Intentional Planning for "HOTS" and Increased Student Results

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Objectives for Today

- Understand the mission of opportunity programs

- Discuss Bloom's Taxonomy

- Mind Mapping defined

- HOTS defined (we've got the "HOTS" for you)

Objectives for Today

- Application, analysis and reflection of HOTS implications

- Flipping the classroom

- Intentional planning for learning

- Knowing your adult students - adult learning theory

Who are We?

- UCAWD provides access to tuition-free, high quality education and employment training services through the statewide system of Educational Opportunity Centers (EOCs). As post-secondary institutions, EOCs focus on adult, non-traditional students who are academically under-prepared and financially disadvantaged. The EOC system is comprised of ten EOCs and two Counseling and Outreach. Each EOC focuses on the education and training needs of its region and local community.

Who's in the Room?

- Students?
- Staff?
- Faculty?
- Administrators?
- Other?

Our Population?

- Ex-offenders
- Those in recovery
- Immigrants
- High-school dropouts
- College dropouts
- Divorced, widowed
- Disabled
- Veterans
- Refugees

The Challenge . . .

Are you up for it?

HOTS . . . (no, I don't mean Oscar Mayer!)

Higher

Order

Thinking

Skills

It is a concept of education reform based on learning taxonomies (such as Bloom's Taxonomy). The idea is that some types of learning require more cognitive processing than others, but also have more generalized benefits.

Question: What are the benefits of HOTS?

Benefits of HOTS . . .

- Allows the students to push information into their long-term memory banks
- Increases assessment scores due to the availability of knowledge in long-term memory – no CRAMMING!
- Adds rigor to your curriculum while benefitting the students long-term
- Information is more transferrable to other situation (i.e. easier to apply to new problem)

Bloom's Taxonomy
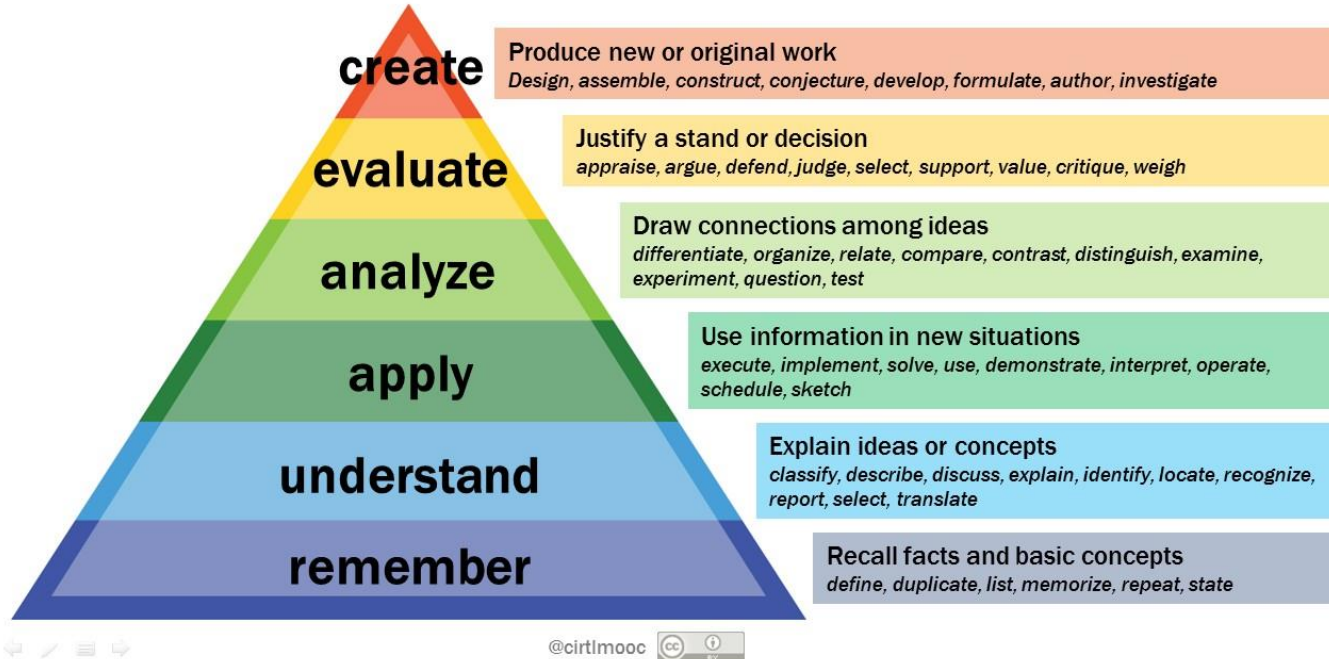
Bloom's Example

What are the 5 food groups according to MyPlate?

Identify 3 foods from each food group.

Using the menu given, help the chef fix his menu to include all food groups.

Compare the two menus given. What are the strengths and weak-nesses of each one?

Based on your analysis of each menu, pick the one that is the best. Be prepared to defend your opinion with at least five points.

Create a menu based on your knowledge of nutritional values and serving sizes for preschoolers. Be sure to consider CACFP guidelines.

An Example of HOTS (from math)

Typical Math question: What is 20% of 200?

Another way of asking the same question: Josias wants to buy a shirt that has a price tag of $200. He notices that today it is 20% off. How much does he save?

Lastly, a HOT question:

The other day I was in a department store, when I saw a shirt that I liked on sale. It was marked "20% off". I decided to buy 2. The cashier did some quick mental math and said, "20% of each shirt, that will be 40% off the total bill.

Explain clearly and fully what you would say to the cashier to convince him that he has made an error. Also explain how the error should be corrected.

(This problem does make an assumption of the student's ethics and values)

Your Turn . . .To Burn

Take a question that you would typically ask in your class and turn it into a HOT question. You may work in groups no larger than 3. (BLOOM'S)

- Share and discuss your question

- Reflection (Easy? Hard? Worth it? Others?)

- Feedback

How will the light come on?

Are they connecting the dots?

Flipping for Learning

PEMDAS

PEMDAS Style

Order of Operations

- P = Parenthesis
- E = Exponent
- M = Multiplication
- D = Division
- A = Addition
- S = Subtraction

- Please
- Excuse
- My
- Dear
- Aunt
- Sally

The Solution?

$$7 + (6 \times 5^2 + 3)$$

Make Sense?

Making Learning Plans

- Catch their attention

- Know your students' needs

- Know your objectives

- Use your syllabus in **_every_** class; ask students to bring it daily

- Be sure to "stalk" them

Adult Learning Theory*

- Six Main Characteristics
  - Self-Directed/Autonomous
  - Utilizes Knowledge & Life Experience
  - Goal-Orientated
  - Relevancy-oriented
  - Highlights Practicality
  - Encourages Collaboration

*Malcom Knowles

Thoughts/Actions to Ponder

- Reflection and evaluation questions vs. recall questions are key

- Long-term learning happens when students make the connections themselves

- Connection notebooks/journals allow for 1) your review; 2) sharing in small groups; 3) a tool for student review

- Engage students in the final minutes—One Minute Paper

Module/Lesson Design

- Divide your material into 50-minute modules.

- Warm up

- A short lecture or presentation

- An activity

- A debriefing, followed by a body break

- Repeat above

Warm ups

- Short exercises (5 minutes or shorter) that get students thinking about the topic you are about to cover
  - a game or simply
  - a question
  - Self-assessments
  - Ice breaker

Lecture

- Keep your lecture to 20 minutes or less if possible.
  - Present your information in full
  - Remember that adults generally stop retaining information after about 20 minutes
  - They will listen with understanding for 90 minutes, but with retention for only 20.
- Include a copy of the primary learning points of your lecture and any slides you're planning to use

Activity

- Design an activity that gives your students an opportunity to practice what they just learned
  - Small groups to complete a task or for discussion
  - They can share life experiences/wisdom
  - Build opportunities to take advantage of this wealth of relevant information.
- Personal assessments or reflections that are worked on quietly and independently
- Games or role playing
- Choose your activity based on the best way to provide the adults in your class with an opportunity to experience what you just taught.

Debriefing

- After an activity, it's important to bring the group back together
    - Ask for volunteers to share reactions
    - Ask for questions
    - This is your chance to make sure the material was understood
    - Allow for 5 minutes
    - It doesn't take long unless you discover that learning hasn't happened

Take a 5/10-minute Break

- It's important to get adult students up and moving every hour.
  - this takes a bite out of your available time
  - students will be far more attentive when class is in session
  - you'll have fewer interruptions from people who have to excuse themselves

Evaluation

- End your session/class with a ***short*** evaluation to determine whether or not your students found the learning valuable
- Ask a few important questions:
    - Were your expectations of this met?
    - What would you have liked to learn that you didn't?
    - What was the most helpful thing you learned?
    - Please share comments about any aspect of the day.

What are mind maps and how do they work?

Concept Mapping

Concept Mapping

Now You Try . . .

- Utilize the paper and writing utensils to create your own mind map at your table

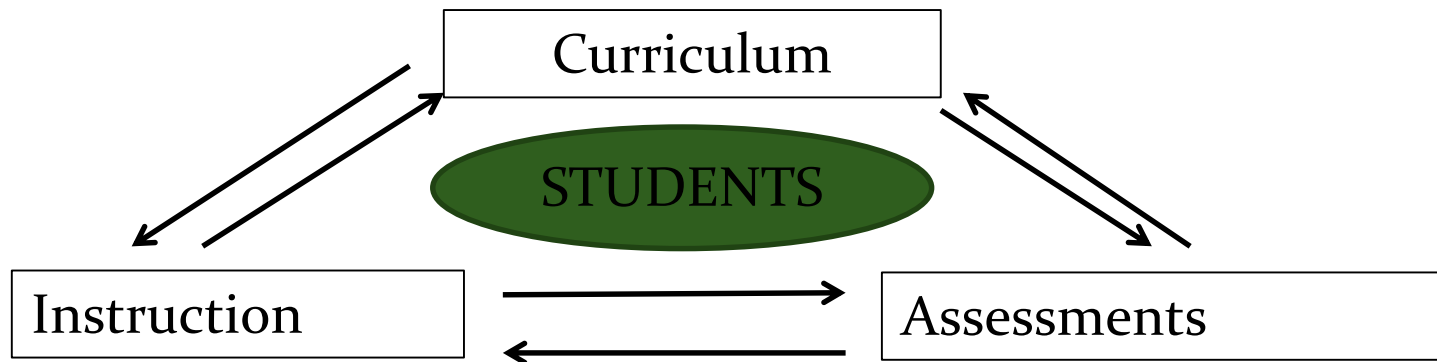- Be as creative as you could like within the timeframe given.

Mind Mapping Topics

Group Processing/Reflection

1. How were your mind maps similar?   How were they different?
2. What information did you gain when you compared your maps?

Assessments

www.mindmeister.com TOOL

- Allows you to create an account for FREE
- Can share maps
- Saved online so accessible from anywhere (i.e. home or ATTAIN!)

Concept Mapping

Your Turn . . . (2)

1. Consider a topic in your course. What topics might mind mapping work best for helping your students retain their information in long-term memory?

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