

Developing Workplace Critical Thinking (DWC)

BMSK5001

Week 2

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Beliefs

A belief is an internal feeling that something is true, even though that belief may be unproven or irrational. e.g. I believe that walking under a ladder brings bad luck, or I believe that there is life after death

(Anderson & De Silva, 2009).

- *Do you (dis) agree with this definition? Why?*

Values

A value is a measure of the worth or importance a person attaches to something; our values are often reflected in the way we live our lives e.g. I value freedom of speech, or I value my family, morals (Anderson & De Silva, 2009).

- *Do you (dis) agree with this definition? Why?*

Attitudes

An attitude is the way a person expresses or applies their beliefs and values, and is expressed through words and behaviour. eg I get really upset when I hear about cruelty to children and animals, or I hate school (Anderson & De Silva, 2009)

- *Do you (dis) agree with this definition? Why?*

Emotions

Emotions are intense, relatively short-lived feelings

(Clay-Warner & Robinson, 2008)

Do you (dis) agree with this definition? Why?

Critical Thinking (CT)

- Is an activity which entails more than the skills of logic analysis
- It involves questioning the assumptions underlying customary, habitual ways of thinking and acting
- Then being ready to act and think differently on the basis of this critical questioning

Thinking critically

Why do we dream?

Why am I not always looking good?

Why am I always hungry?

Why do people snore?

Why do you want to work here?

Why should we hire you?

Why do we fall?

Why do fools always fall in love?

Thinking critically

Are you a critical thinker? **What, How & Why?**

Thinking critically

Ask "What" as a **dreamer**

Ask "How" as a **realist**

Ask "Why" as a critic

In personal relationships; Work relationships; society/
government/ media – always ask *why*?

Is this appropriate...)

Importance for CT

2 ways

- Civically: a critical informed population will more likely participate in forms of political activity
- Economically: a critically active and creative workforce is key for a country in times of economic challenges

Themes Critical Thinking

1. It is a productive and positive activity
 - Active, engaged, re-create aspects of personal, work place,.. lives, innovative, self confident
 - Awareness of the diversity of values, behaviors, social structures in the world

Themes Critical Thinking

2. Critical thinking is a process, not an outcome

- Continues questioning of assumptions, is never finished

Themes Critical Thinking

3. Manifestations of critical thinking vary according to the **contexts** in which it occurs

- Internal process → limited visible change
- Internal process → with direct, vivid external actions

Examples of how critical thinking prompts external actions

- ❖ Managers who purposely depart from their habitual ways of coming to decision or problem solving
- ❖ Workers who reshape their workplace following non-hierarchical organizational norms after forming a worker cooperative

Themes Critical Thinking

4. Critical thinking is triggered by positive as well negative events
 - Trauma's triggers people to question previously held assumptions about how the world works and triggers new way's of thinking
 - Joyful, pleasing, fulfilling events trigger to reinterpret actions and ideas from a new vantage point

Themes Critical Thinking

5. Critical thinking is emotive as well as rational

- Emotions are central to the process
- Previously accepted values, ideas, behaviors

Components Critical Thinking

1. Identify and challenge assumptions
 - Then examine accuracy and validity by asking awkward questions
2. Challenge the importance of the context

Components Critical Thinking

3. Imagine and explore alternatives
4. Imagining and exploring alternatives leads to reflective scepticism

Exercise

- Read the article uploaded on Moodle titled *Workplace Harassment After #MeToo*
- Based on a group discussion we will critically discuss this subject

Q/A?

Sources

- Clay-Warner, J, Robinson, T., W., (2008). Social Structure and Emotion, Elsevier.
- Anderson, M., De Silva, S., (2009). Believes, Values, Attitudes, Me and us Ltd.
- Brookfield. S. (1987) Developing critical thinkers. Jossey-Bass.
- Hudson, D., () Workplace Harassment after #MeToo access on
- <http://irc.queensu.ca/sites/default/files/articles/workplace-harassment-after-metoo.pdf> on 26.02.18

Critical Thinking:

What is It?

Why is it Important?

How Does it Improve Teaching
and Learning?

Why Concern Ourselves With Thinking?

Because whenever we are
dealing with human life,
we are almost always
dealing with thinking.

**Thinking is the way that
the mind makes sense
of the world.**

**There is no way to
understand anything
except through
thinking.**

Thinking tells us:

- what there is
- what is happening
- what our problems are
- what our options are
- what threatens us
- what is important
- what is unimportant
- who our friends are
- who our enemies are
- what our "history" is
- who we are
- who loves us

Thinking determines:

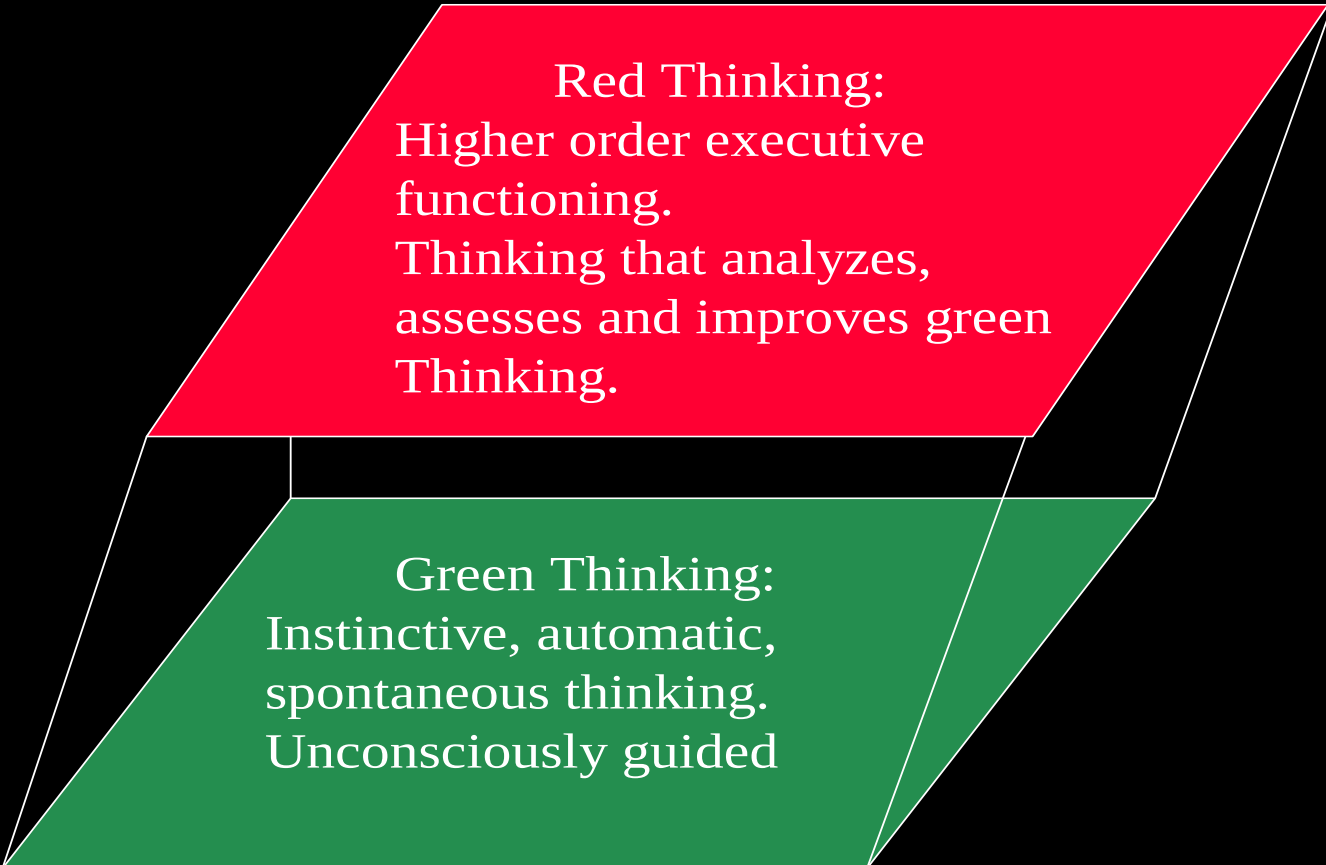
- what we learn
- how we learn
- what we think is important to learn
- what effort we should expend
- what we think is true
- what we think is false
- how things should be viewed
- whether our learning is of high or low quality
- whether our learning is deep or superficial

Everything we know,
believe, want, fear and
hope for, our thinking tells
us.

Think of some problem
behavior your students
engage in.

See if you can identify the
thinking that leads to the
behavior.

Critical Thinking
Is a Self-Directed Process
By Which We Take
Deliberate Steps
To Think at the Highest
Level of Quality.



Red Thinking:
Higher order executive
functioning.
Thinking that analyzes,
assesses and improves green
Thinking.

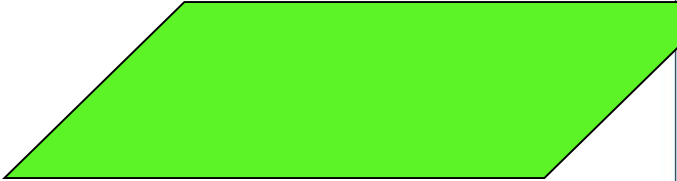
Green Thinking:
Instinctive, automatic,
spontaneous thinking.
Unconsciously guided

Critical Thinking Is Not New

In 1605, Francis Bacon, wrote the first book on critical thinking, The Advancement of Learning, in which he documented various forms of human irrationality and the need to establish new habits of thought through education.

Socrates 2,400 years ago discovered by a method of probing questioning that people often could not rationally justify their confident claims to knowledge.

Green Thinking



Unconscious Mixture Of High Quality
And Low Quality Thinking

Spontaneous

Subconscious

Uncontrolled

Impulsive

Self protecting

Unanalyzed

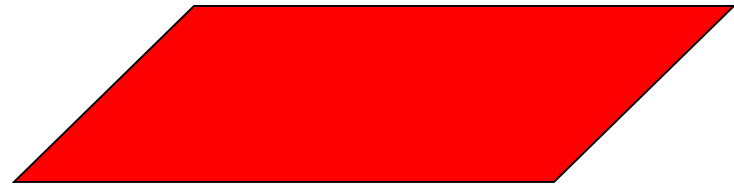
Reflexive

Self validating

Includes ideas that are valid, as well as nonsense, confusion, stereotypes, prejudices. The key is that we cannot distinguish the difference between high and low quality thought in green thinking mode.

Green thinking goes without assessing itself.

Red Thinking



Red Thinking stops and assesses itself before going forward.

Disciplined	Seeks the truth	Self assessing
Critical Thinking	Self correcting	Probing

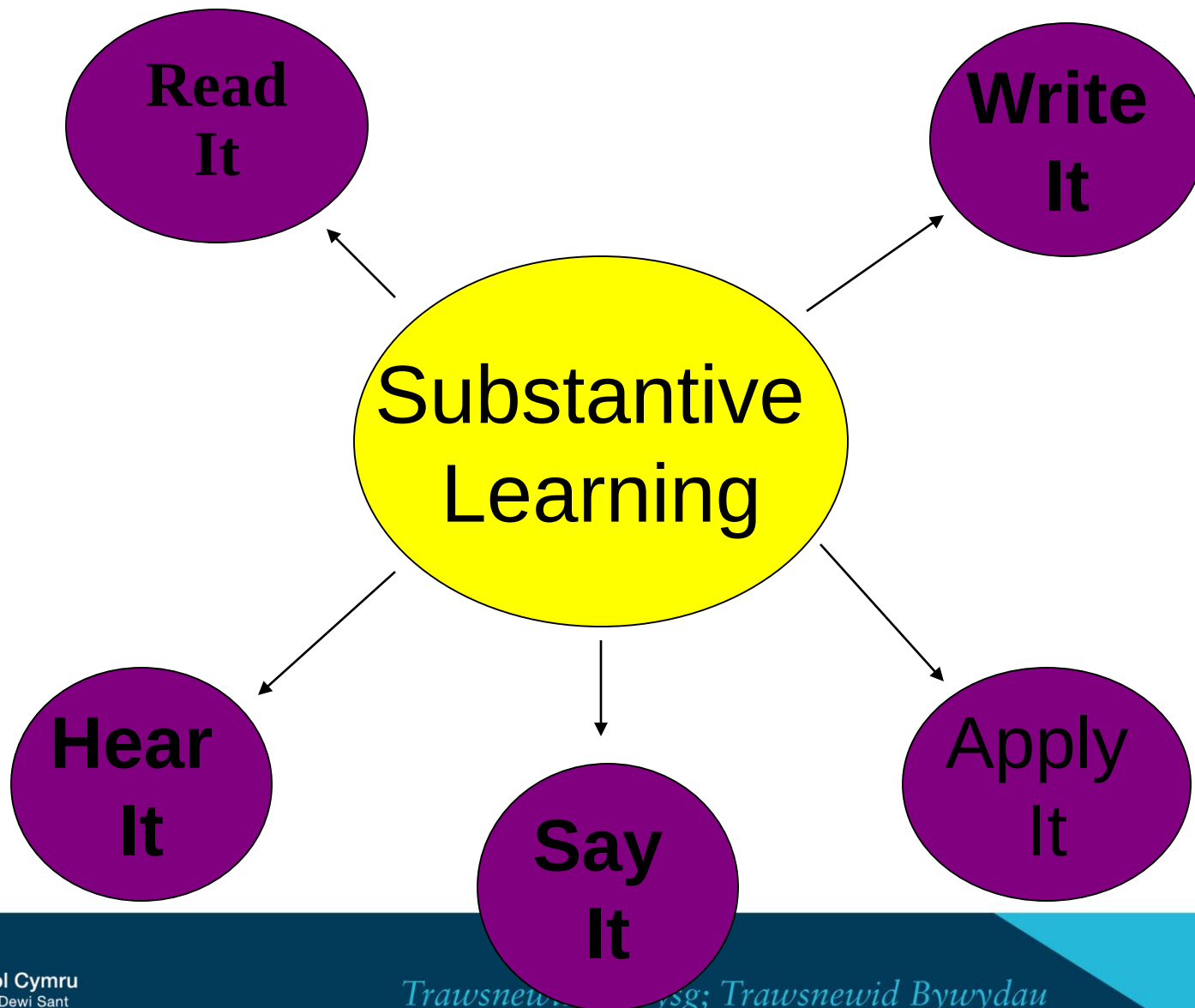
In red thinking mode, we actively work to eliminate prejudices, biases, dysfunctional thinking from our thinking. We actively work on our thinking.

We rigorously apply intellectual standards to our thinking.

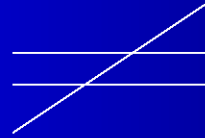
The Critical Thinking Mind

=

The Educated Mind



Critical Thinking



Something you add onto everything else

Rather



The Way You Do
Everything You Do

Activity: What is Critical Thinking?

To be clear in writing:

- 1) state
- 2) elaborate (In other words...)
- 3) exemplify and/or illustrate

Write out the most important thing you know about critical thinking, in this form:

- 1) Critical thinking is
- 2) In other words...
- 3) For example of...

Think for Yourself: 1-1

Beginning to

Think About Your Thinking

- To begin to think about your thinking, make a list of any problems you believe currently exist with your thinking. Try to be as explicit as possible. The more problems you identify the better. For each problem you identify, complete the following statements:
 - 1. One problem with my thinking is...
 - 2. This is a problem because...
 - 3. If I adequately addressed this problem, the quality of my life would improve in the following ways...

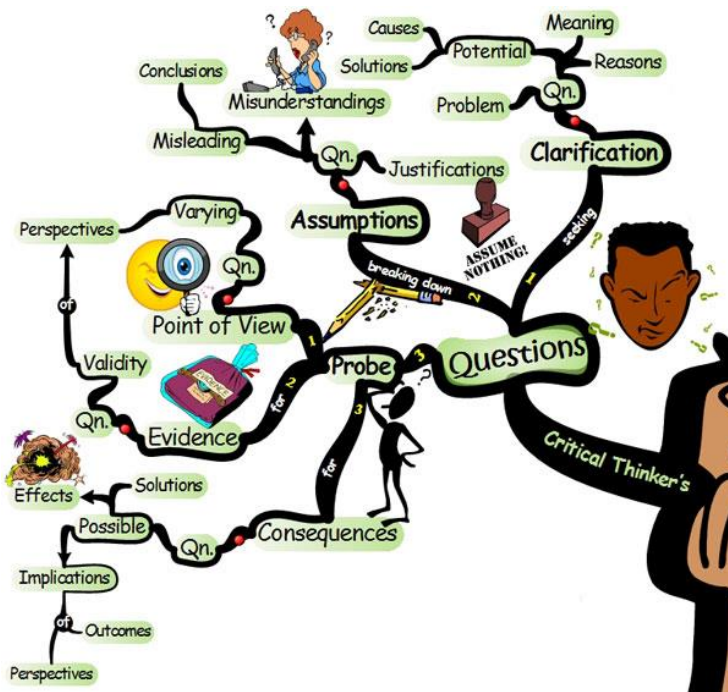
Think for Yourself: 1-2

Critique Your Thinking

Consider your thinking in these domains of your life: at work, in personal relationships, in teaching, in intimate relationships, as a reader, as a writer, in planning your life, in dealing with your emotions, in figuring out complex situations. Complete these statements:

- Right now, I believe my thinking across all domains of my life is of _____ quality. I based this judgment on _____.
- 1. In the following areas, I think very well...
- 2. In the following areas, my thinking is OK, not great, but not terrible either...
- 3. In the following areas, my thinking is probably of low quality...
- List at least three areas for each of the above.

Critical Thinking



“The important thing is not to stop questioning. Curiosity has its own reason for existing”
- Albert Einstein

Critical Thinking in Your Life

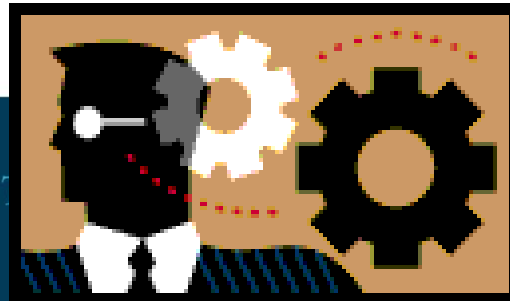
- Personal Life
 - What constitutes a healthy diet?
 - Which investment is better for my family? Why?
- Professional Life
 - In what ways can we improve our product?
 - How do the actions of our company affect others? The environment?
- Academic Life
 - What are the main points of this text?
 - Which major should I choose...why?
- Spiritual Life
 - How do these teachings apply to my life?
 - Are there contradictions in what is being said?

Skills You Should Cultivate

- Become an active learner
 - “Chase” answers.
 - Actively seek out solutions.
 - Go to the answer, don’t wait for it to come to you.
- Become open-minded
 - Is it possible that there are multiple correct answers?
 - You might be wrong. Why?
 - Try and approach problems from a different perspective.
- Separate Emotions from Facts
 - “Thinking” and “feeling” are not the same.
- Avoid Logical Fallacies
 - $2 + 2 = 5$. Incorrect.

Things to Keep in Mind

- Keep an open mind
 - Your perspective is yours. Others have different perspectives.
 - It is possible that you are “wrong” and that others are “right”.
 - Get comfortable with being “wrong”. Learn from it.
 - Consider many different viewpoints.
 - Accept a new explanation if it explains the evidence better and has fewer contradictions.
- Think before you act
 - Separate your feelings from the facts.
 - Am I acting because of an emotional impulse, or because it is logical?
 - Do I believe something because of the logic behind it?



Avoid Logical Fallacies

- A **logical fallacy** is a misunderstanding derived from faulty reasoning.
- Avoid contradictions between answers.
- Is your best answer a logical answer? Does it make sense?
- Example of a Logical Fallacy:
 - Hasty Generalization
 1. Cutting people with a knife is a crime.
 2. Surgeons cut people with knives.
 3. Therefore surgeons are criminals.





You must be
willing to say,
“I don’t know.”

And then be willing
to do something to
change that.

Critical Thinking is NOT
driven by **answers**;
It IS driven by the
questions that you ask.

Constantly Ask Questions

For example: Suppose you have just read an article that says that the cougar population of the Upper Peninsula is increasing.

- Why?
 - Why is the population increasing? Is there an abundance of deer to hunt?
- What?
 - What effect is this increase having on the deer population?
- Where?
 - Where is the population increasing? Is it all over the Upper Peninsula, or just in isolated locations?
- Who?
 - Who is affected by the increase in the population of cougars? Are the hunters affected? The wolves?
- When?
 - When did this increase begin occurring? How long will the increase continue?
- How?
 - How can we stabilize the cougar population?

Problem Solving System, Part I

- Reorganize
 - List the topic, issues, and main points.
 - Paraphrase.
 - Summarize.
- Understand
 - Put concepts into your own words.
 - Relate the information to what you already know.
 - Restate the information.
- Hypothesize
 - Make an interpretation of the information based on your understanding of it. This interpretation will then be analyzed logically.

Problem Solving System, Part II

- Analyze the information
 - Split the information into parts.
 - Figure out how the ideas are related or connected.
 - Ask questions: Why? What? Where? Who? When? How?
 - Compare and contrast the information.
- Recombine information
 - Using your new understanding of the material, put the parts that you analyzed back together.
 - Think of a puzzle...can you put the pieces back together? How do the pieces fit?
- Check Hypothesis
 - See if your new understanding agrees with your hypothesis.

Critical Thinking Key Words

Ideally you should always be thinking critically, however, the following words will identify when critical thinking is required. These types of words require COMPREHENSION AND UNDERSTANDING, not simple MEMORIZATION.

- Discuss
- Explain
- Compare and Contrast
- Critique
- Evaluate
- Describe
- Define
- Enumerate
- Illustrate
- Interpret
- Identify
- Outline
- Prove
- Justify
- Relate
- Summarize
- Trace

Some Final Tips...

Use the techniques found in this presentation to develop your own strategies for critical thinking.

Tailor the concepts to fit your needs. There is no “one size fits all” approach, and every technique may not work for each of your courses.

Create the “this size fits you” approach to developing your critical thinking.

How you apply the concepts to your coursework is your decision.

Critical Thinking

What is it?

"Study without reflection is a waste of time; reflection without study is dangerous."
-- Confucius



Critical thinking begins when you question beyond what is given.

You want to know more:

- how something happens,
- why it happens, and further
- what will happen if something changes.

Critical thinking therefore requires a conscious level of processing, analysis, creation and evaluation of possible outcomes, and reflection.

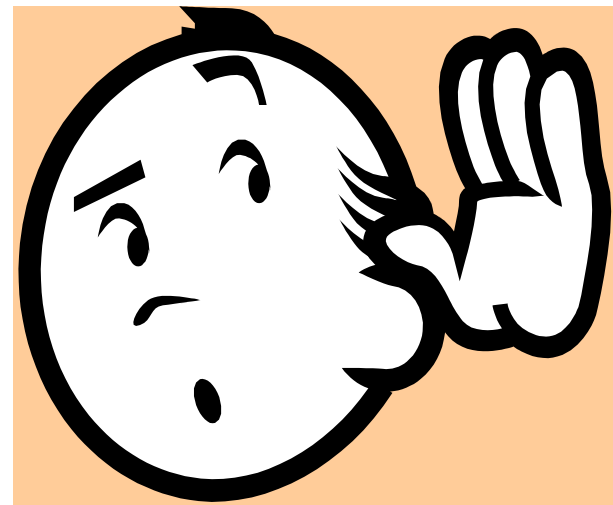
If you're a critical thinker, you think.

....No surprise....

You are willing to examine your beliefs, assumptions, and opinions and weigh them against facts. You are willing to evaluate the generalizations and stereotypes you have created and are open to change, if necessary.



Critical thinkers listen carefully.



If you're a critical thinker, you listen carefully to what others are saying and are able to give feedback. You are able to suspend judgment until all the facts have been gathered and considered.

Critical thinkers look for evidence....

If you're a critical thinker, you look for evidence to support your assumptions and beliefs. You examine problems closely and are able to reject information that is incorrect or irrelevant.

Critical thinkers are curious.

They are interested in knowing all there is about a topic. They look for new and better ways to do everything. They are not the person who will settle for "...because that is the way we have always done it."

Definitions

Critical thinking is . . .

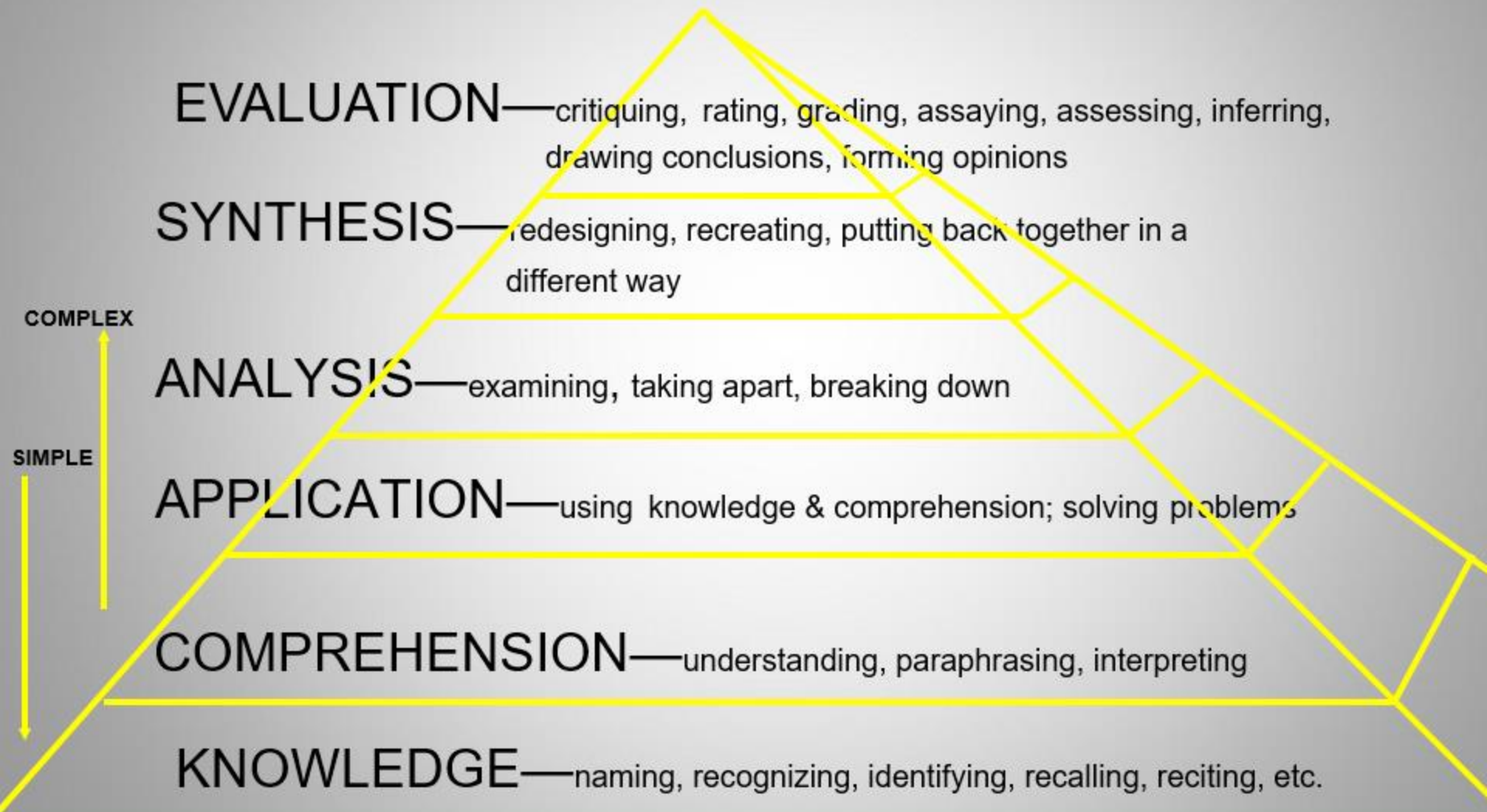
- Thinking “outside” the box
- Divergent thinking
- Forming logical inferences
- Limitless thinking
- Higher level thinking involving. . .

Definitions

- Evaluating
- Analyzing
- Synthesizing
- Forming opinions
- Assessing
- Rating
- Making inferences
- Drawing conclusions
- Critiquing



BLOOM'S TAXONOMY—A HIERARCHICAL CLASSIFICATION OF THE LEVELS OF THINKING



Understanding Bloom's Taxonomy

- ... a *hierarchy* is a sequential organization
- ... it progresses upward *from simple to complex*
- ... each level *builds upon the preceding level(s)*
- ... an appropriate concept map of Bloom's Taxonomy is *pyramidal* in shape, beginning at the base with knowledge and progressing upward
- ... *at the highest levels there is no 1 "right" answer*

Ex.: What is your opinion of ...?

What conclusions can you draw from ...?

How would you rate the movie ...?

Checkpoint

Which level of Bloom's Taxonomy are you thinking on when you . .



1. Paraphrase information you just read in your history textbook?
2. Summarize a case study presented in clinical psychology ?
3. Write a movie review for English class?
4. Prepare a book review?
5. Recite the Gettysburg Address?
6. Work some problems in math?
7. Make a timeline for the historical period referred to as "The Stormy Sixties"?
8. Use a microscope to see what kinds of markings an onion skin has.
9. Identify a fellow student by name?
10. Translate a story from Polish to English?

Checkpoint Answers

1. Comprehension. Paraphrasing is a simple rewording of information. Rephrase the information for clarification or improved understanding.
2. Synthesis. Summarizing requires weeding out of non-essential information then putting the remaining information together sequentially.
3. Evaluation. Requires opinion. Reading and reacting to the “facts” presented.
4. Evaluation. Calls for one’s personal response to ideas presented, style of presentation, etc.
5. Knowledge. Rote memory requires little if any “thinking”. It is simply recall of sequential presentation of information.
6. Application. Paraphrasing in graphic format—a step above comprehension.
7. Synthesis. Requires weeding out and organizing in order to chronologically arrange events.
8. Analysis. Examination—exactly what analysis is!
9. Knowledge. Putting name and face together—low-level skill.
10. Comprehension. Being able to translate indicates understanding (of language and material!)

Why Is Critical Thinking Important?

It . . .

- . . . underlies reading, writing, listening and speaking—basic elements of communication
- . . . plays an important part in social change. . . institutions in any society—courts, governments, schools, businesses—are the products of critical thinking
- . . . plays a major role in technological advances
- . . . blazes a path to freedom from half-truths and deceptions

How Can One Become a Critical Thinker?

- By asking pertinent questions (of self as well as others);
- By assessing statements and arguments;
- By developing a sense of observation and curiosity;
- By becoming interested in finding new solutions;
- By examining beliefs, assumptions, and opinions and weighing them against truth.
- By developing a "thinker's vocabulary".
- By listening carefully to others, thinking about what they say, and giving feedback;
- By observing with an open mind;
- By making assertions based on sound logic and solid evidence;
- By sharing ideas with others;
- By becoming an open-minded listener and reader;
- By engaging in active reading and active listening!

Final Words

- Critical thinking is “higher level” thinking
- It often requires us to think “outside the box”
- Many occupations/careers require critical thinking
- The things we enjoy in everyday society are the result of critical thinking
- By adopting certain habits and behaviors we can learn to think critically.

Who *Should* Use Critical Thinking?

EVERYBODY!

Everyone thinks...

Everyone thinks. It is in our nature to do so. But so much of our thinking, left to itself, is biased, distorted, partial, uninformed, or downright prejudiced. Yet the quality of our life and that of what we produce depends on the quality of our thought.

-Richard Paul

RESOURCES

This Powerpoint has been adapted from:

Reach resources for academic achievement: contact Dorothy S. Golden, Seminar Coordinator, REACH at dsgold01@louisville.edu

Halvorsen encouraging critical thought in the EFL classroom.ppt

Nist, Sherrie L. and William Diehl. *Developing Textbook Thinking*, 5th ed. Boston: Houghton Mifflin Co., 2002.

Ruggiero, Vincent Ryan. *Becoming a Critical Thinker*, 3rd ed. Boston: Houghton Mifflin Co., 1999.

Spears, Deanne Milan. *Developing Critical Reading Skills*, 5th ed. Boston: McGraw-Hill College, 1999.

www.kcmetro.cc.mo.us/longview/ctac/definitions.htm

www.criticalthinking.org

www.chiron.valdosta.edu/whuitt/col/cogsys/critthnk.html

www.calpress.com/critical.html

www.coping.org/write/percept/intro.htm

www.utexas.edu/student/utlc/handouts/1414.html

www.coun.uvic.ca/learn/crit.html

For additional information about critical thinking development and other topics included in the on-line modules, please contact Dorothy S. Golden, Seminar Coordinator, REACH at dsgold01@louisville.edu, (502) 852-2320, or (502) 852-6706.