TEACHING EFFECTIVENESS

Wednesday, June 16, 2021

Dr. Solomon Alao, Office of assessment at Morgan State University

THANK YOU!

ORGANIZATIONS

NATIONAL SCIENCE FOUNDATION

MORGAN STATE UNIVERSITY

SCHOOL OF ENGINEERING

PRINCIPAL INVESTIGATORS

OLUDARE OWOLABI

JUMOKE LADEJI-OSIAS

CO-PRINCIPAL INVESTIGATORS

MD RAHMAN

KRISHNA BISTA

UTTAM GAULEE

SIGNIFICANT OTHER

STUDENTS

GRADUATE ASSISTANTS

CAMPUS PARTNERS

EXTERNAL PARTNERS

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YEARS AT MORGAN: 24-years

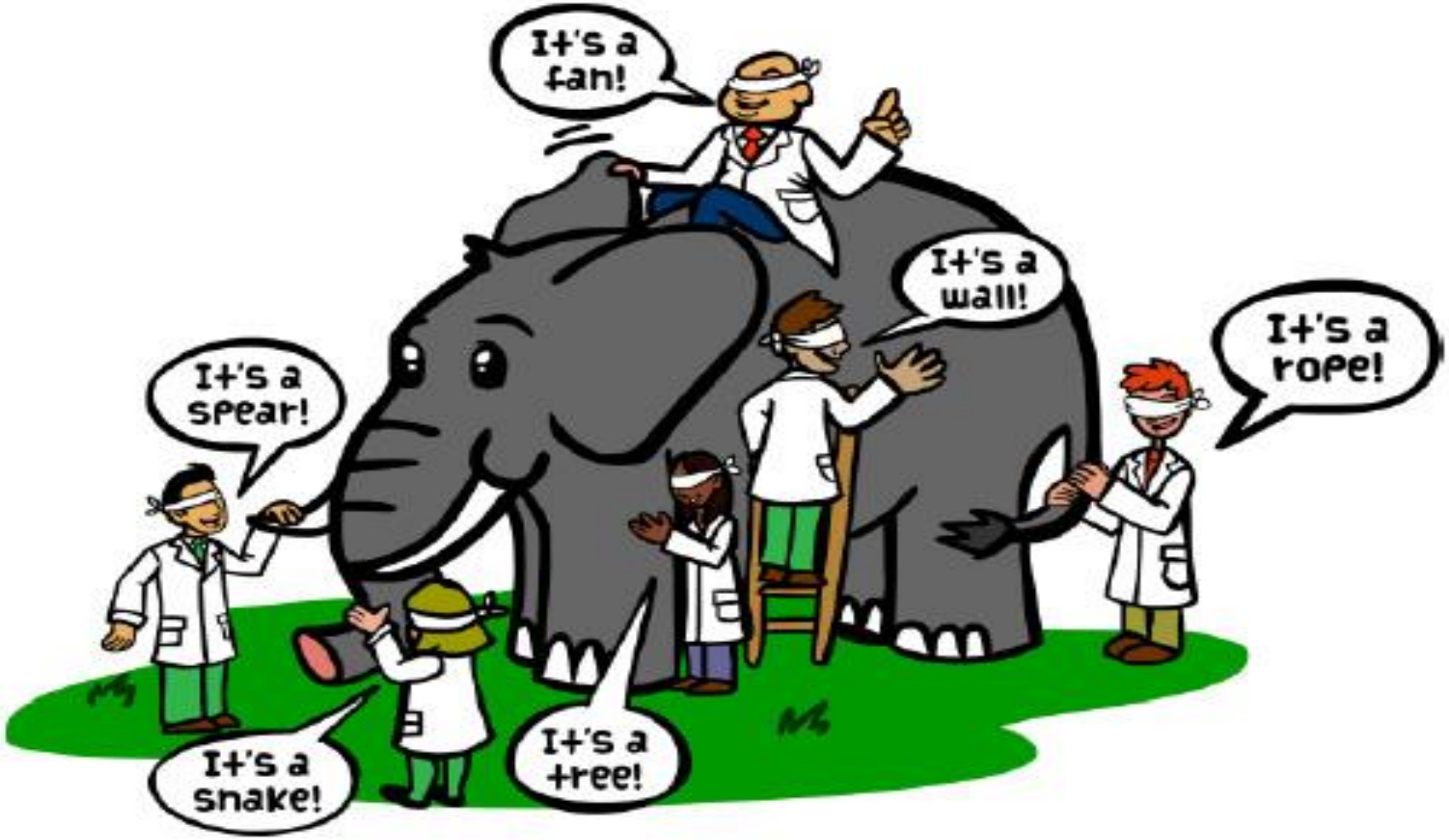
SPECIALIZATIONS: Educational Psychology

FOCUS OF THE PRESENTATION

FOCUS

- **TEACHING EFFECTIVENESS**
- **MEASURES OF TEACHING EFFECTIVENESS**
- **FACULTY EFFECTIVENESS & MODELING BEST PRACTICES**
  - **PLANNING**
  - **ENGAGEMENT**
  - **TECHNOLOGY**
  - **ASSESSMENT**

TEACHING EFFECTIVENESS?

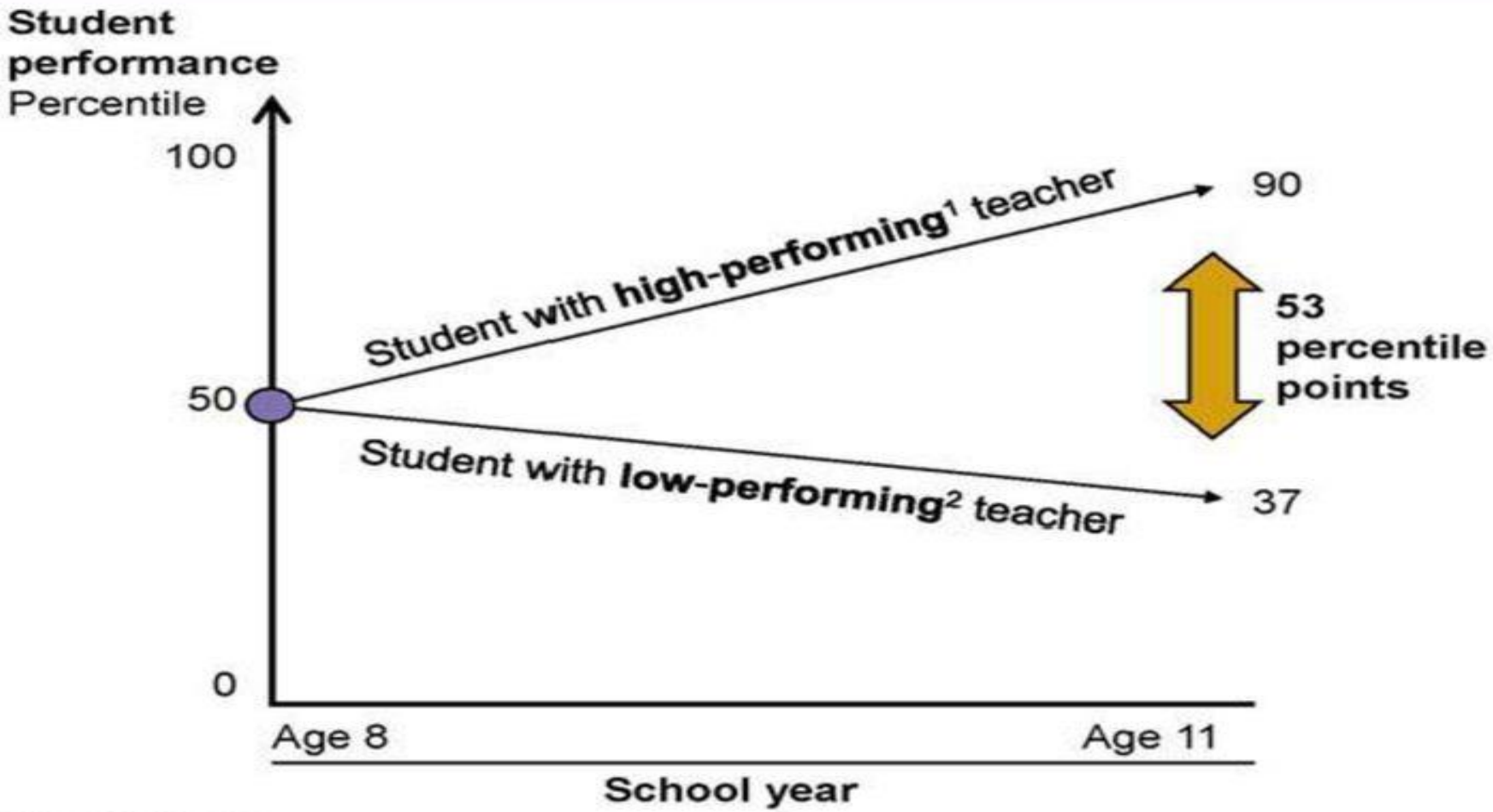


Metabolomics, Elephants and Blind Men or Tekrighter's Science Blog

COMPREHENSIVE VIEW TEACHING EFFECTIVENESS (TE)?

INPUTS [Teacher Profile or Background)	PROCESS (Teachers—Student Interactions)	OUTPUTS (Impact of classroom processes)
• Beliefs • Content Knowledge • Certification • Educational Attainment • Experience • Expectations • Licensure • Pedagogical Knowledge	• Method/Mode of Instruction • Planning • Engagement Strategies • Use of Technology • Assessment Strategies	• Student Level of Achievement • Level of Engagement • Attitudes (+/-) • Social-Emotional Well-being

Why Teacher Effectiveness Matters



1 Among the top 20% of teachers
2 Among the bottom 20% of teachers

SOURCE: Sanders and Rivers, "Cumulative and Residual Effects on Future Student Academic Achievement," 2006

TULSA PUBLIC SCHOOLS

RESEARCH INDICATE THAT TEACHER EFFECTIVENESS MATTERS

TEACHER EFFECTIVENESS MATTER MORE TO STUDENT ACHIEVEMENT THAN ANY OTHER ASPECT OF SCHOOLING

- ❑ **LEARNER CHARACTERISTICS**
  - **Motivation**
  - **Prior Knowledge**
  - **Personality, etc.**
- ❑ **FAMILY**
- ❑ **NEIGHBORHOOD EXPERIENCES**
- ❑ **SCHOOL SERVICES**
- ❑ **SCHOOL LEADERSHIP**

Positioning Morgan for the Next Decade

Strategic Plan Update 2021-2031

GOAL 1	**Enhance Student Success and Wellbeing** Provide students with a comprehensive education that develops their intellectual, emotional, social, physical, artistic, creative, and spiritual potential.
GOAL 2	**Achieve the "Highest" Research Activity Classification (Top-Tier)** Morgan will be recognized as a leader in research, consistently ranked among institutions with the "highest" level of research activity.
GOAL 3	**Serve as Premier Anchor Institution to Urban Communities** Implement a comprehensive model of community engagement that reinforces the University's urban mission to address and resolve problems experienced by the city of Baltimore and region.
GOAL 4	**Expand the Global Footprint** Expand and accelerate globalization efforts and the University's footprint using the current global campus success as a model.

FACULTY ASSESSMENT SYSTEM

METHODS OF MEASURING TEACHER EFFECTIVENESS

METHODS UTILIZED BY STEM PROFESSIONALS

- Value-Added Measures
- Peer Observations of Instruction
- Chair or Principal Evaluations
- Analysis of Classroom Artifacts
- Self-Report of Practice
- Student Evaluations

FOCUS OF THIS PRESENTATION

- Value-Added Measures
- Peer Observations of Instruction
- Chair Evaluations
- Student Evaluations

VALUE-ADDED MEASURES [VAM]

Use of Student Test Scores as a Measure of Teaching Effectiveness

Ratings of Teaching via Observation Rubric	Measure of Achievement (Test Scores)	Statistical Model	Review
High Performing **Vs.** **Low Performing** **Seasoned Teacher** **Vs.** **Novice Teacher**	**Reading &** **Writing** **Mathematics** **Science** ▪ **Biology** ▪ **Chemistry** ▪ **Physics**	**Regression** **Actual Vs. Predicted** **% of Variance Explained** **Percentile** ▪ **Growth** ▪ **Relative Ranks**	**Easy to Implement & Understand** **Teacher Effectiveness is Limited to Gains in Test Scores** **Reliability & Validity of Instrument**

CLASSROOM OBSERVATION

Most Common Form of Teacher Evaluation

SOURCE (Developed by Unit &/or Purchased)	RATER (Rubric/Checklist) Quality Matters for Online Courses)	STRENGTHS	CHALLENGE
University Department Program External Service	Chairperson Senior Faculty Peer of Faculty Committee	Direct Measure of Teaching Practices Formative & Summative Evaluation Customized for Professional Development	Time and Planning Requires Training & Calibration Protocols and Process of Administration Reliability & Validity

COURSE EVALUATION BY STUDENTS

INSTRUMENT	RATER (Rubric/Checklist)	STRENGTHS	CHALLENGE
Survey Questionnaire Close & Open-Ended Likert Scale (four or Five-point Scale) Administration: before, during, & After Instruction	Undergraduate Students Graduate Students K-12 Students	Data from Students (#1 customer) Easy to Implement, Summarize, & Understand Formative & Summative Evaluation Connected to face-face, online, & hybrid courses	Limited to Students' Perception Response Rate Validity & Reliability of the Instrument must be established. Ratings of Personality than Quality of Instruction

QUICK SUMMARY

Use Multiple Measures to Demonstrate Teaching Effectiveness

VALUE-ADDED MEASURES

OBSERVATIONS BY PEER

OBSERVATIONS BY CHAIR

OBSERVATIONS BY COMMITTEE

COURSE EVALUATIONS

SELF-ASSESSMENT

FACULTY EFFECTIVENESS

MODELING BEST PRACTICES IN TEACHING

1. CRITERIA: Attributes of Effective Teaching
2. EVIDENCE: Documentation of Teaching
3. STANDARDS: Expectations of quality and quantity

- ❑ PLANNING
- ❑ ENGAGEMENT
- ❑ TECHNOLOGY
- ❑ ASSESSMENT

RUBRIC FOR PLANNING INSTRUCTION

The Faculty plans instruction based upon knowledge of subject matter, students, the community, and curriculum goals.

Standards	Unacceptable	Acceptable	Target
_____ 7a. Bases Mathematics instruction on state and national standards (i.e., content themes).	Does not relate plans and activities to state and national standards	Relate plans and activities to multiple state and national standards on lesson plans, more than one standard may be met by a given activity	Relate plans and activities to state and national standards on lesson plans and ensures that all standards are addressed on a regular basis
_____ 7b. Effectively plans and implements Mathematics instruction.	Demonstrates poor planning and implementation skills.	Have good lesson and unit plans with activities that are cohesive, aligned with appropriate curriculum goals and consistent with needs and abilities of most students.	Consistently develop effective lesson and unit plans with diverse activities showing strong knowledge of students and the community as well as subject and curriculum goals.
_____ 7c. Provide learning experiences that allow students to integrate knowledge and skills from multiple subject areas.	Ignore potential relationships between art and other subject areas from the perspective of providing integrated learning experiences.	Instruction and learning experiences allow students to understand the relationships between art and other subject areas.	Consistently plan and implement learning experiences that integrate knowledge and skills from multiple subject areas.

RUBRIC FOR ASSESSMENT OF INSTRUCTION

The Faculty understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

Standards	Unacceptable	Acceptable	Target
_____ 8a. Align mathematics education goals/objectives, instruction, and assessment.	Assessment strategies and tools are often not aligned with instruction, are poorly designed or are not valid tools for measuring student achievement growth.	Uses a variety of assessment tools aligned with instruction leading to desired knowledge and skills, with increasing emphasis on understanding, reasoning, and divergent responses.	Encourages student self-assessment and individual awareness of intellectual, personal, and social growth. Uses a variety of assessment tools that are aligned with instruction and emphasize understanding and divergent responses.
_____ 8b. Involve students in peer and self-assessment.	Uses only instructor assessments and do not involve students in self and peer assessment.	Involve students in self and peer assessment.	Involve students in self-assessment activities that inform them of their strengths and needs, and to encourage them to set personal goals of learning.
_____ 8c. Plans and makes changes in instruction based on assessment data.	Makes few or no changes in planning or instruction based on data from student assessments and reflection.	Uses informal and formal assessments regularly to determine student needs and to plan alternative instruction needed to achieve defined outcomes	Aligns informal and formal assessments and regularly and flexibly bases instruction on the demonstrated performances of students.

RUBRIC FOR EDUCATIONAL TECHNOLOGY

Standard	Awesome	Good	Fair
Digital Citizen Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.	1a Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.	1b Students engage in positive, safe, legal and behavior when using technology, including social interactions online or when using networked devices.	1c Students have difficulty engaging in positive, safe, legal behavior when using technology.
Creative Communicator Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats, and digital media appropriate to their goals.	2a Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	2b Students often choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.	2c Students have difficulty choosing the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

RUBRIC FOR CLASSROOM ENGAGEMENT

Faculty Standard	Unacceptable	Developing	Proficient	Exemplary
_____ 4c. Relates science to the personal lives, needs and interests of students.	Rarely relates science to the things that are personally relevant to students.	Makes some personally relevant connections meaningful to students.	Makes many personally relevant connections meaningful to students.	Regularly organizes instruction in personal contexts that are relevant and meaningful to students.

Student Standard	Unacceptable	Developing	Proficient	Exemplary
Quality of comments	Comments are uninformative, lacking in appropriate terminology. Heavy reliance on opinion & personal taste, e.g., “I love it”, “I hate it”, “It’s bad” etc.	Comments are sometimes constructive, with occasional signs of insight. Student does not use appropriate terminology; comments not always relevant to the discussion.	Comments mostly insightful and constructive, mostly uses subject-matter terminology. Occasionally comments are too general or not relevant to the discussion.	Comments always insightful & constructive, uses appropriate, terminology. Comments balanced between general, impressions, opinions & specific, thoughtful criticisms or contributions.

QUESTIONS

!!!!THANK YOU!!!!


Thank
You
Merci
Gracias
TapadhLeat
Koszönom
Murakoze
aDank
Grazzi
Grazie
Buznyg
WaadMahadsantahay
ThintKo
Takk
Mèsi
Chokrane
Kiitos
Blagodaram
Rahmat
BarakAllahuFiik
Xièxie
Dziakuju
Mauruuru
Matondo
TerimaKasih
Aabhar
Barkal
GratiasAgimus
Mercé
Taiku
Tanemirt
Tenki
Aciú
Dankie
Dakujem
Spacibo
Danke
Gratzias
Tak
Motashakkeram
Gràcies
Hvala
Arigatô
Grandmerce
GratiasAgo
KopKhunKha
Faleminderit
NajisTuke
KamSahHamnida
CámOn
Gracie
Efharisto
Nirringrazzjak
Bayarlalaa
Obrigado
Salamat
Saha
Multumesc