Critical Thinking

Presented by the Learning Center

Office of Undergraduate Studies
LEARNING CENTER
THE UNIVERSITY OF UTAH

Presentation Agenda

- What is Critical Thinking?
- NACE Competencies
- Bloom's Taxonomy
- Critical Thinking in Everyday Life
- Critical Thinking in Academics
- How to Improve Your Critical Thinking Skills

Learning Objectives

By the end of the workshop, students will be able to:

- define metacognition and identify strategies to be intentional about their studying
- explain the study cycle and apply it to their academics.
- utilize self-regulated learning to identify areas of improvement and increase effectiveness of studying.

Is a hot dog a sandwich?

What is Critical Thinking?

- **Oxford Language Definition**
  Noun: the objective analysis and evaluation of an issue in order to form a judgment.

- **University of Louisville**
  Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.

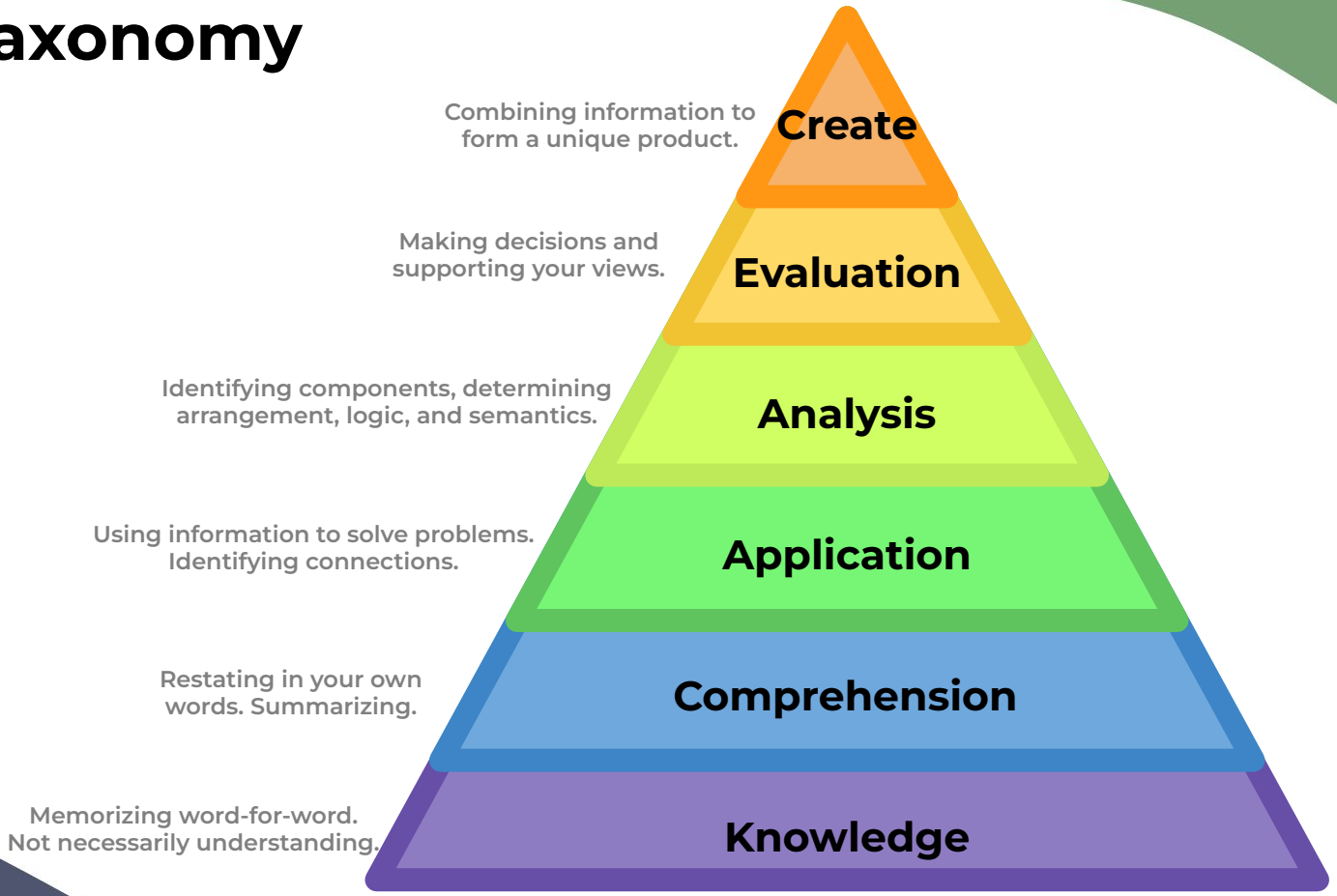
- **Wikipedia**
  The analysis of available facts, evidence, observations, and arguments in order to form a judgement by the application of rational, skeptical, and unbiased analyses and evaluation

Critical thinking is the ability to **understand** information and **know what do with it.**

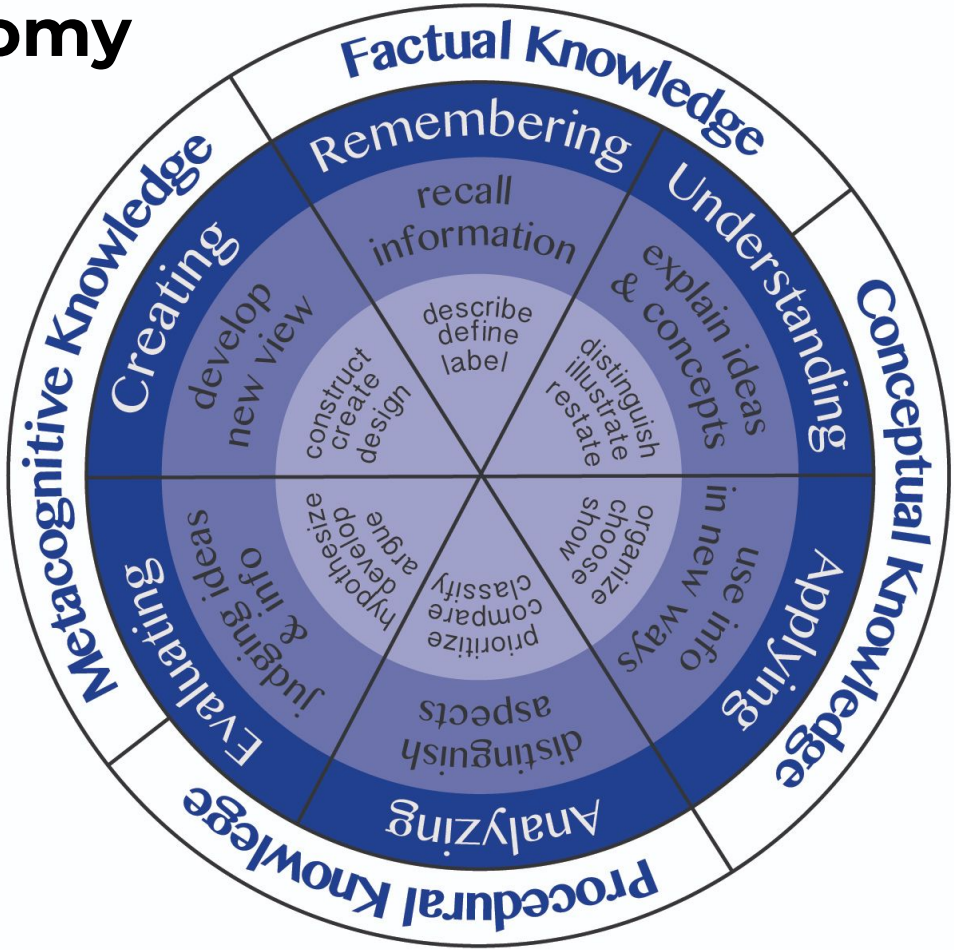
NACE Competencies

- National Association of Colleges and Employers
- Competencies for a Career-Ready Workforce
  - Career & Self-Development
  - Communication
  - Critical Thinking
  - Equity & Inclusion
  - Leadership
  - Professionalism
  - Teamwork
  - Technology

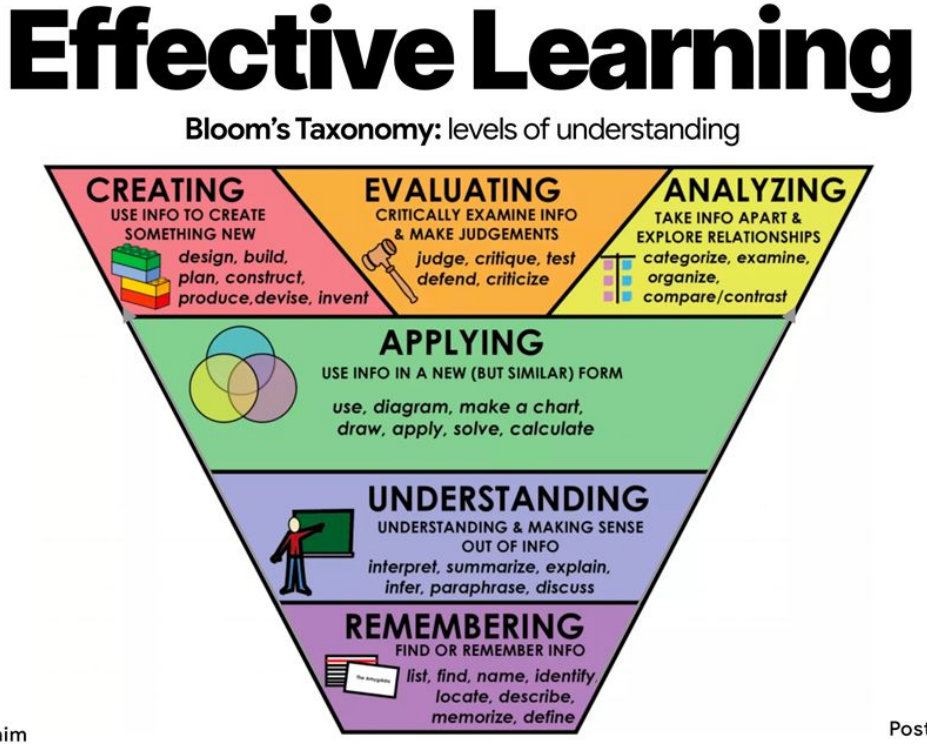
Bloom's Taxonomy



Bloom's Taxonomy



Bloom's Taxonomy



Bloom's & Academics

Level of Bloom's needed to make A's or B's...	...in high school	...in college
Create		
Evaluation		
Analysis		
Application		
Comprehension		
Knowledge		

Critical Thinking in Everyday Life

Describe how you use critical thinking skills in various situations.

- Day-to-day Decisions
- Job/Internship
- Leadership Role
- Hobbies

Critical Thinking in Everyday Life

Observation: noticing and predicting opportunities, problems, and solutions

Analysis: gathering, understanding, and interpreting data/information

Inference: drawing conclusions based on relevant data/information and personal knowledge/experience

Communication: sharing and receiving information with others verbally, nonverbally, and in writing

Problem Solving: gathering, analyzing, and communicating information to identify and troubleshoot solutions

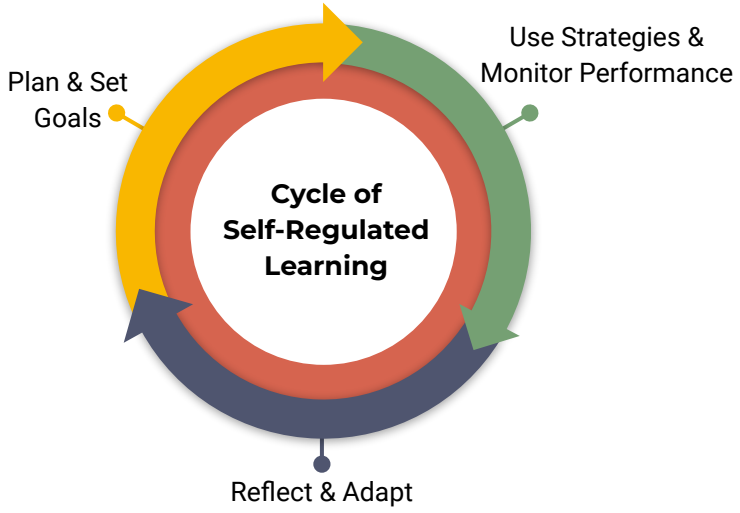
Critical Thinking in Academics

Describe how you use critical thinking skills in various situations.

- Classroom
- Study Strategies
- Time Management

Critical Thinking in Academics

- Metacognition
  - Awareness and understanding of one's own thought processes
  - Planning how to approach a learning task
  - Using appropriate skills and strategies to solve problems
  - Self-assessing and self-correcting approach to completing tasks
- Self-Regulated Learning
  - Create a plan for each learning task and set expectations
  - Plan what to do when obstacles arise
  - Stick with your strategies and monitor progress
  - Evaluate performance and results with goals, not with others



Use Bloom's to Guide Your Studying

Knowledge: recall information as presented

Study Methods: flashcards, lists, timeline

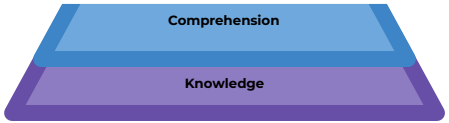
Questions to Ask: What do you remember about _____? How would you define _____? How would you identify_____? How would you recognize _____? What would you choose _____? Describe what happens when _____? How is (are) _____? Where is (are) _____? Which one _____? Who was _____? Why did _____? What is (are) _____? When did _____? How would you outline _____?

Use Bloom's to Guide Your Studying

Comprehension: summarize facts or identify the main idea

Study Methods: discuss with a partner, explain the main idea, write a summary

Questions to Ask: How would you compare _____? Contrast _____? How would you clarify the meaning _____? How would you differentiate between _____? How would you generalize _____? How would you express _____? What can you infer from _____? What did you observe _____? How would you identify _____? How can you describe _____? Will you restate _____? Elaborate on _____. What would happen if _____? What is the main idea of _____? What can you say about _____?

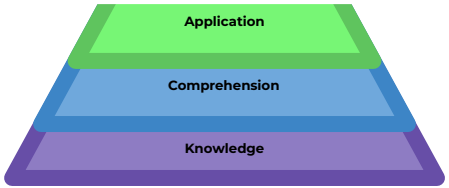


Use Bloom's to Guide Your Studying

Application: use ideas to solve problems

Study Methods: find examples, work practice problems, create a study guide

Questions to Ask: What actions would you take to perform _____? How would you develop _____ to present _____? What other way would you choose to _____? What would the result be if _____? How would you demonstrate _____? How would you present _____? How would you change _____? How would you modify _____? How could you develop _____? Why does _____work? How would you alter _____ to _____? What examples can you find that _____? How would you solve _____?

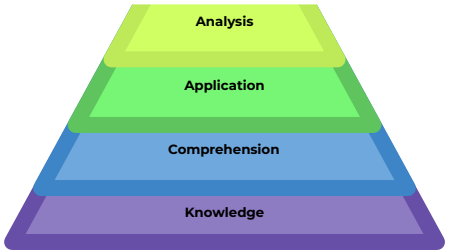


Use Bloom's to Guide Your Studying

Analysis: examine concepts and break them down into basic parts

Study Methods: generate a list of contributing factors, determine importance of different elements, think about it from a different perspective

Questions to Ask: How can you classify _____ according to _____? How can you compare the different parts _____? What explanation do you have for _____? How is _____ connected to _____? Discuss the pros and cons of _____. How can you sort the parts _____? What is the analysis of _____? What can you infer _____? What ideas validate _____? How would you explain _____? What can you point out about _____?

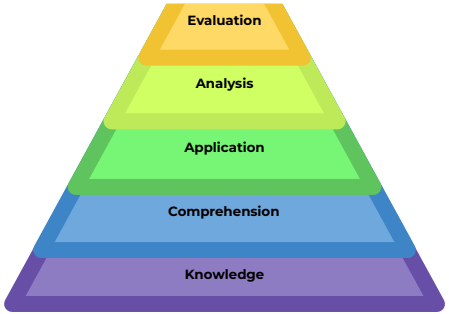


Use Bloom's to Guide Your Studying

Evaluation: make judgements based on appropriate criteria

Study Methods: decide is you like, dislike, agree, or disagree with an author or decision, determine which approach or argument is most effective.

Questions to Ask: What criteria would you use to assess _____? What data was used to evaluate _____? What choice would you have made _____? How would you determine the facts _____? What is the most important _____? What would you suggest _____? How would you grade _____? What is your opinion of _____? How could you verify _____? Rate the _____. Rank the importance of _____. Determine the value of _____.

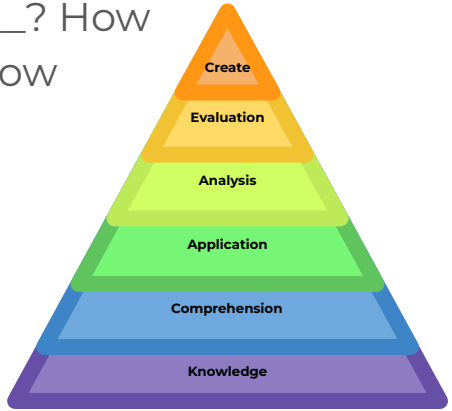


Use Bloom's to Guide Your Studying

Create: combine parts of knowledge into a whole idea

Study Methods: build a model, teach information to others, design an experiment

Questions to Ask: What alternative would you suggest for _____? What changes would you make to revise _____? How would you explain the reason _____? How would you generate a plan to _____? What could you invent _____? What facts can you gather _____? Predict the outcome if _____. What would happen if _____? How would you portray _____? Devise a way to _____. How would you compile the facts for _____? How would you improve _____?



How can you improve your critical thinking skills?

How to Improve Your Critical Thinking Skills

- Evaluate new information
- Consider the source
- Ask lots of questions
- Understand that questions may have more than one answer
    - subjective vs. objective information
- Follow up with research
- Find examples and connections
- Form an opinion
- Identify transferable skills and how they can be applied to academics
- Reflection

Closing Reflection

◯ Something still circling around in your head.
△ Something that stuck out to you.
☐ Something that squared away with your thinking.

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