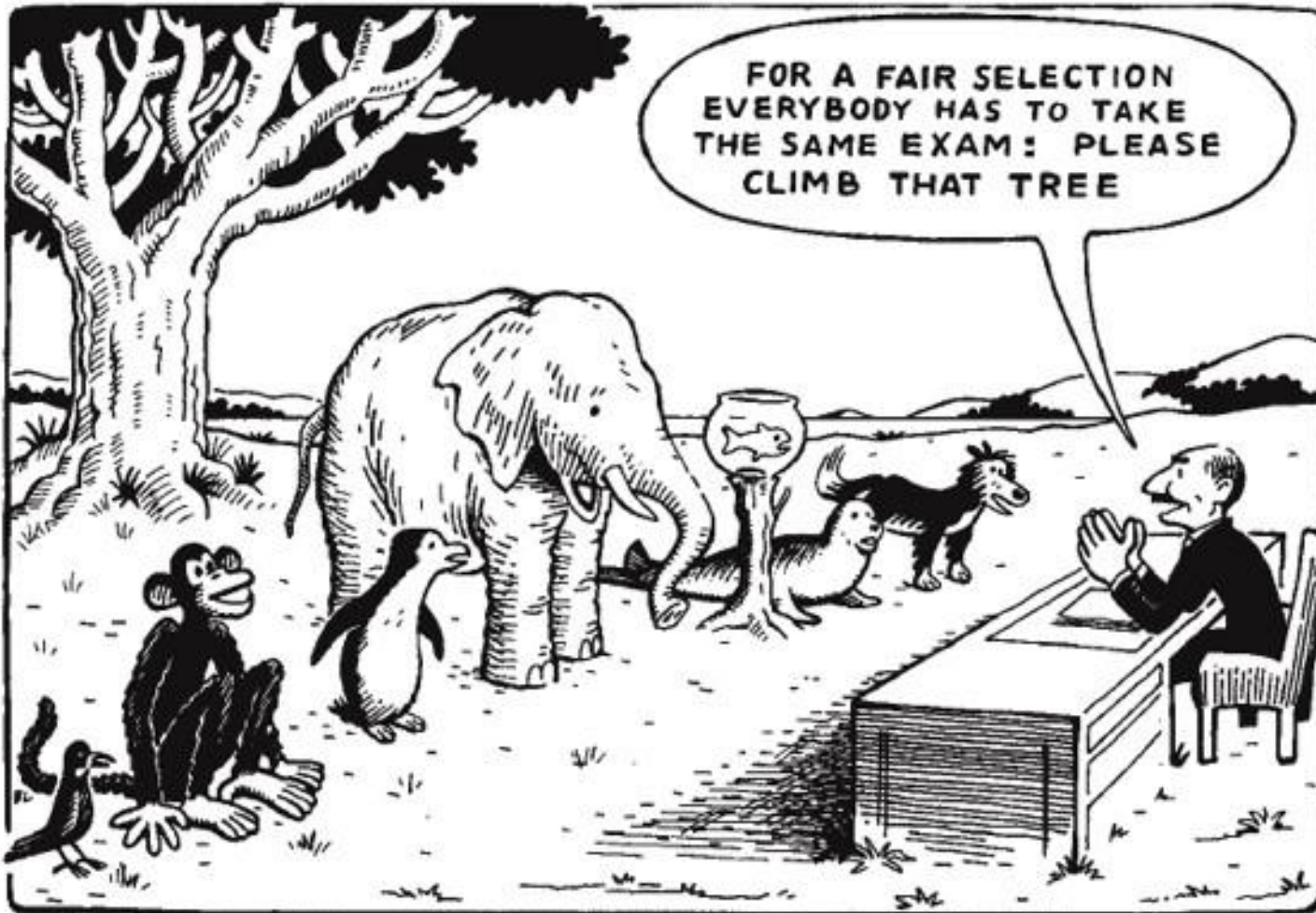


Assessment in Medical Education: Time to Move Ahead



**Piyush
Gupta**

*Professor of
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University College
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The Way Ahead

Assessment in a Competency based curriculum

**Need for a
Competency
based Curriculum**

**Present Curriculum:
Where we stand**

**Global Curriculum
Strategies**

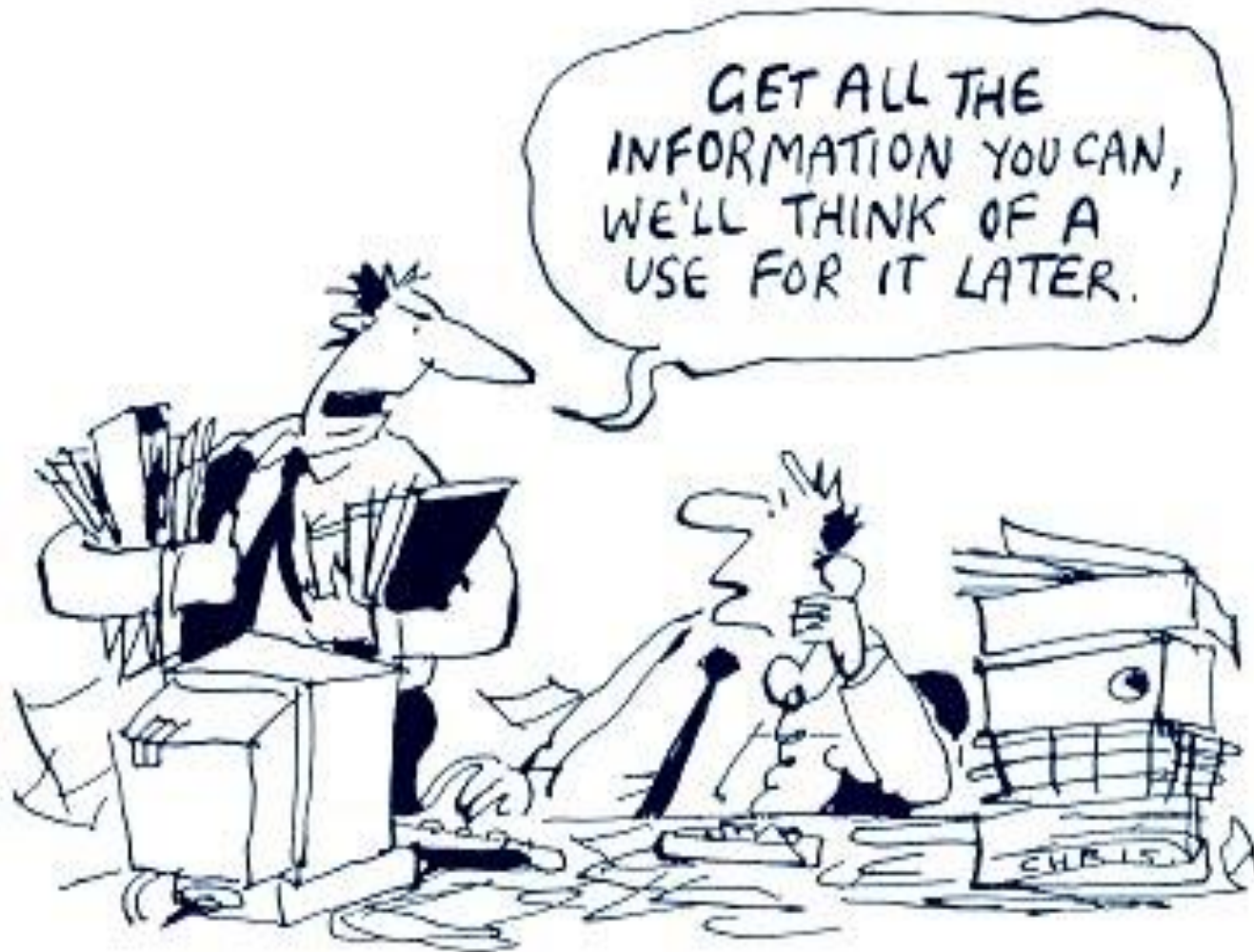


Curriculum Designs

S tudent oriented	Teacher oriented
P roblem Based	Information Gathering
I ntegrated	Discipline based
C ommunity Oriented	Hospital based
E lective	Uniform
S ystematic	Apprenticeship/ Opportunistic

THE IDEAL MODEL?


Where do We Stand?



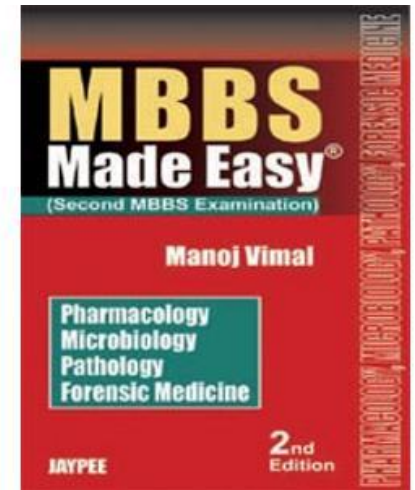
Where Is The Emphasis

- Syllabus  mugging up
(theory: lectures)



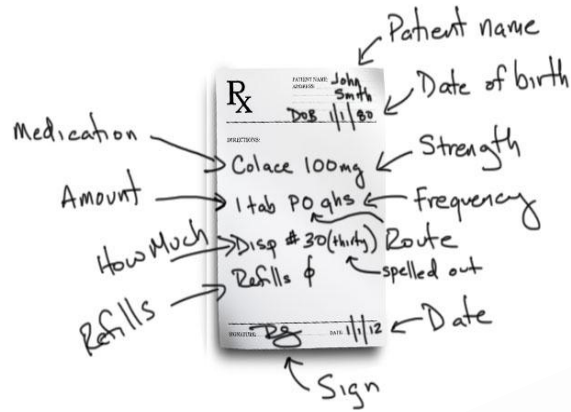
- Clinical Exposure  observational
(bedside case presentation)

What We Get?



A well read student
swarming with
bookish knowledge

Can he/she?



What We Want?

- A person who listens to you
- A person who takes care of the individual and the community
- A person who can heal or cure (physically, mentally, spiritually)
- A person who can save life



What We Want?

- A person who is well behaved
- A person who exudes confidence
- A person who is ethical, honest and systematic
- A person whom the patient can **TRUST**





Whom will you Trust?



www.shutterstock.com - 145313017



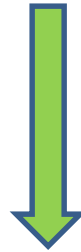
Current Scenario

- Demand  based on outcome
- Supply  based on content

Need to Shift

content based  Outcome based

Time
to move to
Outcome based education



What all he/she should be able to do
(COMPETENCY)

*What does competency-based
medical education mean to
you?*

Competent

Possessing the required abilities in all domains in a certain context at a defined stage of medical education or practice

The international CBME Collaborators, 2009

Competency

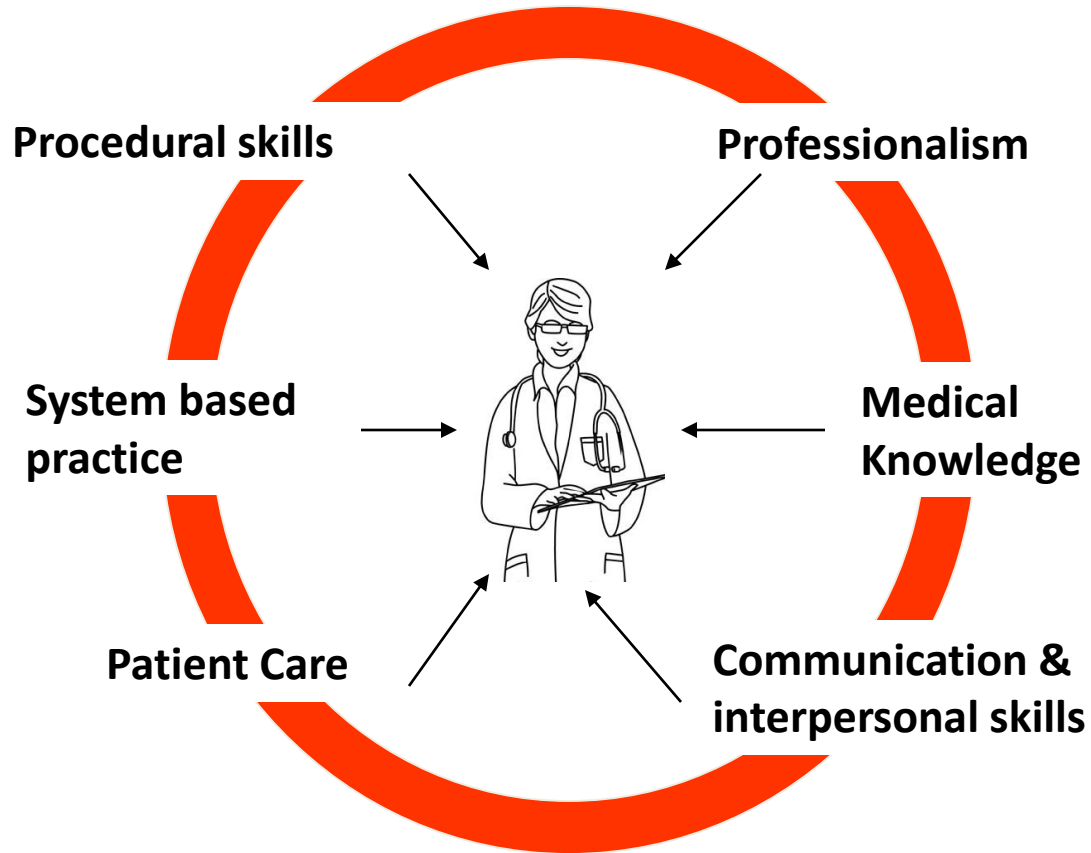
An observable ability of a health professional, integrating multiple components such as knowledge, skills, values and attitudes.

The International CBME Collaborators, 2009

Competency: criteria

1. Specific
2. Comprehensive
 - a) Knowledge (cognitive)
 - b) Attitude (affective)
 - c) Skill (psychomotor)
3. Durable
4. Trainable
5. Measurable
6. Related to professional activities
7. Connected to other competencies

ACGME Competencies

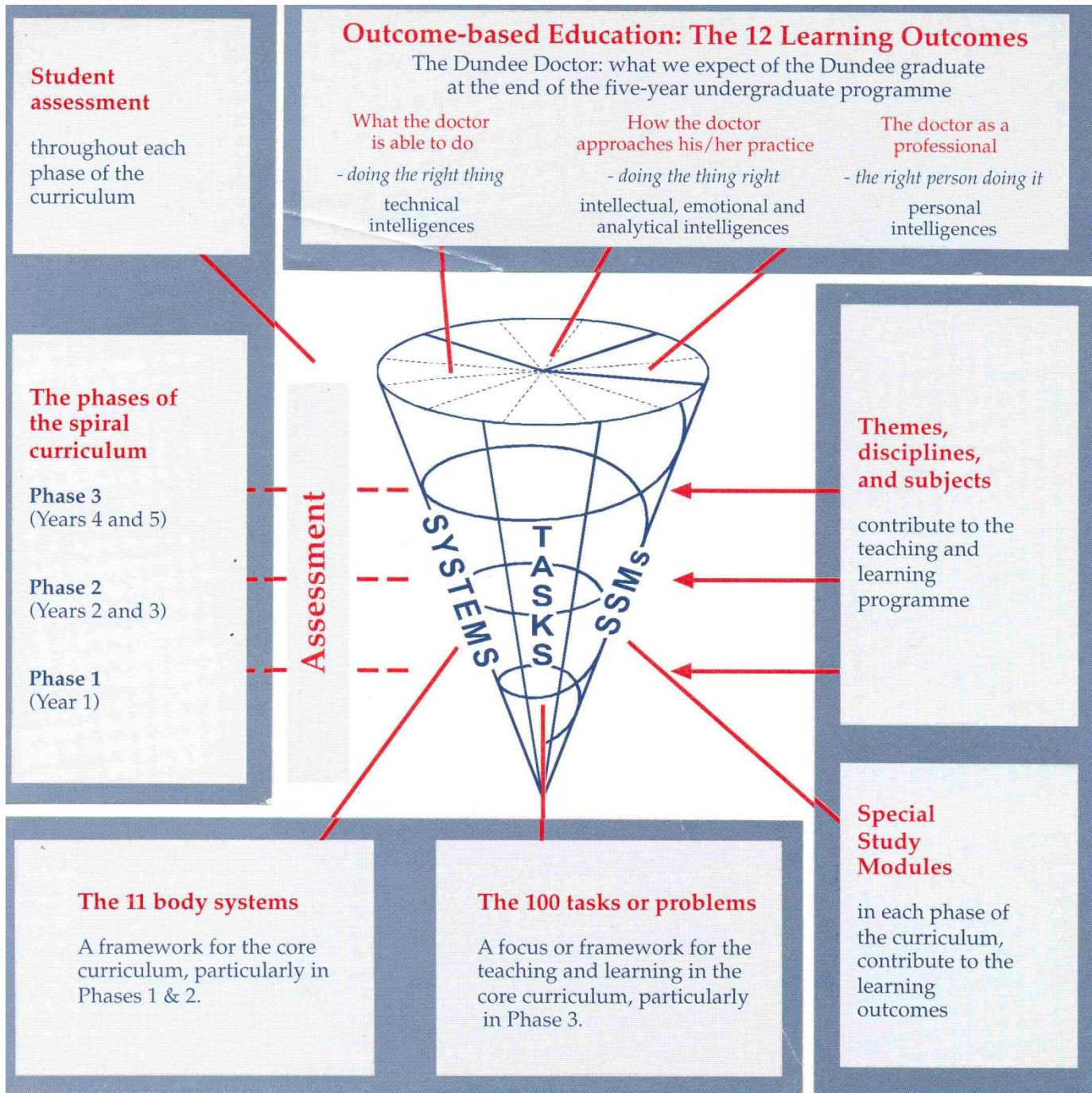


Traditional vs Competency-based Medical Education

	Educational Program	
Variable	Structure/Process	Competency-based
Driving force: Curriculum	Content	Outcome
Goal of educ. encounter	Knowledge acquisition	Knowledge application
Assessment	Proxy	Authentic (real tasks of profession)
Evaluation	Norm-referenced	Criterion-referenced
Timing of assessment	Emphasis on summative	Emphasis on formative

Adapted from: Carracchio et al. *Acad Med*, 2002

Spiral Curriculum



YOUR NAME IS...
... ANIL K. RIGHT?
... Hmm... WHAT DO
YOU MEAN BY K?

P...
POTASSIUM,
SIR!!

ANIL K.
B. PHARMA
III YR

MEDICINAL
CHEMISTRY
LABORATORY

VIVA IN
PROGRESS.
PLEASE KEEP
SILENCE

©pharmainfo.net

SUMANCA
BARRUAH.



Critical questions in assessment

1. **WHY** are we doing the assessment?
2. **WHAT** are we assessing?
3. **HOW** are we assessing it?
4. **HOW WELL** is the assessment working?

1.WHY: The Purpose

IM PROVE



2. WHAT? - to Prove

Knowledge

Skills

Emotional maturity

Communication

Sincerity

Sympathy

Empathy

Accept challenges

Urge to learn

Scientific attitudes

Punctuality

Interpersonal skills

Team work

Leadership

and

What ? - to Improve

- Observe behavior
- Compare with norms
- Provide feedback

Immediate and Ongoing process

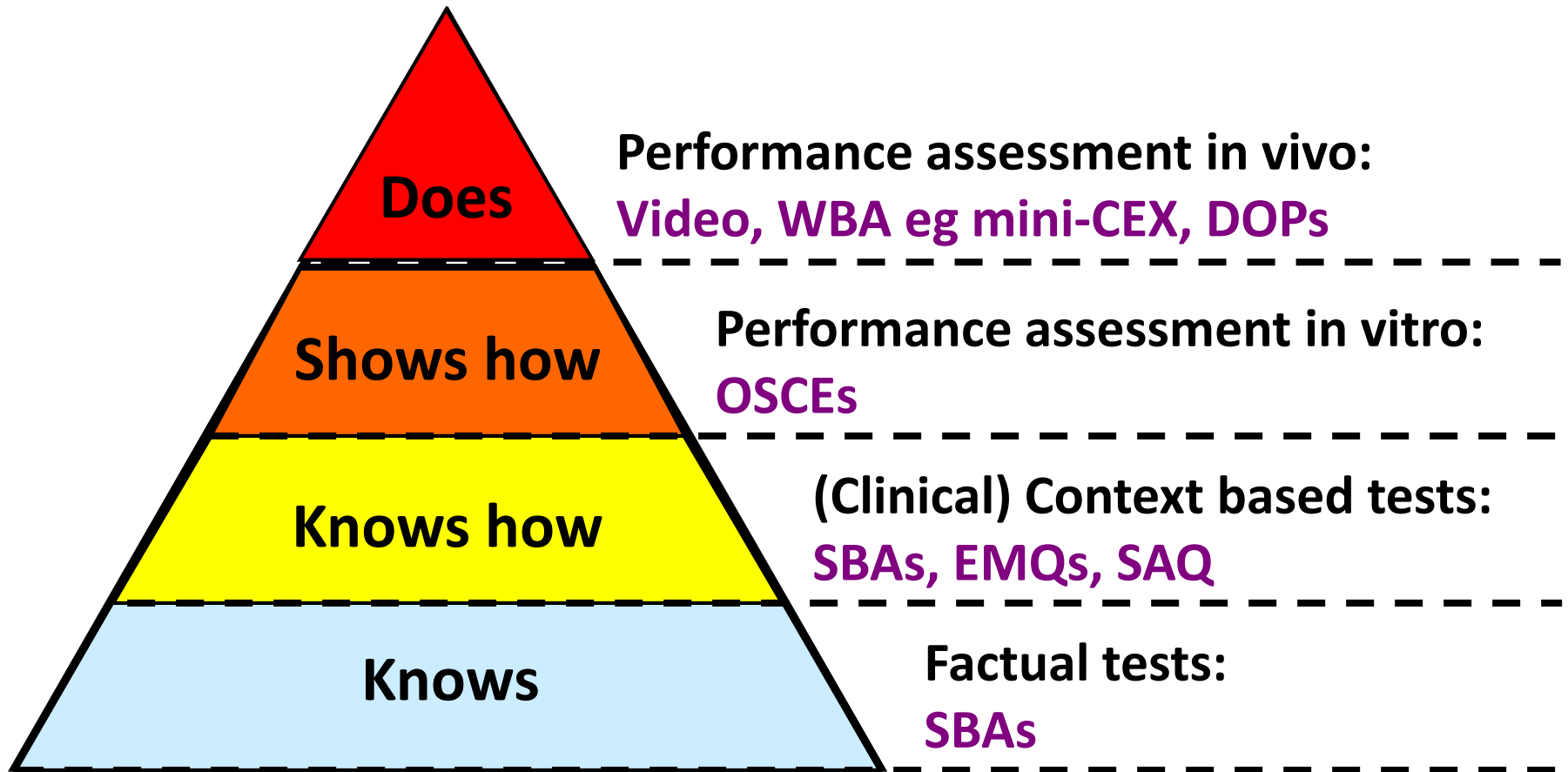
Quality can not be improved till measured!

Criterion v/s norm referenced

- **Criterion referenced**: comparison to a pre-decided criteria, established *before* the examination
- **Norm referenced**: comparison with other students, happens *after* the examination

How are they doing the assessment?

Test formats



HOW WELL is the assessment working?

Evaluation of assessment systems

- Is it valid?
- Is it reliable?
- Is it feasible?
- Is it acceptable?
- Does it leave an impact?

Utility of assessment

Utility = Validity X Reliability X Feasibility
X Acceptability X Educational impact

Assessment low in one can still be useful by being high on other.

Where to Assess?

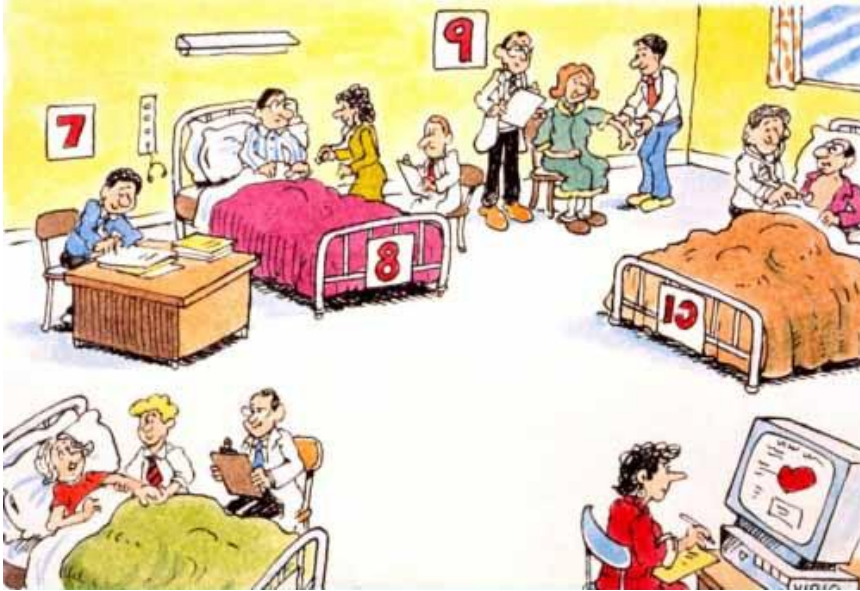


Where the Action is?



Only directly observed Workplace based assessment is authentic, and likely to be more valid. **Build reliability**

When to assess?



- On a regular (continuous) basis
- Key to building validity and reliability
- Formative versus summative

Assessment *of* learning versus *for* learning

Plan assessment when planning for instruction

Who Assesses ?



JAMA

Professors Not Professing

Catherine D. DeAngelis, MD, MPH

can generate
for clinical fi



Why Don't Professors Profess?



KUSHMANDA



SKANDA MATA



CHANDRAGHANTA



KAATYAAYANI



BRAHAMCHARINI



KAALRATRI



SHAILPUTRI



MAHAGAURI



Promotion By Papers



Tribulations and Rewards of Academic Medicine — Where Does Teaching Fit?

Jerome P. Kassirer, MD *NEJM* 334:184-185, 1996

“...teaching has been the Cinderella of academic medicine. As a stepchild, it has garnered little respect in comparison with that accorded its sister tasks of research and patient care. “

Reward of Teaching : Prestige of professorial appointments

End Result

Teaching is a secondary outcome



Students taught and assessed by those whose primary interests Are elsewhere

Faculty Development

- Ensure that faculty are prepared to assess the competency
- Empower the faculty to Introduce new methods of evaluation appropriate to assess the core competencies
- Teachers need to be augmented with Providers and Researchers
- Ensure tangible values and rewards for participation in education
- Support enhanced funding for medical education research for planning and delivery across the nation

Features of good assessment

- Relevant to the curriculum.
- Focus on important skills.
- Promote learning of skills.
- Spell level of attainment.
- Discriminate good and poor students.
- Provide feedback.

There is **no perfect assessment**:

- **Compromise** is always required

The compromise depends on the context of the assessment



Thanks to compromise they were moving closer.

Recommendations: New Curriculum

- **Develop Competency Based curriculum**
 - Humanism, Ethics, Professionalism
 - Basic and Clinical Sciences
- **Define and develop core competencies**
 - Teamwork and Communication
 - Information acquisition
 - Self-assessment
 - Professionalism
 - Community service

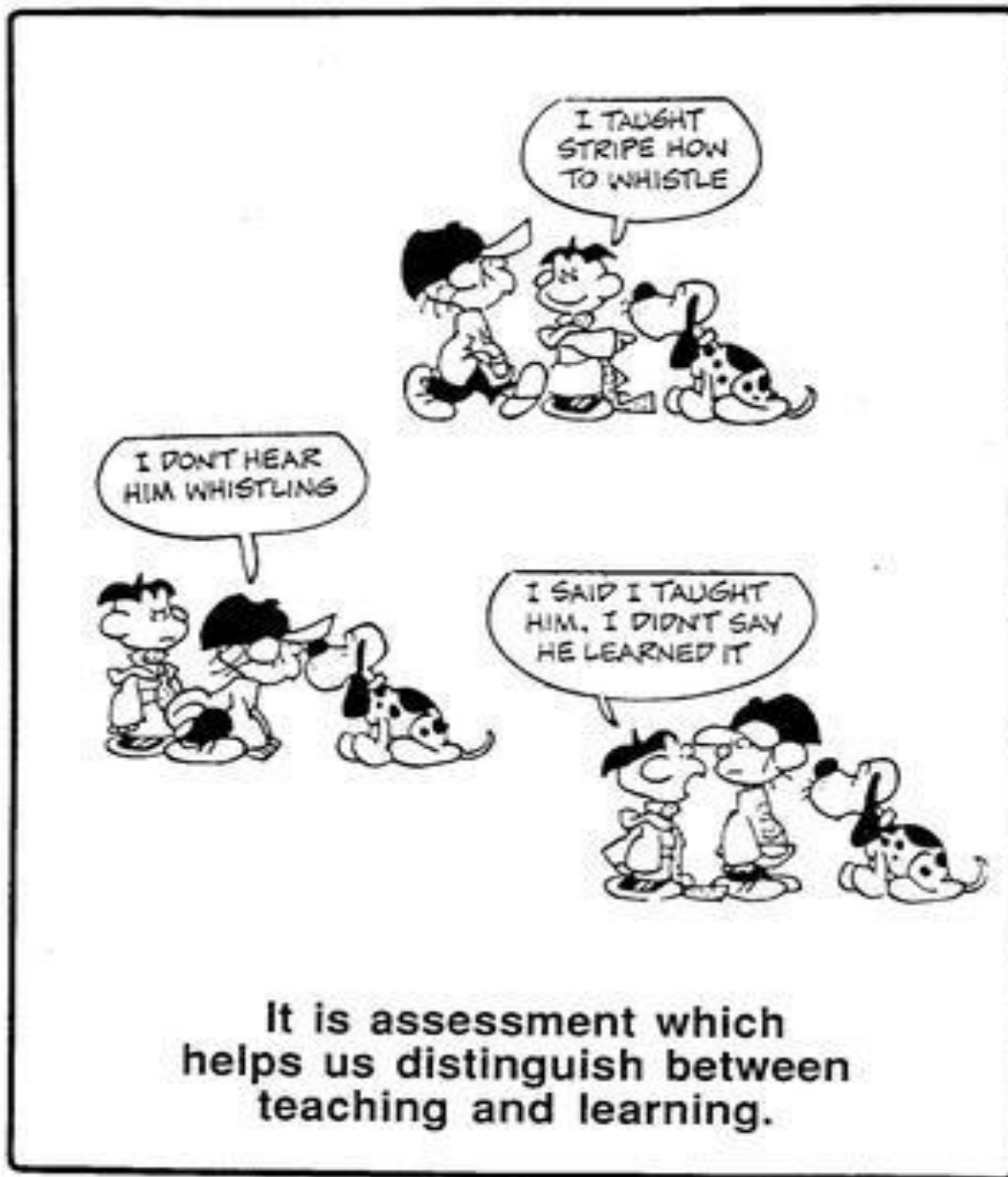
Change Now: The Bare Essentials

- Assessment needs to
 - Be oriented to both **Prove** and **Improve**
 - Be **continuous** and **frequent**
 - Be **work-based** and **contextual**
 - Be **criterion-** based
 - Incorporate more “**qualitative**” approaches



Challenges

1. Research Needed to identify best practices of assessment in the system and institutional context.
2. To determine how to prepare/develop faculty to be better evaluators
3. How to make assessment a continuous/integral part of medical profession



Thank You

Acknowledgments

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