Critical thinking

Critical thinking is reasonable, reflective thinking that is focused on deciding what to believe and what to do. It uses the identification and evaluation of evidence to guide decision making.

Critical thinking is not being argumentative or being a critic of other people.

Critical thinking involves engaging with information, not just receiving it.

Benefits of critical thinking.

Think independently (have to be self analyzing and not always depend on other people's opinions)

Make better decisions

Deal with change quickly and effectively

Solve problems systematically

Think more creatively

Increase self reflection ( more receptive to self improvement)

Detect common mistakes and inconsistencies in reasoning

Recognise your own assumptions and biases

Characteristics of critical thinking

CURIOSITY

The purpose of critically thinking is to not be right, but to gather and assess the right information. One way to do that is to adopt the natural curiosity of a child.

Imagine you don't know anything about the issue and are hearing it for the first time. Remove all your preconceived notions.

Show some humility

AWARENESS

Is knowing what you know and knowing what you don't know.

Recognise our own assumptions

An effective critical thinker should be able to recognise their own blind spots

FLEXIBILITY

Open to new information

Changes approach or perspective in response to unexpected obstacles or changing conditions

Adapts easily and rapidly to new situations and new conditions

COMMON SENSE

It helps you to spot a simple explanation for the situation or problem you have overlooked (but its not as easy or common as it sounds)

Common sense is about verification and accuracy.

Paying attention to the obvious

Consider the source.

Critical thinking mistakes

RATIONALISING

It is the opposite of logical thinking. It arises from a desire to avoid being wrong

When you think logically you start with the evidence then reach a conclusion, but when you rationalize you have a you want conclusion and then you find evidence to support that conclusion

EMOTIONAL THINKING

Not as same as intuition.

It means the absence of logic

Emotional thinking can happen when you react to a feeling or emotional language rather than the facts.

Wishful thinking: wishing in unrealistic belief in something simply because you wish it were true

Ads usually follow this technique

Polarization

It is the emotional attachment to one side of an issue

To avoid

Separate facts from feelings

Remove the emotional and or polarizing words from the sentence

The new manager’s leadership is disastrous; she intends to dismantle a perfectly good system just so that she can cling to her familiar way of doing things.

Words to be removed

* Disastrous
* Dismantle
* Perfectly good
* Cling
* Just so

New sentence

The new manager’s leadership is uninspiring; she intends to rework a system to make it more familiar to her.

BIASES

Bias is a preference, partiality or favoritism towards a certain point of view based on any of the following

Conformation bias: the tendency to seek info that proves rather than disproves our theories

Hindsight bias: the tendencies to see past results as different or more probable than initially thought

Recency effect: the tendency to give more credence to the most recent data you receive

Overconfidence:

TUNNEL VISION

Tunnel vision occurs when we behave in a set way in certain patterns without considering or even realizing that there are other options outside of what we know/see.

Critical thinking process

The three E

EEE

E - Examine, identify the issue or problem, collect information

The issue is the question or situation that requires an answer or conclusion. It is not examples, statistics, evidence or conclusions. Make sure you identify the fundamental question or problem and not merely a symptom of it.

Use the 5 W’s and H

Who

What

Where

When

Why

How

Find the answer to these using any or all of the following

Examples

Statistics

Research findings

Expert testimony (see how he relates to the issue)

Observation / personal experience

Intuition ( don't base it only on intuition)

E - Explore, uncover assumptions and biases, interpret information, brainstorm alternative explanations or solutions. You must make sense of the information you collect

Separate fact from opinion (look or ask for the evidence to back up the information)

Clarify ambiguous words phrases, examples or statistics. Ask the source “what do you mean by that”. For example “it produced excellent results” what does “excellent” mean? What were the “results”

Clarify numbers that are too big or small to relate to the picture. (it can cause us to distort our perspective and affect our analysis)

Recognise euphemisms; they are designed to sound harmless and may cause us to overlook critical information

Assumptions are hidden, unstated or taken-for-granted beliefs usually related to values, priorities and preferences. They are difficult to recognise but can influence our evaluation of the issue. If you do not disregard assumptions you reach conclusions that are not based on facts

If they are not relevant then let the assumptions go.

Value conflict Eg. loyalty vs honesty

Recognise the assumptions being made

Seek alternative viewpoints

Consider the assumptions relevance

Generate alternative explanations

* Consider what are all the explanations and options you can come up with
* Put yourself in someone else's shoes. (you will reach different conclusions by looking from other perspectives)

DARE TO BE DIFFERENT

Consider even the most outlandish explanations

Brainstorming techniques.

* Mind mapping
* Drawing
* Brain writing (get a group of people together and have them write their ideas on how to solve the problem)
* Reverse brainstorming (instead of asking how you can solve the problem ask yourself how can i create this problem)

E - Evaluate, Analyze explanations or solutions, reach a conclusion.

It is the heart of critical thinking. It involves asking the right questions to effectively analyze the explanations and solutions you are considering.

Are there any erroneous or incorrect assumptions?

Are there any fallacies in reasoning?

How good is the info you are receiving

* What is the source
* Can you test the evidence

Is the information omitted (connect details about the process)

How dependable is it

Reach a conclusion

Identify the options/solutions/conclusions you can toss out due to faulty reasoning, incorrect assumptions, bad info etc..

List the pros and cons of the remaining choices

Beware of either-or choices ( when two options are presented that ae mutually exclusive (either this or that) when in reality both options are possible

Prioritize each choice

The most reasonable conclusion is the one based on clear thinking and strength of evidence and is free from any fallacies in reasoning

1- Tammy exhibits common sense, awareness, and flexibility. She is missing curiosity.

2- Logan has awareness and flexibility. He is missing common sense and curiosity.

3- Tammy exhibits biased thinking, and rationalizing

4- Logan exhibits emotional thinking and polarization

5- by looking at the facts, using their personal experiences