

A Guide to Educational Pyramids Commonly Used in Medical Education Programs

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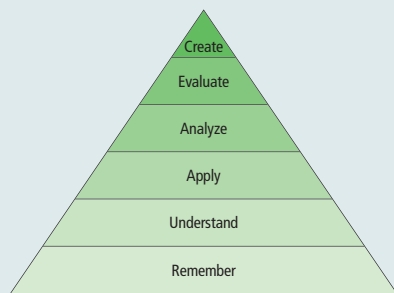
Educational pyramids are often used to demonstrate progression in learning outcomes or learner performance, as well as to show the effects of educational programs. This AM Last Page provides tips on how to select and interpret three commonly used educational pyramids when designing educational programs.

Educators must consider the following when selecting a pyramid:

- What will be ASSESSED using the pyramid?
- What do the LEVELS OF THE PYRAMID indicate?
- WHEN to choose a given pyramid?

What are some key distinctions between three commonly used educational pyramids in medical education?

BLOOM'S TAXONOMY OF EDUCATIONAL OBJECTIVES^{1,2}



What will be ASSESSED? Cognitive learning

What do the LEVELS OF THE PYRAMID indicate?

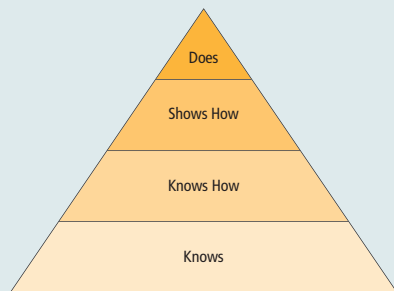
Moving up the pyramid, what can the learner do?

- Create—Design or develop new or original work?
- Evaluate—Critique or defend a decision?
- Analyze—Organize or draw connections among ideas?
- Apply—Interpret or apply information in new situations?
- Understand—Describe or explain concepts?
- Remember—Define or recall facts and basic concepts?

WHEN to choose Bloom's Taxonomy?

When writing learning objectives, developing a curriculum, or designing a flipped classroom.

MILLER'S FRAMEWORK FOR CLINICAL ASSESSMENT³



What will be ASSESSED? Behavior or performance

What do the LEVELS OF THE PYRAMID indicate?

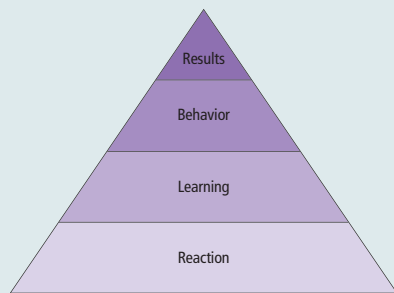
Moving up the pyramid, what is the effect of the training?

- Does—Incorporate the clinical skill into their work?
- Shows How—Demonstrate the application of clinical skills under supervision?
- Knows How—Collect, interpret, and use data necessary to apply clinical knowledge?
- Knows—Describe the components of a clinical skill?

WHEN to choose Miller's Framework?

When assessing learners' clinical reasoning or technical skills.

KIRKPATRICK'S TRAINING EVALUATION MODEL⁴



What will be ASSESSED? Programmatic effects or effectiveness

What do the LEVELS OF THE PYRAMID indicate?

Moving up the pyramid, what can the learner demonstrate?

- Results—Influence lasting change in the workplace?
- Behavior—Lead to behavior change in the program?
- Learning—Acquire the intended knowledge, skills, or attitudes?
- Reaction—Enjoy the training and feel it is relevant to their work?

WHEN to choose Kirkpatrick's Model?

When evaluating the effects of a program on trainees, patients, or populations.

The highest educational impact converges at the top of all three pyramids, when learners can CREATE new knowledge, INCORPORATE it into their behavior, and achieve RESULTS for patients!

References:

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