


Critical Thinking and Effective Problem Solving



1

Welcome and Introduction



Scott F. Ployer
Founder & President
National Property Management Strategies Group, LLC

- Certified Property Manager
- Master Facility Executive
- Certified Safety Manager
- Certified Safety Health Compliance Officer
- National Affordable Housing Professional Executive
- Credential for Green Property Management
- OSHA, NFPA, and EPA Accredited
- Construction Supervisor License
- Certified Home Inspector

2

Getting Started

We live in a knowledge-based society, and the more critical you think the better your knowledge will be.

Critical Thinking provides you with the skills to analyze and evaluate information so that you are able to obtain the greatest amount of knowledge from it.

The way to get started is to quit talking and begin doing.
Walt Disney

3

Workshop Objectives

- Components of critical thinking
- Non-linear thinking
- Revise perspective
- Problem solving abilities

4



5

Components of Critical Thinking

Critical thinking is akin to the study of logic. Critical thinking directly relates to how we make decisions and use our judgment. Critical thinking is more than just thinking about thinking or metacognition. It is also about how we take action.

Thinking is the talking of the soul with itself.
Anonymous

6

Applying Reason


- Knowledge
- “What follows what”
- Processes
- Emotional bias



7

Open Mindedness


- Relevant evidence
- Revise a current understanding
- Alternatives



8

Analysis


- Discriminate information
- Cognitive domain
- Involves a process



9

Logic

- Rules
- Valid conclusions
- Facts



10

Non-Linear Thinking

There are two ways to work out problems vertically and laterally.

This is called linear or vertical thinking. However, often we tend to not line up the premises in a normal step-by-step fashion.

When we approach a problem in a different order, we are using non-linear thinking.

Neither a closed mind nor an empty one is likely to produce much that would qualify as effective reasoning.

R.S. Nickerson

11

Step Out of Your Comfort Zone

- Different perspective
- Area set apart
- Stretch your thinking




12

Don't Jump to Conclusions

Acquire information

Know the facts



13

Expect and Initiate Change

- Be the change you wish to see
- Nothing stays the same



14

Being Ready to Adapt

- Protect yourself by changing
- Adaptation is a survival skill



15

Ask the Right Questions


- Ask many questions including
 - What is the objective?
 - What are the premises?
 - Is there anything missing?



16

Organize the Data

- First, know the premise
- Make connections
- Make a diagram



17

Evaluate the Information

Valid	True
Belief bias	Confirmation bias

18

Draw Conclusions

Infer only what the data implies

Ensure inferences are consistent

Identify underlying assumptions

19

Critical Thinkers ¹

What are some characteristics of critical thinkers?
 Are there innate abilities that make some individuals better at thinking critically?
 The four characteristics of Critical Thinking we will discuss in this module are:

- Active Listening
- Curiosity
- Self-Discipline
- Humility

The ear says more than the tongue.
W.S. Graham

20

Active Listening

- The best communicators are active listeners
- Engage with the speaker
- Not formulating a response



21

Be Curious

- Self-improvement
- Spark curiosity
- Rising a question



22

Be Disciplined

- Evaluate and reflect
- Aware of your environment
- Self-guided



23

Be Humble

- Open minded
- Receptive
- Not filtered through ego



24

Critical Thinking ²

In the previous module, we began to examine characteristics of critical thinkers. In this module, we will continue to look at more characteristics to help us improve our critical thinking capabilities. Four additional topics are presented in this module:

- Seeing the big picture
- Objectivity
- Using your emotions
- Being self-aware

Man is but a reed, the most-feeble thing in nature, but he is a thinking reed.
Blaise Pascal

25

Seeing the Big Picture

Laying out the account

↓

Determining a hierarchy

↓

Interpreting convergences and divergences

Convergences reinforce events	Divergences are points that do not reinforce events
-------------------------------	---

26

Objectivity

- Deliberate
- Evaluate information
- Thinking



27

Using Your Emotions

As property professionals, we need to have and use empathy to better understand how people feel, believe, or think

The fine line about emotions is to not allow them to cloud your judgement but help you deal with a situation

Walk a mile in their shoes

28

Being Self-Aware

- Feelings
- Opinions
- Assumptions



29

Case Study

You are a regional maintenance manager in a medium-size management company which has been in business for 10 years.

The company owner stays on top of industry changes and trends and is an active participant in making decisions.

Lately, some of those decisions have not been correct and have been costly.

What can you do to help?

30

Evaluate the Information

A big challenge in the process of critical thinking is how to evaluate information. We have already looked at some steps in evaluating information during the process of logic.

True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information.
Winston Churchill

31

Making Assumptions

- Self-awareness needs to be the starting point to be able to think critically
- Our decisions are based on assumptions
- Assumptions are arguments but provide no proof or evidence
- Can be verbal or unstated
- In most cases, they are unstated

32

Watch out for the Bias

- Bias cannot be totally eliminated
- Preconceived opinions are oftentimes a commonplace occurrence
- By thinking critically, we can avoid unintentional bias
- When dealing with this type of situation, we need to use objectivity to oppose bias

33

Ask Clarifying Questions

- Asking the right questions is important
- Clarifying questions are thought-provoking
- These help to gain additional information
- Other questions will arise from this



34

SWOT Analysis



35

Benefits of Critical Thinking

While there are many benefits of critical thinking, we will be examining only four.


- Being more persuasive
- Better communication
- Better problem solving
- Increased emotional intelligence

Life consists of what a man is thinking of all day.
Ralph Waldo Emerson

36

Being More Persuasive

- Influence others
- Accept your ideas



37

Better Communication


- Critical thinking improves communication
- Use more analogies and metaphors
- Be deliberate and persuasive with language
- It's not what you say but how you say it



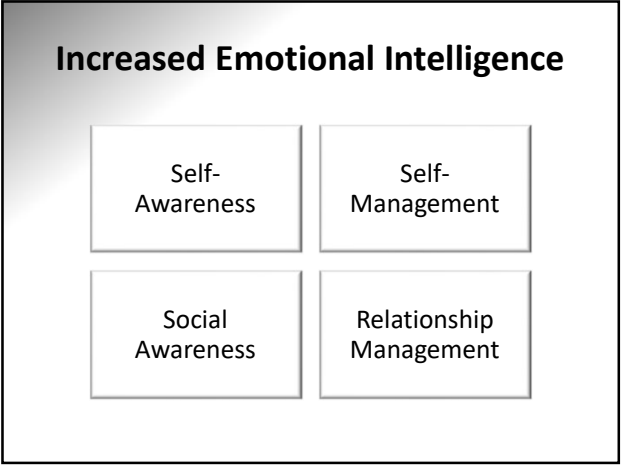
38

Better Problem Solving

- Better decisions
- Cognitive processes
- Logic



39



40

Changing Your Perspective

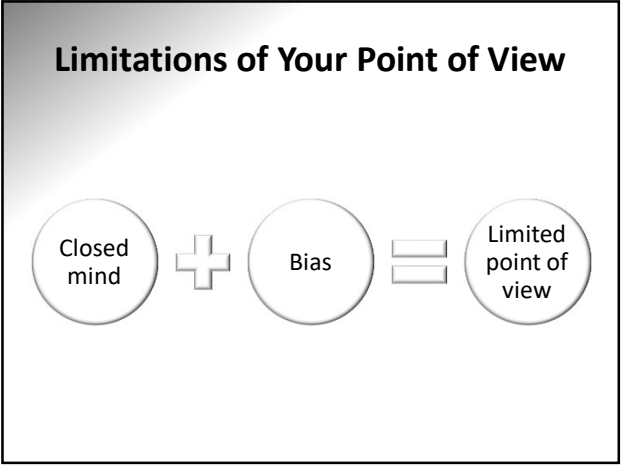
The interesting thing about perspective is that everyone has one.

Earlier in this course, we learned how important having an open mind is in critical thinking.

One aspect of open-mindedness we learn is that it makes us receptive to other viewpoints.

Everyone sees drama from his own perspective.
Jean-Marie Le Pen


41



42

Considering Others Viewpoint


- Opinions
- Views
- Recognize the benefits



43

Influences on Bias

- Interpreting information
- How information is framed
- Hypothetical vs. Factual Information



44

When New Information Arrives

Organization schema

Which role new information plays

Compartmentalizes information



45

Problem Solving

A major function of critical thinking is it allows us to solve problems. Problems then essentially consist of the initial state and a goal state.

Some researchers say that problem solving has three primary stages:

- 1. Preparation or familiarization
- 2. Production
- 3. Judgment and evaluation

We can't solve problems by using the same kind of thinking we used when we created them.
Albert Einstein

46

Identify Inconsistencies

- Cognitive dissonance
- Discrepancies
- Natural tendency to eliminate them



47

Trust Your Instincts

- Natural intuitive power
- Key piece
- Paired with trial and error



48

Asking Why?


- Always dig deeper
- Explore possibilities



49

Evaluate the Solution(s)

- Pros vs. Cons
- Assign weights to each criteria
- Prioritize the criteria



50

Putting It All Together

We have learned many new skills for logic and critical thinking.
 A skill is only beneficial if it is easy to apply.
 In this module, we will learn how to:


- Retain your new skills
- Reflect and learn from mistakes
- Always ask the right questions
- Practice critical thinking

Happiness comes from when we test our skills toward some meaningful purpose.
 John Stosse

51

Retaining Your New Skills


- Develop a schema
- Thinking about thinking
- Practice



52

Reflect and Learn From Mistakes


- Reflection is a useful step in the logic process.
- Whenever possible, think about what's happening and why
- Reflect on the steps taken
- Think about how you interact with others



53

Always Ask Questions

- Be inquisitive
- Learning is sparked by questions
- Questions lead to answers



54

Practicing Critical Thinking

Organize your techniques

Creative thinking

Schemas

55

Wrapping Up

We hope that this session has helped you on your journey to improve your Critical Thinking skills. Remember, that this is a marathon, not a sprint.

Take the time to create, review, or update your action plan.

This will be a key tool to guide your progress in the days, weeks, months, and years to come.

All our dignity lies in thought.
Blaise Pascal

56

Words from the Wise

Alison King: *Good questioners are good thinkers.*

Henry Ward Beecher: *All words are pegs to hang ideas on.*

Rudolf Arnheim: *All perceiving is also thinking, all reasoning is also intuition, all observation is also invention.*

57

Thank You!

Scott F. Ployer
National Property Management Strategies Group, LLC
and the NPMSG Academy
Phone: (617) 213-0039
Email: scott@npmsg.com
Web: www.npmsg.com
