# **Critical Thinking**

Manjusha .U\* and Anish Varghese

Senior Research Fellow, SEETTD, CMFRI Email\*: log2manju@gmail.com



# "Education is not the learning of facts but training the mind to think" Albert Einstein

#### Introduction

Women are the foundation of society and breeders and teachers of the next generation. We comprise half of the population of the world, and thus should be equals in every step with men. In order to do so, logical, analytical thinking (devoid of emotional drivers and personal pride) is crucial for a society to function healthily. To incline women to realize the benefits being more curious and analytical about the decisions that is made for them by men in their lives. If women remain as a mass of silent



sufferers instead of individual thinkers who challenge status quo, then lack of societal respect for and protection of women's personal decision-making in regard to unwanted pregnancies, style of dress, a their right to choose their partners, etc. will continue. Here lies the relevance of critical thinking that will allow them to become the experts in all fields.

We tend to receive knowledge passively at many stages of education, although we can be highly critical in other aspects of life. Critical thinking and analysis is an everyday activity, even if we don't think of it as that. Every time you have to make a decision, the process you go through involves critical thinking, and this process can become almost automatic.

**Definition:** Critical thinking is the ability to think clearly and rationally about what to do or what to believe.

A person with a good memory and who knows a lot of facts is not necessarily good at critical thinking. A critical thinker is able to deduce consequences from what he knows, and he knows how to make use of information to solve problems, and to seek relevant sources of information to inform him.

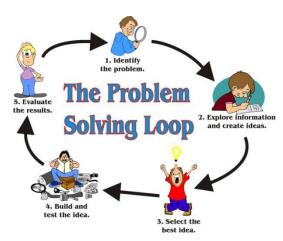
#### Difference between Thinking and Critical thinking

**Critical thinking** is controlled, purposeful and more likely to lead to obvious beneficial results.

**Thinking** is basically any mental activity; can be aimless and uncontrolled; it may serve a purpose but aren't aware of its benefits; we might not remember our thoughts at all.

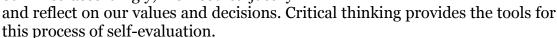
# The importance of critical thinking

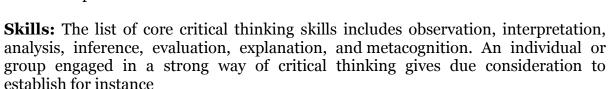
- It is a domain-general thinking skill: The ability to think clearly and rationally is important whatever we choose to do. Being able to think well and solve problems systematically is an asset for any career.
- Important in the new knowledge economy: The new economy places increasing demands on flexible intellectual skills, and the ability to analyse information and integrate diverse sources of knowledge in



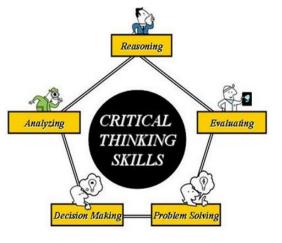
solving problems. Good critical thinking promotes such thinking skills, and is very important in the fast-changing workplace.

- Enhances language and presentation skills: Thinking clearly and
  - systematically can improve the way we express our ideas. In learning how to analyse the logical structure of texts, critical thinking also improves comprehension abilities.
- Promotes creativity: Critical thinking plays a crucial role in evaluating new ideas, selecting the best ones and modifying them if necessary
- **Crucial for self-reflection:** In order to live a meaningful life and to structure our lives accordingly, we need to justify





- Evidence through reality
- Context skills to isolate the problem from context
- Relevant criteria for making the judgment well
- Applicable methods or techniques for forming the judgment
- Applicable theoretical constructs for understanding the problem and the question at hand



#### **Procedure**

Critical thinking calls for the ability to:

- Recognize problems, to find workable means for meeting those problems
- Understand the importance of prioritization and order of precedence in problem solving
- Gather and marshal pertinent (relevant) information
- Recognize unstated assumptions and values
- Comprehend and use language with accuracy, clarity, and discernment
- Interpret data, to appraise evidence and evaluate arguments
- Recognize the existence (or non-existence) of logical relationships between propositions
- Draw warranted conclusions and generalizations
- Put to test the conclusions and generalizations at which one arrives
- Reconstruct one's patterns of beliefs on the basis of wider experience
- Render accurate judgments about specific things and qualities in everyday life

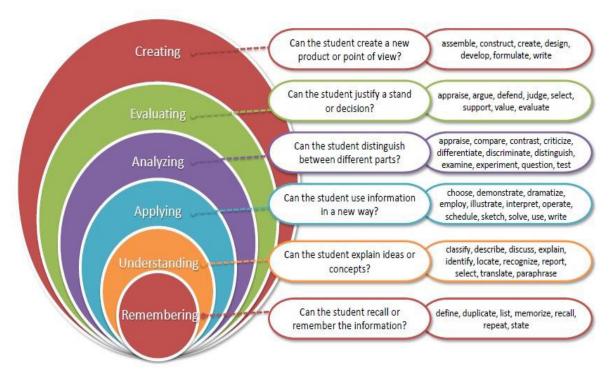
1 Knowledge	define fill in the blank list identify	label locate match memorize	name recall spell	state tell underline
Identification and recall of information	Who ? What ? Where ? When ?		How? Describe? What is?	
2 Comprehension	convert describe explain	interpret paraphrase put in order	restate retell in your own words rewrite	summarize trace translate
Organization and selection of facts and ideas	Re-tell in your own words. What is the main idea of?		What differences exist between? Can you write a brief outline?	
3 Application	apply compute conclude construct	demonstrate determine draw find out	give an example illustrate make operate	show solve state a rule or principle use
Use of facts, rules, and principles	How is an example of? How is related to? Why is significant?		Do you know of another instance where? Could this have happened in?	
<b>4</b> Analysis	analyze categorize classify compare	contrast debate deduct determine the factors	diagram differentiate dissect distinguish	examine infer specify
Separating a whole into component parts	What are the parts or features of? Classify according to Outline/diagram/web/map		How does compare/contrast with? What evidence can you present for?	

#### The Six Levels of Thinking

Bloom's *Taxonomy of Educational Objectives* explains that the process of thinking actually involves several levels.

- 1. Gathering knowledge consists of acquiring basic pieces of information
- 2. Comprehending and confirming involves looking at the meaning of the knowledge that has been gathered and drawing conclusions from it.
- 3. Applying entails using what has been learned in new situations.
- 4. Analyzing involves thinking about a whole in terms of its various parts.
- 5. Synthesizing consists of putting parts together to form a whole.
- 6. Evaluating entails making comparisons and judgments.

Bloom's Taxonomy (Revised)



Someone with critical thinking skills is able to do the following:

- Understand the logical connections between ideas
- Identify, construct and evaluate arguments
- Detect irregularities and common mistakes in reasoning
- Solve problems systematically
- Identify the relevance and importance of ideas
- Reflect on the justification of one's own beliefs and values

### **Practical Session by Engaging Trainees: Discuss on the following**

- **♣** The Impact of Social Media in Our Daily Lives What is your thoughts?
- ♣ Do you consider alcohol abuse a problem on your campus?
- Why do you think women are often unwilling to report sexual harassment and/ or assault cases?

#### **Activity Corner**

- Difference between critical thinking and creative thinking?
- Which are the processes of thinking?
- Which are the critical thinking skills?

#### **Summary**

## Finally... Critical Thinking

- Help us acquire knowledge, improve our theories, think and argue independently, explore issues in depth, and strengthen arguments.
- Help to evaluate and improve our creative ideas.
- Helps you develop your own opinions.