Understanding a Metacognitive Approach: A Key Component to College Success

In this lesson…

We will explore the differences between studying and learning,

Discuss a metacognitive approach to learning and its application to college work,

And look at some metacognitive strategies to employ to boost your learning.

We'll start with a short writing reflection to activate your background knowledge and get started thinking.

Metacognition

The ability to:

- think about HOW you are thinking
- be consciously aware of oneself as a problem solver
- to monitor and control one's mental processing
- to be aware of the type of learning that you are doing

Reflection:

Take out a piece of paper and write to this prompt for 4 minutes :

(link to Google timer)

What's the difference, if any, between

studying and *learning*?

Consider – how might you study if you needed to:

A. Memorize a set of problems

B. Evaluate & choose which set of problems to apply to a task?

How did your approach differ between the two?

A. Memorize a set of problems
   A. Use flash cards?
   B. Practice and repeat?
   C. Other strategies?

B. Evaluate & choose which set of problems to apply to a task?
   B. Look at what kinds of questions you might need to answer?
   C. Compare and contrast the qualities of problems?
   D. Consider the outcomes of the task? Would one problem set be a better fit?

Differences in the Strategies

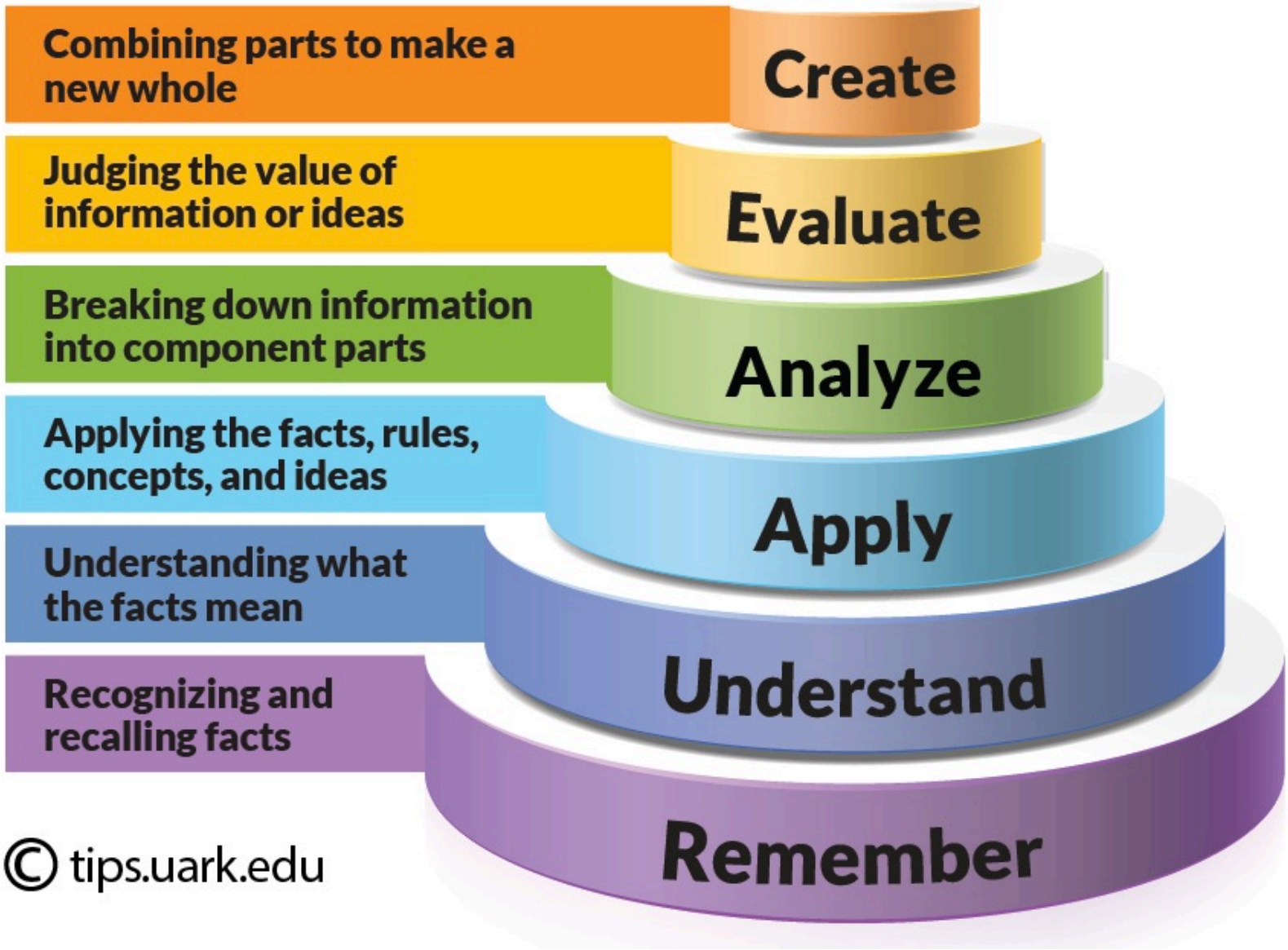
A. Memorize a set of problems
   This task requires you to know **WHAT the content is**.

B. Evaluate & choose which set of problems to apply to a task?
   This task requires you to know **WHAT the content is**, **HOW it works**, **WHY the content is important**, and **HOW it applies**.

These assignment examples can show you different levels of thinking you are required to use to meet course outcomes.

On the next slide, look at Bloom's Taxonomy– this outlines levels of thinking from Lower Order (What & How questions) to Higher Order (How and Why) questions.

Bloom's Taxonomy – Levels of Thinking



https://tips.uark.edu/using-blooms-taxonomy/

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Which of these assignments is asking you to LEARN the material more effectively?

A. Memorize a set of problems
   This task requires you to know WHAT the content is.

B. Evaluate & choose which set of problems to apply to a task?
   This task requires you to know WHAT the content is, HOW it works, WHY the content is important, and HOW it applies.

What can you do to support your learning?

Use the Syllabus:

In every syllabus there are **course outcomes**. Here are the course outcomes for a Biology 112 course:

After successful completion of BI 112, students should be able to:

- Describe the importance and function of homeostatic mechanisms in the body
- Relate the chemical basis of cell function to life processes
- Express how changes in the genome affect the phenotype within a population
- Describe the patterns of inheritance
- Describe selected key cell processes
- Distinguish between the groups of biomolecules

What if you started your learning by focusing on these course outcomes?

Think about using the following framework to guide your studying:

What is it?
How does it work?
Why is it important?
What does it connect to?

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Try note-taking with these questions in mind:

Example:

Describe the importance and function of homeostatic mechanisms in the body

- What are homeostatic mechanisms?
- How does they work?
- Why are homeostatic mechanisms important?
- What do homeostatic mechanisms connect to?

Reading to answer a question is a metacognitive strategy that can take your learning to a new level.

What are other strategies?

- Use/create study guides and practice tests
- Create concept cards
- Drawing diagrams/concepts maps to make connection between material
- Summarize material in your own words
- Test understanding by giving “mini lectures” on concepts
- Try to solve problems without looking at an example or the solution
- Ask why, how, and what if questions

Reflection:

Please take 4 minutes and write a response to the prompt. This is the final step of the lesson.

As a result of this lesson, how has your thinking changed about how you learn and study, and what strategies might work for you?

If you'd like to talk to a coach about how to link course outcomes to your studying and other metacognitive strategies, contact Academic Coaching at lbcoach@linnbenton.edu or check out our webpage: Academic Coaching