
UNIT 1 TEACHING-LEARNING READING COMPREHENSION

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1.0 OBJECTIVES

After you read this unit you should be able to:

- comprehend the process of Reading Comprehension (RC) and understand how reading is critical to learning and academic success of students across different disciplines;
- understand the importance of using texts across the curriculum to develop reading skills and incorporate appropriate reading instruction into every class;
- learn and use a range of strategies to develop reading comprehension skills of learners in the classroom and challenge them with complex texts;

- learn and use strategies for previewing texts, monitor their understanding, determine the most important ideas and the relationships among them, remember what has been read, and make connections and inferences; and
- enable students to become independent readers in any context.

1.1 INTRODUCTION

A simple definition of reading is that it is a process whereby one looks at and understands what has been written. The key word is ‘*understands*’ — merely reading aloud does not count as reading. This definition does not mean that the learner needs to understand everything in a text. Understanding is not an ‘all or nothing’ process, and therefore reading too is not an ‘all or nothing process either’. It means that every reader will comprehend something and perhaps some readers may not understand every word and nor is this necessary.

Again, although reading has been defined as a process whereby one looks at and understands what has been written, the reader does not necessarily need to look at everything in a given piece of writing. The reader actively works on the text and is able to arrive at understanding it without looking at every letter and word.

“Why should I bother about reading? I am not an English Teacher?”

“You don’t read in Math...”

“Science is not taught by reading.”

Many teachers respond in this manner when it is mentioned that they need to teach reading skills while teaching subject specific content. As teachers we must understand that when we talk about reading, we are talking about the ability to construct meaning from the text. In school students access information primarily through reading in all subjects, Mathematics, Science, Social Studies, etc. Research studies show that reading across the curriculum is essential to learning; there is a strong correlation between reading and academic performance. Students who have problems reading texts are likely to experience difficulty obtaining information from texts and consequently encounter difficulties in learning. Reading in Science is not the same as reading in Social Studies or in Mathematics. Thus, to maximize learning by students, teachers need to focus on helping their students develop strategies for reading and writing within their respective content areas. It is important for teachers to blend and scaffold content and literacy learning in different subjects so that students begin to view texts as interesting, informative and engaging.

The Reading Process

As a first step, it might be useful to find out what you think about reading. Here are some statements about reading. Which of these statements do you think are true? Which of them are false? Can you explain why you think so?

Check Your Progress 1

Say whether the following statements are true or false:

- i) Reading involves looking at a text and saying the words to yourself.

- ii) To understand a word, you have to read all the letters in it, to understand a sentence you have to read all the words in it.
- iii) To understand a text, you need to know the meaning of all the words in the text.
- iv) When we read for meaning, we do not need to read every letter of every word, nor every word in each sentence.
- v) There are no major differences in how one reads in one's mother tongue and how one reads in a second or foreign language.

What is actually involved in the process of reading? It is important to learn this if we want to help our students to acquire reading skills.

1.2 WHAT DOES READING TO COMPREHEND MEAN?

As teachers you may sometimes have come across students who, when asked to 'read aloud' a text, could do so fairly fluently, but when asked the meaning of what they had read, would be totally at a loss. In considering the reading process, we have to distinguish between two quite separate activities: *reading for meaning and reading aloud*. It is important to clarify the difference between the ability to read a text as in being able to enunciate its syllables, and the ability to comprehend the text. It goes without saying, that Reading Comprehension (RC) should be our aim, for what use is it to 'read' a string of words/sentences if one does not comprehend their meaning?

This table below shows the differences between the traditional view and the new understanding of reading with regard to the goals of reading, the process of reading and the role of the learner/reader.

Table 1: Difference between Traditional and New Definition of Reading

Research Base	Traditional Views/ Behaviorism	New Definition of Reading Cognitive Sciences
Goals of Reading	Mastery of isolated facts and skills	Constructing meaning and self-regulated learning
Reading as Process	Mechanically decoding words; memorizing by rote	An interaction among the reader, the text, and the context
Learner Role	Passive; vessel receiving knowledge from external sources	Active; strategic reader, knowledge from external effective strategy user, cognitive apprentice

Source: Billmeyer R & Mary Lee Barton (1993) "Teaching reading in content areas: if not me, then who?" Teacher's Manual VA: ASCD, pp. 156.

Check Your Progress 2

What are the differences between the traditional and new understandings of reading? Which approach is likely to promote reading comprehension and why?

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Reading to Comprehension involves interaction between 1) the reader’s existing knowledge, 2) the information suggested by the text, and 3) the context. RC is not simply the passive receiving of information; rather, it is an ongoing activity that engages the reader in the act of interpretation. Further, the meaning is not something given or inherent in the text only, the reader also constructs it.

1.2.1 The Reader

Good readers interact with the texts that they read. They have personal expectations about what they want to get out of a text, and they bring those expectations to bear on what they read. They actually create meaning by constructing, or generating relationships between what they read and what they already know. In generating these meanings, they draw on their prior knowledge of and beliefs about the subject – their ‘*World Knowledge*’, so to speak that relates to the subject.

Readers have a network of prior understanding about a topic, what theorists call **schemata**. Every reader organizes his/her world knowledge into categories and a network of connections or *schema* that function as information-retrieval systems. This schema is activated when a related concept or key-word is encountered in a text, for example, in the title, or in the passage, paving the way for comprehension by enabling further connections to be built. Researchers have pointed out that the reader’s comprehension of a particular text is directly proportional to the background knowledge that the reader has about the subject content of the text (Schallert and Martin, 2003). It follows therefore, that for developing the skill of reading, the learner would benefit from exposure to a range of texts in various content areas, thus broadening his/her schema and providing practice in meaning-making.

Readers also differ from each other in their general cognitive development as well as higher level thinking skills, their purpose for reading and socio-cultural background. These factors also contribute to the readers engaging with and evaluating texts in different ways; for example, in identifying with situations or characters, or in making moral judgements.

1.2.2 The Text

Like readers, every text, every piece of writing, is unique in terms of its genre, vocabulary, language, style, difficulty level, and thematic content. The author’s intent is also a key feature of a text, and the manner and extent to which it is made explicit also affects meaning-making. Some researchers opine that even ‘surface features’ of a text such as its font type and length can influence the process of RC

(Tracey and Morrow, 2002). The text is also located in a particular time and space; thus its socio-cultural moorings impinge upon the reading transaction.

1.2.3 The Socio-cultural Context

Reading does not occur in a vacuum; rather, as stated above, every reading activity involves an interaction between the reader and text, both of which belong to specific cultural contexts. Thus, sociocultural influence permeates any reading activity (Kucer, 2001; Schallert & Martin, 2003). Contexts are also created by the specific nature of the activity associated with the reading task, for example, the purpose assigned to the reading, by the reader himself/herself or by the teacher. Research has shown that environments that place a premium on reading and writing a wide range of texts, with the opportunities to draw inferences, predict outcomes, possibilities, etc., help to enhance the RC skills of learners.

Activity 1

- 1) Out of the following text types, which do you find easy to comprehend, and why?

General news report, newspaper editorial, blog, research paper, an article in a science magazine, a recipe, knitting pattern instructions (consider some of the features mentioned in the paragraph above).

- 2) Think and write about some articles, stories, with which you encountered difficulties in understanding because their socio-cultural context was very different from yours.

1.2.4 Reading as an Interactive Process

The terms *'top down'* and *'bottom up'* are used in this context to explain the interactive process of reading. *'Top down'* processing refers to the use of predictions based on one's prior knowledge, while *'bottom-up'* processing refers to the role of the text in providing input through decoding, or letter and word recognition. Reading is thus an interactive process; there is a simultaneous interaction of the reader's prior knowledge and his/her sampling of the text; to put it in more technical language, the meaning of a text is reconstructed through a constant interaction between the information obtained through *bottom-up* decoding and that obtained through *top down* analysis, engagement with the text. Strategies such as summarizing, organizing, clarifying, questioning, visualizing, predicting and evaluating are employed by the reader to build up a complete picture of the meaning that emerges.

From this discussion we can conclude that

When we read for meaning, we do not need to read every letter of every word, nor every word in each sentence because we can guess much of what is said as we read it, provided the text makes sense.

Reading is an active process, when we read, we do not merely sit as passive receivers of the text. We also draw on our own knowledge of the world and of the language to help us guess what the text will say next.

Characteristics of Reading

- Reading is purposeful

- Reading is selective
- Reading speed varies
- Reading is silent
- Reading is text-based
- Reading involves complex cognitive skills
- Effective reading involves *chunking of information* that the well developed schema makes possible
- Reading is based on comprehension

1.3 FEATURES THAT MAKE TEXTS COMPLEX

The complexity of a text depends on its inclusion of quantitative, qualitative features and the connections that can be made between the text material and the reader of the text.

1.3.1 Quantitative Features

These are features such as unfamiliar words, number of syllables and length of sentences. If lexical content is largely unfamiliar to the learner, the text will be difficult to understand and too much mental energy will be expended in trying to figure out the meanings of the unknown words, resulting in frustration and lack of interest. Depending on the 'lexile score' we can determine what text is suitable for a level or class.

1.3.2 Qualitative Features

Qualitative features refer to the levels of meaning and purpose of the text, organising framework or structures that provide content such as chronological order, cause - effect, compare and contrast, description and problem - solution, language, visual supports such as, graphs, pictures and maps and finally, the readership or the audience for whom the text is written and how the author addresses the knowledge demands with their expectations of reader's knowledge.

1.3.3 The Reader and the Text

The connection between the reader and the text is important in determining the complexity of a text. The reader's motivation to read, her prior learning and the knowledge about the subject, aptitude and readiness to learn must be considered.

Activity 2

What are the difficulties you encounter/have encountered in the context of reading a book? Write your experiences in the light of the discussion above.

BEYOND TEXTBOOKS: SELECTING A TEXT FOR READING

While content and topic are important criteria for selecting a text, as teachers, it is important to select texts, other than textbooks, that can be used for specific reading strategies or building academic skills. How will you select a text?

Questions to consider while choosing a text	Questions to consider about how you will use a text
Does the text allow students to develop or extend their knowledge of course concepts?	Which critical reading strategy might I teach with this text that will support students in acquiring course content?
Does the text allow students to use a variety of critical reading components?	What will I have students do before, during, and after reading the text?
Does the text present varied evidence and support for its overall message?	How will students demonstrate their use of reading the text?
Does the text provide students with cognitive challenges?	How will students demonstrate their use of critical reading strategies and content acquisition?

Activity 3

On the basis of the criteria listed for choosing and using a text, make a list of a few texts you might use for teaching reading in your subject. Give the reasons for selecting these texts.

1.4 TEACHING STUDENTS TO READ DISCIPLINE-BASED TEXTS

- 1) Go through the table given below and reflect on your own reading style.
- 2) Identify your style of reading. What type of a reader are you?
- 3) What strategies will you use for making your students active readers?

Table 2: Comparison of the Traits of Active and Passive Readers

An active reader (self-monitors, adjusts, and reflects)	A passive reader (simply receives information without understanding)
<p>Pre-reading:</p> <ul style="list-style-type: none"> ● Builds up background knowledge before beginning to read. ● Knows the purpose for reading ● Asks what the text will be about ● Previews the pictures, title, heading, boldface quotes, etc. ● Makes predictions. ● Breaks text into manageable chunks. 	<p>Pre-reading:</p> <ul style="list-style-type: none"> ● Starts reading without thinking about the subject. ● Does not know why he/she is reading ● Is not curious about the text. ● Does not preview text materials ● Does not make predictions. ● Is overwhelmed by amount of text to be read.

During reading	During reading
<ul style="list-style-type: none"> • Gives complete attention to the reading task. • Keeps the purpose in mind. 	<ul style="list-style-type: none"> • Is easily distracted. • Does not know why s/he is reading.
<ul style="list-style-type: none"> • Self-monitors comprehension. • Stops to use a fix-up strategy when comprehension is low. 	<ul style="list-style-type: none"> • Does not monitor comprehension.
<ul style="list-style-type: none"> • Rereads for understanding. 	<ul style="list-style-type: none"> • Does not reread the material.
<ul style="list-style-type: none"> • Connects with text, compares learning with what s/he already knows, has opinions about the reading. 	<ul style="list-style-type: none"> • Does not, or cannot, make connections and does not have an opinion about what was read.
<ul style="list-style-type: none"> • Asks what author is trying to say. 	<ul style="list-style-type: none"> • Doesn't care what author is saying.
<ul style="list-style-type: none"> • Continues predicting. 	<ul style="list-style-type: none"> • Does not make predictions.
<ul style="list-style-type: none"> • Generates questions and seeks answers. 	<ul style="list-style-type: none"> • Does not ask questions.

Source: Croner; Patrick. E. *Strategies for Reading Science Content Reading, The Science Education Review*, (2(4), 2003, p 106

1.4.1 Understanding Text Features

Text features and reading comprehension are closely linked. Text features enable the readers to determine what is in the text and what is important to them. Imagine a textbook without title page, table of content, a caption, graphics, pictures, glossary or labels. Text features contain the title, page, table of content, index, glossary, heading, sub-heading, keywords, illustrations, diagrams, etc. In fact, everything except the main body of the text.

Activity 4

Fill the purpose of the text features (listed in the left column) in the right column:

Text feature	Purpose of Feature
Title	<i>A good title gives us a clue about the main topic of the text</i>
Table of Contents	<i>Table of contents tell us where to find specific information.</i>
Chapters	
Glossary	
Graphics	
Illustrations	
Labels	

Activity 5

Identify a text for discussion in the class. Ask students to preview the text by reading the title, the abstract, the headings and subheading, and skim-reading the introduction and conclusion. While they are doing this, encourage them to make notes in the margins or in a notebook about what they think the reading is about. Get them to share their impressions in a group and then ask the whole class for feedback.

1.4.2 Functions of a Text

Being aware of the function of a passage is important to comprehend it. Students need to be trained to find out whether the text aims at **convincing** the reader, **giving information** or **asking for something**. The reason or goal for writing or speaking could be to

- *persuade*: by using arguments to influence the reader to accept his/her point of view on an issue.
- *inform*: to give instructions, compare/contrast, share cause and effects, give new information
- *entertain*: using narrative, anecdotes, description, or humour, to amuse, delight, and appeal to imagination

Using Graphic Organisers to find out the author's purpose in a text

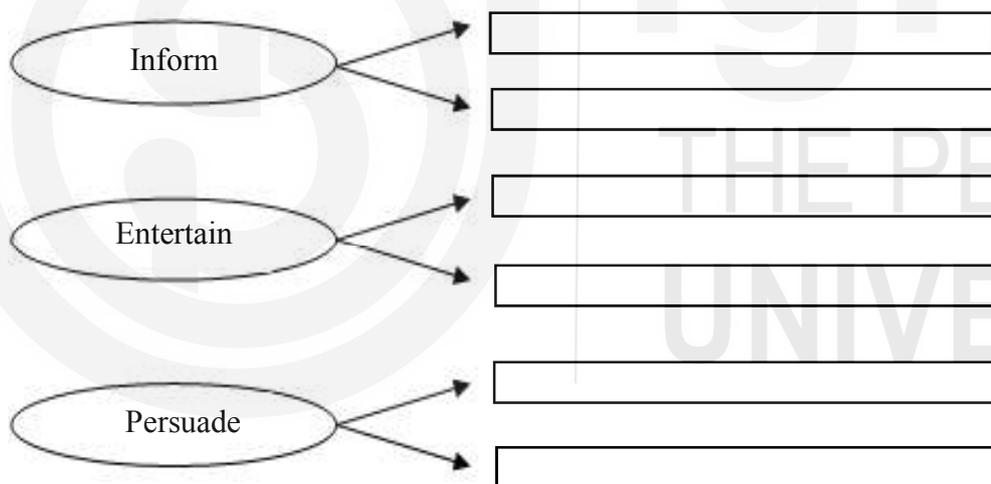


Figure 1: Author's purpose

The teacher can invite the students to read and think what the author expects or wants as a result of others reading the text, or why the author might be sharing this information.

Activity 6

Collect five or six different types of text (weather bulletin, recipe, newspaper article on an angry mob setting fire to a bus, police notification regarding curbs on Holi, etc). Match the texts with their function. There could be more than one text for a function.

Functions	Test
Giving information	
Warning	
Giving advice	
Giving instructions	
Entertaining	

1.4.3 Scanning and Skimming

Scanning and skimming are two types of reading techniques used to assimilate information from different sources quickly. Scanning enables a person to look up specific information from a text from any source (documents, maps, books, poems, newspaper, pamphlets, posters, etc.) while skimming allows the person to quickly read through something to get the basic idea.

Activity 7

Consider the following types of texts and write for each of them the reason for reading it and the style of reading used.

Text	Reason for reading	Style of reading used
1) Railway time-table	Looking for a particular piece of information	Scanning
2) Instruction for using a machine		
3) Newspaper article		
4) An extract from a novel		
5) Telephone directory		
6) A letter to the editor		
7) A poem		
8) Rules for playing		

1.4.4 Organisation of the Text

This refers to the method of presentation of information in any passage, which is mostly in the form of

- Main idea and supporting details
- Sequence
- Comparisons
- Logical sequence

Keene and Zimmerman point out that such decision-making during reading is done at three levels: whole-text level, sentence-level and word-level. That is, readers form a clear idea about the key themes of a text, are able to pick out, underline and even paraphrase sentences that contain the core ideas, and at the word-level are able to identify the key words/phrases that are essential to the core

themes/ideas. Teachers can guide students to look for clues to the key themes from the title and subheadings (if any) in a text. Key words pertaining to the main theme are often repeated in a text, teachers can ask students to look for content words/phrases that are repeated, and get them to ask questions pertaining to these.

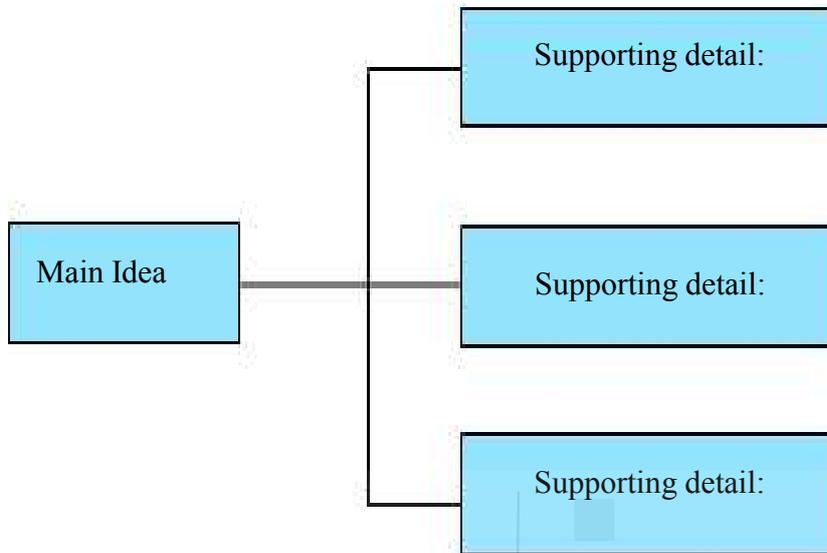


Figure 2: Main idea and supporting details

Activity 8

Read the following passage and answer the following questions:

French physicist Charles Fabry found ozone gas in the atmosphere in 1913. At room temperature, ozone is a colorless gas; it condenses to a dark blue liquid at -170 F. At temperatures above the boiling point of water, 212 F, it decomposes. Ozone is all around us. After a thunderstorm, or around electrical equipment, ozone is often detected as a sharp odor. Ozone is used as a strong oxidizing agent, a bleaching agent, and to sterilize drinking water. This gas is also highly reactive. For example, rubber insulation around a cars spark plug wires will need to be replaced eventually, due to the small amounts of ozone produced when electricity flows from the engine to the plug.

What is the main idea of the text?

- A) Ozone is the result of pollution.
- B) High ozone levels in the atmosphere will cause large numbers of people to buy new car batteries.
- C) Ozone has no practical uses.
- D) Ozone is a natural part of the Earth's atmosphere.

Write down the supporting ideas with the following main ideas

- 1) Ozone is all around us

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2) Properties of Ozone

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3) Uses of Ozone

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Write

- the key ideas and the supporting ideas in the text
- the sequence and ordering of sequence of sections
- how each section is connected to the others
- how knowing this information will help readers understand the text better

Source: <http://www.massbay.edu/uploadedFiles>

In these sections, we will focus on some more strategies which can be used for teaching comprehension.

1.4.5 Prediction

'Prediction', also referred to as 'hypothesis testing' or informally as 'guessing', is an activity that is essential for reading, at all stages of the reading process. Making predictions is a strategy used by readers to anticipate what they are about to read. This strategy works for all types of texts and subject areas. Prediction is also a process-skill used in Science. Teachers can help students develop proficiency in this skill by encouraging students to make predictions while reading the textbook and predicting in Science. For example, in Biology, students might predict that a seed will sprout and become a sapling under certain conditions.

Think Aloud Strategies

Teachers can use "Think-aloud strategies" to model prediction so that students can learn the skill of prediction. This strategy can be used till students become independent readers.

- 1) Pre-reading "think-aloud" "By the cover of the book, I can predict that the story is about....."
- 2) While-reading "think-aloud" "My prediction that the war was fought between the peasants and the army was wrong.... but I do think that the colonisers had a major role to play in creating the divide."

- 3) After-reading "think-aloud" "My first prediction was incorrect...and now that we have come to the end, my predictions were correct/incorrect."

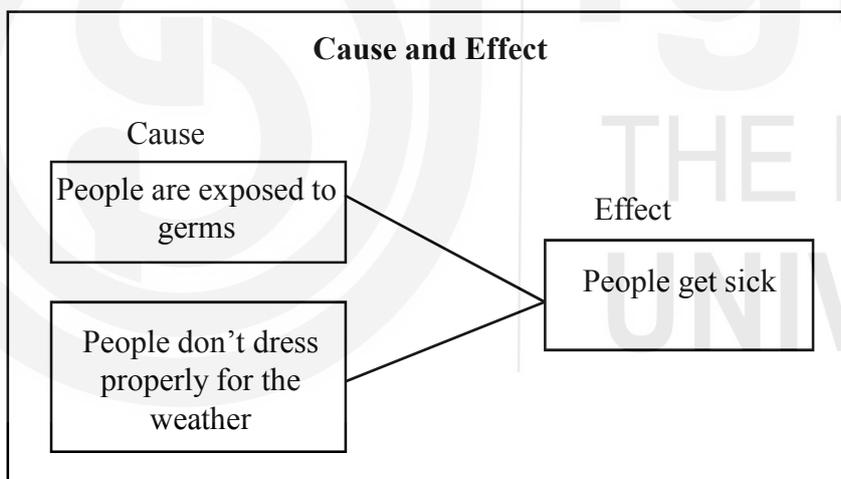
1.4.6 Teaching Text Structures

The term "text structure" refers to how information is organized in a passage. Within different disciplines, texts mostly conform to certain set structure types. For example, in fictional literature, there are a range of narrative genres and expository texts. Scientific texts have expository structures, often containing description, comparison, cause and effect. A recognition of text structure types aids learners in forming text-to-text connections for a particular story genre, which will help them make meaning more easily. Some common types of text structures are explained below:

i) Cause and Effect

When a text gives reasons (cause) why something happened (effect), or when the results (effects) of an action are explained (cause). Here is an example from the website, www.ereadingworksheets.com

Many people think that they can get sick by going into cold weather improperly dressed; however, illnesses are not caused by temperature - they are caused by germs. So while shivering outside in the cold probably won't strengthen your immune system, you're more likely to contract an illness indoors because you will have a greater exposure to germs.



ii) Chronological

In some texts, the information in the passage is organized in order of time. Simple fables and stories for young readers are often organized chronologically, where a sequence of events is described in a linear manner. More complex narratives, especially novels, move forwards and backwards in time, but even if an author uses flashbacks or flash-forwards, the events still occur along a timeline. Non-fiction texts, especially in subjects such as History, present information chronologically, along with dates.

iii) Compare and Contrast

In this pattern of organization, the similarities (compare) and differences (contrast) between two or more objects, characters, ideas, etc. are explored. Graphic organisers are useful in graphically depicting the information in such texts.

iv) Order of Importance

Here the information is expressed as a hierarchy or in priority.

Example: The most important mantra of success is to be persistent and focused on one's goal. Next comes maintaining a high level of self-confidence and refusing to be bogged down by negativity or failure.

v) Problem and Solution

In such texts, a problem is described and a response or solution is proposed or explained.

Example: Every day, and practically every hour in our country, hundreds of people die in traffic accidents. Many lives could be saved if more stringent policing and challan of traffic violations were to be done, especially of over speeding and drunken driving.

vi) Sequence/Process Writing

In such text types, the information is organized in steps or a process is explained in the order in which it occurs. Most scientific experiments, descriptions of phenomena, recipes, and do-it-yourself articles fall in this category.

1.4.7 Developing Critical Reading Skills

What is Critical Reading?

Reading critically does not, necessarily, mean being critical of what you read. Critical reading means engaging in what you read by asking yourself questions such as, 'what is the author trying to say?' or 'what is the main argument being presented?'

Difference between non-critical and critical reading can be understood with the help of the following table.

Table 3: Difference between non-critical and critical reading

Non-Critical Reading	Critical Reading
Passive reading of text.	Active, analytic reading of text.
Recognizing what a text says about a topic.	Re-reading to identify patterns and analyze <i>how</i> the text is written.
Goal is to make sense out of text, understand information, ideas and opinions.	Goal is to interpret information, assumptions, and language; dig into the underlying meaning of the text.

Source: Rareshide & Deal (2014), WSSU Critical Reading Manual, (pp. 6)

1.4.8 Questioning and Challenging your Beliefs and Values

It is likely that the text you are reading might challenge your attitudes, your unconsciously held beliefs, or your positions on current issues. Thinking critically, in the academic sense, involves being open-minded - using judgement and discipline to process what you are learning about without letting your personal

bias or opinion detract from the arguments. Critical thinking involves being rational and aware of your own feelings on the subject - being able to reorganise your thoughts, prior knowledge and understanding to accommodate new ideas or viewpoints.

1.4.9 Detecting the Author's Possible Bias and Prejudices

It is another important skill of critical reading. While reading, it is important to ask questions regarding the source of information and the assumption of the source itself. Similarly, it can be asked who stands to benefit or lose in case the information is rejected or accepted and examining the context of the information, problem or issue. In order to examine the biases of the author, the reader can ask the following questions:

- Is the author making exaggerated claims, to elevate or demean individuals or groups of people on the basis of gender, ethnicity, nationality, religion, or for any other reason?
- Does the author consciously present evidence that serves to tell only one side of an issue withholding shedding light on the opposing view?

1.4.10 Outlining what is Important and Summarizing

Summarising helps students to identify important ideas and the details that support the ideas. This technique helps students to focus on key-words and phrase that are worth noting and remembering during the reading process.

Outlining and summarizing are especially helpful strategies for understanding the content and structure of a reading selection, whereas outlining reveals the basic structure of the text, summarizing synthesizes a selection's main argument in brief. Outlining may be part of the annotating, making notes process, or it may be done separately. The key to both outlining and summarizing is being able to distinguish between the main ideas and the supporting ideas and examples. The main ideas form the backbone, the thread - that holds the various parts and pieces of the text together.

1.4.11 Evaluating An Argument

All writers make assertions that they want the reader to accept as true. As a critical reader, you should not accept anything on face value but to recognize that arguments may contain gaps or logical fallacies. It is therefore, important to evaluate an argument before accepting it. When you evaluate an argument, consider if the argument is fair and balanced or does it contain bias. This can be done by examining if the argument contains emotional overtones and loaded language and is one-sided and does not represent the other, opposing or alternative points of view.

An argument has two essential parts: a claim and support. The claim asserts a conclusion - an idea, an opinion, a judgment, or a point of view - that the writer wants his/her readers to accept. The support for the claim is the reason/s, beliefs, values, assumptions, and evidence- examples, facts, statistics that provide the readers the basis for accepting the conclusion. When you assess an argument, it is important to assess the line of reasoning and the truthfulness of the argument. At the most basic level, in order for an argument to be acceptable, it should have reasoning and evidence and no gaps or logical fallacies.

Check your progress 3

Read the passage and then answer the questions that follow:

The Earth's past climate-including temperature and elements in the atmosphere-has recently been studied by analyzing ice samples from Greenland and Antarctica. The air bubbles in the ice have shown that, over the past 160,000 years, there has been a close correlation between temperature changes and level of natural greenhouse gases, carbon dioxide and methane. One recent analysis from Greenland showed that at the end of the last glacial period (when the great ice sheets began to retreat to their present position), temperatures in southern Greenland rose from 5 to 7 degrees in about 100 years. Air bubbles are not the only method of determining characteristics of the Earth's ancient climate history. Analysis of dust layers from ancient volcanic activity is another such method; as is the study of ice cores, which interpret past solar activity that may have affected our climate.

- What is the issue the writer is focusing on?
- Is the writer taking a clear stand on the issue?
- Why is the writer writing the text? (purpose for writing)
- Who are the readers or the audience for this writing?
- Does the writer use enough evidence to support the central argument?
- Do you agree with the points the writer makes? Why/why not?

Source: <http://www.massbay.edu>

1.4.12 Drawing Inferences

Being able to draw inferences is an important sub-skill of reading comprehension and crucial to higher-order thinking. Learners need to be able to combine their background knowledge and the information culled from the text, to form conclusions and interpret facts accordingly. As with predictions, interpretations and inferences need to be dynamic, i.e. change as the reading continues and new information is added. In inferencing, learners are required to do two things: a) answer questions where the solutions can only be provided by making logical inferences, and b) give the rationale / reasoning for their answers. Making students explain their answers causes them to slow down, to review the given facts carefully, and to collate these with the background information they have.

Check Your Progress 4

Take up a text that you would be required to teach in class, and formulate questions that would require

- prediction
- locating specific information from the text
- inferring
- evaluating
- opinion-forming

1.5 KWL CHART

The KWL chart is a staple in most reading-focused classrooms, from Kindergarten through high school, especially for content-based subjects such as Science, History, Geography, etc. This simple, three-column chart is a way to (1) bring students' prior knowledge about a topic to the forefront of their minds, (2) identify questions that they will look to answer while reading the text, thereby establishing a purpose for reading and building motivation to read, and (3) organize the information learned while reading.

K: What the student knows about the topic

W: What the student wants to know

L: What the student has learned after reading the lesson / topic

The strategy requires students to build on past knowledge and is useful in making connections, setting a purpose for reading, and evaluating one's own learning. Consider the following examples of a KWL Plus chart from a Geography, History and Biology class in which the topic of study was Minerals, World War II and Evolution respectively.

Topic: Minerals

Know	Want to know	Learned
<ul style="list-style-type: none"> • Metallic and non-metallic minerals • Names of some metals: gold, silver, copper • Some are found in ore form • Some minerals are expensive 	<ul style="list-style-type: none"> • How to identify differences between metallic and non-metallic minerals • Properties of non-metallic minerals • How many mineral are there? • Where are they found? • Uses of both 	<ul style="list-style-type: none"> • Metallic minerals contain metal in raw form and non-metallic minerals do not contain metals • Metallic minerals are generally associated with igneous rocks and non-metallic minerals are generally associated with sedimentary rocks. • Metallic minerals are usually hard and have shine of their own, non-metallic minerals do not have a shine of their own. • Examples of non-metallic minerals are salt, coal and mica; • Mining activity is called a 'killer industry' because of the health risks involved especially in coal mines

What we already know	What we want to find out	What we have learnt
<ul style="list-style-type: none"> • Adolph Hitler Commanded the German Army • The British fought in the World War II • World War II started in 1939 • World War II ended in 1945 	<ul style="list-style-type: none"> • Which country started World War II and why? • What was the Nazi's motivation? • Why did the British fight in World War II? • Which countries did they fight in? • Which country was the peacemaker in World War II? • What made Britain a big threat? 	<ul style="list-style-type: none"> • Germany was the reason why World War II started. Germany invaded Poland in an unprovoked attack. • German nationalism that began to develop before WW II was the main reason for the War. Nationalism rose in the wake of severe economic recession and the Jews were made the scapegoat. • Britain and France declared war on Germany after Germany invaded Poland. • World War II was not fought in a country it was more of a war of the Continent.

Source: http://2.bp.blogspot.com/-sjR_WmNO5LE.UYLqJKLYoXI

Activity 9

Consider any topic that you are interested in, for example, Classical Music. Read an article about it, draw up a KWL chart and complete the chart.

1.6 READING VISUALS: PICTURES, MAPS, CARTOONS

Today, there is so much information being spread visually that the need for visual literacy is being felt in all disciplines. It is more important than ever that our students learn what it means to be visually literate. Visual literacy is about analyzing and creating messages. Images can be used to influence and persuade, so it is incumbent upon educators to learn how to teach with and about images and to help our students understand the language of visuals.

Students should be asked to scan the picture/map/diagram/graph/cartoon. The teacher can ask them to answer these questions:

- What do you notice first?
- What is the title or caption?

- Observe its parts. Are there labels, descriptions, thoughts, or dialogues?
- List the people, objects, and places in the cartoon. List the actions or activities. Which words or phrases are the most significant?
- Which of the visuals are symbols?
- What do they stand for? Where is it from?
- What was happening at the time in history it was created? What is the message?

Frame questions based on the visuals given below:



Picture: After the defeat of Tipu Sultan, most of South India was now either under the company's direct rule, or under its indirect political control.

Source: https://en.wikipedia.org/wiki/Indian_independence_movement

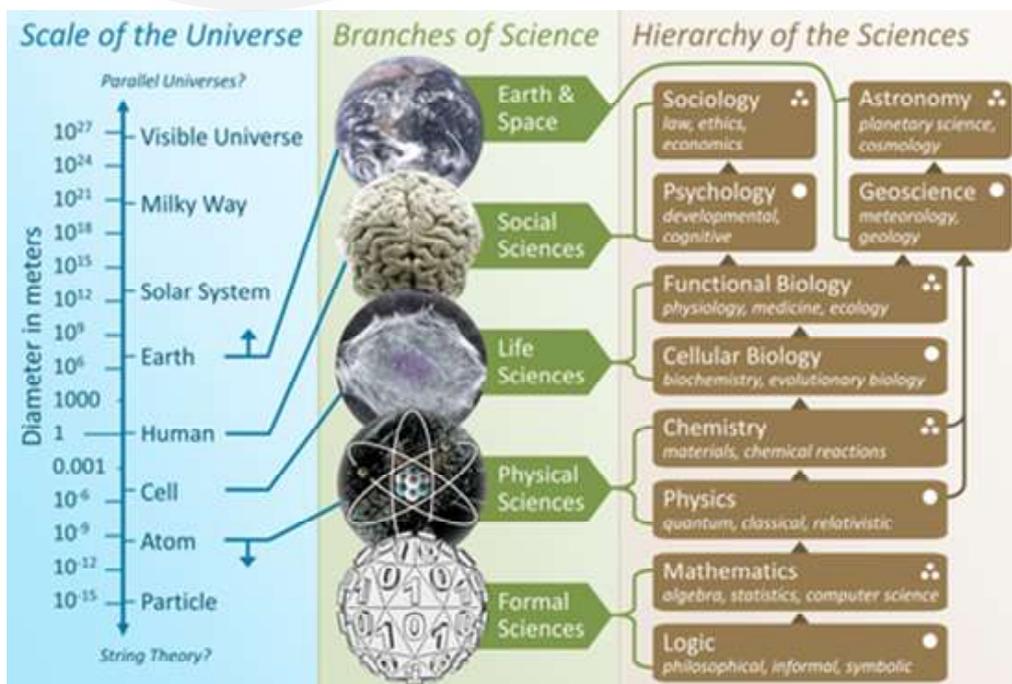


Diagram: The scale of the Universe mapped to branches of science and the hierarchy of the sciences.

Source: https://en.wikipedia.org/wiki/Branches_of_science



Map: topography map-India

Source: https://en.wikipedia.org/wiki/Geography_of_India



Rainwater Harvesting, RK Laxman

Source: <https://admissiontimes.com/rk-laxman-cartoons/>

1.7 LET US SUM UP

In this unit, our focus has been on Reading Comprehension, and on developing reading skills across the curriculum. Comprehending a text is a multi-pronged process, involving the text, the reader and the socio-cultural context. From defining

reading and understanding the process of reading, we have proceeded to understand the importance of reading across the curriculum. Research has shown that there is a strong correlation between reading comprehension and academic performance. Different reading strategies are required for reading course material in diverse subjects; for example, reading strategies required for Literature are very different from the strategies required for Social Science or Mathematics.

Readers must develop the ability to go beyond main ideas and learn to analyse, synthesize and evaluate information pertaining to different subjects. They must develop the ability to sift, filter out and collate information from the spectrum of content areas. The Unit discusses the importance of reading as a tool for learning in different disciplines. This has been followed by a detailed discussion of the various strategies to develop reading skills, accompanied by clear examples. At every stage, activities have been suggested for the teacher to try and to gain a more application-based understanding of the process of Reading and how to teach it. By modelling, encouraging prediction-making, asking probing questions, and focusing on higher-order cognitive skills across the subjects in their curriculum, learners can be trained to develop their reading skills, which will impact positively on their overall performance and learning.

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1.9 ANSWERS

Check Your Progress 1

i F vi T

ii F v T

iii F