



ARAB COLLEGE OF
APPLIED SCIENCES



ERF: Literacy

Topic No. 2. Critical Thinking and Problem-Solving Skills

Arab College of Applied Sciences

Total Duration: 6.5 hours



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Project Consortium

Coordinator:



Partners:



Project Details

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Acronym: EMSA (Entrepreneurial Mindset and Skills for All)

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Call for Proposals: ERASMUS-EDU-2022-CB-VET

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End Date: 31.12.2025

Literacy

Training Aim

The primary aim of this workshop is to equip participants with essential knowledge, skills, and competencies in verbal communication, critical thinking, and socially responsible language use. Participants will develop a strong understanding of key verbal interactions—such as conversation, negotiation, presentation, and debate—while learning to differentiate between various language styles and registers. Additionally, they will enhance their critical thinking abilities, allowing them to generate and assess alternative solutions to challenges in both professional and personal contexts.

Through practical exercises and real-world application, participants will understand the impact of language on interpersonal dynamics and cultivate more positive, socially responsible communication practices. This hands-on experience will empower participants to improve their verbal communication, contribute to more inclusive professional environments, and navigate various communication scenarios with confidence.



Literacy

Learning

Outcomes

In terms of knowledge:

- ✓ Understand and describe the main types of verbal interaction and the features of different language styles and registers, including formal, informal, technical, and persuasive.
- ✓ Identify different and alternative solutions to challenges, applying critical thinking to evaluate their feasibility and effectiveness.
- ✓ Describe the impact of tone, body language, and intentions on the effectiveness of communication and interpersonal relationships.

Literacy

Learning Outcomes

In terms of **skills**:

- ✓ Apply various types of verbal interaction effectively in different contexts, such as conducting a negotiation or delivering a presentation.
- ✓ Employ critical thinking strategies to explore and generate solutions to real-world challenges, using a variety of information sources.
- ✓ Develop and apply strategies for using language responsibly and ethically in various contexts, with a focus on improving communication effectiveness and emotional intelligence.

Literacy

Learning

Outcomes

In terms of **competences**:

- ✓ Evaluate and select appropriate language styles and registers to enhance the clarity and effectiveness of communication in different verbal interactions.
- ✓ Demonstrate the ability to critically assess and select the most appropriate solutions to challenges, considering their potential impact and practicality.
- ✓ Assess and refine personal communication practices to ensure they are positive, respectful, and socially responsible, especially in cross-cultural and conflict resolution situations.

ERF: The European Reference Framework (Key Competences for Lifelong Learning)



Literacy Competence is defined as the ability to understand, interpret, and use written and spoken language in various contexts. This includes the capacity to:

- Read, write, listen, and speak with clarity and accuracy.
- Communicate effectively in social, academic, and professional environments.
- Analyze and evaluate content, adapting language use to fit different audiences and situations.
- Engage in critical thinking, which allows individuals to assess and understand the meaning of information.

What ERF
competence
is our training about?

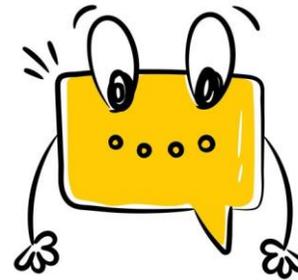
Training Route Map

**Foundations of Literacy
and Effective
Communication**

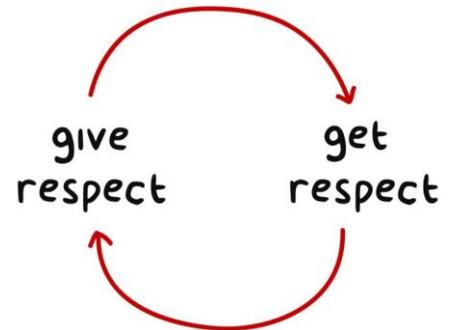
**Critical Thinking and
Problem-Solving Skills**

**Language Dynamics and
Cross-Cultural
Communication**

Training Rules



Chat



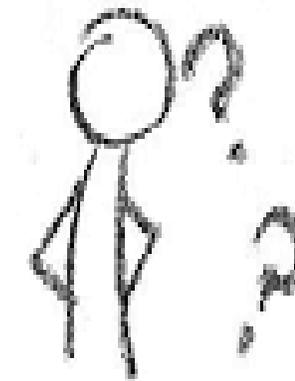
BREAK TIME



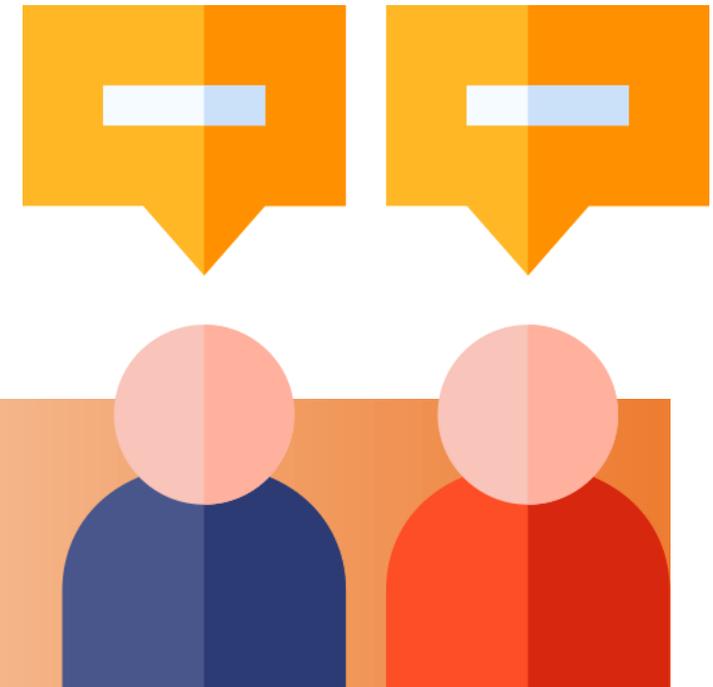
“Fact or Fiction?”

“Fact of Fiction”

- ❖ Social media is the most reliable source of news today.
- ❖ Critical thinking involves evaluating information before accepting it as
- ❖ Everyone should trust a website that looks professional and well-desig
- ❖ Data from scientific studies is always free from bias.
- ❖ An opinion can be just as valid as a fact.
- ❖ Wikipedia articles are created by experts in the field.
- ❖ Fact-checking websites are valuable tools for identifying misinformatic
- ❖ The majority of people believing something makes it a fact.
- ❖ All peer-reviewed articles are trustworthy.
- ❖ It’s important to understand the author's background when evaluating the reliability of a source.



fact or
fiction?



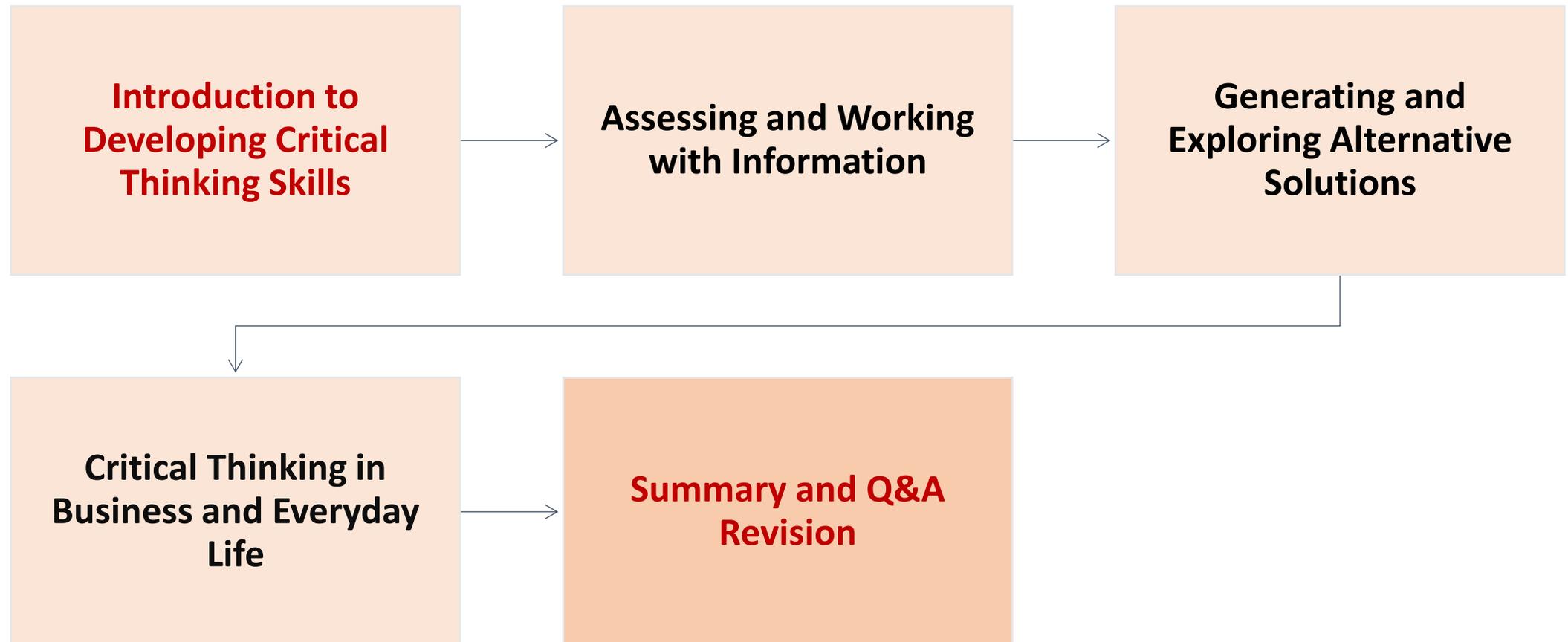
Introductions

Let's get to know each other!

"The conscious mind is the one that can distinguish between truth and falsehood in a world full of information."

Ibn Khaldun

Training Route Map



Introduction to Literacy

Literacy

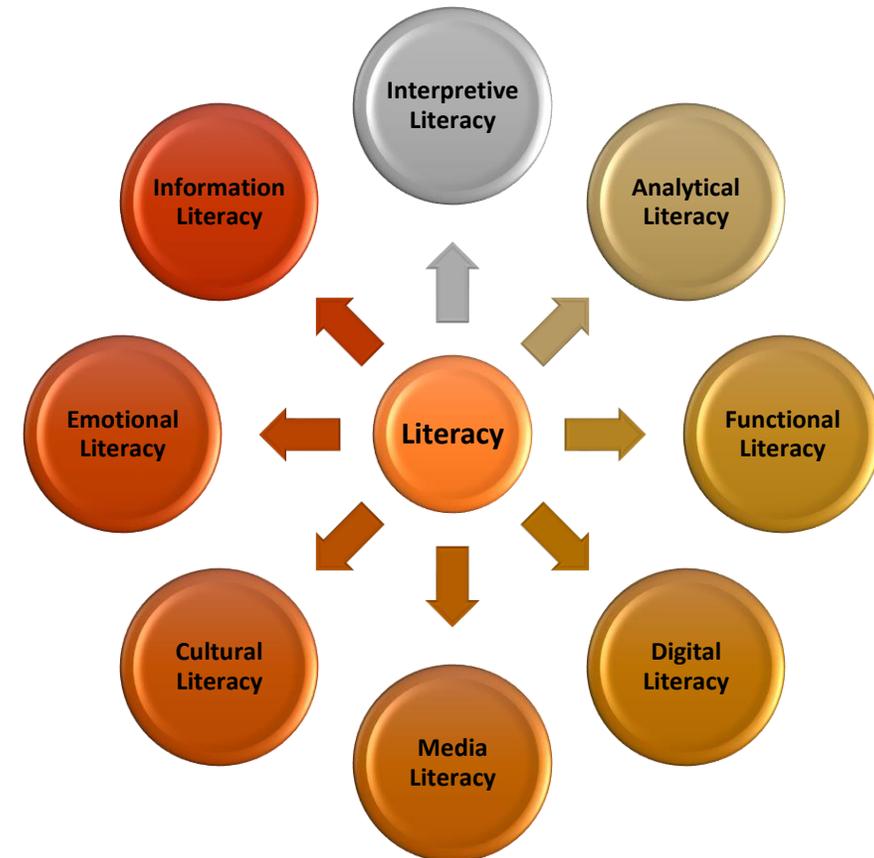
- **What is Literacy?**

Literacy is the ability to read, write, and communicate effectively. It involves understanding and using language to express ideas, access information, and engage with others. Literacy is a fundamental skill that empowers individuals to participate fully in society, whether in education, work, or everyday interactions. It also includes the ability to think critically, interpret information, and solve problems. In today's world, literacy goes beyond basic reading and writing, it includes digital literacy, which is the ability to use technology and access online information. Developing strong literacy skills is essential for personal growth, career success, and active participation in the global community.

Literacy

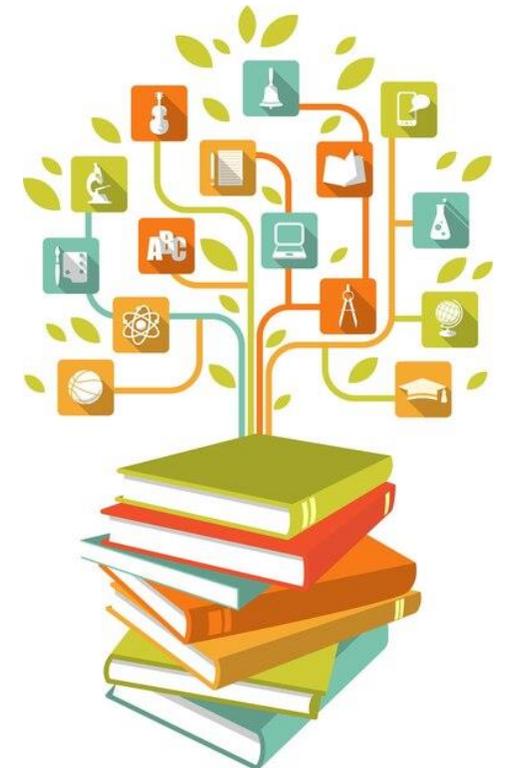
- **Types of Literacy?**

Literacy is a broad and evolving concept that goes beyond simply reading and writing; it encompasses various skills needed to effectively navigate and interpret the world. There are different types of literacy but in this training we will focus on some specific types that are crucial in today's society:



Literacy

- **Interpretive Literacy:** The ability to interpret and understand the meaning of texts. It involves reading between the lines, understanding metaphors, context, tone, and implied messages.
- **Analytical Literacy:** Breaking down complex information to evaluate and understand it.
- **Functional Literacy:** Using reading and writing for practical, everyday tasks.
- **Cultural Literacy:** Understanding norms and values to communicate effectively in a culture.
- **Digital Literacy:** Navigating, evaluating, and creating information using digital tools.
- **Emotional Literacy:** Recognizing and expressing emotions in a constructive manner.
- **Media Literacy:** Understanding how media messages are created and their influence.
- **Information Literacy:** Finding, evaluating, and using information effectively.



Literacy

- **Why is Literacy Important?**

- Empowers individuals to fully participate in society.
- Enhances career opportunities and personal development.
- Improves communication skills and critical thinking.
- Supports lifelong learning and adaptation in a fast-changing world.



Literacy

- The importance of developing literacy skills beyond basic reading and writing?
 - This training is designed to enhance various forms of literacy beyond just reading and writing, preparing participants for the complexities of both professional and personal communication. The modules focus on developing **interpretive, analytical, functional, cultural, digital, emotional, media, and information literacy**. These literacies help participants become well-rounded communicators capable of understanding, evaluating, and effectively engaging with information and diverse audiences across multiple contexts.



1. Developing Critical Thinking Skills

1.1 Introduction to Critical Thinking

1.2 Definition of Critical Thinking

1.3 Importance of Critical Thinking in Business and Daily Life

Critical Thinking

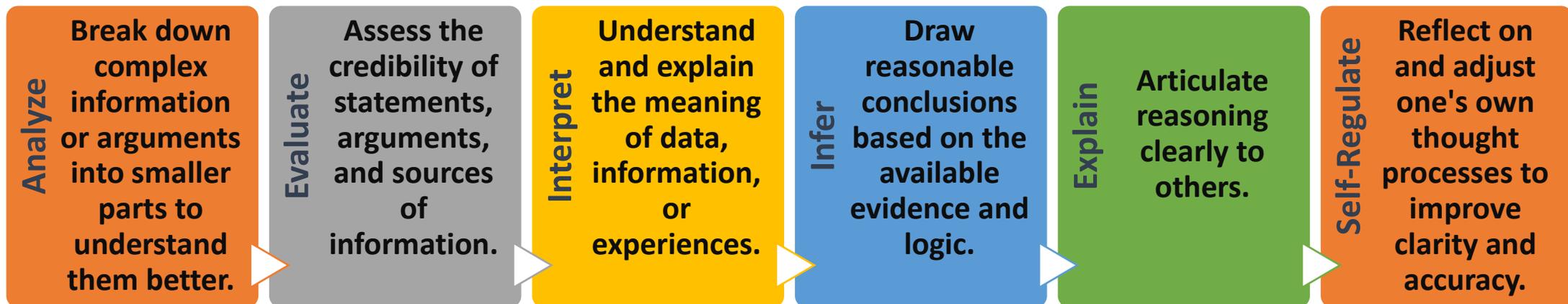
Critical thinking is one of the most essential skills in today's information-rich world. It involves the ability to think clearly and rationally, understanding the logical connection between ideas, evaluating evidence, and systematically approaching problems to reach well-informed conclusions. In both professional and personal contexts, developing critical thinking skills empowers individuals to analyze information critically, solve problems effectively, and make decisions based on reason rather than emotion or bias.



Critical Thinking

• What is Critical Thinking?

Critical thinking is more than just being able to process information. It is a disciplined, self-directed approach to thinking that allows individuals to:



Critical Thinking

Core Components of Critical Thinking with Examples:

Analyze

- Analyzing a news article by identifying the main claim, evaluating the supporting evidence, and considering whether any biases are present.

Evaluate

- Evaluating a research paper by checking the methodology, scrutinizing the author's credentials, and cross-referencing the findings with other studies.

Interpret

- Interpreting statistical data presented in a report to understand its significance in the broader context of the study.

Infer

- Inferring the likely outcomes of a business strategy based on market trends and consumer behavior.

Explain

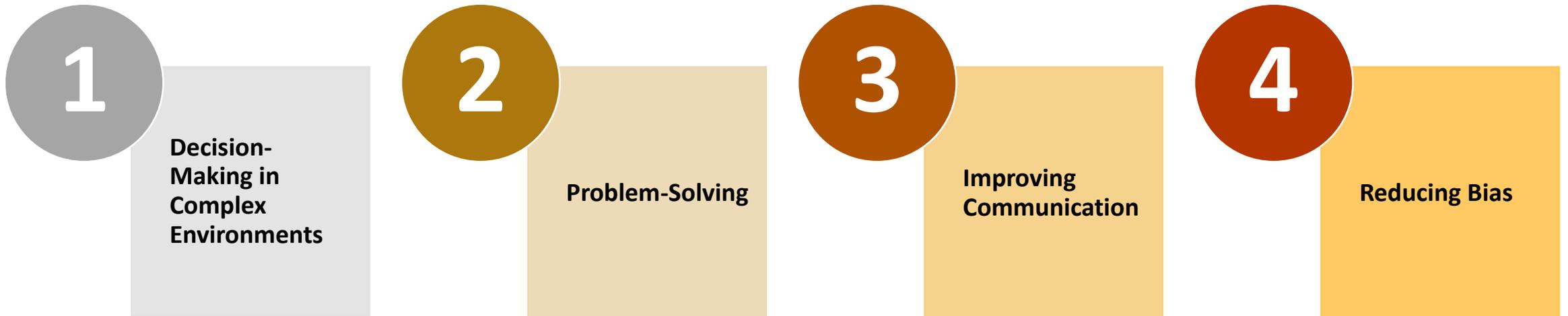
- Explaining to a team why a particular approach was chosen for solving a problem, citing the evidence and reasoning behind the decision.

Self-Regulate

- Reflecting on a decision after it's made and evaluating whether it was based on sound logic and adequate evidence.

Critical Thinking

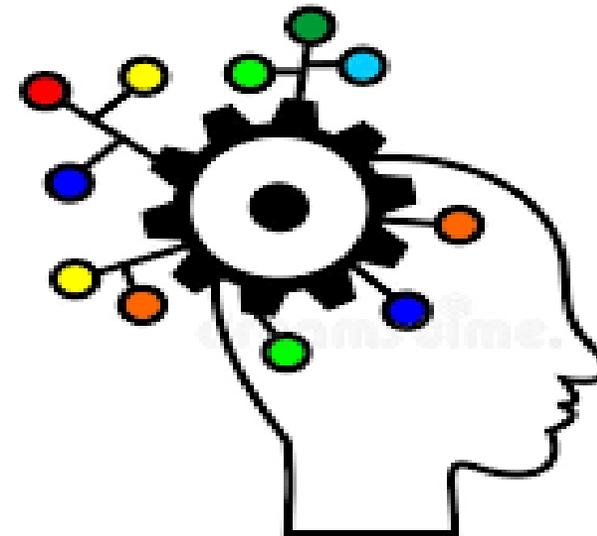
Why Are Critical Thinking Skills Important?



Critical Thinking

Practical Strategies for Developing Critical Thinking Skills

1. Ask Open-Ended Questions
2. Challenge Assumptions
3. Practice Active Listening
4. Engage in Reflective Thinking
5. Seek Diverse Perspectives
6. Apply the "Socratic Method"



Critical
Thinking

"The Island Survival Challenge"



Critical Thinking

Barriers to Critical Thinking:

- 1. Cognitive Biases:** Human beings are prone to cognitive biases, such as confirmation bias (favoring information that supports pre-existing beliefs) or anchoring (relying too heavily on initial information).
- 2. Emotional Influence:** Emotions can cloud judgment and hinder rational decision-making, especially in high-stress situations.
- 3. Overconfidence:** Assuming that one already knows the answer or has all the information can lead to poor decision-making.
- 4. Lack of Time or Information:** Making quick decisions under pressure or without adequate data can limit the ability to think critically.



2. Assessing and Working with Information

2.1 Identifying Reliable vs. Unreliable Sources of Information

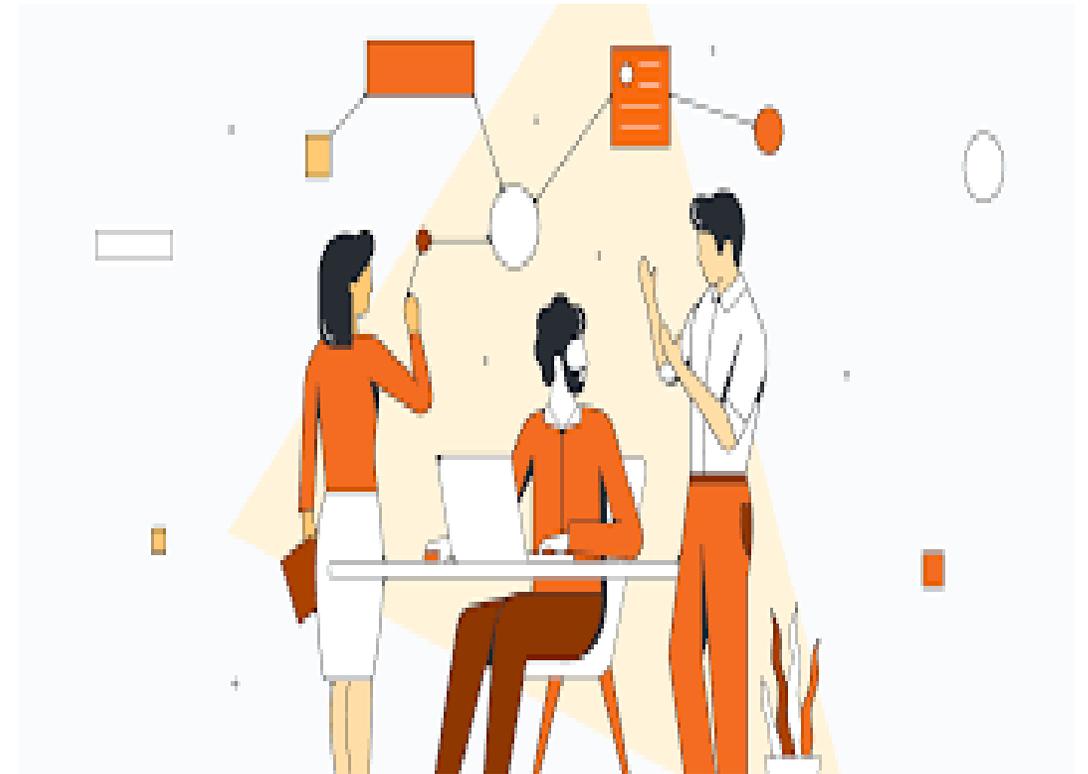
2.2 Evaluating Information from Various Sources

"Knowledge is not what you read or memorize, but what you analyze
and comprehend through understanding."

Ibn Rushd

Assessing and Working with Information

Assessing and working with information is a crucial skill in today's data-driven world. With the vast amount of information available online, in print, and from various other sources, the ability to distinguish between reliable and unreliable information is key to making informed decisions in both professional and personal contexts.



Assessing and Working with Information

Identifying Reliable vs. Unreliable Sources of Information:



Reliable Sources:

Reliable information typically comes from credible sources such as peer-reviewed journals, reputable news organizations, government publications, and academic institutions. These sources are characterized by verified facts, data, and evidence-based conclusions.

Examples:

- Academic journals (e.g., JSTOR, Google Scholar).
- Reputable news outlets (e.g., BBC, The New York Times).
- Government reports and official statistics.

Assessing and Working with Information

Identifying Reliable vs. Unreliable Sources of Information:



Unreliable Sources:

Unreliable sources may include content that lacks evidence or verification, such as personal blogs, unverified social media posts, or websites without clear authorship or editorial standards. These sources often present biased or misleading information without supporting data.

Examples:

- Anonymous social media posts.
- Clickbait websites with sensationalized headlines.
- Opinion-based articles lacking factual backing.

Assessing and Working with Information

Evaluating Information from Various Sources:

1. Cross-Checking Facts:

One of the most important steps in assessing information is to cross-check it across multiple reliable sources. If the same information appears in various reputable outlets, it is more likely to be accurate. Conversely, if discrepancies arise, further investigation is needed to determine the truth.

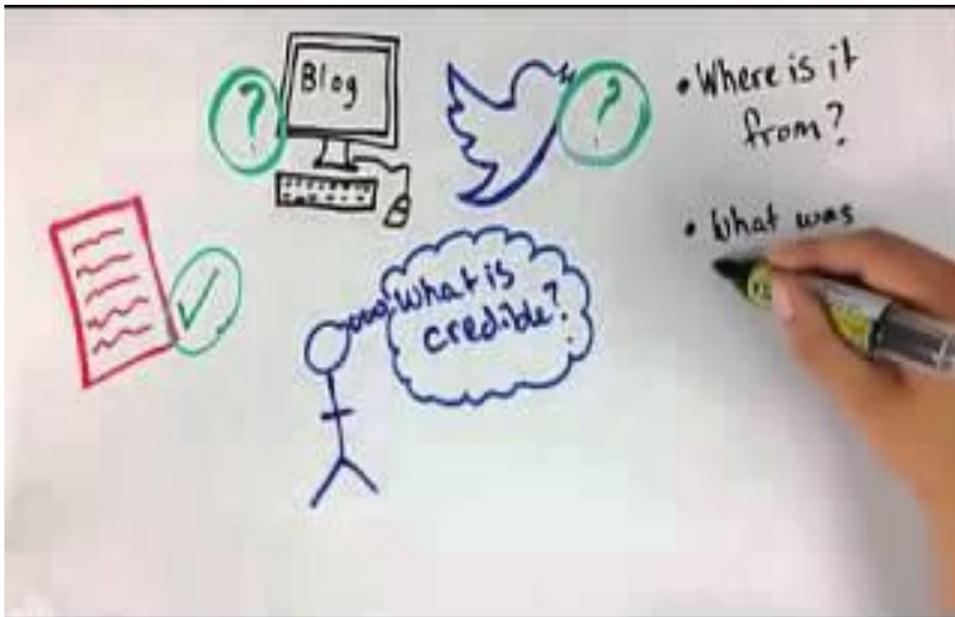
2. Checking the Author's Credentials:

The expertise and qualifications of an author play a significant role in the reliability of information. When assessing information, it's important to consider the author's background, education, and affiliations. For instance, is the author an expert in the field they are writing about, or are they offering an uninformed opinion?



Assessing and Working with Information

Evaluating Information from Various Sources:



3. Identifying Biases:

All sources of information have some degree of bias. The key is to identify and account for it when evaluating the reliability of the content. Bias can manifest in the way facts are presented or in the selective omission of important details. Being able to spot bias allows for a more objective evaluation of the information.

Assessing and Working with Information

Practical Strategies for Assessing Information:



ASK Framework:

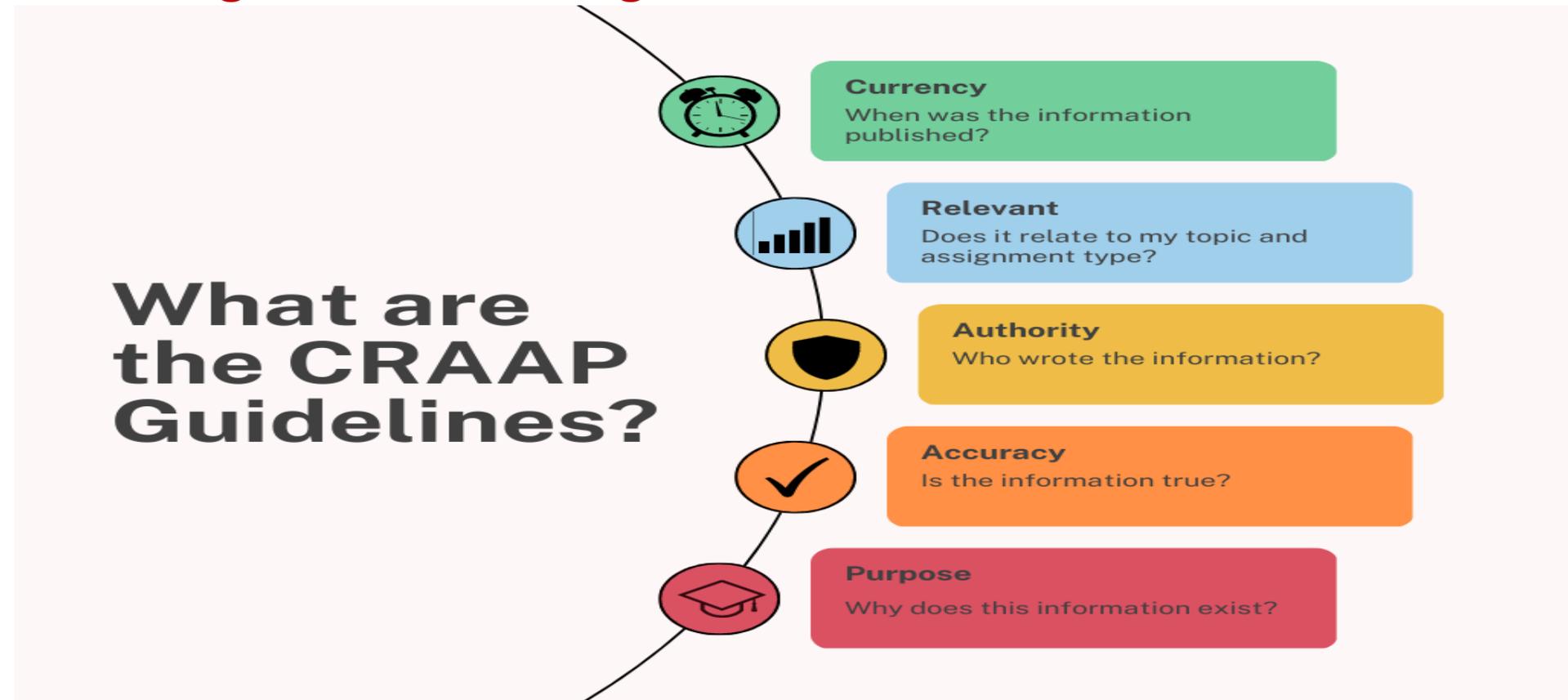
Author: Who is the author, and are they qualified to speak on the topic?

Source: Is the source reputable and well-known for accuracy?

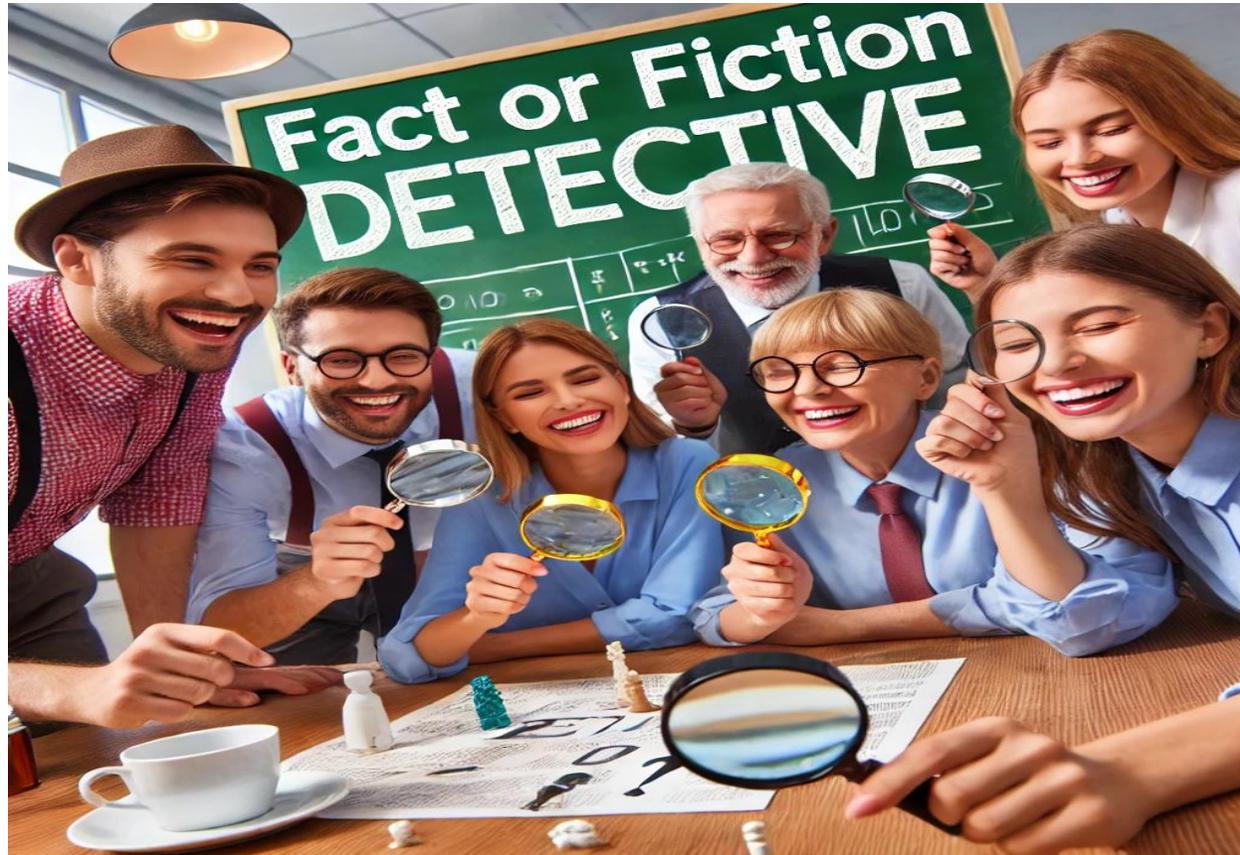
Knowledge: Does the content add to your knowledge base, and is it consistent with other information?

Assessing and Working with Information

Practical Strategies for Assessing Information:



"Fact or Fiction Detective"



"Fact or Fiction Detective"



A post on a popular social media platform claims the following:
"Drinking lemon water every morning will cure all diseases, including cancer, heart disease, and diabetes. It detoxifies your entire body, boosts your immune system, and even makes your skin glow overnight. Forget doctors and medicine – lemon water is all you need!"



"The Miracle Diet: Lose 20 Pounds in 2 Weeks Without Exercise!" The article claims that by eating only one type of fruit for two weeks, anyone can rapidly lose weight. The author promises this method is backed by "science" but doesn't link to any studies or research. There are no qualifications listed for the author, who appears to be an amateur blogger.

*"The quality of your decision is only as good as the information on which
it is based"*
Anonymous

3. Generating and Exploring Alternative Solutions

3.1 Problem-Solving Through Critical Thinking

3.2 Evaluating Solutions Based on Critical Thinking Criteria

Generating and Exploring Alternative Solutions



In both business and everyday contexts, problem-solving often requires more than one approach. Developing the skill to generate and explore alternative solutions enables individuals to think outside of traditional methods, weigh different outcomes, and choose the most effective strategy. Critical thinking plays a vital role in this process by allowing individuals to evaluate all potential solutions before deciding on the most suitable one.

Generating and Exploring Alternative Solutions

1

**Divergent
Thinking**

2

**Evaluating
Solutions**

3

**Creative
Problem-
Solving
Techniques
(Mind Mapping
– Lateral
Thinking**

Problem-Solving Through Critical Thinking

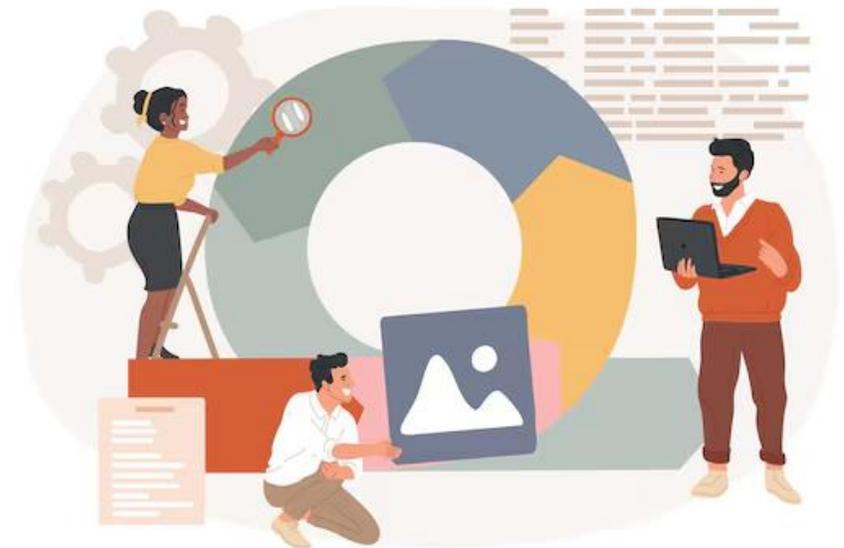
Key Steps:

- ✓ Identify and Define the Problem
- ✓ Gather and Analyze Relevant Information
- ✓ Generate Alternative Solutions
- ✓ Evaluate the Solutions
- ✓ Select the Best Solution
- ✓ Implement the Solution and Monitor Results



Evaluating Solutions Based on Critical Thinking

Evaluating solutions requires an objective and systematic approach to ensure the best possible outcome. Critical thinking provides a framework for evaluating solutions by focusing on specific criteria that measure **feasibility**, **effectiveness**, **impact** and **ethical considerations**.



Evaluating Solutions Based on Critical Thinking

	Feasibility	Effectiveness
Definition	Refers to whether the solution can realistically be implemented within the available resources (time, budget, personnel, and infrastructure)	Measures how well the solution addresses the problem and meets the intended goals
Questions to consider	<ul style="list-style-type: none"> ✓ Is the solution affordable given the current budget? ✓ Can it be implemented within the required timeframe? ✓ Are the necessary resources (equipment, manpower) available? 	<ul style="list-style-type: none"> ✓ Does the solution solve the root cause of the problem? ✓ Will it bring long-term benefits or only a temporary fix? ✓ Are there measurable outcomes that demonstrate its success?
Example	A company may develop an innovative marketing campaign to improve sales, but if the cost of launching the campaign is too high, it may not be feasible to implement.	A business might introduce a customer loyalty program to increase retention rates, but after analyzing results, they may find it only increased short-term engagement without long-term improvement.

Evaluating Solutions Based on Critical Thinking

	Impact	Ethics
Definition	Assesses how the solution will affect different stakeholders, including customers, employees, and the community. Positive impacts should be prioritized, while negative consequences should be minimized.	Examines whether the solution aligns with moral and ethical standards. It's essential to consider the long-term ethical implications, not just the short-term benefits.
Questions to consider	<ul style="list-style-type: none"> ✓ How will this solution affect the company's stakeholders (customers, employees, suppliers)? ✓ Will it create unintended negative consequences? ✓ Will the solution improve the company's reputation? 	<ul style="list-style-type: none"> ✓ Is the solution ethically sound and fair to all involved parties? ✓ Are there legal or regulatory issues to consider? ✓ Could this solution harm certain groups or individuals?
Example	A company considering relocating its headquarters must evaluate the impact on employees who might need to relocate, and on the local community where it currently operates.	A company deciding to cut costs by outsourcing manufacturing may face ethical questions if the outsourced factory is known for poor labor practices.

Solving the Feline Traffic Jam"

"A small town is experiencing a bizarre problem: all the cats in the town have decided to nap in the middle of the main road, causing traffic jams and chaos. The town council is asking for creative solutions to solve this problem!"



4. Critical Thinking in Business and Everyday Life

4.1 Impact of Technology on Critical Thinking

4.2 Cultural Awareness in Critical Thinking

Impact of Technology on Critical Thinking

❖ Information Overload:

• Challenge of Excessive Information:

The digital age brings vast amounts of information at our fingertips, but not all of it is reliable or relevant. With the rise of social media, search engines, and 24/7 news cycles, people are constantly bombarded with data. This overload makes it harder to focus, assess credibility, and filter out misinformation.



Impact of Technology on Critical Thinking

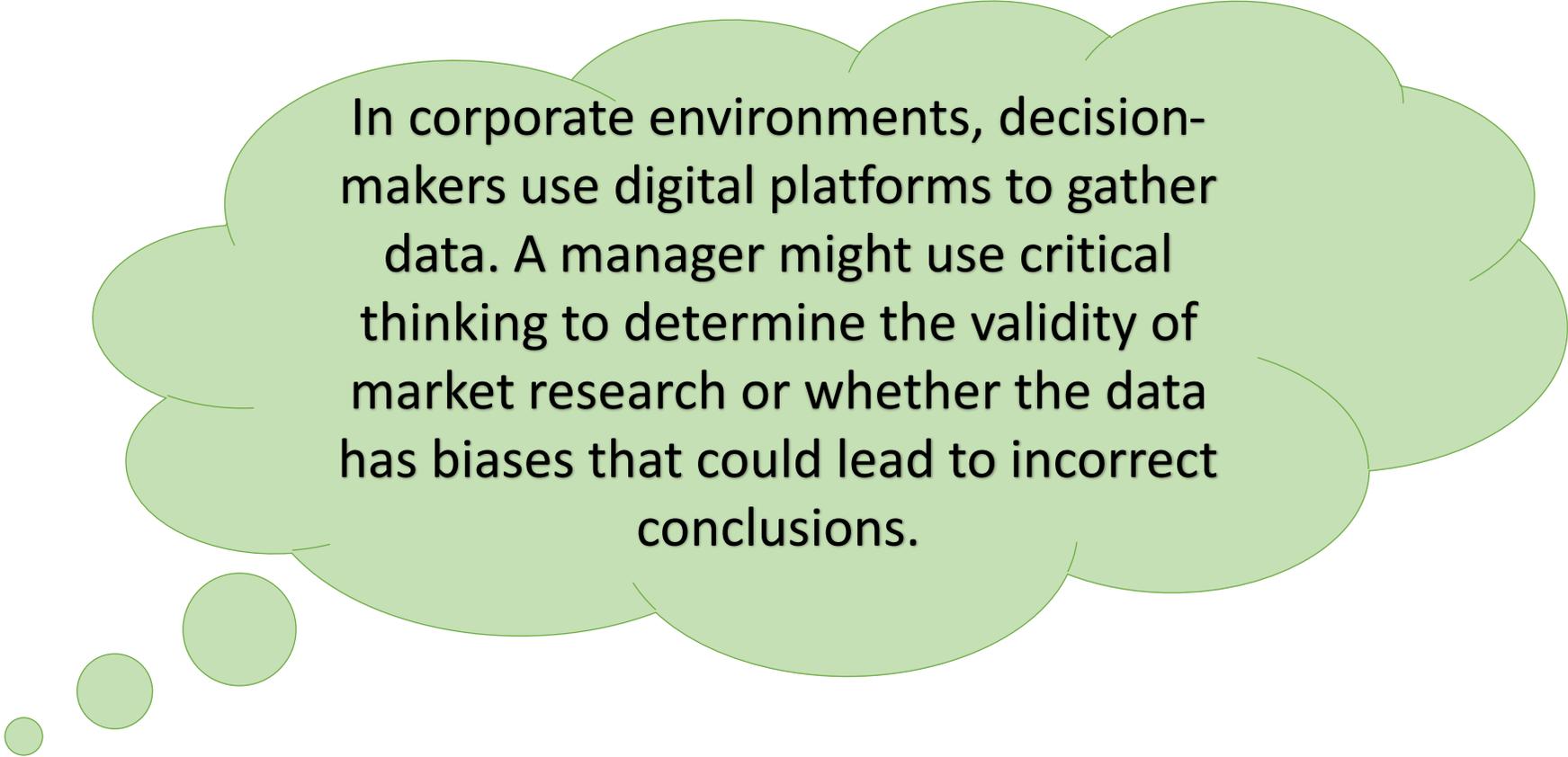
❖ Information Overload:

• Critical Thinking in Filtering Information:

Critical thinking helps sift through this flood of content by encouraging skepticism, fact-checking, and source validation. It helps individuals prioritize relevant information and ignore distractions, ensuring that decisions are made based on solid facts.



Impact of Technology on Critical Thinking

A large, light green thought bubble with a thin black outline, containing text. It has three smaller, similar bubbles trailing off to the bottom left.

In corporate environments, decision-makers use digital platforms to gather data. A manager might use critical thinking to determine the validity of market research or whether the data has biases that could lead to incorrect conclusions.

Impact of Technology on Critical Thinking

❖ Automation and AI:

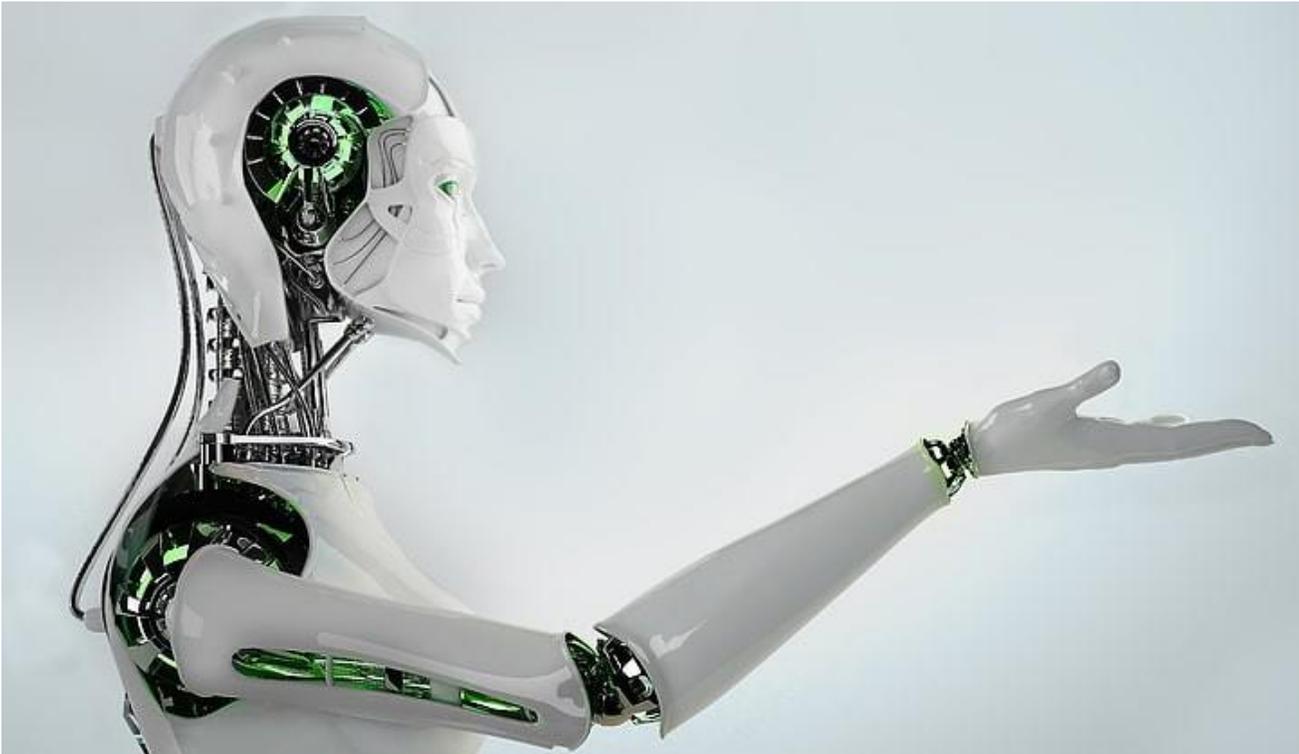
▪ **Technology's Double-Edged Sword:**

Automation, machine learning, and AI tools have transformed industries by streamlining processes, improving efficiencies, and offering data-driven insights. However, reliance on technology can weaken human judgment if critical thinking isn't applied alongside technological solutions.



Impact of Technology on Critical Thinking

❖ Automation and AI:



Human Judgment:

AI systems analyze vast amounts of data and make predictions, but they can't replace human intuition and ethical considerations. Critical thinking is necessary to understand the limitations of technology, interpret its outputs, and ensure decisions remain human-centered

Impact of Technology on Critical Thinking

While AI might suggest a cost-saving strategy for a business, a manager employing critical thinking might recognize that the proposed strategy could harm employee morale or customer relationships in the long run. Human oversight and judgment are essential in balancing technological efficiency with ethical considerations.

Impact of Technology on Critical Thinking

❖ Social Media and Critical Thinking

Echo Chambers:

Social media algorithms often create "echo chambers" where individuals are exposed only to content that aligns with their pre-existing beliefs. This can reinforce biases, making critical thinking essential to challenge one's views and avoid narrow perspectives.

Misinformation and Manipulation:

With the rise of fake news and manipulative content, critical thinking is vital for recognizing false narratives and questioning the motivations behind certain information.

Enhancing Critical Thinking with Technology:

Educational Tools

Technology also provides tools for enhancing critical thinking skills. Online courses, interactive simulations, and critical thinking games can help individuals practice analytical skills and problem-solving in a controlled, virtual environment.

Data Analysis

In business, technology facilitates data-driven decision-making, but critical thinking remains crucial in interpreting data trends and understanding their real-world implications.

"Tech Impact: Friend or Foe?"



Cultural Awareness in Critical Thinking

Globalization and Cross-Cultural Interactions:

In today's interconnected world, businesses and individuals must engage with diverse cultures. Cultural awareness becomes an essential part of critical thinking because decisions and judgments are often influenced by cultural norms, values, and practices.



Avoiding Stereotypes:

Critical thinking helps avoid generalizations or cultural stereotypes by encouraging open-mindedness and understanding. By critically analyzing cultural differences, individuals can avoid miscommunication and better appreciate the diversity of viewpoints.

Cultural Awareness in Critical Thinking

In a global business environment, cultural awareness can impact marketing strategies, negotiations, and leadership styles. For example, decision-makers must understand local customs, values, and preferences to successfully enter foreign markets. Critical thinking ensures that business strategies are not simply transplanted from one culture to another without considering local nuances.



Revision-Summary and Q&A

Introduction to Critical Thinking:

- Understanding critical thinking as the process of objectively analyzing and evaluating an issue to form a well-informed judgment.
- Importance of critical thinking in both professional and personal decision-making.

Assessing and Working with Information:

- **Reliable vs. Unreliable Information:** Identifying trustworthy sources by cross-referencing data and checking for credibility.
- **Evaluating Sources:** Techniques for critically analyzing information from different sources (e.g., media, research reports, personal opinions).

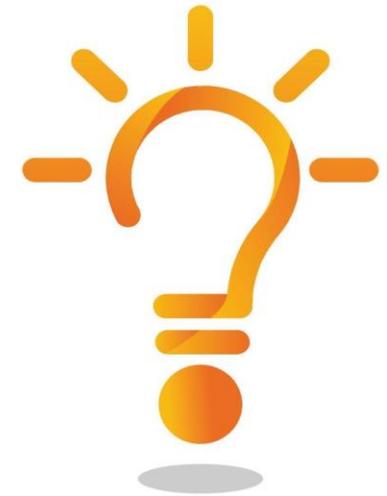
Generating and Exploring Alternative Solutions:

- **Divergent Thinking:** Generating multiple ideas or solutions rather than focusing on a single approach.
- **Critical Thinking Criteria:** Evaluating solutions based on feasibility, effectiveness, ethics, and sustainability.

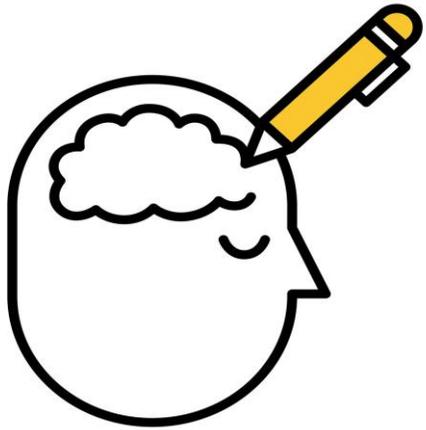
Critical Thinking in Business and Everyday Life:

- **Impact of Technology:** Understanding how technology can both enhance and hinder critical thinking, particularly in decision-making processes.
- **Cultural Awareness:** Recognizing how cultural differences can shape critical thinking approaches and decision-making in a globalized context.

- 1. What is critical thinking, and why is it important in both business and everyday life?**
- 2. How do you determine if a source of information is reliable or not? Provide an example.**
- 3. Explain the difference between divergent thinking and convergent thinking in the problem-solving process.**
- 4. Describe the steps involved in evaluating multiple solutions to a problem. What criteria should be used?**
- 5. How does technology impact critical thinking? Can it both help and hinder the decision-making process? Explain with an example.**
- 6. In what ways does cultural awareness affect how we approach critical thinking in global business settings?**
- 7. Give an example of how you would generate and evaluate alternative solutions for a business problem, using the criteria of feasibility, effectiveness, ethics, and sustainability.**
- 8. What role does ethics play in evaluating solutions during critical thinking? Why is it important to consider ethical implications?**
- 9. How can understanding different cultural perspectives improve your decision-making in a professional environment?**
- 10. In your own experience, how have you used critical thinking to solve a real-life problem? What steps did you take?**



Do you have any questions?



What will you keep from
today's training?

Training Evaluation



List of References

- **Books:**

1. **Glaser, E. M. (2021).** *Critical Thinking in Business: Tools for Decision Making.* Business Expert Press.
2. **Kahneman, D. (2013).** *Thinking, Fast and Slow.* Farrar, Straus and Giroux.
3. **Roberto, M. A. (2020).** *The Art of Critical Decision Making.* Great Courses.
4. **Vaughn, L. (2019).** *The Power of Critical Thinking: Effective Reasoning About Ordinary and Extraordinary Claims.* Oxford University Press.

- **Reports:**

1. **World Economic Forum. (2023).** *The Future of Jobs Report.* Retrieved from <https://www.weforum.org/reports>.
2. **OECD. (2021).** *Skills Outlook 2021: Learning for Life.* Retrieved from <https://www.oecd.org>.
3. **McKinsey & Company. (2022).** *Automation and the Future of Work.* Retrieved from <https://www.mckinsey.com>.

List of References

- **Articles:**

1. **Baldoni, J. (2022).** *How Critical Thinking Skills Can Help You Make Better Business Decisions.* Forbes. Retrieved from <https://www.forbes.com>.
2. **Thompson, R. (2021).** *The Role of Cultural Awareness in Effective Business Communication.* Harvard Business Review. Retrieved from <https://hbr.org>.
3. **Stevens, M. (2022).** *Technology's Role in Enhancing Critical Thinking in the Workplace.* MIT Sloan Management Review. Retrieved from <https://sloanreview.mit.edu>.

List of Suggested Resources for Self-Directed Learning

- **Websites and Platforms:**

1. MindTools – Problem Solving and Decision Making
2. Harvard Business Review – Critical Thinking Articles
3. OpenLearn – Critical Thinking and Online Information
4. edX: Foundations of Critical Thinking
5. FutureLearn: Decision-Making in a Complex World
6. Udemy: The Ultimate Guide to Critical Thinking
7. Khan Academy: Introduction to Critical Thinking

- **Podcasts:**

1. "The Critical Thinker Podcast"
2. "Hidden Brain: How Culture Shapes the Way We Think"



Entrepreneurial Mindset and Key Skills for All

Thank you!



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