



Idaho State  
University

# Beyond Recall: Using Higher-Order Questions and In-class Quizzes to Elevate Learning and Assessment

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**ROAR**



# In this presentation I will discuss:

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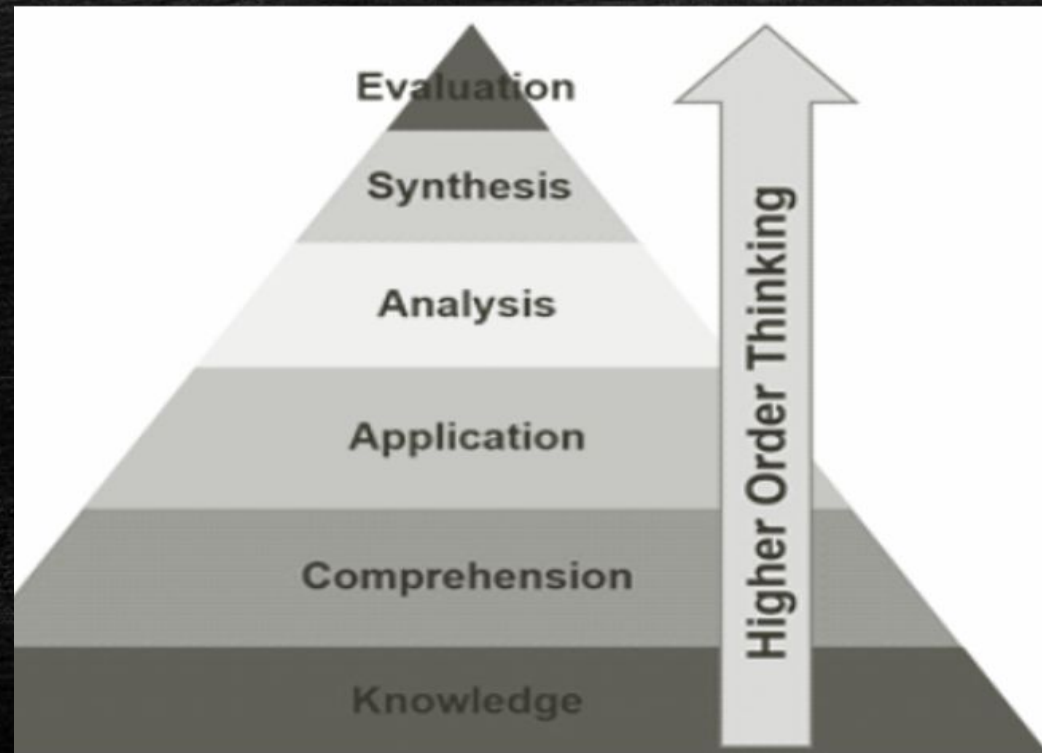
- Higher Order Thinking
- Questions that Elicit Higher Order Thinking
- An Integrative Quiz to Reach Higher Order Thinking
- Examples of Quiz Questions



# Higher-Order Thinking

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## Bloom's Taxonomy (Bloom, 1956)



# Higher-Order Thinking

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## Moral Development Theory (Stoll & Beller, 2004)

### Embodied Experience

- The whole human experience creates knowledge (Merleau-Ponty, 1955)

### A Social Process

- Learning and knowing is a dance, a group dance (Gill, 1993)

### Integrative Cognitive process

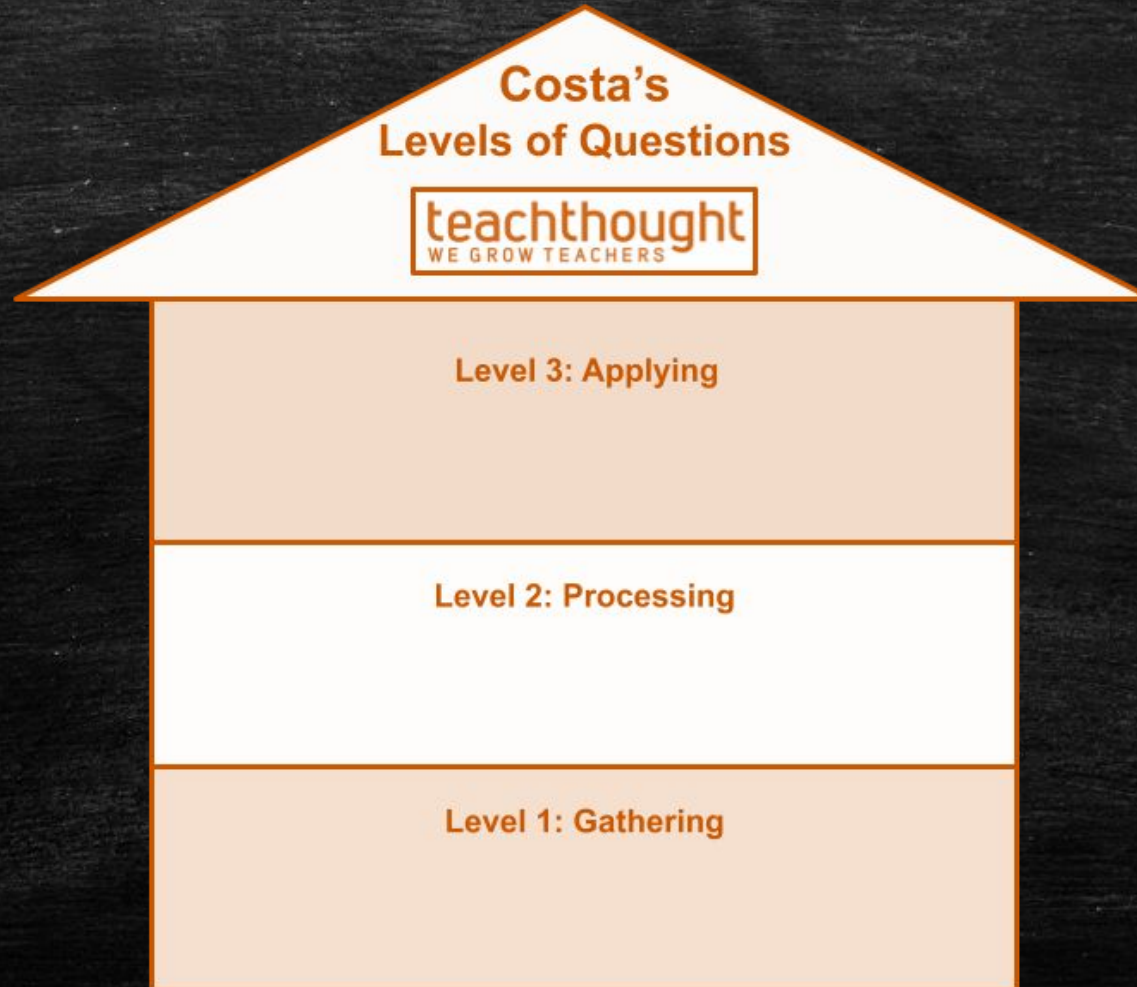
- All cognitive materials, print, screen, video, and ideas must be utilized

## Cognitive Disequilibrium (Kohlberg, 1981)



# Questions to Elicit Higher Order Thinking

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# Questions to Elicit Higher Order Thinking

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- Initial recall
- What do you currently know?

- Create connection
- Why do you think this is?

- Critique beliefs
- How do you know?

Moral Development Theory  
(Reimer et al., 1983)



# Integrative, In-Lesson Quizzes

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## The Strategy

- Five questions throughout the lesson
- Questions from each order
- Handwritten (usually)
- Unpredictable when the questions will be asked

## The Justification

- Students must write!
- Allows time to think; facilitates discussion
- Quiet students still are "heard"
- Improves teacher-student interaction
- Assess knowledge base



## Example: Recall, vocab, etc., that are critical for the lesson

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"\_\_\_\_\_ is the discipline that aims to distinguish good reasoning from bad"  
(Knachel, 2020, para 2).

Many factors contribute additional risk within Physical Education such as  
\_\_\_\_\_?

True or false: According to Fleming (2021), many of the disparities experienced by people of color in recreational spaces today result from historically racist practices and policies from the past.



AS YOU CAN SEE, I'VE  
MEMORIZED THIS UTTERLY  
USELESS FACT LONG ENOUGH  
TO PASS A TEST QUESTION.  
I NOW INTEND TO FORGET  
IT FOREVER. YOU'VE TAUGHT  
ME NOTHING EXCEPT HOW  
TO CYNICALLY MANIPULATE  
THE SYSTEM. CONGRATULATIONS.





## Example: Set the stage for thinking beyond their own experiences

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What is a group that you fit into (e.g., gender, race, ability level, economic status, sport level or type, religion, where you are from, hair color, height, hobbies, etc.). How would it feel if a mascot were made that depicted that this group in a negative way, with an inaccurate term or a cartoonized image?



# Example: Apply our discussion to their assignments

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Is your philosophy logical? (paper 1)

What are the propositions? (the things we claim, state, assert)

Can you support those with evidence?

Does your *how* lead you to achieve your purpose?

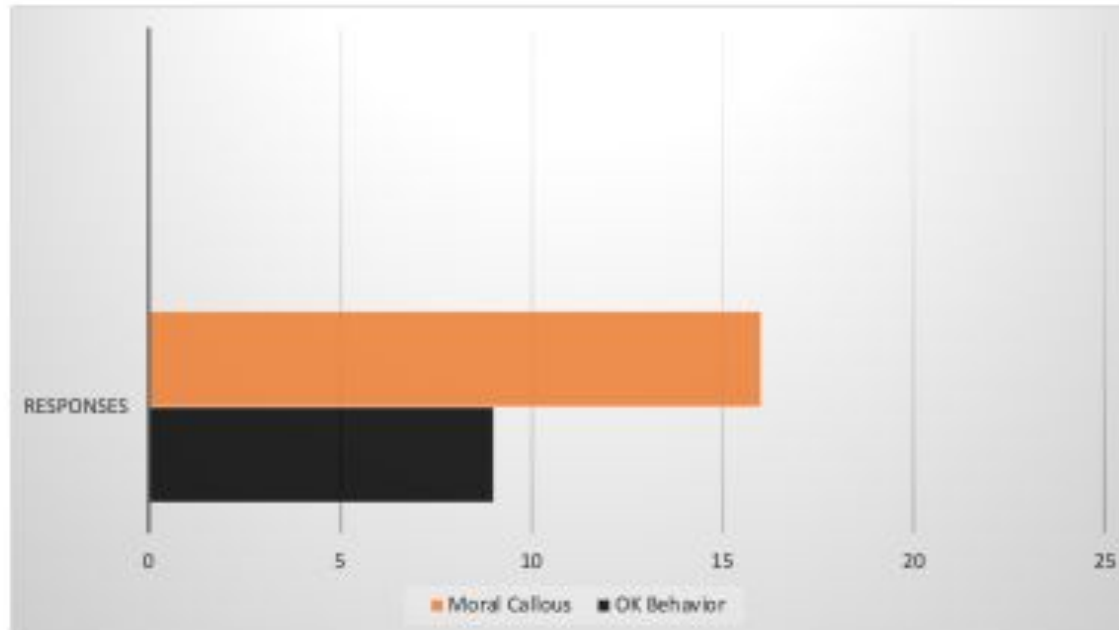
Do your values guide you *how*?



# Example: Gather Information on What to Discuss or Review

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A coach who works officials at a basketball game (such as by yelling at an official with extra vigor to improve his team's chances of getting the next call).





## Overall, this strategy:

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- Facilitates higher order thinking
- Engages students in the lesson
- Provides evidence of learning
- Improves student-teacher interaction



# References

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- Kohlberg, L. (1981). *The philosophy of moral development: Moral stages and the idea of justice*. Harper & Row, New York.
- Reimer, J., Paolitto, D.P., & Hersh, R.H. (1983). *Promoting moral growth from Piaget to Kohlberg*. (2<sup>nd</sup> ed). Prospect Heights, IL: Waveland Press.
- Stoll, S. K., & Beller, J. M. (2004). *SBH ethical standard*.