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UNLOCKING THE POWER OF CRITICAL THINKING: A GUIDE TO SHARPENING YOUR MIND

Summary. *This article highlights the importance of critical thinking, its key elements, and practical strategies to develop it, emphasizing its role in decision-making, problem-solving, creativity, communication, and self-awareness.*

Key words: *Critical thinking, skills, problem-solving, teaching, creativity.*

In today’s fast-paced, information-rich world, critical thinking has become more important than ever. From making informed decisions in everyday life to solving complex problems in the workplace, the ability to think critically can empower you to make better choices, avoid common cognitive traps, and engage more meaningfully with the world around you. But how do you cultivate and sharpen this essential skill?

In this article, we’ll explore the concept of critical thinking, why it matters, and practical steps you can take to unlock its full potential.

What is critical thinking?

At its core, critical thinking is the ability to analyze, evaluate, and synthesize information objectively, while considering all available evidence before making decisions. It involves more than just recalling facts or following routines; it requires active engagement with the material at hand, questioning assumptions, identifying biases, and assessing different perspectives.

Critical thinking is not about being overly skeptical or dismissive of others' ideas, but rather about developing a mindset that is curious, open to new possibilities, and committed to making reasoned, evidence-based judgments.

Why critical thinking matters

Improved Decision-Making: Critical thinking equips you with the tools to weigh pros and cons, anticipate potential outcomes, and make choices that align with your values and long-term goals. It helps you cut through the noise and make decisions based on reason, rather than emotional impulses or societal pressures.

Enhanced Problem-Solving: Life is full of challenges, both big and small. Critical thinking enables you to break down complex problems into manageable parts, find creative solutions, and evaluate the effectiveness of different approaches.

Increased Creativity and Innovation: Far from being a rigid or dogmatic way of thinking, critical thinking encourages curiosity and a willingness to explore unconventional ideas. By questioning the status quo and considering alternatives, you open the door to fresh, innovative solutions.

Better Communication: Critical thinkers are skilled at organizing their thoughts clearly, backing up their opinions with evidence, and engaging in constructive debates. These communication skills foster greater understanding and cooperation in both personal and professional relationships.

Greater Self-Awareness: Critical thinking involves introspection, helping you recognize your own biases and assumptions. By developing this self-awareness, you become better equipped to make objective decisions and avoid cognitive distortions.

Key elements of critical thinking

To cultivate critical thinking, it's essential to understand the fundamental components that contribute to a well-rounded approach to problem-solving and decision-making:

Analysis: This involves breaking down complex ideas or arguments into smaller, more digestible parts. It requires you to evaluate the structure, validity, and logical consistency of the information at hand.

Interpretation: Critical thinkers must be able to understand and explain the meaning of information, whether it’s a set of data, a piece of writing, or a social situation. This requires the ability to read between the lines and draw connections between different pieces of information.

Inference: Inference is the process of drawing logical conclusions from available evidence. Critical thinkers use inference to fill gaps in information and anticipate possible outcomes based on current facts.

Evaluation: This involves assessing the quality, credibility, and relevance of the information you encounter. Critical thinkers must be able to identify biases, logical fallacies, and weak arguments while also considering alternative perspectives.

Explanation: Once you’ve analyzed, interpreted, and evaluated information, you need to clearly articulate your reasoning and conclusions. This requires clarity, coherence, and the ability to present complex ideas in an accessible way.

Self-Regulation: Critical thinkers engage in continuous self-reflection, regularly questioning their assumptions, beliefs, and cognitive biases. This ensures that their thinking remains objective, open-minded, and adaptable.

Teaching critical thinking

In schools and colleges, critical thinking is mostly treated as a general skill that can be taught in a generic way. The academic load sure makes adding the teaching of critical thinking a challenge, let alone teaching the specific skills for each subject and area of knowledge. However, there is evidence that it’s very difficult for students to transfer the skills that they apply in one context to another. This supports the idea that there are different critical thinking skills for different areas of knowledge [5].

Daniel Willingham, professor of Psychology at the University of Virginia, published a paper in 2019 called 'How to teach Critical Thinking', [1] which he wrote for the Department of Education in Australia. He believes that critical thinking is domain-specific – a specific skill related to a specific area of knowledge. He says that different areas of knowledge have different definitions of what it means to know something, and they apply analysis, synthesis, and evaluation in different ways.

So, does that mean that we can't teach it as a general skill? Well, according to cognitive scientist Tim Van Gelder, that's not necessarily true. He wrote an article called 'Teaching Critical Thinking: Some Lessons From Cognitive Science'. Here, he talked about 6 lessons that summarised all the insights he had while studying critical thinking [6].

Without going into the specifics of the first 5 lessons, he explains that becoming an expert in critical thinking is hard and improving these skills takes time. Additionally, we need to have at least some theoretical knowledge about something to be able to think critically about it.

Van Gelder also said that students improve their critical thinking skills faster when they learn how to present their arguments in maps. Create a visually simple way to see the connections of ideas, reasons, assumptions and objections. This is effective because it helps learners to understand how arguments are constructed.

Critical thinking must be learned. As a matter of fact, thinking critically is not natural. We can't assume people know how to get information, understand it, question it, and use it effectively. It's something that can be learned with life experiences and examples from the world around us. And we need to have discipline to incorporate it in our lives. I also believe that we need to have knowledge about something before we can think critically about it.

As for teaching this honed skill, it's important to teach students about common sense, open-mindedness, skepticism, reasoning, logic, generalisation,

correlation, causality – anything that can help them to develop critical thinking skills. Students must reflect on how their opinions are formed. They should know how they connect and combine assumptions, objections, and facts to form arguments. And finally, I believe that we can't really think critically unless we are aware of our biases. They can alter our perception of reality, our judgment, and our capacity to make impartial observations.

Planning how to teach students to think critically should perhaps be our second task. Our first should be reassuring ourselves that such instruction is needed and can succeed. Learning to think critically is not like learning language as an infant.

In a language-rich environment and with frequent situations where it is useful, the child will learn to use language without any formal instruction. But it's impossible to learn about critical thinking in the same way, based on what's available to you in the environment.

Here are some ideas for how to increase critical thinking:

- Move beyond rote memorization: Activities that require students to simply recall facts do not promote critical thinking. Instead, design tasks that encourage students to analyze information, identify patterns, and draw conclusions.

- Ask open-ended questions: Open-ended questions encourage students to think critically and develop their answers. These questions can prompt students to analyze a situation, evaluate evidence, and form opinions.

- Encourage discussion and debate: Discussions allow students to share their perspectives, challenge each other's ideas, and develop a deeper understanding of the topic at hand.

- Use problem-based learning: Problem-based learning presents students with real-world problems that they need to solve using their critical thinking skills. This approach encourages students to think creatively, analyze information, and collaborate with others.

- Model critical thinking: Model critical thinking by showing students how they approach problems, analyze information, and form conclusions. This can help students develop their critical thinking skills.

In conclusion, critical thinking is an essential skill in today's information-rich world. It enables individuals to make better decisions, solve complex problems, foster creativity, and communicate more effectively. Cultivating this skill requires active engagement, questioning assumptions, and evaluating evidence. While teaching critical thinking can be challenging, it is a skill that can be learned through practice, reflection, and real-world applications. By promoting an environment that encourages critical thinking, we can equip students with the tools necessary to approach challenges with clarity, creativity, and confidence.

References

1. Willington, D. T. (2019). How to Teach Critical Thinking. Education for a Changing World. Education: Future frontiers.
2. Heijltjes, A., Van Gog, T., & Paas, F. (2014). Improving students' critical thinking: Empirical support for explicit instructions combined with practice. *Applied Cognitive Psychology*, 28(4), 518–530.
3. Helsdingen, A. S., van den Bosch, K., van Gog, T., & van merrienboer, J. J. G. (2010). The Effects of Critical Thinking Instruction on Training Complex Decision Making. *Human Factors*, 52(4), 537–545.
4. Margulieux, L. E., & Catrambone, R. (2016). Improving problem solving with subgoal labels in expository text and worked examples. *Learning and Instruction*, 42, 58–71.
5. Mauricio Shiroma. (2022). A deep dive into critical thinking (part 1) – what is it and how is it taught? World of better learning. Cambridge.

6. Tim van Gelder. (2005). Teaching Critical Thinking: Some Lessons from Cognitive Science. *College Teaching*. Vol. 53, No. 1, pp. 41-46. Taylor & Francis, Ltd.