggested that, . . . . He conceived of reading as an intellectual process in which the reader learns and practices accuracy of thought, good judgement, and a feeling of values."⁵ Although he thought of the reader as acquiring mental discipline rather directly from the author, rather than constructing his own conceptual framework, Huey grasped the complexity of the reading thinking relationship and the importance of value structures as a basis for reading.
Tinker (1952) defined reading as a three-step process: "(1) recognition of word symbols, (2) recall of related experience and (3) reconstitution of knowledge to incorporate the new ideas contained in the material."6

He considered the reading process is completed with the reconstruction of readers own knowledge to incorporate the new information but added that the purpose and the behaviour would be changed as a result of reading.

Some educational psychologists consider reading a form of problem solving that is learned in much the same way as concepts are acquired. According to Stauffer (1970) reading is an active cognitive process of seeking relationship to, differentiating form, and reconciling with "existing ideas". The efficient reader reads with a purpose, abstracts information, tests its value and then accepts or rejects". In his hypothesis stauffer identifies the Bruner, Goodnow and Austin (1956) and Byers (1961) with the view that thinking and reading strategies are comparable.

Goodman (1970) described reading as a selective process in which the readers own perceptual images and language meanings make up a complex of anticipations that he calls a psycholinguistic guessing game.
Jack A. Holme (1960) and his research assistants gradually isolated most of the significant elements in normal reading through a specialized technique of factorial analysis. Their definition, which evolved from this research, reflects the complexity they observed "Reading is an audio-visual verbal processing skill of symbolic reasoning, sustained by the inter-facilitations of an intricate hierarchy of substrate factors that have been mobilized as a psychological working system and pressed into service in accordance with the purposes of the reader" (Holmes and Singer, 1961).7

These authorities differed in the importance they attributed to comprehension as a criterion behaviour to the extent to which they are related to reading and linguistics, and in the sophistication of their conceptualization of learning.

English and English quote Reading as 1. The perception of written, printed, or engraved symbols constitution a communication, and the (atleast partial) understanding of the conventional meaning of the symbols word naming (pronouncing the word), while sometimes mistaken for reading, is neither necessary nor sufficient. The ability to read single or isolated symbols is an improper and partial criterion or reading
in the full sense, which involves understanding a message of greater complexity. 2. The perception of gestures, lip movements etc. and the understanding of their conventional meanings - reading is seldom applied to auditory perception of messages: hearing and listening are the nearest (but inadequate) words for the process of "Sound reading".

The up-shot of the whole discussion is that reading is very complex mental activity.

**Types of Reading:**
There are two types of reading
1) Oral reading or reading aloud.
2) Silent reading.

**Oral reading or Reading aloud:**

Oral reading is the oral presentation of printed or written material. In oral reading when the child interprets material, he reads to communicate to others the sensory impressions, the humour, the plot and the characterization.

"Oral reading is a much more difficult activity than silent reading. In oral reading the child is required to do all that is demanded in silent reading and several other things in addition. In oral reading the pupil must recognize the words, workout or guess unfamiliar ones, get the thought, and in addition, he must pronounce the words, give them, if possible, some
form of expression, as well as pay some attention to
the way he stands, holds the book, faces the audience,
and in general the way he conducts himself before a
group of observers."\(^9\)

If a pupil encounters an unfamiliar word in
silent reading he can take time to try to read it out
by visual or phonetic analysis and by glancing ahead
to get more context clues. In oral reading this study
would bring reading to a halt and attract attention to
the difficulty. In the early stages when pupils are
unable to read ahead of what they are saying, they often
do not clearly grasp the thought of a sentence until
they have nearly or fully completed the reading.
In silent reading no embarrassment attends this delay
but in oral reading the failure to comprehend the
sentence as a whole until it is completely read provides
a special difficulty in giving it effective expression.

In silent reading a child need incur no embarrassment
when he is uncertain of the pronunciation of a word or
when he makes occasional misrecognitions, where as in
oral reading mistakes may be embarrassing and may lead
to further confusion oral reading in these and other
aspects is a more complex and difficult activity than
silent reading.

"Oral reading subjects the pupils to a variety of
difficulties and tensions which occur when one makes a
public appearance. Even experienced adults are likely
to be tense, nervous, easily embarrassed, some times
frightened, and more subject than otherwise to mistakes
in reading even easy material at sight before an
audience."\textsuperscript{10} Oral reading develops a sense of
appreciation i.e. appreciating great literature, can
help pupils to be good debaters, eminent dramatist and
actors on the stage of life's drama by this activity."\textsuperscript{11}

Horn and Curtis say of oral reading, "Its chief
function is to develop worth while skill in communicating
ideas read from the printed page. The teacher's
concern, and that of the child, should be on developing
this oral communication ability so that it can be used
easily and naturally in a social situation. In such
oral reading there will be little or no self consciousness
because the child is thinking about the ideas he has to
express and not about himself."\textsuperscript{12}

As a tool of communication, oral reading is being
used increasingly by parents and by teachers and other
professional people, especially those engaged in radio
and television programmes. Reading aloud is possible
method for use in adult education for democracy.
The conclusion is that oral reading has a definite
place in the reading programme.
Silent Reading

By reading is meant here, and generally in modern education, silent reading. The teaching of silent reading in the west is relatively recent. It was only after World War I that there was general agreement on rapid silent reading as the primary objective of school instruction. Until then reading meant reading aloud. If a pupil could read aloud with due attention to the pronunciation and articulation of the words and to the modulation of his voice, he passed the test as a good reader. That he might be mechanically pronouncing the words without knowing what the passage read was about, was hardly even appreciated.

To this theme was at least one notable exception. G. L. Farnham published in 1881 a book entitled 'The Sentence Method of Teaching Reading', in which he made a persuasive plea for 'eye-reading' as he called it. The object in teaching, according to Farnham, is to give the pupil the ability to look through the written language to the meaning directly and at a glance, that is, without having to translate it into speech. The pupil should be taught to regard the printed characters as representative or symbolic, which indeed they are. Edward Fry, the modern American reading expert, holds a similar view. According to him the reader should go as directly as possible to the author's idea,
he should be mind reader and not a proof reader who worries about spelling or a radio announcer who worries about pronunciation.

As reading aloud (oral reading) often promotes a word reading, so it should follow "rapid silent reading". Reading aloud with all its advantages is to be replaced by silent reading. In order that pupils be able to read with comprehension, in order that they may gather information and know the opinions of experts, in order that their apprehension be widened, their vocabulary is expanded, in order that they may be able to read with ease and fluency, it is necessary to develop the habit of reading silently among pupils.

Silent reading facilitates most of a language, "wide and regular says professor P. Gurrey, "Consolidate all that has been gained, and accumulate the mind to make use of a language as in natural and familiar medium of thought and communication."

It improves the recognition of words and the pupils learn to respond to those words which have been already learnt by them in oral work, "Thus the aims of silent reading are pleasure and profit. It is a matter of interest as it helps to create a taste for reading. In pupils after school life, his reading is reduced to silent reading. The pupil gains an easy access to the
study of literature and gather fresh information and fresh knowledge and develops his aesthetic sense and critical outlook by silent reading. In short he learns more and grasps more by it than by reading aloud. Moreover silent reading saves time and energy that we devote to pronunciations, intonation, stress and rhythm in reading aloud pupils energy and attention are not frittered away but remain concentrated on meaning assimilation of information."  

The advantages of silent reading are as follows "(1) It keeps the whole class busy. Pupils work at their own paces (2) The practice of silent reading in class prepares the pupils for independent reading."  

Distinct Processes:

Both Farnham and Fry consider oral reading a separate skill, and this theory that oral and silent reading are two distinct unrelated processes received considerable experimental support from certain early studies in eye-movements. It is now well known that the eyes donot move along a line of print in one continuous sweep. They move in jerks, in a rapid series of stop-and-go movements. Starting out at the beginning of the first line, the eyes stay there for an instant, jump to the next place, stop these briefly, jump again and so on until the end of the line
is reached. The eyes then make the return sweep to the next line to execute another series of leaps and pauses. (The eye movements are sometimes called 'saccades', a term used by the French Oculist Joual who for the first time in 1879, published a description of eyemovements in reading). The words are grasped only the eye-stops or 'fixations' as they are known in reading jargon, no useful vision being possible during the movements from one point to the next in view of their extreme rapidity. The span of material grasped each time the eyes stop is called 'Span of recognition' or simply, 'the reader's eye-span'. Two other terms that figure largely in reading jargon may be mentioned here "Vocalization and sub-vocalization." Vocalisation is the habit of saying or whispering the words even when one is reading for meaning. In sub-vocalization there is no audible sound or even any apparent movement of the lips, but the reader is all the time saying the words mentally. These are obvious reading faults which need to be corrected before one can learn to read fast, though sub-vocalization is less easily amenable to correction since it operates unseen.

It was found that in oral reading there were more fixations, more regressions - "regressions" is a backward movement along a line of print - and longer causes than in silent reading. In oral reading the
eyes travel much faster than the voice, and during this time-lag. They tend to make more fixations regressions and longer pauses and no causes. Judd was the first to furnish experimental evidence of the difference in eye-movements in the two kinds of reading and further support came from Buswell, another pioneer in the study of eye-movements from the evidence supplied by Judd - Buswell experiments, it was concluded that oral reading was distinct from silent reading and superior to it as it made for more efficient 'eye-movement'.

Decoding and silent reading:

"Decoding is the process of changing visual symbols into auditory pattern." 16

"Beginning reader, which is primarily learning to decode, is nearly impossible if the words being used are not known in speech. Even when the spoken word is understood, the child must go through three steps:

i) The discrimination and identification of each visual unit.

ii) The association of correct sound elements with each visual part, and

iii) The blending of sound parts to arrive at the known word.

Reading necessitates breaking the code of spoken language into visual form." 17
Shortly after the child learns to recognise print as representative of language and gains a vocabulary of approximately 100 words, effective and useful silent reading skills begin, in many cases, to develop.

When the child reads silently he has the opportunity to gain information in a slightly different way from when he is reading orally.

The pronunciation task which is difficult for some children does not necessarily interfere with the child's understanding of the words or his ability to decode them as such. How many times has a child behaved as if he understood the word but was unable to pronounce it. It may be that sometimes the pronunciation of the word, the physical making of the sounds appropriate to the printed symbols, slows him down or stops him when, if he were reading silently, he could continue without interruption of equal importance in the silent reading process is the ability of the child to receive messages from the author directly without interference from his immediate environment.

"Neither the teacher nor other children participate directly in a child's silent reading or are aware of it in the way they are of oral reading. This feature of silent reading tends to personalize the relationship between the author and the reader. This personalization can be utilized in the classroom to motivate readers
and to encourage children to spend a considerable amount of time living vicariously through the words of other children, animals and fantasy characters in the worlds of the past and future as well as the present. Perhaps by not requiring the oral reading task we can introduce the child to scenes far beyond the world of the classroom. It may be that this will encourage reading and stimulate his imagination and creative thought in countless ways."

Silent reading and flexibility of rate:

This is an important aspect of silent reading. Silent reading unlike oral reading is not tied to the physical process of producing word and need not be related to any movement of the throat muscles. Readers thus can develop the ability to vary their reading rates selectively.

"It is unfortunate that in many classrooms emphasis on oral reading precludes the development of the habits of varying comprehension and rate, which should be learned early in the reading programme. The results of this are countless, thousands of young people who, even in college, read at the rate of 200 to 250 words per minute regardless of the material. It may be well to emphasize at this point that the reading rate is only one factor that affects
comprehension and appreciation. Such factors as printsize, number and type of illustrations, style and kind of subject matter also have a profound effect. In discussing individual flexibility in reading, silent reading must be considered a most important test.\textsuperscript{19}

\textbf{Silent reading and the study skills:}

The identification of pertinent information in a passage is a vital part of a child's ability to use the printed word in pursuit of solutions to problems or as a source of information. Outlining, summarizing, and identifying key concepts and key words in prose and poetry, are often the central focus of classroom instruction no matter what subject is being considered. It is therefore most important for the elementary school teachers to do all they can from the earliest stages to help their children develop the study skills associated with silent reading. If students can find a key word or phrase on a page of printed material, separate the unimportant from the vital issues, comprehend various levels of information, and vary the reading rate and approach for the material at hand, they will be well equipped for future reading tasks.
Reading and child development:

Reading as an integral part of the child's development has implications for his personal and social development as well as for his mental growth.

The child development theory of reading has been presented in different ways by Burton (1950), Olson (1959) and Russell (1961). Essentially, this theory shows how various aspects of the child's development—His physical growth, his language development, his general mental development and his social development are related to and contribute to his development in reading. It is in turn induces growth in the other areas. These relationships may be expressed schematically as follows:

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  "Child development
  \_____________\   \__________________________
    \_____\         \__________________________
       \_____\             Social and emotional adjustment.
          \_____\                "20
             \_____\          Happiness, enjoyment
                    \_____\                  Skills for advanced learning
                         \_____\                  Understanding himself, others, his world

Reading process (Nature of reading process)

I) Reading as a Psychological process:

The reading process must, by its very nature, involve the total child. Main purpose here is to joint out some of the more important and relevant findings and to relate them to the total reading process. Among
the more frequently encountered correlates of reading ability are the following:
1) intelligence  2) Mental age  3) Sex  4) Socioeconomic level  5) language  6) race  7) personality 8) attitude  9) physical growth  10) perceptual skill 11) rate of reading.

Although there is conflict of opinion about the exact nature of the relationship of I.Q. and mental age to reading, several points of agreement can be found.
I. I.Q. and M.A. are relatively good predictors of a child's minimal performance level. Barring other serious handicaps, most children with mental age of six can be taught to read in the first grade.
II. Most children who fail to succeed in the first grade have mental age below six years.
III. Although I.Q. and mental age are important, other factors such as class size, procedure, motivation, and teaching procedures may be just as important to successful reading performance.
IV. Even though I.Q. and M.A. are relatively sound predictors in most cases, they should never be used in isolation to determine expectations. The fact that a first grader has an I.Q. of 130 is no more guarantee that he will learn to read than is the fact that a child with an I.Q. of 80 will not.
V. Correlations between IQ and reading scores tend to increase with grade level. This is due largely to similarities in test factors, measuring instruments and skill performance. A high IQ score at the sixth grade level is a much better predictor of reading performance than is the same score at the first grade level. 21

Socio-Economic Factors:

One of the factors most often correlated with reading achievement during the last decade has been socio economic status.

"Riessman (1962) quoted the rather conservative estimate that, in general, 15 to 20 percent of American school children have some degree of reading disability. However, he estimated that among the lower socio-economic classes, and particularly among the disadvantaged, the disability estimate may rise as high as 50 percent. 22

Benson (1969) in a less conservative estimate claims that "in middle class communities, the number of children recorded in reading averages between 10 and 20 percent. While in low socio economic areas it may range as high as eighty percent." 23

There appear to be a number of reasons for these findings. Among the more obvious are malnutrition, poor health, crowded living conditions, unstable home
environment and economic pressures. However these are the extremes and are the condition over which the teacher generally has little control.

There are, on the other hand, a number of other reasons for poor achievement which may be associated with socio-economic status. Most of these may be summed up under three headings: (1) Background experiences, (2) level of motivation and (3) language.

(1) Background Experiences:

The statement is too often made that children from low socio-economic levels lack background experiences. This simply is not true. All children have background experiences. The fact that their experience are not the same as those of middle-class children or those represented in traditional teaching materials should not be interpreted as meaning that these children have none. Rather it must be understood that their experiences are different. Unfortunately many teachers overlook this or assume that it doesn't exist and fail to capitalize on the experiences that the child brings to the learning situation.

On the other hand, it is unrealistic to suggest that certain children are not handicapped by their background experiences since the educational system is geared toward middle-class standards with middle-class
subject matter and vocabulary, the child who had never experienced these at a disadvantage. Again the child in the lower socio-economic class has less opportunity to travel, handle books and magazines in his home, or meet people outside his immediate environment.

"Because of restricted social environment and economic limitations, many avenues of enrichment are closed to him. Frequently both parents work, and there is no opportunity for them to contribute to widening the child's experiences. In other cases, because of social and economic pressures, parents simply neglect to do so consequently, the child may be attitudinally unprepared to accept the changes that accompany school."24

Level of motivation:

To assume that all children want to learn to read is both naive and unrealistic. Because many children come from homes in which the parents do not or cannot read, the motivation for learning to read may be lacking. This is especially true of children from low socio-economic environments. They have neither the encouragement nor any reason to learn to read.

Another reason that some children may be poorly motivated is that they rarely find reading to be a rewarding experience. Because of number of factors associated with their backgrounds and preparations, they come to school without the proper level of readiness.
Because they are illprepared, they fail, and reading too often becomes equaled with failure, so it is not surprising that negative associations are built up. Rather than motivating them to read, constant failure motivates them to leave school.

Language:

A third area in which the student from a low socio-economic environment is handicapped is language. The fact that the student may have a language quite adequate for communication with family and peers is not sufficient. The language of the home and community may not necessarily be the language of the school. "As Patin (1964) points out, the student often has an adequate 'public' language, but little or no 'formal' language. His public language is adequate for conveying simple items of information, making requests, or indicating agreement or disagreement. It is characterised by simple, declaratory sentences and imperatives. Structural complexities dependent clauses, and more elaborate speech patterns found in formal language are not in his public language. Since the language of school is formal, the student from a low socio-economic level is at a disadvantage from the beginning."²⁵

These findings are in agreement with those of Thomas (1962) who found language deficiencies in white and Negro children in low socio-economic areas.
Reading as a Sensory Process:

Whatever else we may say about reading, we must acknowledge that it begins as a sensory process. The cues and stimuli for reading come in through the ears, eyes, and in the case of braille, through the fingers. Stating that reading is a sensory process does not mean that it is only a sensory process. There are many factors involved, and reading disability is usually the result of a number of factors working singly or in combination whereas a hearing or visual weakness alone may not cause severe problems. To the contrary they quite often combine with, or cause, other problems such as fatigue, restlessness, discomfort, poor self image etc.

I. Reading and Vision, Reading and Wearing - "In a study of third graders, Know (1953) found the following eleven symptoms to be most reliable for picking out visual defects. (1) Facial contortions (2) Book held close to face (3) Tension during visual work (4) Tilting head (5) Head thrust forward (6) Body tense while looking at distant object (7) Assuming poor sitting position (8) Moving head excessively while reading (9) Rubbing eyes frequently (10) Avoiding close visual work (11) Losing place in reading."
Reading as a Perceptual Process:

Related to, but not to be confused with, the sensory process is the perceptual process. As in the sensory process, perception in its larger meaning refers to stimulus input from seeing, hearing, smelling, tasting and touching, however in reading we generally think in terms of only the first two. In relation to these, many people incorrectly confuse the reception of sound waves, or in the case of vision, light waves, with the total process of perception, when in fact, this is only one part of the process.

Vernon (1962) describes the perceptual process in reading as consisting of four parts "(1) awareness of the visual stimulus standing out from its background, (2) awareness of essential similarities for general classification of the word, (3) classification of visual symbols of the word within the general class, and (4) identification of the word, usually by naming it."

Although Vernon intended these descriptive steps for visual perception only, they are equally applicable for auditory perception.

Most agree that perception involves a stimulus, the association of meaning and interpretation from experience with that stimulus, and a response relating
the meaning to the stimulus or symbol. Even from this brief glimpse of reading as a perceptual process, we readily see that it is extremely complex.

Perception affects and is affected by many other factors in reading. We see that it, affected by not only the senses, but also such things as culture, experience, emotion, maturity and even personality . . . by providing a wide variety of experiences, by attending to verbal and non-verbal symptoms of difficulty, and by being willing to adapt and modify in accordance to individual needs, you can facilitate perception in the classroom.

Reading as a Developmental Process:

"Reading, by its very nature, is a developmental process spanning the life of an individual. We don't know when it begins or when it ends. We do know, however, that the mothers poor health during pregnancy or the occurrence of complications during child birth may have detrimental effects later on the child's reading performance." 27

In short reading is an ongoing, everchanging process. No matter how well an individual reads, he will always be able to make improvement. Even after he leaves school, he will need to improve the proficiency
of some old skills and to develop new ones. As he
chooses a career, he will have to develop special skills
associated with his work. The telephone operator must
be proficient in the rapid reading of telephone numbers,
digits etc. The architects must learn to read blue
prints accurately; and so it goes. New careers new
personal and social responsibilities, new life situations
all demand the continuous development of reading.

Although reading is a developmental process, it
does not proceed at a fixed rate. One of the harsh
realities of reading development is that the good
readers get better and the poor readers fall farther
behind.

Just as reading has been described as a
developmental process it might also be called on
unfolding process, as each successive level of
accomplishment unfolds, it reveals insight into
 successively higher levels of achievement. In addition,
the unfolding process opens up an everlasting
increasing variety of opportunities for practice and
application. Skills are mutually reinforcing,
moving the student towards greater and greater
independence in relation to both instruction and content.
This is what the reading process is all about; a
movement from dependence to independence, a movement
from developing reading as a task to using it as a
tool.
In looking at reading as a developing task, two things immediately stand out. First, we must realize that reading is taught; it is not something that occurs incidentally. No child learns to read by watching someone else read. Most of what occurs in reading is unobservable. Unlike in the learning of swimming, we cannot throw the child into the pool and depend on his instinct for survival to save him. Reading is not an instinct. It's a learning process dependent on the acquisition of certain skills and procedures.

Second, without be laboring the point, it does seem important to emphasize that reading is a process, not a subject. The process will be generalizable to other grades and subjects; the content will not. 28

Reading as a Skill Development Process:

Skills are objective-process is objective in the sense that its development is dependent on neither one set of materials and methods nor academic grade. Skills are sequential. Even though skills are not sequentially tied to grade level, they are somewhat related sequentially. Skills are generalizable. In addition to being objective and sequential, skills are generalizable in nature. Just as the span method, material and grade level, they are also span content.
Stages of Skill Development:

1) The foundation of the skill development process is concept development. This begins with children's earliest experiences and continues to grow throughout his life.

2) A second stage of skill development deals with recognition and identification. He learns to relate certain letters and words or combinations of letters and words with concepts that have meaning for him when he can successfully combine the two—the stimulus and the concept—he gets meaning from the experience.

3) A third stage of development deals with interpretation of information.

4) A fourth stage in the skill development process is application and generalization. 29

Reading Comprehension

Since the work undertaken was the construction and standardization of a silent reading comprehension test in Marathi, for the pupils of Std X, it was essential to decide the aspects or the objectives of reading comprehension, that were worth evaluating in case of pupils of Std. X.
Reading and comprehension together form one activity which is fundamental to all learning in school and to much learning out of school, for to be able to read and understand is a skill which must be acquired as a tool necessary to the learning of other things.

Many people read poorly because they comprehend poorly, even though they are able to break the code. It is difficult to find out how much reading comprehension occurs.

One who is working in the field of reading comprehension, must take note of;

i- Purposes or objectives of reading comprehension and

ii- levels of comprehension or stages of comprehension ability development process.
Various authorities have put forth their ideas regarding these aspects, some of which are discussed below.

Reading comprehension is not a general ability. It consist of number of specific abilities. Comprehension is described as a highly selective activity. An individual reads at different times for different purposes. These purposes may be described as the aspects of reading comprehension.
According to A.I. Gates, "Reading is thinking and one can read in as many ways and for as many purposes as one can think." 30

The purposes of reading given by him are:

(a) Reading to get main idea or general impression
(b) Reading to note significant details (c) Reading to note and remember precise directions, (d) Reading to predict what comes next or the most probable issue or conclusion (e) Reading for the purpose of evaluating the material (f) Reading for the purpose of reproducing the material in same type of summarized form
(g) Reading for the purpose of comparing the form of the substance of the selection read with other content
(h) Reading for the purpose of remembering." 31

Deboer and Dullman have also stated the purposes of reading comprehension. They opine:

(a) Reading to find the main idea or get the general idea of selection, (b) Reading to select significant details." 32 This skill is closely related to skill of 32 finding the central thought or the main idea of a selection, (c) "Reading to answer selection." 33

This skills is required for improving the ability to note significant details. When a student reads a particular paragraph a passage, specific questions are faced by him, with reference to which he finds out the significant details and the central idea of the paragraph.
(d) Reading to summarize or organize.\textsuperscript{34}

The ability described in (a) and (b) are basic to reading for summarising or organizing. But to make an adequate summary or to organize what has been read, it is not enough for the reader to know what the main idea is and what the significant details are. The student must also be able to sense the relationship between the main points and the details as well as the inter relationship in between the details.

(e) Reading to arrive at generalizations.

(f) Reading to follow directions.

(g) Reading to predict outcomes.

(h) Reading to evaluate critically.

(i) Reading graphs, tables, charts and maps.\textsuperscript{35}

Generalization may be called summarization in special form. Reading to follow directions is a combination of many reading abilities like to note details to organize and to note sequences of events etc.

Reading for predictions is an important comprehension skill, which is helpful in remembering what is read. It enables the reader to take special note only of that content which is new to him, this helps to lessen the burden of recall.

Critical evaluation is significant aspect of comprehension. It involves numerous factors.
The reader needs to ask such questions as - Does the author draw valid conclusions from the facts? Is he omitting or suppressing any important facts? Does the material contain any unwarranted assumptions?

Critical reading involves the capacity for making comparisons and appraisals. Levels of criticism vary with the age and maturity. Graphs, tables, charts are the symbols which suggest certain definite meanings or concepts. Knowledge and practice of applying this knowledge is essential for this type of reading.

The aspects of reading comprehension as suggested by Gates and Deboer and Dullman are in hierarchical order. During reading, one cannot predict outcome, unless he knows the significant details and the main idea, and has the ability to organize and to arrive at generalization or to draw inferences.

Instead of specifying the aspects of comprehension in detail, there is another way of classification. We can study comprehension occurring at different levels of reading as studied by Gray and others.

Gray (1960) suggested that different levels of meaning could be obtained from the same material. He identified "a literal level, which involves translation of what the words say an interpretive level, which relates material to its context, a significance level,
which involves implications, and an evaluative level, which requires the reader to react to the material in his own terms."^36

Robinson (1966) developed a model in which the different aspects of reading interacted, depending on the ability of the reader and his purpose. The four quadrants of her model are "Word perception, comprehension, reaction and assimilation."^37 Robinson describes word perception as both word recognition and word meaning, comprehension includes literal and implied meanings, reaction involves intellectual, indgements and emotional responses. She does not subdivide assimilation.

One of the most elaborate descriptions of reading is the Barrett Taxonomy, cognitive and effective dimensions of reading comprehension as reported by Clymer (1968). This Taxonomy involves five major levels, each of which is subdivided for descriptive purposes. The principle levels are (1) Literal comprehension, (2) recognition (3) inferential comprehension (4) evaluation and (5) appreciation.^38

Barrett points out that literal comprehension may involve either recognition or recall and that the activity may range from simple to complex. In all cases, the comprehension is focussed on points that are explicitly stated by the author.
Inferential comprehension requires the reader to go beyond the materials in the reading and to use his own experience and background to "infer supporting details, (2) infer main ideas that are not explicitly stated in the passages (3) infer sequences either between incidents in the reading or after the passage terminates (4) infer comparison between characters, times and places (5) infer cause and effect relationships (6) infer character traits (7) predict outcomes and (8) infer figurative language."39

The principle difference between literal comprehension depends on whether the information to be comprehended is explicitly stated or has to be inferred by the learner from what is specifically given.

Ruth Strong in his article The Nature of Reading approaches comprehension at three levels.

The first level requires the student to derive literal meaning from sequential words and their grammatical relations to each other (the syntax) in sentences, paragraphs, and chapters. This ability to weave words together, giving each its proper weight and understanding the accumulation of significance in successive sentences structures, is what Edgar Dale called 'reading the lines.'
In reading a short story he is alert to discover the theme, the climax, and the resolution. In reading an article, he watches for the author's generalizations and conclusions. In fiction, he visualizes the characters, the setting, and the events. All of these efforts help the reader to understand fully what the author is saying yet it is possible "to read the lines" without getting them fully in value.

To go beyond the literal meaning of a passage is to 'read between the lines'. A mature reader recognizes the author's intent and purpose, interprets his thought, passes judgements on his statements, searches for and interprets clues to characters and plot, distinguishes between fact and opinion, and separates his own ideas from those of the author. In interpreting, he appraises the source of the author, taking into account their competence and authority. This level of comprehension also requires a reader to recognize and interpret many literary devices such as metaphors.40

The third level, 'reading beyond the lines',41 involves deriving implications, speculating about consequences and drawing generalizations not stated by the author. On this level the reader may arrange the author's ideas into new patterns, extending their scope for fusing them with ideas that he himself has gained from reading or from experience. By means of both
analysis and synthesis, the reader gains a new insight or higher level of understanding that enables him to reflect on the significance of the ideas.

Reading and acting: This is still another dimension of reading. As one reads, he has feelings, mild or intense. He likes or dislikes the point of view agrees or disagrees with it, finds it disturbing or reassuring. These emotional reactions inter-weave themselves with the cognitive process of reading so that not only does the reader get ideas - ideas get him.

Style also arouse some emotional response in the reader. A piece of writing may evolve pleasure in the authors' felicity of expression, appreciation of the mode of characterization, and it may delight or exalt, or it may bore, annoy, alarm, anger or provoke. If students read creatively, they involve themselves in the book or article, empathizing with a fictional or a real character as he fights and suffers, some degree of emotional involvement in the book or article is basic to "Creative reading" (Hester, 1959).

The end results of reading is personal and social progression because it produces desirable changes in points of view, attitudes, feelings and behaviour. Growth through reading is the ultimate goal of instruction, while growth in reading is the means to the end (Artley, 1959).
Macmillan as quoted by Narayanswami, makes a very precise definition of comprehension. He defines "Comprehension as understanding what is written between and beyond the lines - in other words, "intelligent interpretation." It includes:

a) reading to get the main idea
b) reading to get important details,
c) reading to answer specific question,
d) reading to follow the logical sequence and the development of idea
e) reading to apply what is read
f) reading for deduction and implications and
g) reading to evaluate."

Otto, Chester and others view reading as a skill development process. According to them, there are four stages of this skill development, which are as follows

a) the foundation of skill development process is "concept development;"
b) A second stage deals with "recognition and identification;"
c) A third stage of development is "interpretation and information;"
d) A fourth stage in this skill of development process is "application and generalization."

These stages are not discrete levels. The child does not cease to develop at one stage, because he has begun to develop another. On the other hand, some stages, particularly those involving interpretation and application are dependent on making of some previous
skills.

The year book committee of 47th year book, has divided the process of reading under three headings:

a) The understandings, attitudes and skills involved in interpreting what is read.

b) The adjustment essential in achieving purposes dictated by the readers' interests and needs and

c) Locating and using materials from different sources."46

The Committee has further specified these three classes into subclasses.

a) Interpretation of what is read, is subdivided under three headings:

1) Grasping the literal meaning of what is read,

2) Securing the broader meaning inherent in a passage,

3) Reading to what is read."47

b) Adjustment in reading are needed to achieve purposes dictated by the reader's interests and needs.

Attitude, modes of interpretation and pattern of thinking vary with the purpose of reading. Thus the committee is of the opinion that besides understanding, attitudes and skills, involved in interpreting what is read, the good reader should take the following steps:

"i- Define clearly the purpose for reading on a given occasion."
ii- Recognise the demand made on the reader.

iii- Identify the nature of the material.

iv- Adopt an appropriate procedure in reading the material for the purpose indicated.

v- Concentrate attention, while reading on the kind of information.

vi- Adjust speed of reading to the end;

vii- Reflect on record or use the information secured in harmony with the purpose for reading."48

c) Information and techniques are essential in locating and using reading materials from various sources. In addition to the previously mentioned attitudes and skills. The following types of information and techniques are needed:

1. Knowledge of sources of books and other materials.

2. Effective use of library privileges and aids.


4. Judging the reliability of printed material in the light of such items as the date of publication, reputation of author, nature of evidence presented etc."49

All these sub-classes are further specified into minute details. To conclude this analysis they suggest basic aspects involved in most of the reading activities.
For specifying objectives of reading, Albert J. Harris, divides reading as a whole under three heads which are as follows:

"i- Developmental reading

ii- Functional reading

iii- Recreational reading."50

Each objective is further specified into classes and sub classes, as follows:

i) Developmental reading includes the following:--

a) Skill in mechanics of reading

b) Skill in reading comprehension

Skill in reading comprehension consists of:

i. acquisition of a rich, extensive and accurate vocabulary and ability.

ii. To grasp the meaning of units of increasing size, phrase, sentence, paragraph and whole selection,

iii. To find answers to specific questions

iv. to select and understand main ideas

v. to understand sequence of events

vi. to note and recall details

vii. to grasp the organization of author's plan,

viii. to follow directions separately

ix. to evaluate what one reads

x. to remember what one has read."51

ii) Functional reading includes:

" (a) Ability to locate needed reading material
by using index, table of contents, dictionary, encyclopaedia etc.

(b) Ability to comprehend in formational material.\(^{52}\)

This ability consists of application of general comprehension skills, such as reading of arithmetical problem, reading of maps, charts, graphs etc.

(c) ability to select the material needed and

(d) Ability to organize what is read by summarizing or outlining the material.\(^{53}\)

iii) Recreational reader\(^3\) is further divided into five classes pertaining to the development of tests and interest in reading.

Some other research workers in this field of reading tried to apply Bloom's Taxonomy of educational objectives to the reading process.

Educational objectives are defined as "the actions, feelings and thoughts, students are expected to develop as a result of the instructional process."\(^{54}\)

The taxonomy of educational objectives is the classification of educational objectives. It consists of three domain namely the cognitive, the affective and psycho - motor.

The objectives of cognitive domain formed by a committee under the chairmanship of Dr. Bloom, include
those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills.

The objectives of affective domain proposed by a committee under the chairmanship of Dr. Krathwohl, are those objectives which describe changes in interest, attitudes and values and the development of appreciations and adequate adjustment. These objectives emphasize a feeling tone, an emotion or a degree of acceptance or rejection.

The objectives of Psycho motor domain, proposed by Dr. R. H. Dave, include the manipulative or motor skills. Objectives belonging to this domain, aim at the development of proficiency in performing such acts by effecting best possible co-ordination between psychic and muscular action and also between different muscular action performed by various parts of the body.

The nature of the process of reading comprehension is described as a complex organization of patterns of higher mental processes. It can and should embrace all types of thinking, evaluation, judging, imagination reasoning and problem solving. It means reading comprehension process belongs to the cognitive domain i.e. development of intellectual abilities and skills. Hence it is but natural, that the taxonomy of educational objectives, suggested by Bloom and Krath Wohl can be
applied to the classification of objectives of reading comprehension process.

One such attempt is made by Barett. It is known as the Barett taxonomy of cognitive and affective dimensions of reading comprehension. This taxonomy is the elaborate discription of reading for interpretation (referred under levels of comprehension).

Another attempt is made by Edward Fry. He is of the opinion that many of the achievement goals or the objectives listed by Bloom and Karath Wohl can be applied directly to reading comprehension.

The taxonomy of educational objectives in cognitive domain proposed by Dr. Bloom, contains six major classes namely i. Knowledge ii. Comprehension iii. Application iv. Analysis and Evaluation.

The taxonomy of objectives of reading comprehension, suggested by Fry also consists of the same six major divisions.

(1) **Knowledge**

Applied to reading comprehension, it means the student is able to gather from the printed page such things as specific facts, terminology and ways and means of dealing with these specific facts or terms. On a slightly higher level but still within the frame work of knowledge, the reader would be able to extract
facts about such things as trends, criteria and theories, if these are specifically stated.

(ii) Comprehension:

In Bloom's taxonomy, comprehension means communication. Reading comprehension is related to the communication of the written material. Hence here this objective expects the same type of behaviour as specified by Bloom, namely Translation, Interpretation and extrapolation.

Translation means changing the idea from one form of communication to another form, without changing the meaning. This involves understanding each part of written material.

Interpretation means the explanation or summarization of a communication whereas translation involves part for part knowledge, interpretation involves a recording, rearrangement or a new view of the material.

Extrapolation includes determination of implications, effects consequences and conclusions from the facts given in a statement.

(iii) Application:

Application means using the knowledge one has, in a particular situation. Thus this objective involves such reading comprehension skills as - following
directions, use of generalized methods and technical principles for comprehending the written material e.g. in reading maps, using directions etc.

(iv) Analysis:

Analysis is reading comprehension, refer to the students ability to identify the various elements that are contained in a paragraph or a passage. It also refers to the readers ability to see relationships between the various elements, he has isolated. It also includes students ability to deduce an organizational principle inherent in the writing.

Thus this objective includes the breaking of the material into its different parts and reorganizing the relationships of the different parts of each other, and the underlying organization. It means to develop the ability to identify the ideas in a passage that are assumed but not stated, to find out the reasons for particular situation or action, to recognize the purpose for which it has been written and to recognize the mood and the attitude of the persons in particular situation, and the attitude of the writer.

(v) Synthesis:

In achievement testing, it means production of an original plan or a set of abstract relationship. This category does not pertain directly to reading comprehension. For reading comprehension this objective
involves, a higher level extension of some skill, such as seeing relationship and organizational principles or extending a trend found in the written material. Thus it includes such behaviours as selecting a catchy title by considering ideas, feeling and experiences the kinds of effects to be achieved etc. It also includes such behaviours as completion of the stanza or a short poem by composing a last line deciding about the outline of organization, selecting the best solution of the problem, producing outcomes, inferring best conclusion etc.

(vi) **Evaluation**

It is considered as the highest category having definite implications for reading. In reading comprehension, evaluation means critical reading — which includes the ability to make quantitative and qualitative judgements about the material which is being read e.g. judging the accuracy of a selection (written material) by taking into consideration consistency, exactness of statement, documentation given in the selection. It also includes judgements in term of external criteria, meaning thereby, judging the accuracy of a selection by taking into consideration standards by which such things are judged.  

Edward Fry's taxonomy of reading objectives has been accepted for the present study, because —
i. It includes all the aspects of reading comprehensions, suggested by different experts as discussed above.

ii. It is based on modern technique of evaluation, proposed by Bloom and Krath Wohl.

iii. Department of Education of Maharashtra State has also accepted this technique and has asked the schools in the state to follow it. Hence the teachers are acquainted with this hierarchy of objectives in the cognitive domain.

iv. Fry, in suggesting this hierarchy, has not left any vagueness or ambiguity, as he has exemplified every specification.
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