CHAPTER - II

THE CONCEPT OF READABILITY AND ITS MEASUREMENT

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In the earlier chapter it has been discussed that the text-book is an important tool in the teaching-learning process. It is in fact the prime mover of education. Hence, due attention be paid to the production and quality of text-book. Before the text-book is placed in the hands of the students, it should be evaluated from the Readability point of view. Its importance should not be mitigated since the text-book is almost the beginning and the end of learning for majority of our students in India. Hence, the text-book that we place in the hands of our pupils should be comprehensible. The comprehension of the content of the text-book depends much upon the reading ability of the students and reading difficulty of material. Of course, there are wide variations in reading abilities of students but they can be grouped in three different categories for convenience - Average, above average and below average readers.

Unfortunately at present a single text-book is placed in the hands of millions of pupils having varying reading abilities and that too, without any estimate of its reading difficulty. And if at all any attempt is made to estimate the readability of the text-book, it is generally a subjective estimate. Therefore, it is likely to hinder the academic growth
of a pupil by causing disinterestedness in reading and failure in the examination. Hence, to instill interest for reading and help them achieve more (which is a source of inspiration for them to read more) it is necessary to provide the pupils with a readable text-book. Now, therefore, it is quite reasonable to look the meaning and concept of the term readability itself.

2.1 THE CONCEPT OF READABILITY:

According to Webster's Dictionary "readable" means 'legible'. Pleasing, interesting or offering no great difficulty to the reader........... that can be read with ease. Hence, a readable book must be pleasing to look at, it must interest you through its attractive pictures and it must facilitate you to read by its good type and the distance between the words and lines. This is the general meaning that is normally taken. But to know its specific meaning, it is necessary to scrutinize the definition advanced by some of the experts on readability.

2.2 DEFINITIONS OF READABILITY:

Readability is indeed a very wide term. This is why Aukerman was compelled to say, "Readability is a term used to cover various aspects of written materials which together determine the reading difficulty of a printed page." 1 Some of the

experts have emphasized a few of them and the others have emphasized the rest. That is why they differ in the amount of emphasis as well as the number of aspects emphasized. But it is a fact that the different definitions advanced by different experts have simply enlarged the scope of the term.

2.2 (a) Dall-Chall's Definition:

"In the broadest sense, readability is the sum total (including the interaction) of all these elements within the given place of printed material that affects the success, a group of readers have with it. The success, is the extent to which they understand it, read it at an optimum speed and find it interesting."² Here Dale-Chall puts an example on the understanding of the material given in the book as one of the most important components or readability.

Logically, therefore, it can be deduced that the books that are difficult to understand have high readability. In other words, books with high readability are considered difficult and hard. It becomes almost difficult for an average student to comprehend the book that has high readability and therefore, his academic growth is marred.

2.2 (b) Bhagoliwal's Definition:

Mr. Bhagoliwal states: "the most commonly emphasized aspects of readability are legibility, interest, ease of reading and understanding. These three factors are of course interrelated." Here Mr. Bhagoliwal is quite justified in saying that these three factors are interrelated because interest is not a solitary thing. It depends upon many other things such as the content of the subject matter, its theme, illustrations, clarity and colour of printing, and the total get up of the book. In the same way, ease of reading depends upon the vocabulary included in the language for presenting the matter of its sentence structure but also on the amount of interest on the part of the reader in the subject-matter.

When a reader confronts a book, written on abstract, complicated or unfamiliar subjects it is harder for him to read. In addition to this, the format (good paragraphing, bold type and summaries etc.) may affect the ease of understanding. The ease of understanding and interest also depend upon legibility. Hence it is crystal clear that these factors of readability are interrelated and interdependent.

2.2 (c) Guthrie's view of Readability:

"Learnability refers to the extent that new learning results from reading a passage. The result of stepwise regression analysis of test scores showed that the same characteristics which predict reading comprehension (e.g., word difficulty and sentence length) also predict new learning."\(^4\)

Here Guthrie has clearly indicated the difference between the learnability and the readability of materials. In fact it clarifies that learnability itself co-exists with reading comprehension. It means that if there is good reading comprehension of a passage or any reading material, learnability of material is also better. In a way, it also refers to the ease of understanding or comprehension resulting from the style of writing. Therefore, he concluded that the classic readability formulae could be used to examine the readability as well as learnability.

Concluding the discussion it could be said that the readability includes the following factors:

i. Interest element of the reading material.

ii. Legibility of writing.

iii. Ease of understanding or comprehension resulting from the style of writing.

In order to add to the concept of readability, it is very essential to look into the factors affecting readability of the reading material.

2.3 DIFFERENT FACTORS AFFECTING READABILITY:

The discussion under the preceding section leads one to say more specifically that readability of a book includes the format, the style of writing and the level of difficulty of its matter.

2.3.(a) The format of the Book:

Whenever a reader picks up a book, it is its format that matters to inspire him to read or suppress his desire to do so. Its format includes many things. If its illustrations, like pictures, figures, charts, graphs etc., are meaningful they go a long way to compell a reader to read with interest and ease. Their collective effect makes a book more readable. A good text-book also possesses the qualities of good paper, clear print, attractive binding etc. Though these things do not add much to the understanding of the content, they make the book attractive.

2.3.(b) Subject-matter or content:

Perhaps one of the most important factors that determine the readability of books in general and social studies in
particular is the extent to which concepts and generalizations are made clear to the reader. Almost every course in this field and in other fields also has a large number of functional generalizations - concepts to acquire. The acquisition of the concepts or functional generalizations demand that the student develop an accurate mental construct of the object, event or idea under study. When a concept is difficult and a book is vague or ambiguous in its discussion, the student is likely to make no mental construct. It is possible that he might memorize or paraphrase a book. This may enable him to score better at a written examination but he possesses limited understanding of the matter and therefore, understanding is confined to verbalism.

Another aspect that is associated with the concept development is the accuracy which the book is written. Though in recent years the writing of text-book is marked with an improvement in scholarship, minor errors and inaccuracies and sometimes totally erroneous statements can easily be found. Incorrect concept once learnt is difficult to forget. Therefore, it is quite important to present accurate material.

The number of sub-topics also contributes towards raising the level of readability of text-books. Large number of sub-topics included in a lesson or a unit hinders the process of developing concepts in the student. Therefore, the inclusion of many sub-topics in a chapter also raises the level of readability and weakens the comprehension.
The manner in which a particular book is organized is also an important consideration in determining the readability. It is just possible that the book might deal with very suitable topics and yet due to poor organization, remain unreadable. The ideas contained in the book should follow one another in a strict logical sequence. It is seen and experienced that chapter instructions, transitional words and sentences, summaries and even concluding statements make the content more readable.

Interest of the reader is another factor that contributes to the determination of readability. Books become more interesting when they include topics appropriate for a particular grade level and when they contain familiar comparisons, concrete examples, and incidents of human interest.

From this discussion, it could be concluded that a readable book must have well organized content, accurately explained concepts and generalizations. Again it should include interesting topics in a limited number.

2.3.(c) The style of writing:

The style of writing involves vocabulary, sentence length and sentence structure. These elements can be analysed most objectively. That is why most of the quantitative research on readability has been carried out on these elements. It is
very difficult to measure the interest and the ideational aspects of the books objectively. Therefore, many experts in this field have measured very objectively the style of writing of the book with the help of certain formulas. As the study on hand also involves measurement of readability it will not be out of place to discuss the elements involved in the style of writing.

2.3.(c) i. The sentence length:

The length of sentence is an important factor that contributes to the difficulty level (readability) of a passage or a text-book. Normally, those text-books which have been written in short sentences cause less difficulty in understanding for a reader.

Aukerman, Robert C. stated:

"A few long sentences interspersed with shorter sentences may not cause difficulty for the average reader. But a text-book that persists in confronting the reader with a succession of long sentences has a built-in factor of reading difficulty affecting a large number of students."\(^5\)

The research workers have tried to substantiate this view. For this, they have examined several hundred students

In reading and found that as many as fifty per cent (50%) of the high school students could not read the text-books in their classes. In a large number of cases, this was to the length of sentences in those text-books.

The educational psychologists advance an explanation to it. They say that reading a long sentence demands the input of many concepts in sequence. Readers in most of the cases do not develop a visual memory sufficiently enough to arrange more number of concepts into a whole. It is also difficult for them to hold those concepts in that organized fashion for long. In certain cases the individuals are not in a position to separate the concepts involved in a long sentence. Hence the research workers in the field of reading, recommend that text-books be written in short sentences that do not contain more concepts in each.

2.3.(c) ii. Types and complexity of sentences:

Simple sentences do not cause difficulty for the reader. If at all they cause any, that is always a minor one which can be managed by a reader. Compound sentences also do not cause any reading difficulty for an average reader if they are consisting of two simple sentences joined by a conjunction. But compound sentences do cause some difficulty for a below average reader because they require to hold two related concepts in mind. Aukerman, Robert C. states: "The individual with a low I.Q., a learning disability, involving sequencing and
memory or both will find compound sentences a major problem."  

The complex sentence plays a great mischief for the reader. It requires a great attention and concentration from the reader. Thus, it becomes an important factor of readability. The objective behind the complex sentence is to put concepts and sub-concepts in their proper relationship to each other. To understand this relationship between the concepts and the sub-concepts is a great taxing process for a below average student and to an above average student also. The individuals having low I.Q. learning disabilities, or both will probably be completely lost. Aukerman, therefore, rightly states:

The complex sentence is a culprit. Although it is not meant to cause difficulty. It does increase the demands upon the reader to a point where it becomes a very important element of difficulty, that is, the necessity of holding two related concepts in mind.  

Hence it is quite obvious that text-books that are written in sentences having more number of subordinate clauses are found to be complicated and with high readability. It is very difficult for the students to understand them and benefit out of them.

6. Ibid., p. 21.
7. Ibid., p. 21.
2.3.(c) iii. **Vocabulary:**

The voluminous nature of a text-book, itself causes a withdrawal on the part of the reader. More number of words causes a formidable problem to the poor students. Aukerman Robert C. states: "To hand a poor reader a history text, weighing 2 lbs and containing 700 or more pages is simply to encourage failure and dropping out." Not only the number of words but the other characteristics of vocabulary also contribute towards the level of reading difficulty. Therefore, it will be in the fitness of things to examine the types of vocabulary.

(1) **Obsolete or out-dated vocabulary:**

The words that were in use centuries back and have been replaced by new, commonly used words fall in this category. These obsolete words are many a times unknown to many of the students. If such words are left without due explanations, prove blocks for students to have reasonable comprehension. Aukerman states: "If obsolete and the archaic words are the essence of a selection, the choice of that selection should be reserved only for those students who can handle them successfully." 8

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8. Ibid., p. 22.
9. Ibid., p. 22.
(2) **Colloquial Vocabulary:**

The use of non-literary words and words taken from the dialect makes the students confront with the same type of difficulties in comprehending the selection. Though they create some difficulty for comprehension they are more warmly received by the reader.

(3) **Scientific, Technical and Specific Vocabulary:**

All subject-areas have their own specific vocabulary to convey their specific meaning. This vocabulary includes technical and scientific terms and certain words, conveying a specific meaning or sense in its context. For example, in History *sultanate* is a specific technical words which is required to be learned with its definite definition. *Sultanate* therefore, constitutes a part of the readability load of the text-book in History. This type of vocabulary in itself cannot increase the difficulty level, so much as the way in which this vocabulary is introduced. Whenever a difficult technical scientific and specific word is supplied with an explanation it will definitely minimise the difficulty level of reading. Thus, this type of vocabulary does not give rise to a serious problem. But in the absence of such explanation or parenthetical definitions it does create a difficulty to the reader. Unfortunately, many of our text-book writers are not conscious about this fact. Therefore, most of our books prove difficult for a large number of our students.
(4) Polysyllabic Vocabulary:

Polysyllabic vocabulary are considered to be hurdle for a reader in his attempt to understand a given passage. The absence or presence of these words is a great factor in lowering or raising the level of readability of a text-book. Hence, most of the measures of readability include a count of words of more than two syllables. They give a significant weightage to this factor within the readability formulae. To understand a polysyllabic words, puts a demand on the reader to have an ability to syllabicate. This is a skill which, normally is not possessed by a poor reader. So larger the number of polysyllabic words in a text-book, higher is the level of readability and more difficult it proves for a reader to understand.

(5) Abstract concepts:

Abstract concepts create a great difficulty for the reader. There is a close relationship between the abstraction and the level of difficulty in comprehension. It is advised that students with low I.Q. should be given books with less number of abstract concepts. The books recommended for them should have more number of concrete concepts. The student having high I.Q. should be given a book with larger number of abstract concepts.
Abstractness or concepts is again a subjective thing. It differs from individual to individual. A concept which is abstract to one may be a concrete one for other. The concreteness or abstractness, therefore, depends on the experiences of the reader. But its importance as a contributing factor to the total readability of a book cannot be mitigated. Aukerman states:

Any secondary school reading material that is 34 per cent abstract would probably be a total loss to more than half of the school population. Even well-trained adult readers find material that is one third abstract, extremely difficult to follow.10

Hence it is quite easy to conclude that consideration of abstract concepts, though important enough is subjective. That is why most of the readability formulas do not include the count of abstract concepts. But because the readability formulas do not include the count of abstract concepts it does not mean that the measurement of readability of the text-books should be neglected. Since the pupils differ tremendously in their reading abilities, they should be given text-books if not exactly of their levels of readabilities at least of a level which they can understand with little effort. Hence the

measurement of readability of a book is utmost necessary otherwise, it may cause many difficulties to the pupils.

Murray and Downes summarised this fact in these words:

The child who cannot read is considered and considers himself, different from the rest of the community who can read. The loss of social prestige is often compensated for, by delinquency, generally bad behaviour and rejection of all book-learning.\textsuperscript{11}

So it is of great importance to know the level of readability of the text-book. This could be done by measuring it with the help of appropriate formulas.

2.4 \textbf{MEASUREMENT OF READABILITY}:

Nearly the past fifty years' period has been a period of continuous research in the field of measurement of readability. The outstanding research workers in the field, thought to devise some means with the help of which one may find out whether a particular book is readable for a child of a particular standard. They systematically inquired from the readers, teachers and the librarians. As a result of this inquiry, they came to the conclusion that style is an aspect of readability which could be analysed statistically.

They did not take style from the viewpoint of its grace or felicity. They attached importance to clarity and simplicity of style.

These are the important qualities, which should be considered in measuring readability. They administered tests and carried out investigations to find out the probable components of readability. The researchers counted the complex sentences, personal pronouns and prepositional phrases and they have also tallied the words with the standard lists of words. After tabulating all these factors they came to certain definite conclusions and devised certain formulae to estimate or test the reading difficulty of a book.

As a result of these attempts more than fifty readability formulas have come into existence. This vast number itself indicates that there has certainly been difference about the components of readability in the view of these who have invented those formulae of readability.

Hence the formulae also differed to a great extent in their nature. Aukerman states:

Some authors have committed themselves to the development of all inclusive complex formulas, others have provided very simple measures of selected factors of readability. Some readability formulas are applicable to books at the elementary
school levels while others apply more specifically to secondary schools texts. Some are very specific.\textsuperscript{12}

Formulas that are extensively used by the teachers are Spache's formula for the primary levels. Lorge's for measuring the difficulty of reading materials of intermediate levels. Flesche's formula - for upper elementary classes and Dale-Chall formula which extends from the intermediate through college levels. These and many others have been used not merely as tool for estimating the difficulty of the materials but also for controlling it. They also have been used for giving specifications for advertisers and writers. These and most of other formulas measure the readability on the basis of vocabulary, length of sentence, structure of the sentences and technical expression.

2.5 \textbf{READABILITY FORMULAS}:

2.5.(a) \textbf{Speche's Formulae}:\textsuperscript{13}

This formula is applied to measure readability of text-books meant for grades I, II and III. The base of measurement is the average sentence length and number of hard words outside the Dale list of 769 words.

\textbf{Readability Index} = \text{Average sentence length} + \text{number of hard words length}
2.5.(b) *Lorge's readability formula:*\(^{14}\)

This formula predicts the readability of a material on the basis of:

(i) number of words in a sample,
(ii) the average length of a sentence,
(iii) a ratio of prepositional phrases, and
(iv) the ratio of hard words.

There are three constants which are to be multiplied with the respective factor of readability and the fourth constant is to be added to arrive at the Loege readability Index.

\[ L.R.I. = 0.06 \text{ ASL} + 9.55 \text{ RPP} + 10.43 \text{ RHW} = 1.9892 \]

Where

- ASL = Average Sentence Length
- RPP = Ratio of Prepositional Phrases
- RHW = Ratio of Hard words.

2.5(c). *Flesch Readability Formula:*\(^{15}\)

It considers Reading Ease Scores (RES). It predicts 'probable' readability for average reader in the upper elementary grades. It gives rough estimate of the difficulty level of reading material. The formula is based on statistical

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15. Ibid., pp. 444-447.
analysis. The basic data, necessary for arriving at R.E.S. are (i) average sentence length and (ii) number of syllables per 100 words.

\[ \text{R.E.S.} = 206.835 - 1.0815 \ \text{ASL} + 0.846 \ \text{ns}. \]

where

\begin{align*}
\text{ASL} & = \text{Average Sentence Length} \\
\text{ns} & = \text{number of syllables per 100 words.}
\end{align*}

2.5 (d) Dale-Chall Readability Formula:¹⁶

It predicts the readability of written-materials for intermediate through college levels. Basic data required to determine the readability by this formula are: (1) average sentence length and (2) Dale Score or percentage of words outside the Dale list.

The Dale score or the percentage of words outside the Dale list is determined by using the following formula:

\[ \text{Dale score} : \frac{\text{No. of words on Dale list}}{\text{No. of words in the sample}} \]

After finding out the score, the readability Index is computed with the help of the following formula:

\[ \text{Readability Index} = \text{Average Sentence Length} + \text{Dale Score} \]

¹⁶. Ibid., pp. 447-456.
2.5.(e) **Johnson Readability Formula:**\(^17\) (1930)

This formula needs the count of polysyllabic words only. The higher the percentage of polysyllabic words, the more difficult is the material.

2.5.(f) **Ferr-Jenkins and Paterson's Formula:**\(^18\) (1951)

It depends on the base measurement of (i) the number of one syllable words and (ii) Sentence length. The readability score is counted as below and is named as new Reading Ease Score.

New Reading Ease Index = 1.5999

\[ \text{nオス w} \times 1.015151 - 31.517 \]

where

\( \text{nオス w} = \text{number of one syllabus words} \)

\( \text{SL} = \text{Sentence length in terms of the number of words} \)

2.5.(g) **Robert Gunning's Formula (1952):**\(^19\)

Robert Gunning's Formula takes into consideration the count of

(i) average length of the sentence per 100 words (ASL)

(ii) number of words of 3 and more syllables


\(^18\) Ibid., p. 17.

\(^19\)
For the computation of Fog Index the following formula is used:

\[ \text{Fog Index} = 0.4 \times (\% \text{ words of 3 syllables and over} + \text{ASL}) \]

2.5. (h) **Fry's Readability Graph (1968):**\(^20\)

Computation of readability graph requires:
1. average (of 3 randomly selected 100 words, number of sentences per 100 words and
2. average number of syllables per 100 words.

2.5 (i) **Aukerman's Formula (1972):**\(^21\)

Aukerman suggested a very comprehensive and yet a practical formula for estimating the "Weighted Readability Score" of reading materials. He used his formula for estimating the "Weighted Readability Score" on many samples. The results obtained correlated highly with other formulas. He also suggested the following steps to be observed while computing the "Weighted Readability Score".

1. Select several representative sample of 500 words from each chapter.
2. Count the actual number of words (be exact in counting.)
3. Count the actual number of sentences.

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iv. Find out the average sentence length.

v. Count the actual number of subordinate clauses.

vi. Count the actual number of impedilexae for each sample.

vii. Count the number of words of three or more syllables or difficult words for each sample.

After collecting the data on the basis of above directions the readability score is computed with the help of the following formula:

\[
\text{Weighted Readability} = \text{ASL} + 3\times \text{nscl} + \text{npw} + 5\times \text{ni}
\]

where

\[\text{ASL} = \text{Average Sentence Length.}\]
\[\text{nscl} = \text{number of subordinate clauses.}\]
\[\text{npw} = \text{number of polysyllabic words}\]
\[\text{ni} = \text{number of impedilexae.}\]

The scrutiny of the various formulas given above shows that the formulas consist of one or more components of readability. The following table shows how many formulas include the particular components.
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Components of Readability</th>
<th>The serial orders of the formula which includes the components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No. of hard words beyond a particular word list</td>
<td>1, 4</td>
</tr>
<tr>
<td>2.</td>
<td>Average sentence length</td>
<td>1, 2, 3, 4, 6, 7, 8, 9</td>
</tr>
<tr>
<td>3.</td>
<td>Total Number of words</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Prepositional phrases</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Number of syllables</td>
<td>3, 8</td>
</tr>
<tr>
<td>6.</td>
<td>Number of polysyllabic words</td>
<td>2, 5, 7, 9</td>
</tr>
<tr>
<td>7.</td>
<td>Number of monosyllabic words</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>Number of subordinate clauses</td>
<td>9</td>
</tr>
<tr>
<td>9.</td>
<td>No. of impedilexae</td>
<td>9</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Name of the formula</td>
<td>No. of components incorporated into it. Figs. in parenthesis indicated Sr. No. of components as in Table: 2.1</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>Spache Formula</td>
<td>2 (1, 2)</td>
</tr>
<tr>
<td>2.</td>
<td>Lorge Formula</td>
<td>4 (2, 3, 4, 6)</td>
</tr>
<tr>
<td>3.</td>
<td>Flesch Formula</td>
<td>2 (2, 5)</td>
</tr>
<tr>
<td>4.</td>
<td>Dale-Chall Formula</td>
<td>2 (1, 2)</td>
</tr>
<tr>
<td>5.</td>
<td>Johnson Formula</td>
<td>1 (6)</td>
</tr>
<tr>
<td>6.</td>
<td>Ferr, Jankins and Paterson Formula</td>
<td>2 (2, 7)</td>
</tr>
<tr>
<td>7.</td>
<td>Gunning's Formula</td>
<td>2 (2, 6)</td>
</tr>
<tr>
<td>8.</td>
<td>Fry's Formula</td>
<td>2 (2, 5)</td>
</tr>
<tr>
<td>9.</td>
<td>Aukerman's Formula</td>
<td>4 (2, 6, 8, 9)</td>
</tr>
</tbody>
</table>
From the table Nos. 2.1 and 2.2 the following conclusions could be made:

(i) The experts of most of the formulas have considered the average length of sentence as a factor for determining the readability. Though it is natural that the longer sentence needs greater attention on the part of the reader to understand the relationship between the verb and the object or complexity factor should also be involved in it.

(ii) The factor of polysyllabic words is involved in four of the nine formulas. Therefore, it can be said that potentiality of vocabulary factor to contribute to the total readability of materials is fairly recognised.

(iii) It is clear that syntactical complexity is incorporated only in Aukerman's Formula. It is not only incorporated but weighted heavily as it is multiplied by 3 (constants). The order formulae does recognize it. They simply include the count of average sentence length and the count of polysyllabic words and do not include the factor of syntactical complexity.
(iv) No other formula makes a distinction between the polysyllabic words and the words which impede learning. It is Aukerman's formula that makes a count of such words in addition to long words. The factor "Impedilaxie" is weighted heavily by multiplying by 5 (constant).

2.6 THE USE OF READABILITY FORMULAE:

The educators are frequently concerned with determining the approximate level of difficulty while selecting materials for instructional purposes. These readability formulas help them solve their problems. They analyse the different components of readability of the materials and attempt to predict it. The prediction cannot guarantee its cent-per-cent exactness. But it tries to give a fair indication to match the reader with the book. These formulas are utilized to determine the level of difficulty of text-books and supplementary materials in many areas of education; general adult books, grading books for children according to their age and grades. Mr. B.S. Bhagoliwal\(^\text{22}\) sums up their uses, "Readability measures have been used as practical tools not only for estimating the difficulty of these materials but also for controlling it, giving specifications for advertisers and writers etc. It has also been used as a tool in educational and media

research and construction of reading tests to get passages of equal difficulty for re-test purpose. It has been successfully used to estimate the educational attainment of the writers of communication."

2.7 LIMITATIONS OF READABILITY:

The readability formulae apparently show certain weakness and short-comings. It is clear that none of them includes the count of any such factor through which the ideational aspect of the content could be measured. In addition to it they do not make any count of physical features of the material. They measure simply those aspects which collectively go to make a style. Still, however, in the absence of such formulas these formulas are reasonably important to predict the level of difficulty of the reading materials.