

WHY DOES EVERYTHING NEED TO ALIGN?

ASSESSMENT, OBJECTIVES, OUTCOMES

Renée J. LeClair, Ph.D.

VTCSOM, Chair Basic Science Education

rleclair@vt.edu

OBJECTIVES

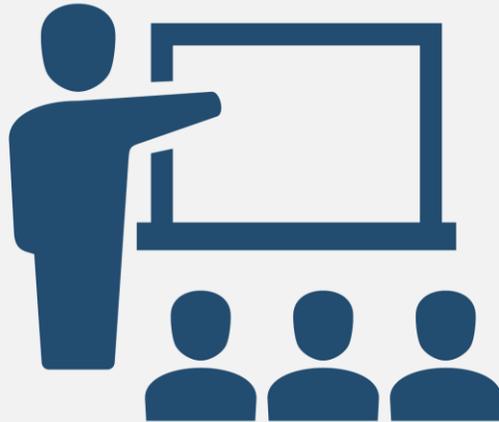
- Recognize the importance of assessment, objectives and outcomes
- Develop diverse learning activities that support your learning objectives
- Identify and develop assessments that align with your activities and objectives
- Devise a plan to review these educational elements to improve outcomes

ALIGNMENT IS

- ... the degree to which assessments yield results that provide accurate information about student performance regarding academic content standards at the desired level of detail, to meet the purposes of the assessment system ..
- ..The assessment must adequately **cover** the **content standards** with the appropriate depth,
 - **reflect** the emphasis of the content standards
 - provide scores that cover the **range** of performance standards,
 - allow all students an opportunity to demonstrate their **proficiency**, and
 - be **reported in a manner** that clearly conveys **student proficiency** as it relates to the content standards

FACULTY VIEW POINT

(of objectives and assessment)



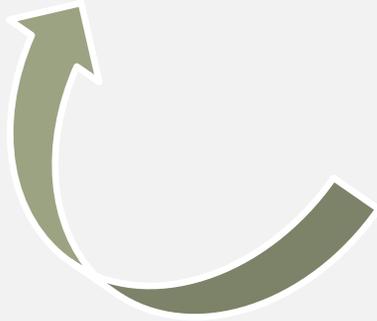
Objectives



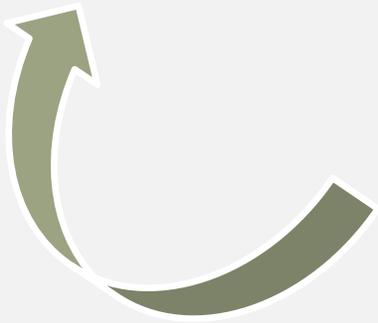
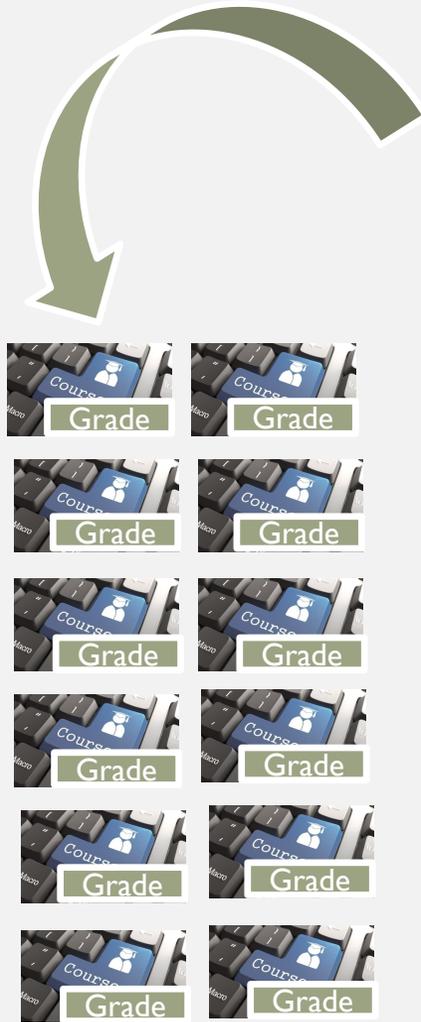
Assessment

BUT WHAT IF...

To develop physician thought leaders through inquiry, research and discovery, using an innovative curriculum based upon adult learning methods in a patient-centered context



Line of study



FOUR MAJOR STEPS

- Defining the desired learning outcome (DLO)
- Choosing teaching/learning activities likely to lead to the DLO
- Assessing students actual learning outcomes to see how well they match what was intended
- Final grade....

STEP 1: DEFINE THE DESIRED LEARNING OUTCOME



To develop physician thought leaders through inquiry, research and discovery, using an innovative curriculum based upon adult learning methods in a patient-centered context

LEARNING OBJECTIVES AND ASSESSMENT

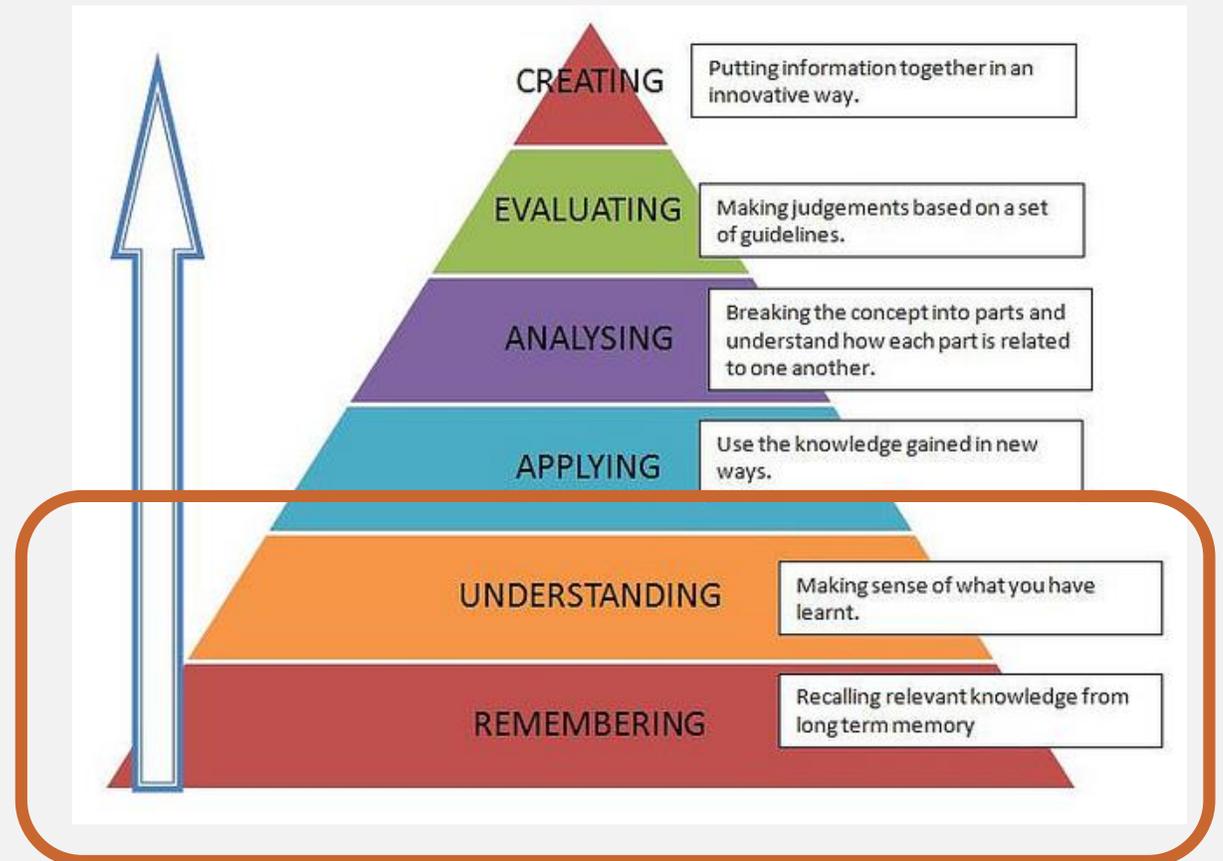
Assessment

Where do you want your learner to be at the end of the class time? (evaluate, apply, analyze)

In class activity

Preparation

What level do you want the learner to come prepared for? (list, know, describe)



Utilize or adapt faculty developed learning outcomes to drive activity development and assessment.

THINK IN THE CONTEXT OF PROGRAM



To develop physician thought leaders through inquiry, research and discovery, using an innovative curriculum based upon adult learning methods in a patient-centered context

- Medical knowledge.
- Patient care.
- Interpersonal and communication skills.
- Professionalism.
- Practice-based learning and improvement.
- Systems-based practice.



Accreditation Council for
Graduate Medical Education

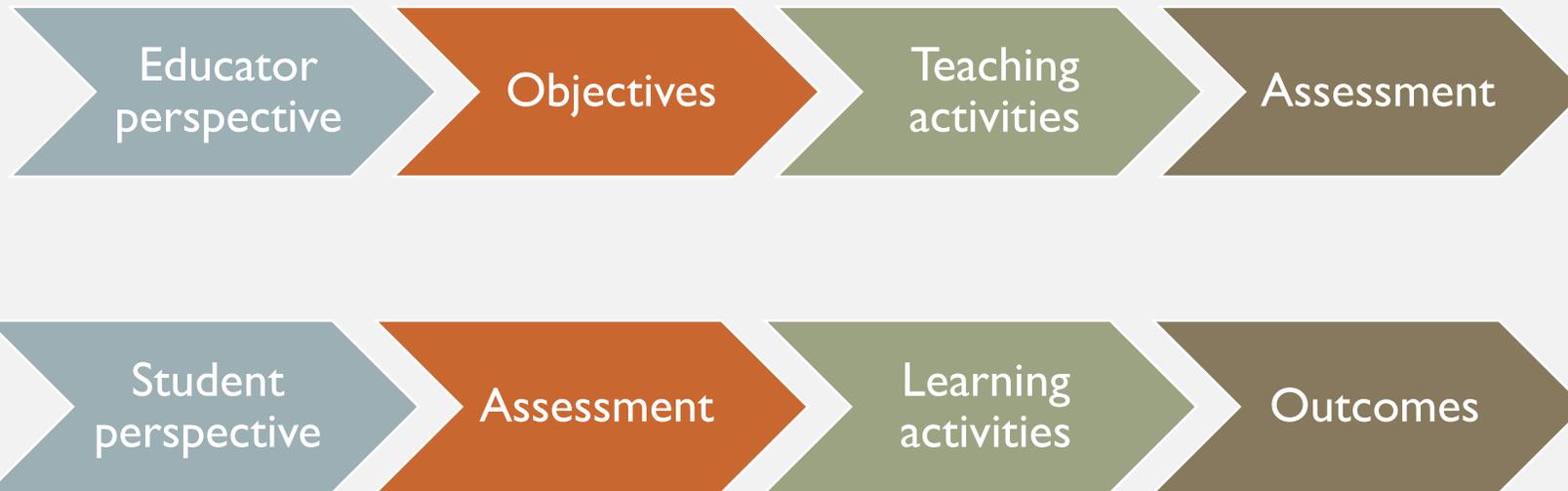


Objectives



Assessment

**STEP 2: CHOOSE TEACHING AND LEARNING
ACTIVITIES THAT SUPPORT LEARNING
OBJECTIVE**



COMMON DEFINITIONS

- **Learning objectives:** What do I want students to know how to do when they leave this course?
- **Assessments:** What kinds of tasks will reveal whether students have achieved the learning objectives I have identified?
- **Instructional strategies:** What kinds of activities in and out of class will reinforce my learning objectives and prepare students for assessments?

INSTRUCTIONAL STRATEGIES

- <https://medbiq.org/curriculum/vocabularies.pdf>

IM01: Case-Based Instruction/Learning
IM02: Clinical Experience - Ambulatory
IM03: Clinical Experience - Inpatient
IM04: Concept Mapping
IM05: Conference
IM06: Demonstration
IM07: Discussion, Large Group (>12)
IM08: Discussion, Small Group (<12)
IM09: Games
IM10: Independent Learning
IM11: Journal Club
IM12: Laboratory
IM13: Lecture
IM14: Mentorship
IM15: Patient Presentation - Faculty

IM16: Patient Presentation – Learner
IM31: Patient Presentation - Patient
IM17: Peer Teaching
IM18: Preceptorship
IM19: Problem-Based Learning (PBL)
IM20: Reflection
IM21: Research
IM22: Role Play/Dramatization
IM23: Self-Directed Learning
IM24: Service Learning Activity
IM25: Simulation
IM26: Team-Based Learning (TBL)
IM27: Team-Building
IM28: Tutorial
IM29: Ward Rounds
IM30: Workshop



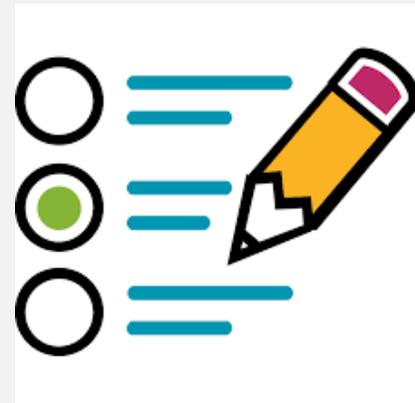
HOW DO I KNOW IF MY INSTRUCTIONAL STRATEGY IS EFFECTIVE?

- Classroom polls
- Direct paraphrasing
- Documented problem solving
- What is the “muddiest point” ?



STEP 3: ASSESS

- Learning takes place in students' heads where it is invisible to others.
- This means that learning must be assessed through **performance**:
 - What students can *do* with their learning.
- Assessing students' performance can involve assessments that are formal or informal, high- or low-stakes, anonymous or public, individual or collective.



ASSESSMENT: TYPES AND KINDS

Formative and summative assessment types can be similar in structure but have different goals.

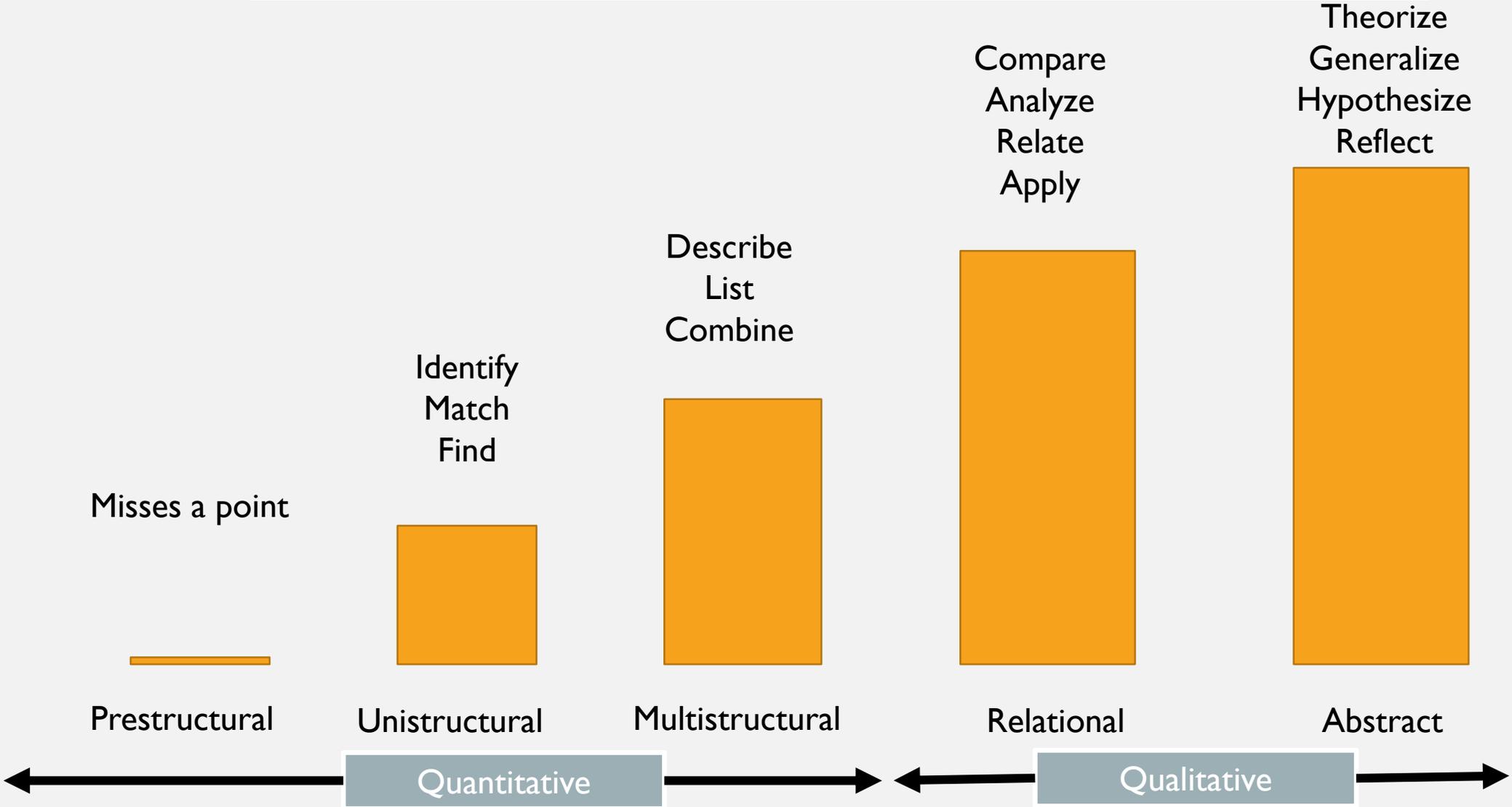
- The main goal of **formative assessment** is to gather feedback that can be used by the instructor and the students to guide improvements in the ongoing teaching and learning context.
- The main goal of **summative assessment** is to measure the level of success or proficiency that has been obtained at the end of an instructional unit, by comparing it against some standard or benchmark.

METHODS

- AM01: Clinical Documentation Review
- AM02: Clinical Performance Rating/Checklist
- AM03: Exam – Institutionally Developed, Clinical Performance
- AM19: Exam – Institutionally Developed, Laboratory, Practical
- AM04: Exam – Institutionally Developed, Written/Computer-based
- AM05: Exam – Institutionally Developed, Oral
- AM06: Exam – Licensure, Clinical Performance
- AM07: Exam – Licensure, Written/Computer-based
- AM08: Exam – Nationally Normed/Standardized, Subject
- AM09: Multisource Assessment
- AM10: Narrative Assessment A
- AM11: Oral Patient Presentation
- AM12: Participation
- AM13: Peer Assessment
- AM14: Portfolio-Based Assessment
- AM16: Research or Project Assessment
- AM17: Self-Assessment AM18: Stimulated Recall



HIERARCHY OF VERBS



Learning objective	Examples of appropriate assessments
Recall Recognize Identify	Objective test items such as fill-in-the-blank, matching, labeling, or multiple-choice questions that require students to: <ul style="list-style-type: none"> •recall or recognize terms, facts, and concepts
Interpret Classify Summarize Compare Explain	Activities such as papers, exams, problem sets, class discussions, or concept maps that require students to: <ul style="list-style-type: none"> •summarize readings, films, or speeches •compare and contrast two or more theories, events, or processes •classify or categorize cases, elements, or events using established criteria •paraphrase documents or speeches •find or identify examples or illustrations of a concept or principle
Apply Execute Implement	Activities such as problem sets, performances, labs, prototyping, or simulations that require students to: <ul style="list-style-type: none"> •use procedures to solve or complete familiar or unfamiliar tasks
Analyze Differentiate Organize Attribute	Activities such as case studies, critiques, labs, papers, projects, debates, or concept maps that require students to: <ul style="list-style-type: none"> •discriminate or select relevant and irrelevant parts •determine how elements function together
Evaluate Check Critique Assess	Activities such as journals, diaries, critiques, problem sets, product reviews, or studies that require students to: <ul style="list-style-type: none"> •test, monitor, judge, or critique readings, performances, or products against established criteria or standards

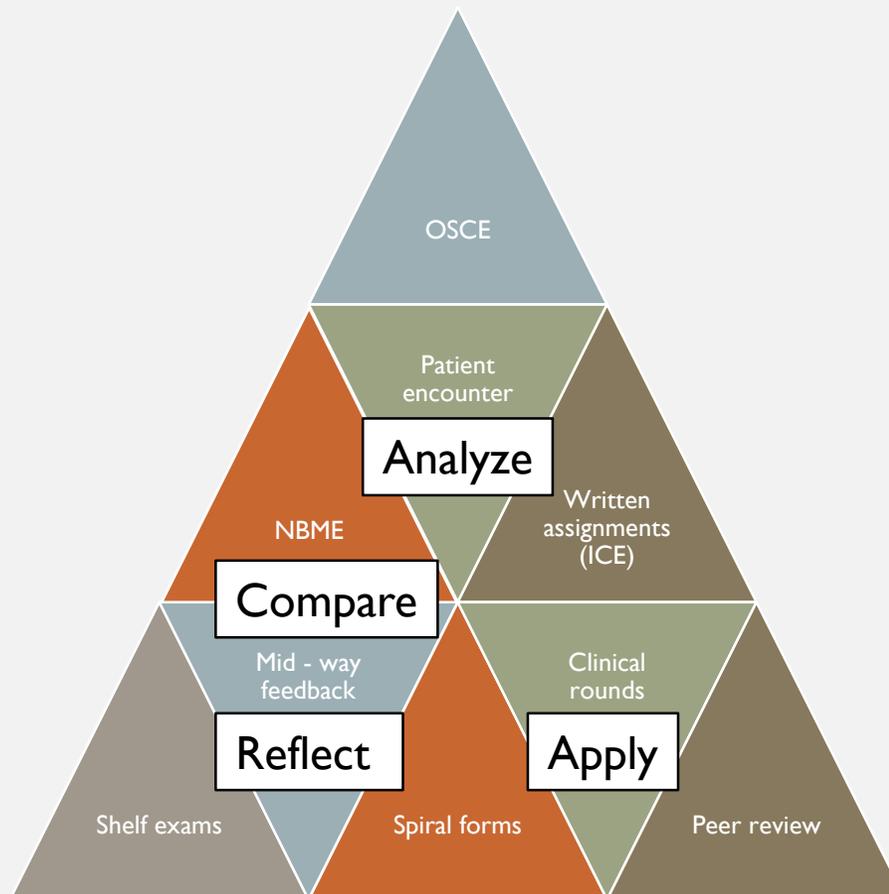
FOCUS ON SKILLS

Skills focused vs. information focused



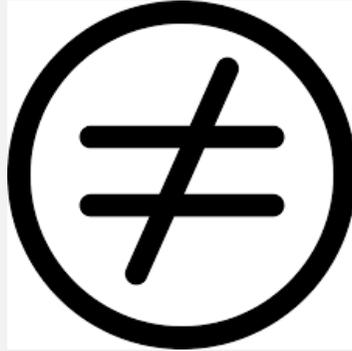
TYPES OF ASSESSMENTS

Diversity of assessment is key



STEP 4: GRADING

Assessment



Grading

What students can *do* with their learning.

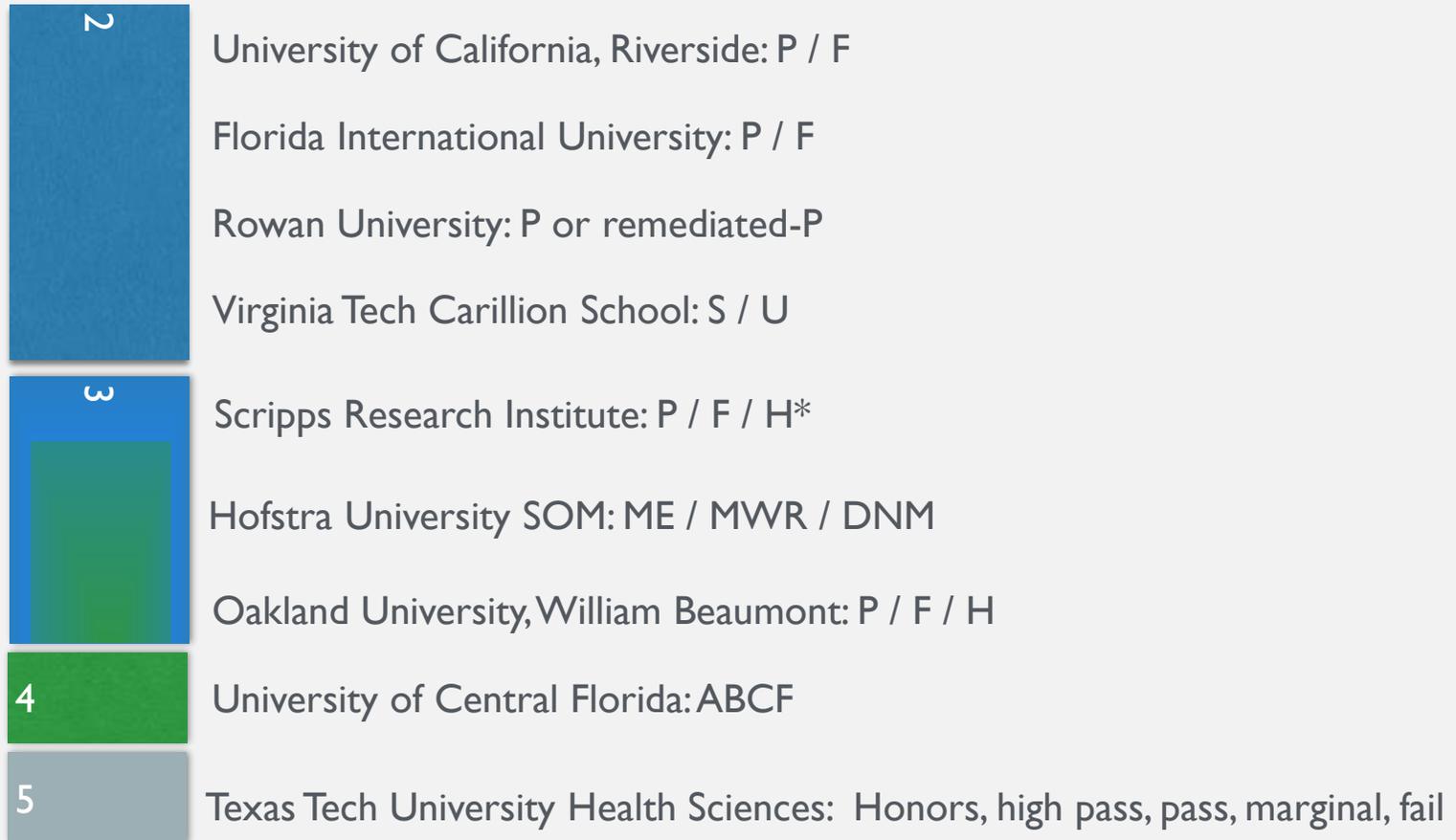
What students can *do* with their learning.

How they show up.

STEP 4: GRADING

- *American Medical Student Association, 2012:*
- “STRONGLY URGES all medical schools to adopt the use of a strictly pass/fail grading policy during the preclinical years of medical school”.
- *American Medical Association (AMA), 2012 approved policy entitled “Supporting Two-Interval Grading Systems for Medical Education”.*

MACY SCHOOLS' M1-M2 GRADING SYSTEMS

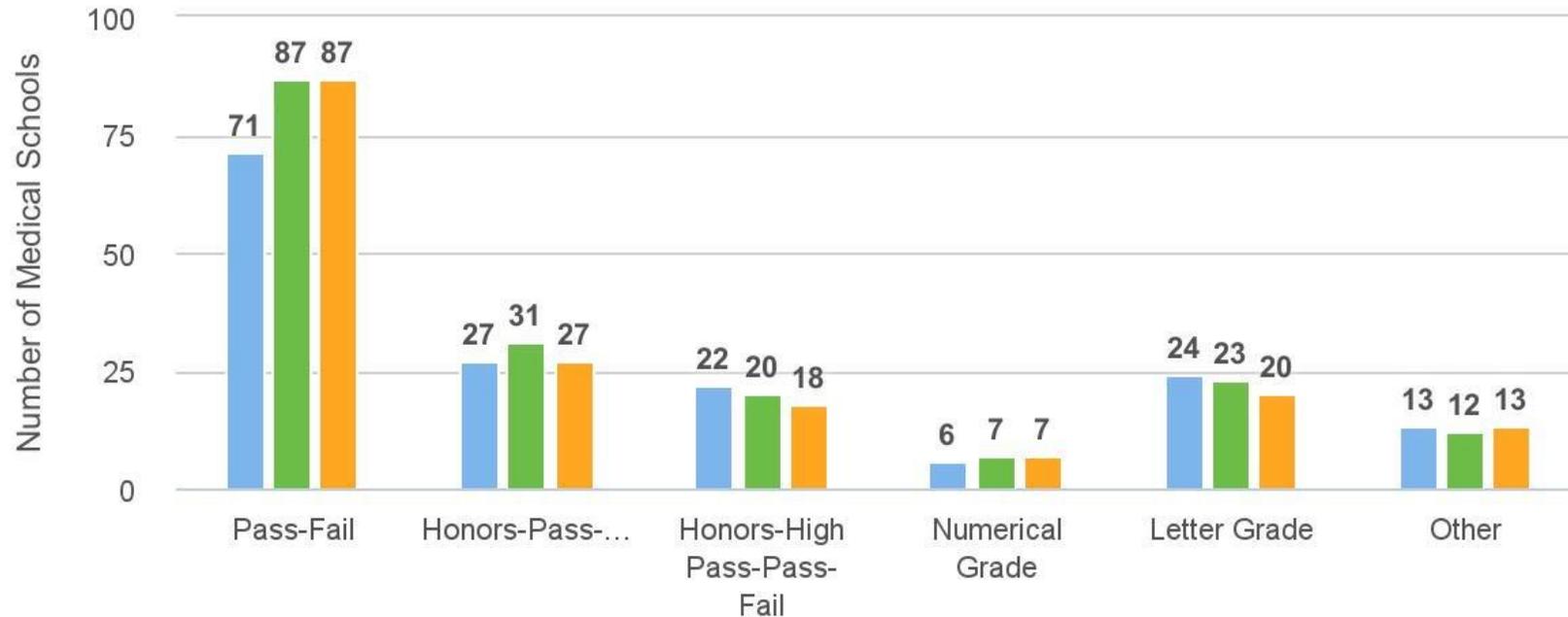


Touro College in Manhattan, New York - N/A

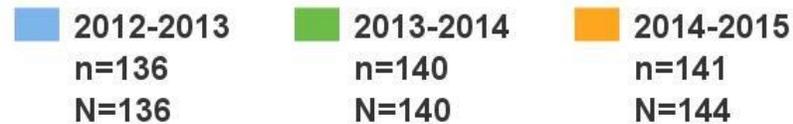
The Commonwealth Medical College of Pennsylvania - N/A

** no Honors in first quarter of M1*

Number of Medical Schools Using Selected Grading Systems in Pre-Clerkship Courses (Excluding Physical Diagnosis/Clinical Skills)



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ACADEMIC PERFORMANCE

ABCF → Pass/Fail

Robins *et al.* Acad Med. 1995, 70: 327-329

Bloodwood *et al.* Acad Med. 2009, 84: 655-662

Rohe *et al.* Mayo Clin Proc. 2006, 81: 1443-1448

No change in performance

White *et al.*

Adv Health Sci Educ Theory Prac 2010, 15 469-477

**One course performance
better, one worse**

McDuff *et al.* BMC Medical Education 2014 14:127

H/P/F → Pass/Fail

**Slight decrease in preclinical
No change in STEP 1 score**

Reed, D *et al.* Acad Med. 2011, 86 : 1367-1373

No change in STEP 1 score

ABCF



Pass/Fail

- Increased wellbeing
- Decreases “burnout”
- Less stress, better mood

- Greater satisfaction in academic performance
- Greater group cohesion
- Increased satisfaction with evaluation system
- Improved learning environment
- More time for other academic pursuits

- Greater satisfaction with personal life
- More time for family
- More time for exercise
- More time to improve personal wellness

“when students consciously pursued [such] honors, 70% felt it increased their stress level; of students consciously choosing to not pursue the honors option, 92% felt it decreased their stress.”

Reed, D et. al. Acad Med. 2011, 86 : 1367-1373

Williams et al, Acad Psychiatry. 2015, 39:47-54.

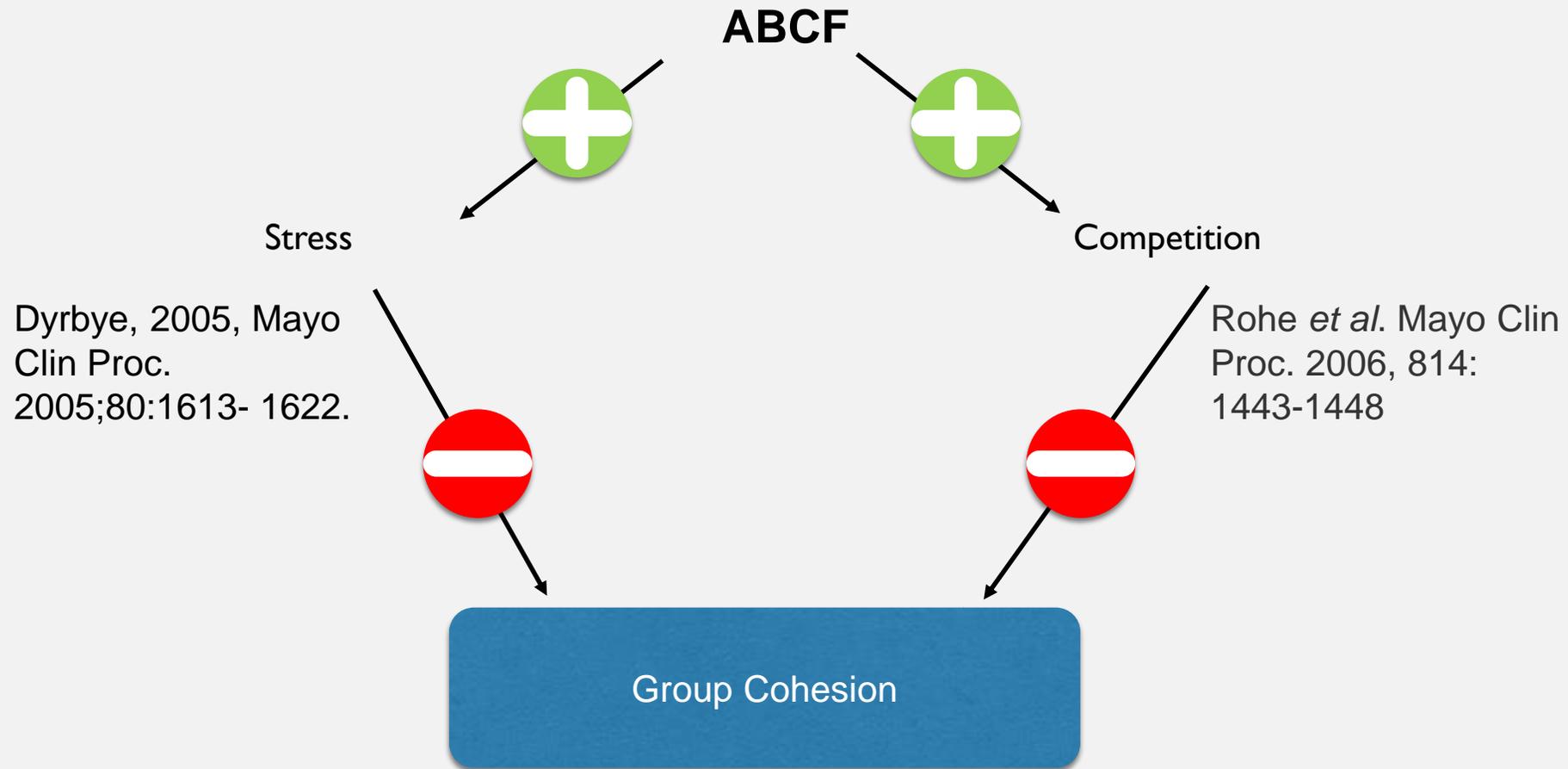
Bloodwood et. al. Acad Med. 2009, 816 : 1443-1448

Robins et al. Acad Med. 1995, 70: 327-329

White et al. Adv Health Sci Educ Theory Prac 2010, 15 469-477

Rohe et al. Mayo Clin Proc. 2006, 814: 1443-1448

Jacobs et al. Med Teach. 2014, 36:164-8

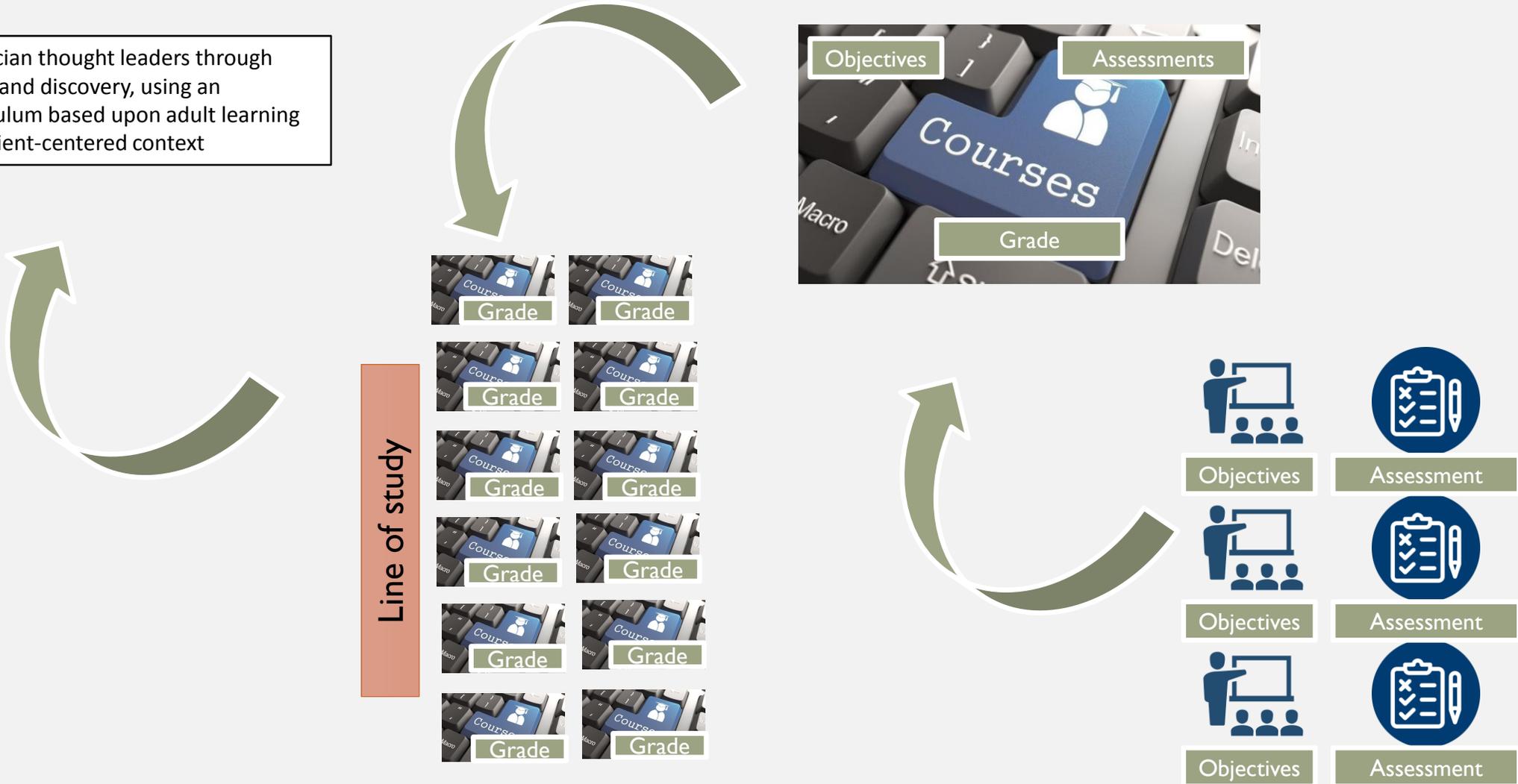


Perceived Cohesion Scale (six items, Likert scale, designed to measure sense of belonging and morale associated with group membership)

Rohe *et al.* Mayo Clin Proc. 2006, 814: 1443-1448

SUMMARY

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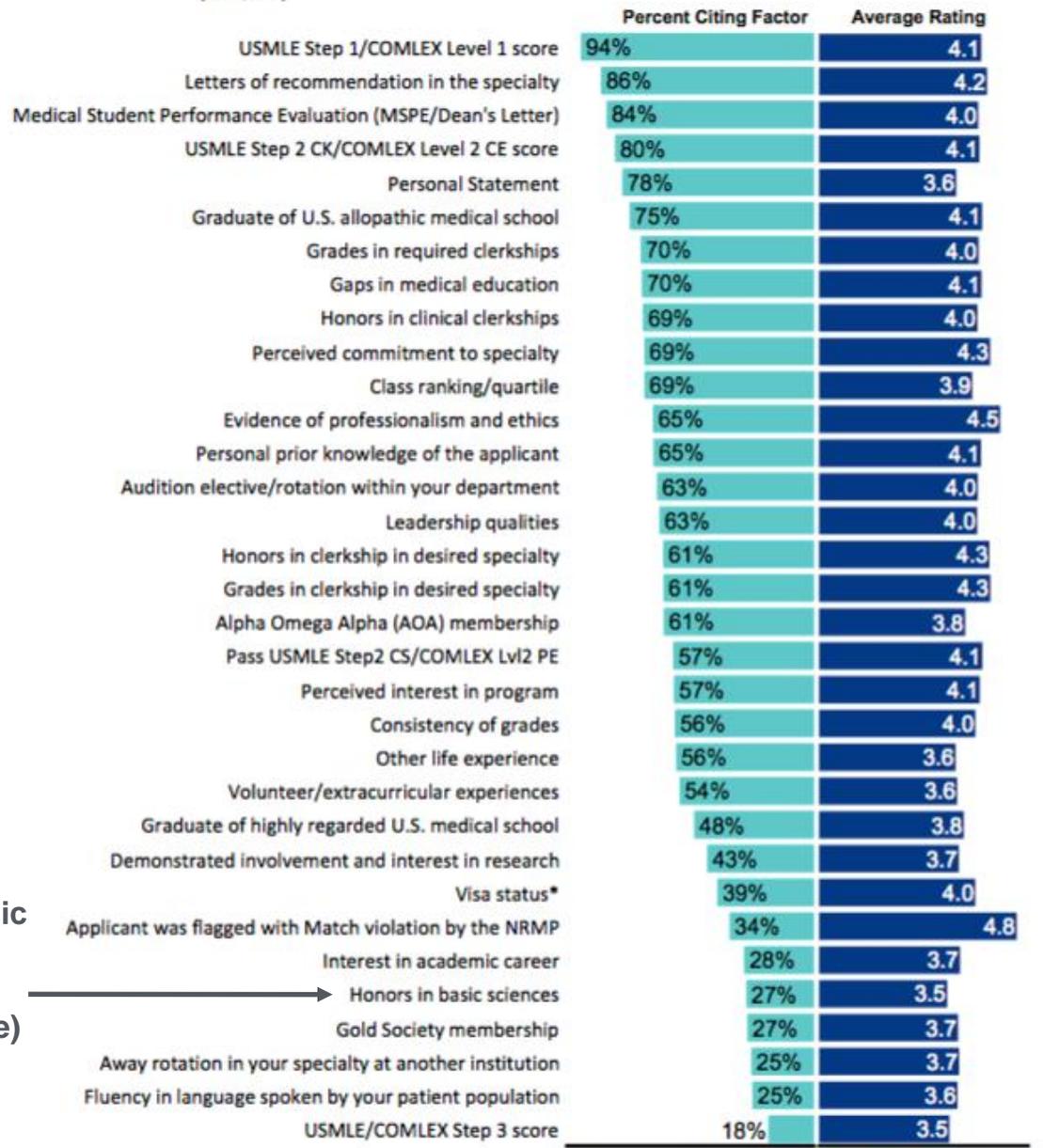


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university (27% a factor,
White et al. 367

Figure 1

All Specialties
Percentage of Programs Citing Each Factor And Mean Importance Rating¹ for Each Factor in Selecting Applicants to Interview
(N=1,793)



¹ Ratings on a scale from 1 (not at all important) to 5 (very important).

* International Medical Graduates only