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Slides	NOTES
<p style="text-align: center;">Student Assessment in OBE: An Overview</p> <p>Ncmuel S. Fajutagana, MD, MHPed Professor and Dean NTTCHP- UP Manila</p>	
<p>Lecture Outline:</p> <ul style="list-style-type: none"> • First Alignment: Alignment of ASSESSMENT to PURPOSE • Second Alignment: Alignment of ASSESMENT PLAN to OUTCOMES • Third Alignment: Alignment of ASSESSMENT METHODS to OUTCOMES • Fourth Alignment: Alignment of INTERPRATION AND GRADING TO OUTCOMES 	



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FIRST Alignment

Type of **ASSESSMENT** to **PURPOSE** of **ASSESSMENT**



Slides

NOTES

Assessment *as* learning (learning as a metacognitive activity)

Focuses on the **role of the learner** as the critical connector between assessment and learning.



<http://www.edc.edu/eeet/Articles/metacognition/start.htm>

Source: CHED IMPLEMENTATION HANDBOOK FOR OBE AND ISA CHED TFOTQA

Assessment *as* learning (learning as a metacognitive activity)

The **learners actively monitor and critically assess their own learning** and use the feedback from this monitoring to **make adjustments, adaptations, and even major changes** in what they understand and how they are learning.



<http://www.edc.edu/eeet/Articles/metacognition/year.htm>

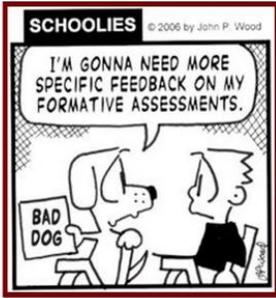
Source: CHED IMPLEMENTATION HANDBOOK FOR OBE AND ISA CHED TFOTQA



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<p>Assessment <i>for</i> learning (Formative Assessment)</p> <p>provides feedback to both the teacher and the learner of the learner's progress towards achieving the learning outcomes, which should be used by the teacher to revise and develop further instruction.</p>  <p>Source: CHED IMPLEMENTATION HANDBOOK FOR OBE AND ISA CHED TFOTQA</p>	
<p>Assessment <i>of</i> learning (Summative Assessment)</p> <ul style="list-style-type: none"> occurs at the end of the course, when teachers use evidence of student learning to make judgments on the learner's achievement against competencies and standards stated as learning outcomes <p>Source: CHED IMPLEMENTATION HANDBOOK FOR OBE AND ISA CHED TFOTQA</p> 	
<p>Additional considerations:</p> <p>Basic Principle:</p> <p>Not all learners can learn the same thing in the same way and in the same time.</p> <p>But most can achieve high standards given appropriate opportunities</p>	



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Slides	NOTES
<div data-bbox="321 195 414 338"> </div> <div data-bbox="354 373 669 604"> <h2>SECOND Alignment</h2> <h3>ASSESSMENT PLAN to EDUCATIONAL OUTCOMES</h3> </div> <div data-bbox="699 275 1062 573"> <p>I HEAR YOU FAILED YOUR HISTORY EXAM.</p> <p>IT WASN'T MY FAULT. THEY ASKED ME ABOUT THINGS THAT HAPPENED BEFORE I WAS BORN!</p> </div> <div data-bbox="964 579 1062 596"> <p>Dislike this cartoon?</p> </div>	
<div data-bbox="358 716 656 764"> <h2>Review: OBE</h2> </div> <div data-bbox="367 791 1040 989"> <p>...“it is an approach that focuses and organized the education system around what is essential for all learners to know, value, and be able to do to achieve a desired level of competence at the time of graduation.</p> </div> <div data-bbox="371 1012 444 1083"> </div> <div data-bbox="896 1039 1034 1062"> <p>Source: CHED</p> </div>	
<div data-bbox="331 1297 1084 1486"> <p>Assessment involves one or more processes that identify, collect, analyze, and report data that can be used to evaluate achievement of learning outcomes. Effective assessment uses relevant direct, indirect, quantitative and qualitative measures appropriate to the learning outcome (CMO No. 37 s. 2012). This implies that there is no single best type of assessment; the basic consideration is that the assessment reflects the learning outcomes – that assessment should be aligned with learning outcomes and not the other way around.</p> <p>Very often faculty and students alike give more weight to the assessment process than to the learning outcomes.</p> </div> <div data-bbox="565 1556 1057 1575"> <p>Source: CHED IMPLEMENTATION HANDBOOK FOR OBE AND ISA CHED TFOTQA</p> </div>	



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Slides

NOTES

Aligning assessments with outcomes...

ensure VALIDITY.

(Ability to measure predetermined OUTCOMES)



"Due to recent technological advances, everything I taught you about computers is no longer valid."

VALIDITY

Refers to the **appropriateness and meaningfulness** of the **inferences** we make from assessment results for some intended use.



- In very general sense, any measuring device is valid if it does what it is intended to do.
- Moreover, just because an indicator is quite reliable, this does not mean that it is also relatively valid.
- TAKE NOTE: According to Cronbach (1971), "One validates, not a test, but an interpretation of data arising from a specified procedure."

Carmines, E.G. & Zeller, R.A. (1979). Reliability and Validity Assessment. Beverly Hills: Sage.

How do we align Assessment Plan to Outcomes?

		Test Blueprint / Test Specification				TOTAL ITEMS or % Dist	
Domain							
Prof. Areas							
Pharmacology		Number of Items by DOMAIN			TOTAL NUMBER OF ITEMS		
MCH							
Nutrition							
OB-GYN			Number of Items by TOPIC				
Surgery							
TOTAL ITEMS or % Dist							

Fajutagana, N.S. (2015)



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Slides	NOTES																																																																									
<p style="text-align: center;">Outcome → Indicators → Standards</p> <p style="text-align: center;"><small>Miller GE. The assessment of clinical skills/competence/performance. Academic Medicine (Supplement) 1990; 65: S63-S7.</small></p>																																																																										
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Factors that lowers the validity of test results						
<ul style="list-style-type: none"> • Tasks that provide inadequate sample of the achievement to be achieved. • Tasks that do not function as intended, due to improper types of tasks, lack of relevance, ambiguity, clues, bias, inappropriate difficulty, or similar factors. • Improper arrangement of tasks and unclear directions. • Too few tasks for the types of interpretation to be made. • Improper administration. • Judgmental scoring that uses inadequate scoring guides, or objective scoring that contains computational errors. <p style="text-align: right;">Gronlund, E. N. (2006). Assessment of Student Achievement</p>						



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OUTCOMES

THIRD Alignment

ASSESSMENT METHODS to OUTCOMES

Slides

NOTES



Review: What are outcomes?

“when learners DO important things with what they know”

Geyser (1999)

Because the focus is on what students can DO:

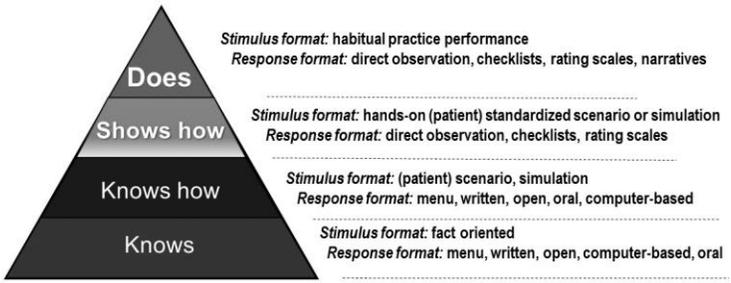
examination questions should be able to validly document students' deeper insights and higher order thinking skills.



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Slides	NOTES
<p>OUR OBJECTIVE: MEASURE HOTS (HIGHER ORDER THINKING SKILLS) (Synthetic Thinking)</p>  <p>B SIDE BY MALIK ALI</p> <p>OF COURSE YOU KNOW YOUR FINAL IS AN OPEN BOOK FINAL WITH THREE ESSAY RESPONSE QUESTIONS. YOU HAVE TWO HOURS TO COMPLETE THE FINAL EXAM. ANY QUESTIONS?</p> <p>1. Please discuss the Afrocentric and Eurocentric paradigm and the construction of race in America.</p> <p>YES, YOU HAVE A QUESTION?</p> <p>IS THERE A TRUE/FALSE MULTIPLE CHOICE VERSION OF THE FINAL?</p>	
<p>A Test Item has two major elements:</p> <p>Stimulus = TASK = domain</p> <p>Response = Options</p>	
<p>Assessment formats and Competency Level</p>  <p>Does Stimulus format: habitual practice performance Response format: direct observation, checklists, rating scales, narratives</p> <p>Shows how Stimulus format: hands-on (patient) standardized scenario or simulation Response format: direct observation, checklists, rating scales</p> <p>Knows how Stimulus format: (patient) scenario, simulation Response format: menu, written, open, oral, computer-based</p> <p>Knows Stimulus format: fact oriented Response format: menu, written, open, computer-based, oral</p>	



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<p>An Illustration of the difference between a question assessing recall of an isolated fact and a question assessing application of knowledge.</p> <p>Basic Science Recall Item Stem</p> <p>What area is supplied with blood by the posterior inferior cerebellar artery?</p> <p>Basic Science Application of Knowledge Item Stem:</p> <p>A 62-year-old man develops left-sided limb ataxia, Horner's syndrome, nystagmus, and loss of appreciation of facial pain and temperature sensations. <i>What artery is most likely to be occluded?</i></p> <p style="text-align: right;">Source: NBME (2000)</p>	
<p>The preferred format?</p> <p>Acute intermittent porphyria is the result of a defect in the biosynthetic pathway for</p> <p>A. collagen B. corticosteroid C. fatty acid D. glucose *E. heme F. thyroxine (T4)</p>  <p>An otherwise healthy 33-year-old man has mild weakness and occasional episodes of steady, severe abdominal pain with some cramping but no diarrhea. One aunt and a cousin have had similar episodes. During an episode, his abdomen is distended, and bowel sounds are decreased. Neurologic examination shows mild weakness in the upper arms. These findings suggest a defect in the biosynthetic pathway for</p> <p>A. collagen B. corticosteroid C. fatty acid D. glucose *E. heme F. thyroxine (T4)</p>  <p style="text-align: right;">Source: NBME (2000)</p>	
<p>Because the focus is on outcomes:</p> <p>Alternative modes of assessment, such as reflection papers, projects, portfolios, etc., can demonstrate a range of competencies that cover analytical, critical, and synthetic thinking.</p>	



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Slides

NOTES

But aligning methods with outcomes is not enough!



RELIABILITY!

"ABOUT HALF THE STUDENTS INCREASED SPEED AND LOST SOME COMPREHENSION. THE OTHER HALF INCREASED COMPREHENSION BUT LOST SOME SPEED."

Reliability

Refers to the consistency of assessment results



Reliability

Refers to the consistency of assessment results



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Slides	NOTES				
<p>Technical issues</p> <p>Make sure that the following will not happen:</p> <ul style="list-style-type: none"> • PASSING students who are supposed to FAIL • FAILING students who are supposed to PASS 					
<p>What interpretation method to use?</p> <table border="1" data-bbox="646 779 1026 1041"> <tr> <td data-bbox="646 890 834 926"> <p>Norm Referenced</p> </td> <td data-bbox="834 779 1026 926"> <p>Criterion Referenced</p> <p>Level of performance is commonly determined by absolute standards (e.g., demonstrates mastery by defining 90% of the technical terms).</p> </td> </tr> <tr> <td data-bbox="646 926 834 1041"> <p>Norm Referenced</p> <p>Level of performance is determined by relative position in some known group (e.g., ranks fifth in a group of 20).</p> </td> <td data-bbox="834 1003 1026 1041"> <p>Criterion Referenced</p> </td> </tr> </table> <p>(Nemuel S. Fajutagana, MD, MHPed (2014))</p>	<p>Norm Referenced</p>	<p>Criterion Referenced</p> <p>Level of performance is commonly determined by absolute standards (e.g., demonstrates mastery by defining 90% of the technical terms).</p>	<p>Norm Referenced</p> <p>Level of performance is determined by relative position in some known group (e.g., ranks fifth in a group of 20).</p>	<p>Criterion Referenced</p>	
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