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Assessment alchemy: Transforming data into action—Why it is mostly myth and what to do about it

Gary R. Brown
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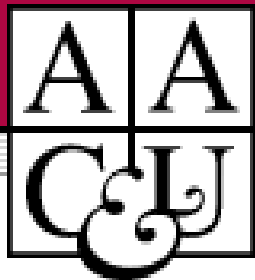
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ASSESSMENT ALCHEMY: TRANSFORMING DATA INTO ACTION— WHY IT IS MOSTLY MYTH AND WHAT TO DO ABOUT IT

Gary Brown
April 2011





Association of American Colleges and Universities

A VOICE AND A FORCE FOR LIBERAL EDUCATION IN THE 21ST CENTURY

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Co-Director, AAEEBL

Teaching, Learning, & Assessment Consultant

Washington State University

WASHINGTON STATE
UNIVERSITY



World Class. Face to Face.



WARNING!

This presentation may contain...

IRC

Ironic Content

PS

Problematic Strategies

CDS

Cause for Deep Skepticism

IO

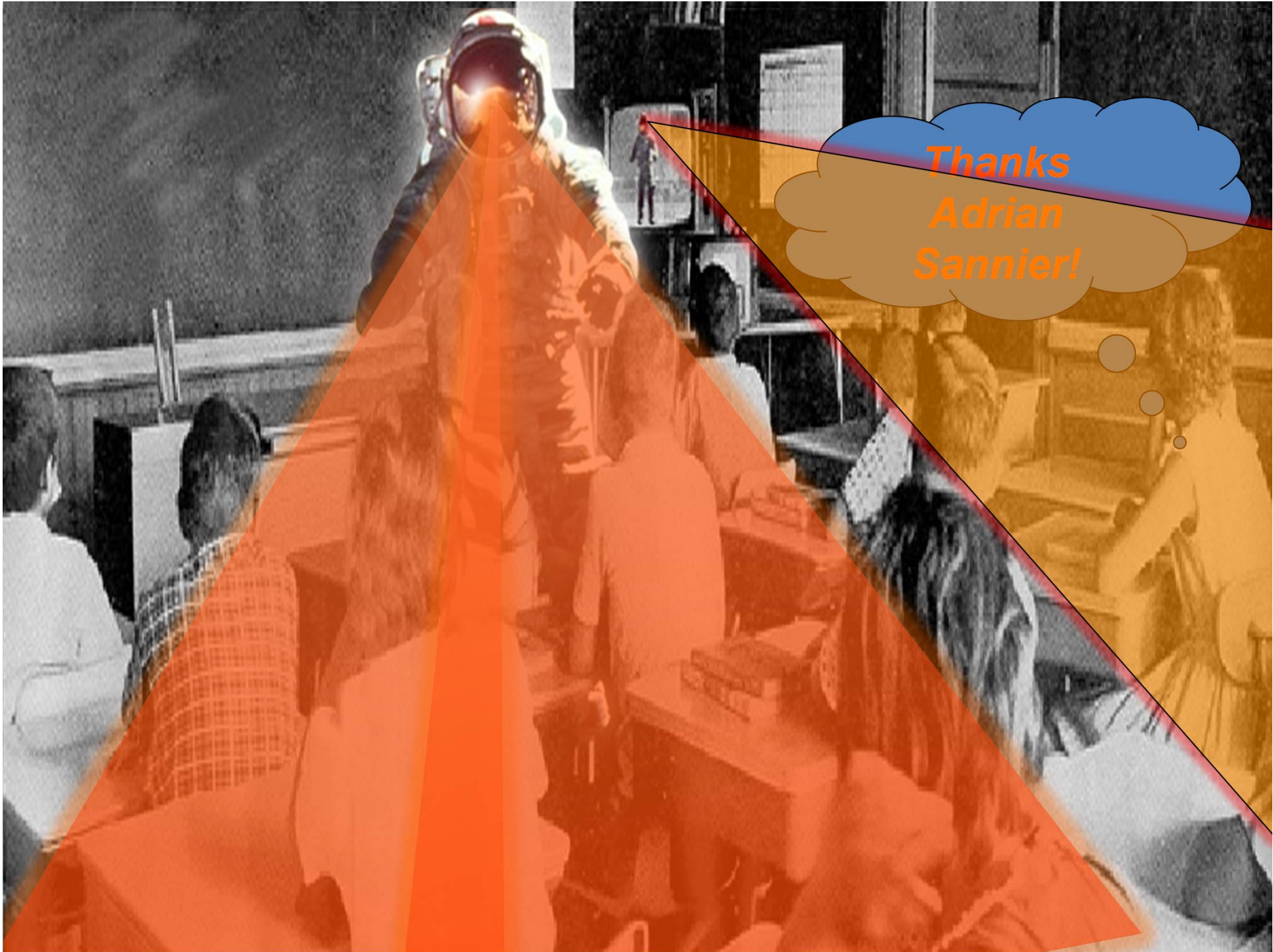
Inexplicable Optimism

A FEW TECHNOLOGY STUDIES

- Course design and delivery
- Response to technology
- Evaluations
- Course evaluations
- Student perceptions of assessment
- Efficiency

**No Change
in Practice**





*Thanks
Adrian
Sannier!*

CLOSING THE ASSESSMENT LOOP—BANTA AND BLAICH

- Only 6% of 146 profiles demonstrated improvement (Banta, Jones, and Black)
- “Few instances of actual change in response to the information generated by the study.” (Wabash national Study, Blaich)

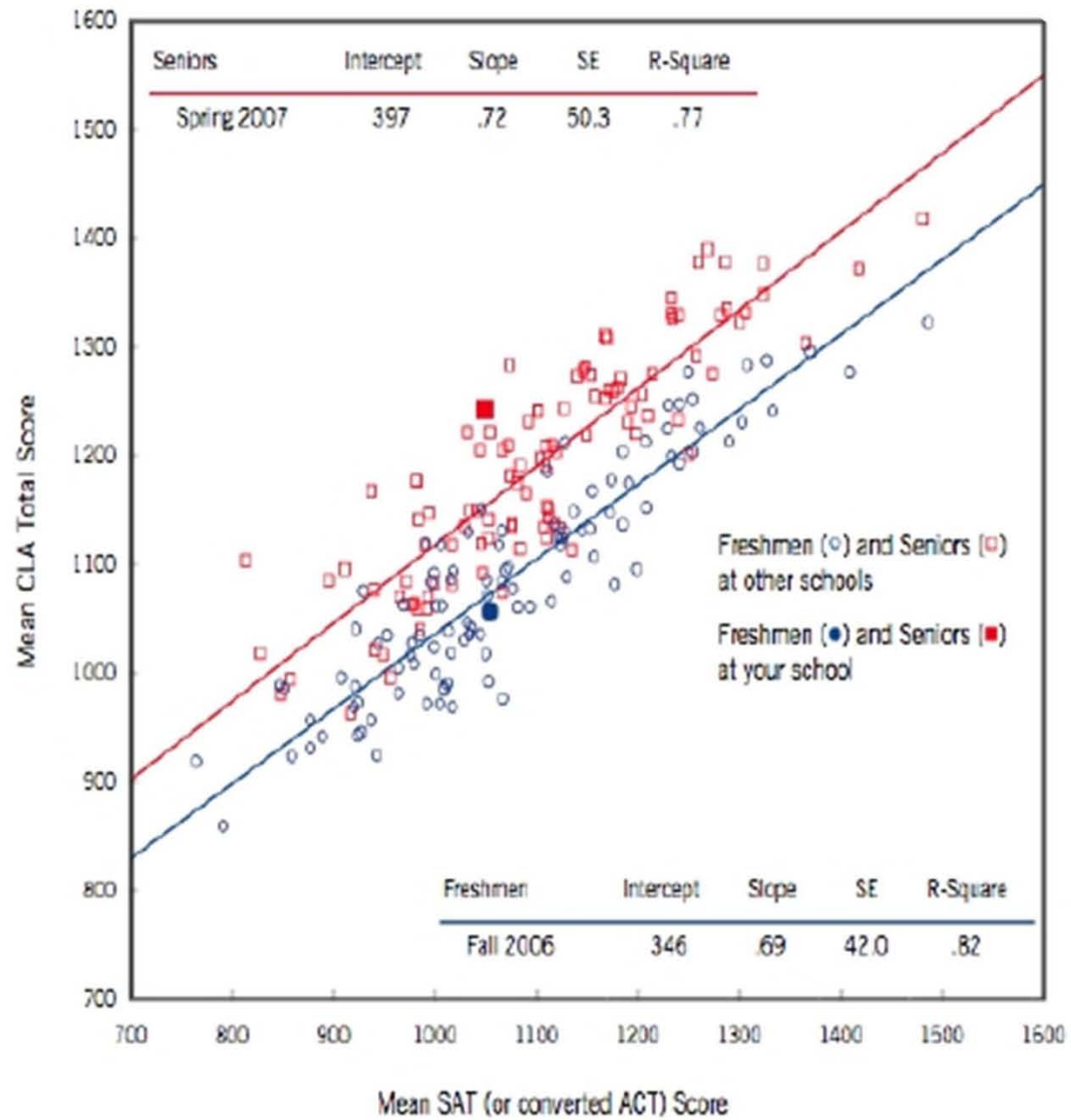


BANTA AND BLAICH....

- “Trying to force change can lead to faculty frustration and ultimately to resistance if results are disappointing—especially when it results in disapproval...”
- Turnover among leadership
- Standardized measures and external mandates don't engage faculty or students (Wabash)



COLLEGIATE LEARNING ASSESSMENT



“The vast number of students who do not exercise little because the institution is not a good fit.”

“Even where there are differences among selected higher education institutions, performance is generally similar.”

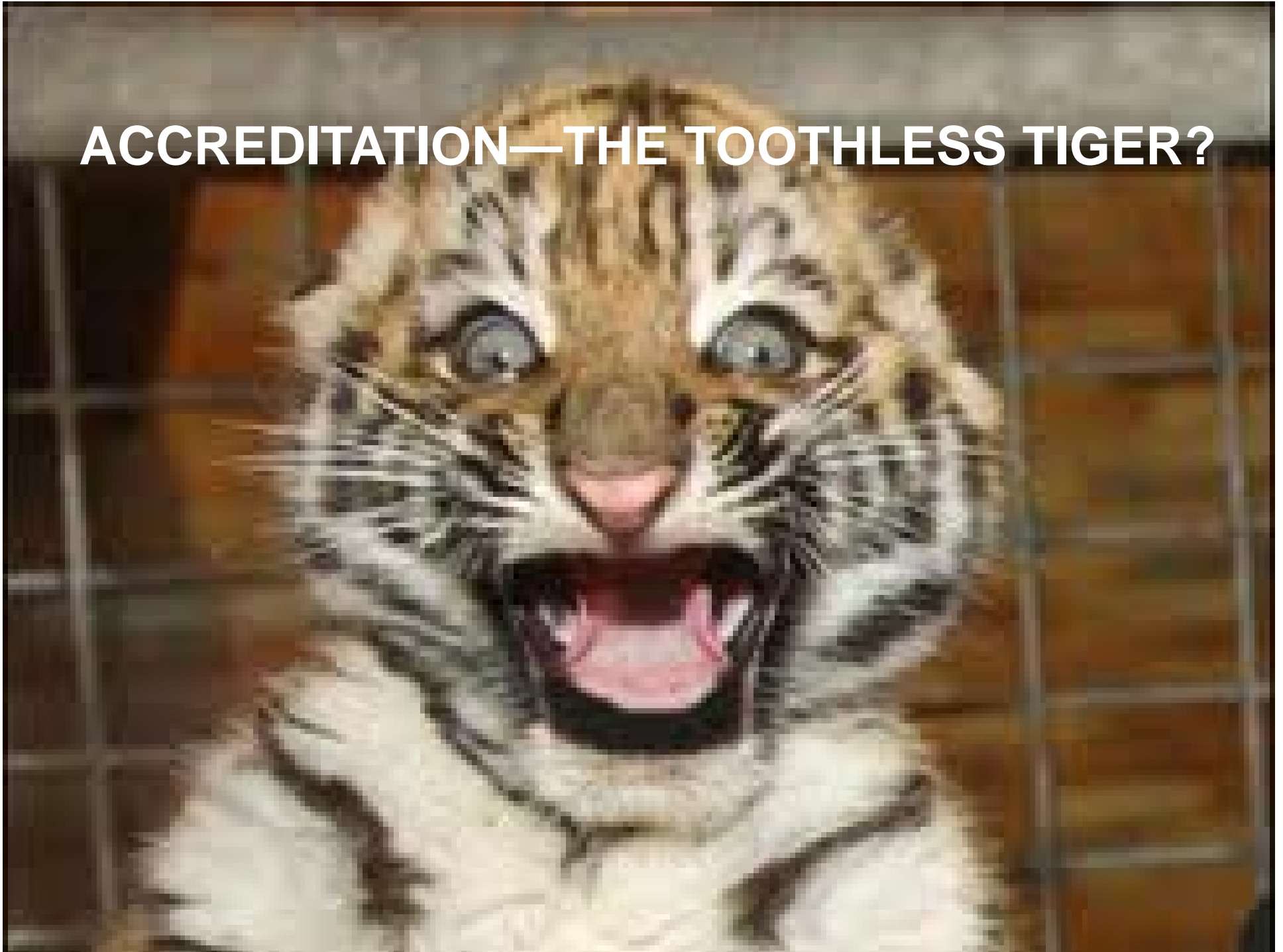


the U.S. they attend & decision are

to exist additional academic

in Ewell, 2010

ACCREDITATION—THE TOOTHLESS TIGER?



THE CONNECTION BETWEEN RESEARCH AND PRACTICE

MARY KENNEDY

1. Research needs to be more authoritative
2. Research needs to be more relevant
3. Research needs to be more accessible
4. The education system is inherently unable to respond coherently to research findings.

Educational Researcher, Vol. 26, No. 7 (Oct., 1997), 4-12.



**“Assessment is, at its core,
a subversive activity.”**

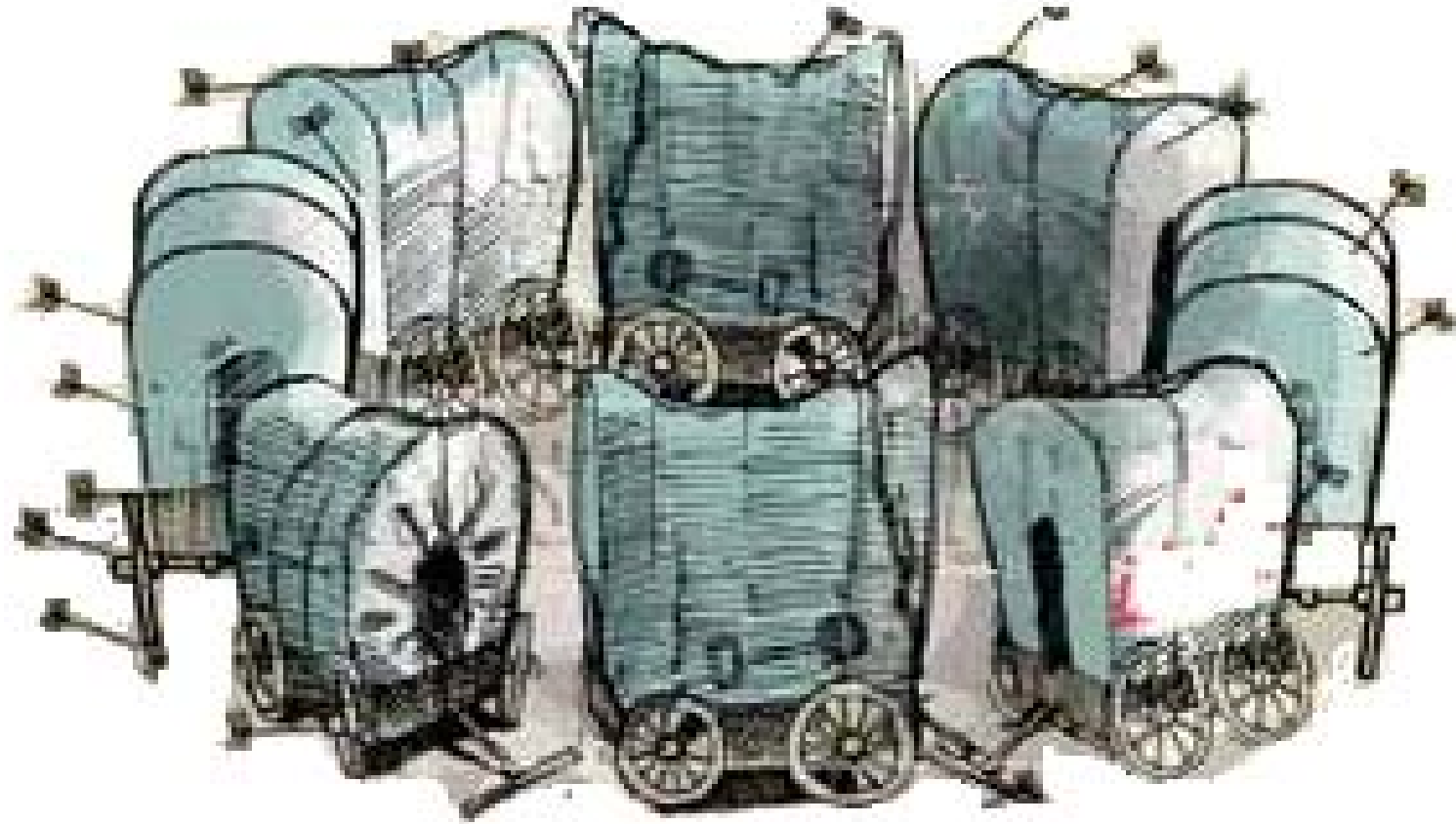
“Although faculty, staff, students, and administrative leaders genuinely believe that the current structures promote learning...”



... the current state of affairs at almost every institution is based on a delicate set of compromises and optimizations in which many parties have participated and which few care to alter.”



CLOSING THE LOOP?



THE NEW CONTEXT



“There is an erosion of the public’s faith and good will toward higher education.”

“Now is the time to develop new measures of accountability to demonstrate what students are getting for their money.”

Callan, P. & Immerwahr, J.
The Chronicle of Higher Education, Jan. 11, 2008

“The time is drawing to a close.”







MEASURE OR PERISH

Yet the prevailing attitude toward assessment still ranges from infinite caution to outright hostility.

—Kevin Carey

<http://chronicle.com/article/Measure-or-Perish/125671/>

"TRUST US." WON'T CUT IT ANYMORE

[HTTP://CHRONICLE.COM/ARTICLE/TRUST-US-WONT-CUT-IT/125978/?SID=AT&UTM_SOURCE=AT&UTM_MEDIUM=EN](http://chronicle.com/article/trust-us-wont-cut-it/125978/?SID=AT&UTM_SOURCE=AT&UTM_MEDIUM=EN)

KEVIN CAREY

JANUARY 18, 2011

Deep down, everyone knows that learning has long been neglected. But they don't want to know.

Policy makers don't want to know.

Faculty don't want to know.

Students don't want to know.

College presidents don't want to know, because fixing the problem means arguing with faculty.



ACADEMICALLY ADRIFT

Is this OK?

“By every possible measure the majority of college graduates are far from prepared for the challenges of either the economy or our democracy.”

—Carol Geary Schneider, president
American Association of Colleges and Universities

http://www.aacu.org/liberaleducation/le-wi10/le-wi10_president.cfm



THE CREATIVITY CRISIS

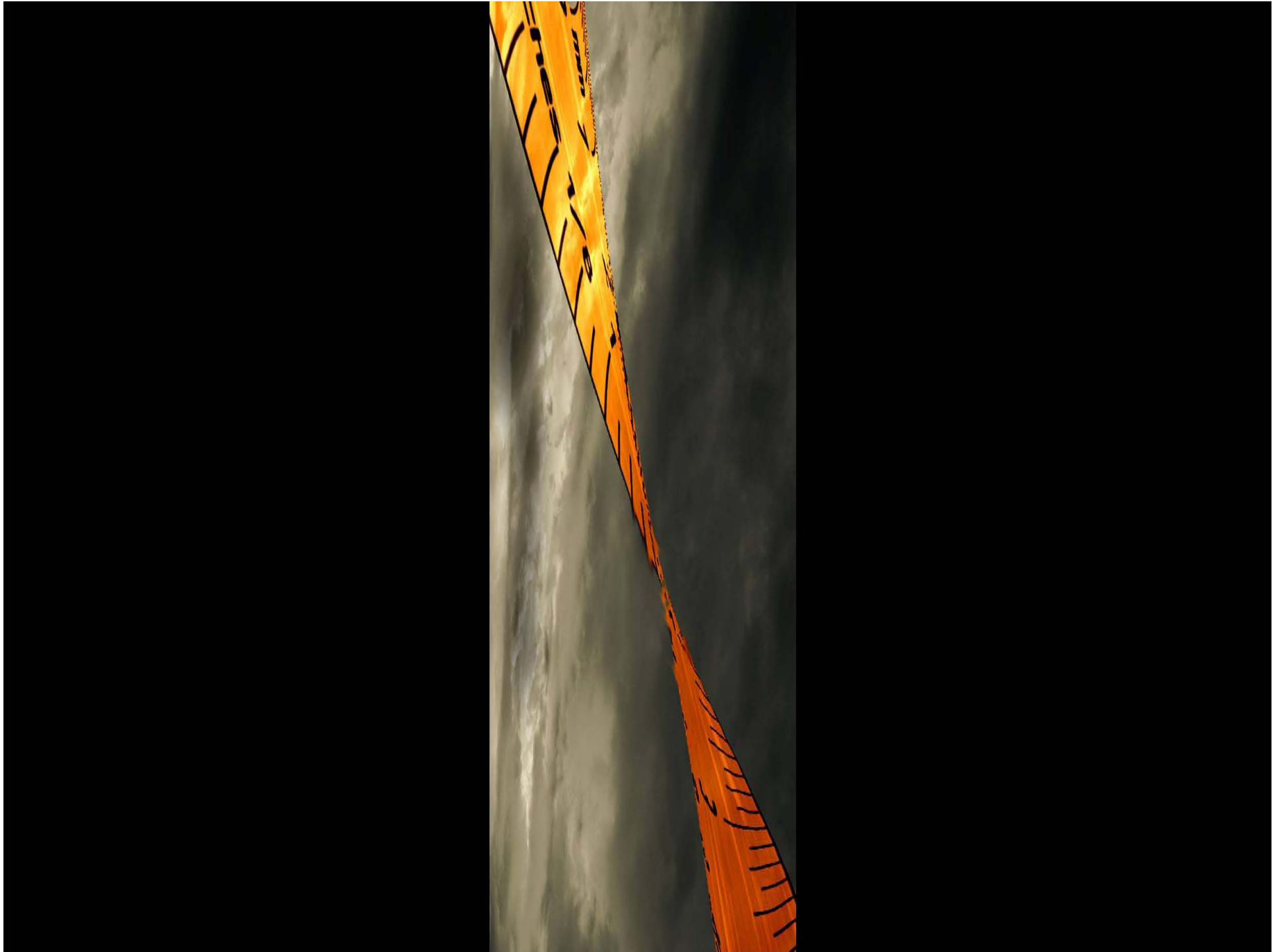
[HTTP://WWW.NEWSWEEK.COM/2010/07/10/THE-CREATIVITY-CRISIS.HTML](http://www.newsweek.com/2010/07/10/the-creativity-crisis.html)

American creativity scores are falling..

A recent IBM poll of 1,500 CEOs identified **creativity as the No. 1 “leadership competency”** of the future.









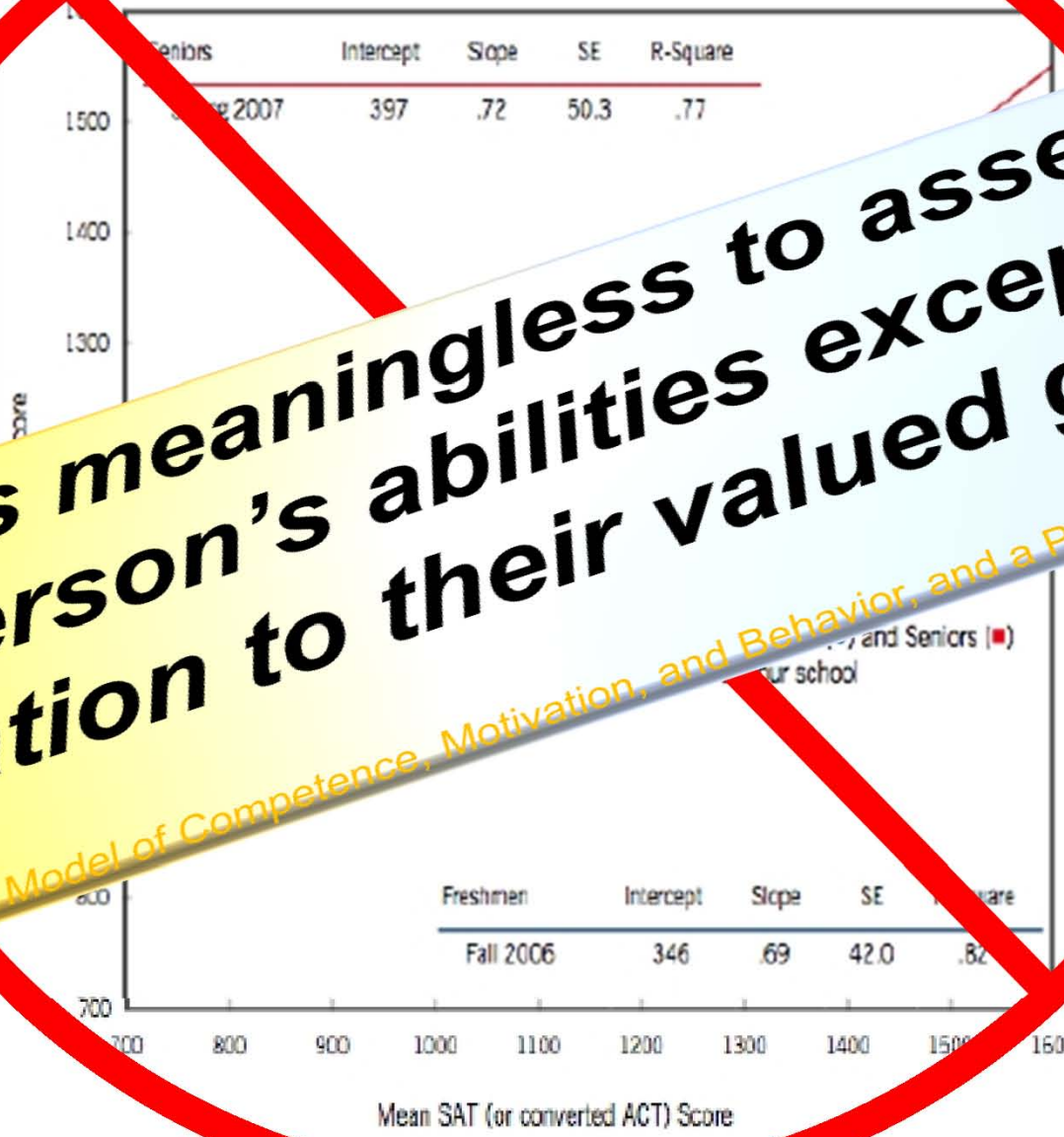
What Comparison Matters



“It is meaningless to assess a person’s abilities except in relation to their valued goals.”

—Raven, J.

A Model of Competence, Motivation, and Behavior, and a Paradigm for Assessment





NORTHWEST COMMISSION ON
COLLEGES AND UNIVERSITIES

NWCCU



EDUCAUSE

LEARNING
INITIATIVE

1. Institutional SYSTEM of assessment
2. Assessment review every 2 years
3. Professional Accreditation will not suffice for NWCC&U . . .

“All means all.”

Northwest Commission for Colleges and Universities to WSU



EDUCAUSE

**LEARNING
INITIATIVE**



The Center for Teaching, Learning, & Technology is a resource for everyone teaching at WSU. The center provides information and support related to assignment and syllabus design, use of educational technology, facilitating group work, and assessment. CTLT can help with your efforts to:

- **design assignments** that connect concepts and skills across courses and make use of collaborative learning;
- **refine syllabi**, which can include guidelines that clarify expectations about learning and set a positive classroom atmosphere;
- **incorporate innovative teaching** approaches and techniques that help engage students;
- **assess your courses** as the semester unfolds and make adjustments. CTLT provides a variety of assessment tools and can help faculty interpret results to refine teaching practices.



program assessment portfolio



outcomes assessment



eportfolios for learning



Assessment Tuesdays



eLearning@WSU
powered by Blackboard
learning System CE



critical thinking



The Center for Teaching, Learning & Technology

Genuine

instructor/programmatic
curiosity for improvement



THE THREE WSU ASSESSMENT GOALS

1. Establish a system of assessment that affords individual student and departmental agency.
2. Establish a system of assessment (feedback) focused on improvement in teaching and learning.
3. Deepen organizational understanding of the valuable uses (and misuses) of assessment.

QUALITY!



ASSESSMENT AS LENS



“W



EN

PROPOSALS FOR THE
PROPOSALS FOR THE



ASSESSMENT AS MIRROR



Assessment of Assessment Overview

It is expected that each program will focus and implement assessment in ways appropriate to its own distinct context, needs, and questions.

1		Minimal	Emerging	Developing	Adequate	Effective	Outstanding
	0	1	2	3	4	5	6
ABSENT	Assessment Team & System The assessment process engages program faculty, leadership, students and other stakeholders involved with the program (cross-institutional faculty, accreditors, alumni, advisory boards, and employers) as appropriate. The system is recurring and dynamic. It is implemented and refined over time for continuous improvement.						

2		Minimal	Emerging	Developing	Adequate	Effective	Outstanding
	0	1	2	3	4	5	6
ABSENT	Program Goals, Outcomes, and Measures Goals and outcomes reflect stakeholder consensus and, curricular alignment, and support WSU strategic initiatives. Multiple evidence-based measures are complementary and are designed to illuminate questions faculty and administration care about, yielding useful information.						

3		Minimal	Emerging	Developing	Adequate	Effective	Outstanding
	0	1	2	3	4	5	6
ABSENT	Analysis and Action Plan* Assessment system informs and guides demonstrable change and engages all instrumental program personnel in the scholarship of teaching and learning. There is follow-through with actions that may include changes and improvements to pedagogy, curricula, faculty development, and/or assessment practices in order to enrich the student learning experience.						

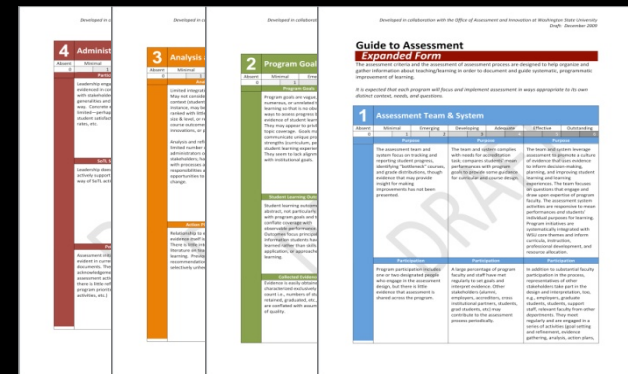
*It is not necessary to fill out the "Analysis and Action Plan" section for the December 18, 2009 report.

4		Minimal	Emerging	Developing	Adequate	Effective	Outstanding
	0	1	2	3	4	5	6
ABSENT	Administrative Leadership & Support The assessment process is prioritized and robustly supported by program leaders, including significant allocation of time and resources. The policy engages all relevant stakeholders. The assessment process yields information used by administration and faculty with demonstrable impact on curriculum, teaching practice, and student learning outcomes.						



Program reports

Get rubric-based feedback from 2 reviewers



THE INVITATION



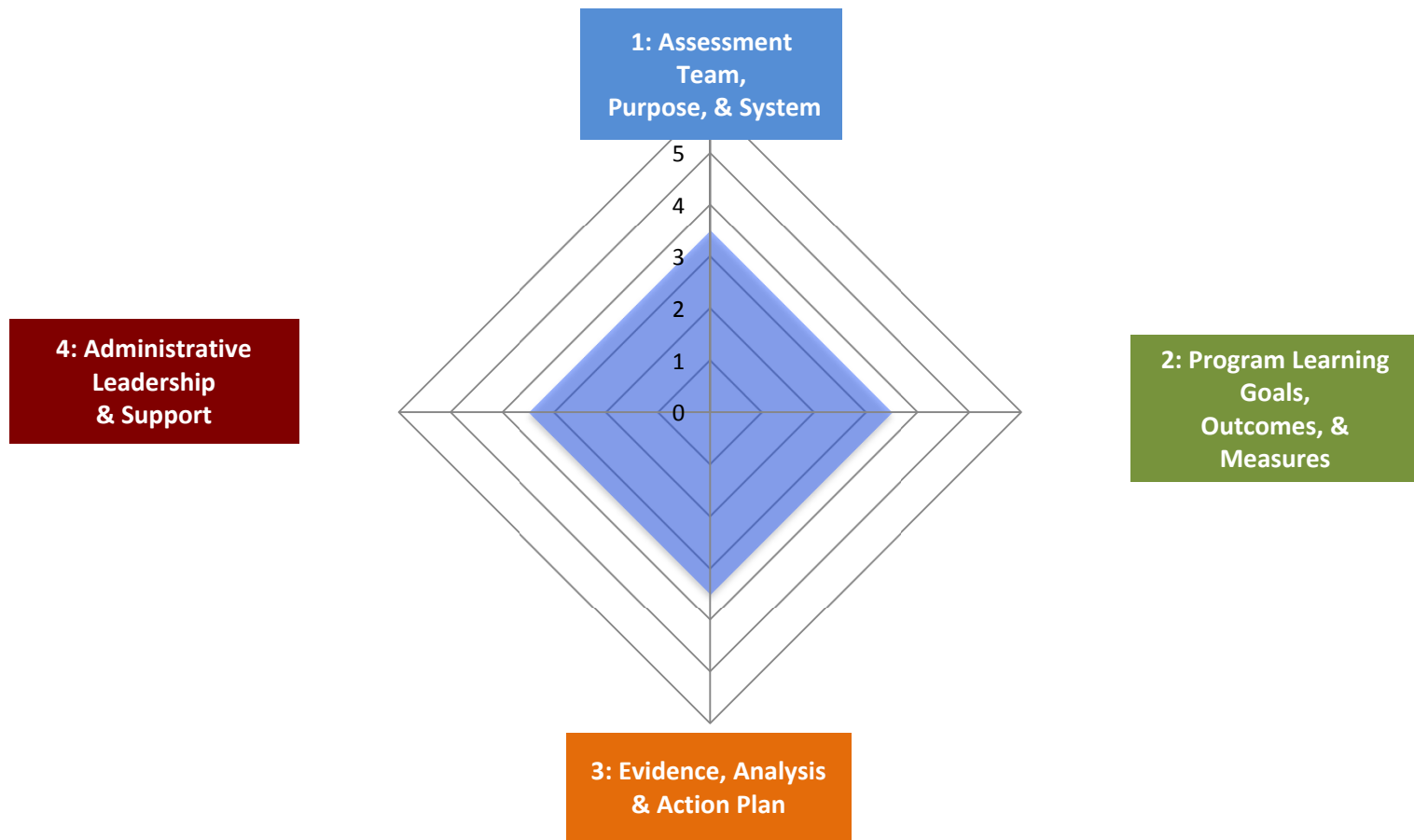
FOCUS ON PROGRAM ASSESSMENT

Team & System

Goals & Measures

Evidence & Action

Leadership



TEAM AND SYSTEM

“To be ultimately successful, any meaningful assessment effort must be embraced widely by instructors.”

—From “Assess This!”

“Online assessment communities link local faculty members in collaborative work to develop shared norms and teaching capacity, and then link local communities with each other in a growing system of assessment.”

—Trudy Banta

<http://learningoutcomesassessment.org/documents/AlternativesforAssessment.pdf>



GOALS, OUTCOMES, MEASURES

For assessment to “have meaning beyond an individual institution:”

1. Are public and shared with those who have responsibility for teaching.

2. Anchored “in the curriculum that faculty teach.”²

²(New Leadership, Student Learning, Accountability, AAC&U p.5)

3. Reflect “some kind of standard.”

—From CHEA



EVIDENCE

2
3.
A.

“The self assessment and a block assessment completed by students have been in place for 5 – 6 years. There is lots of data. I am not aware that it has been used in any way.”

~Grant Wiggins

Quality?



Systematic *Responsiveness* to Changing Contexts



WHAT TO REPORT?



HERE'S LOOKING AT YOU:
TRANSPARENCY, INSTITUTIONAL SELF-
PRESENTATION, AND THE PUBLIC INTEREST

***“Transparency
demonstrates that the
academy takes its
education mission
seriously.”***



“Such openness is risky.”



Transparency: *“Strategic Image Management”*

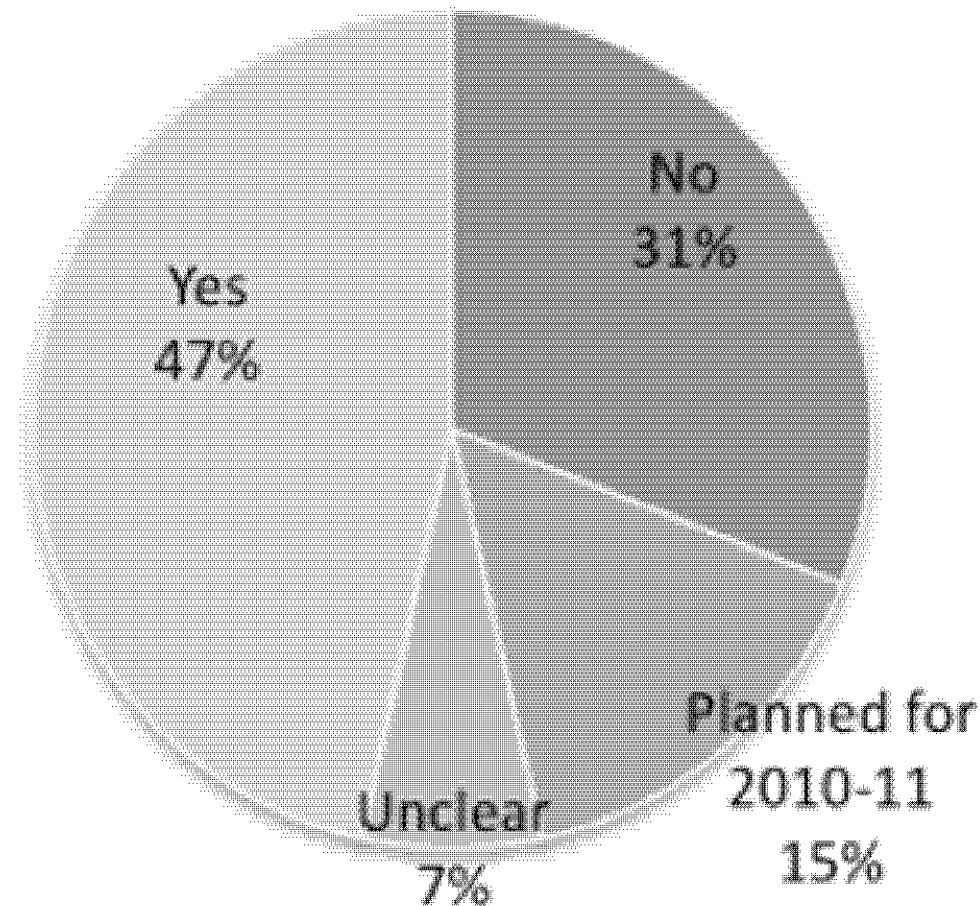


WHAT TO REPORT?

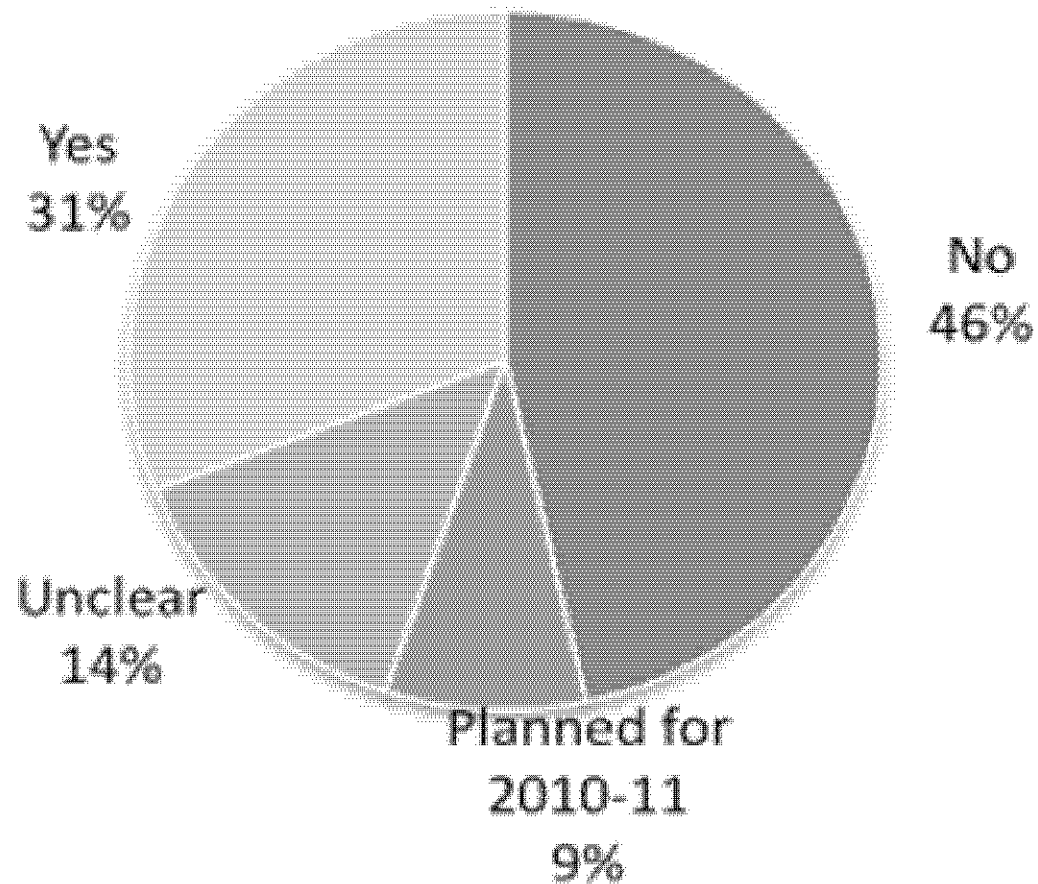
***The percentage of programs
collaborating
with communities of
practice....***



Stakeholders Have Reviewed Goals/Outcomes



Stakeholders Have Reviewed Student Work

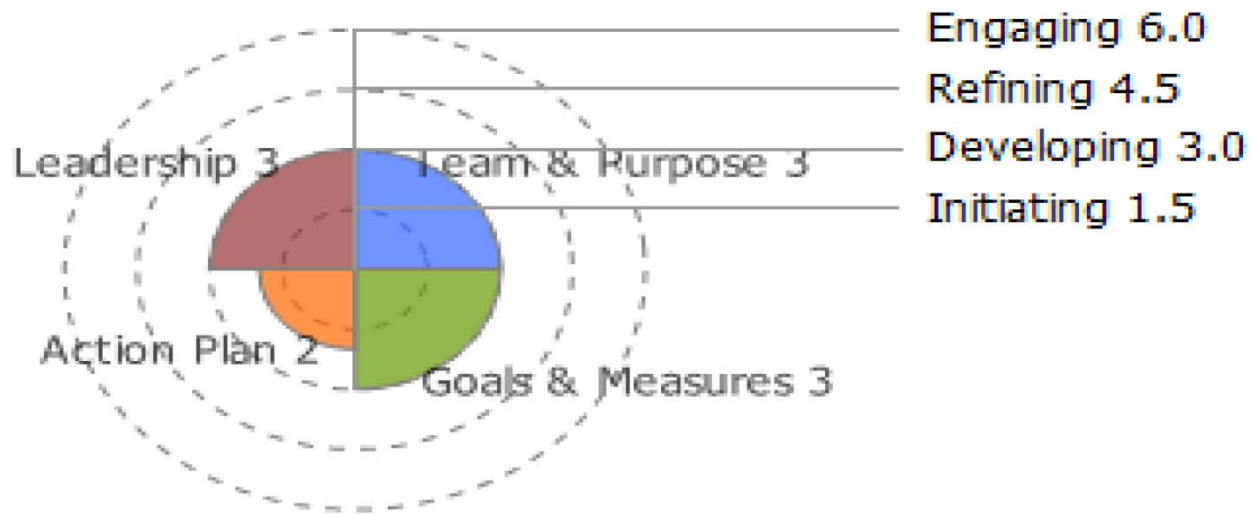


YEAR ONE RESULTS

WSU | College | **Program**

Program **Agricultural_and_Food_Systems** ▼

Agricultural and Food Systems



YEAR ONE RESULTS

WSU College Program

College Engineering_and_Architecture

Engineering and Architecture (9 of 9)



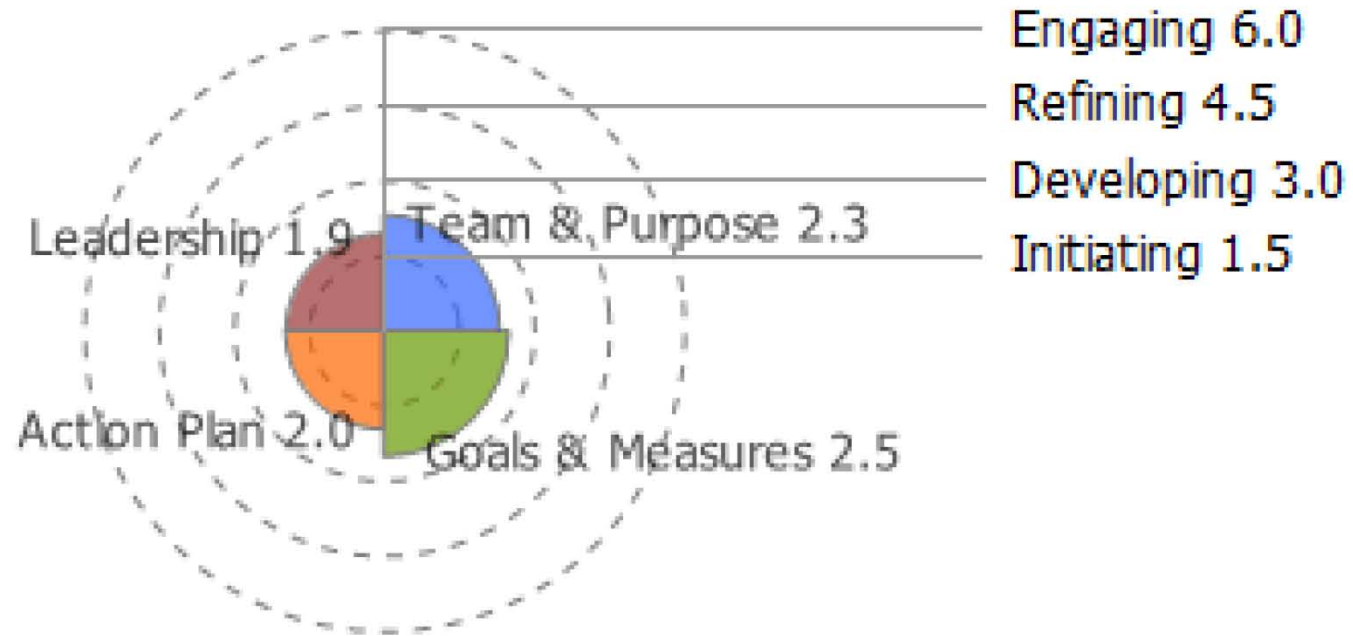
YEAR ONE RESULTS

WSU

College

Program

WSU Overall System of Program Assessment



1190 Graduating Students



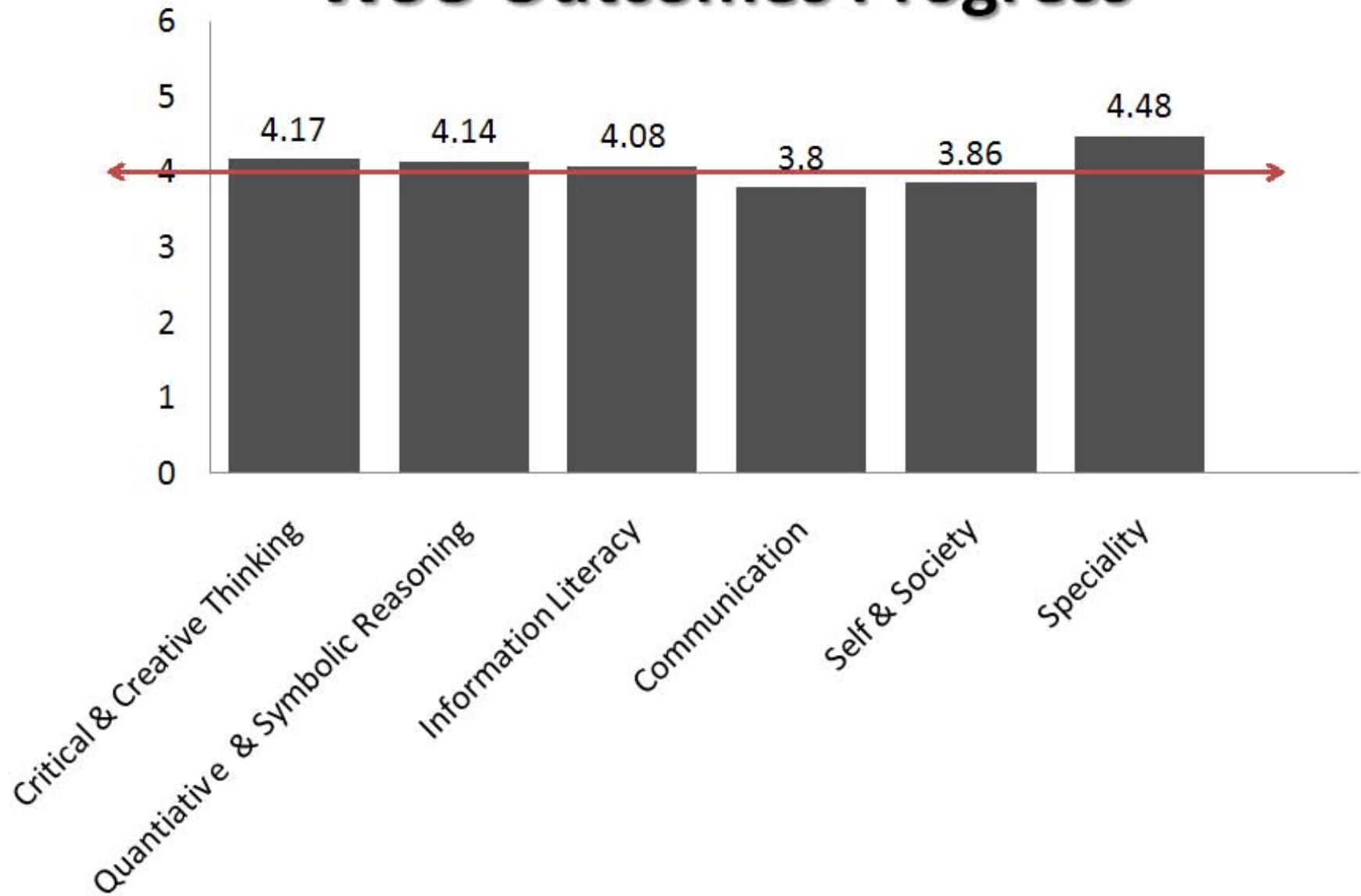
17% of WSU Undergraduate Programs



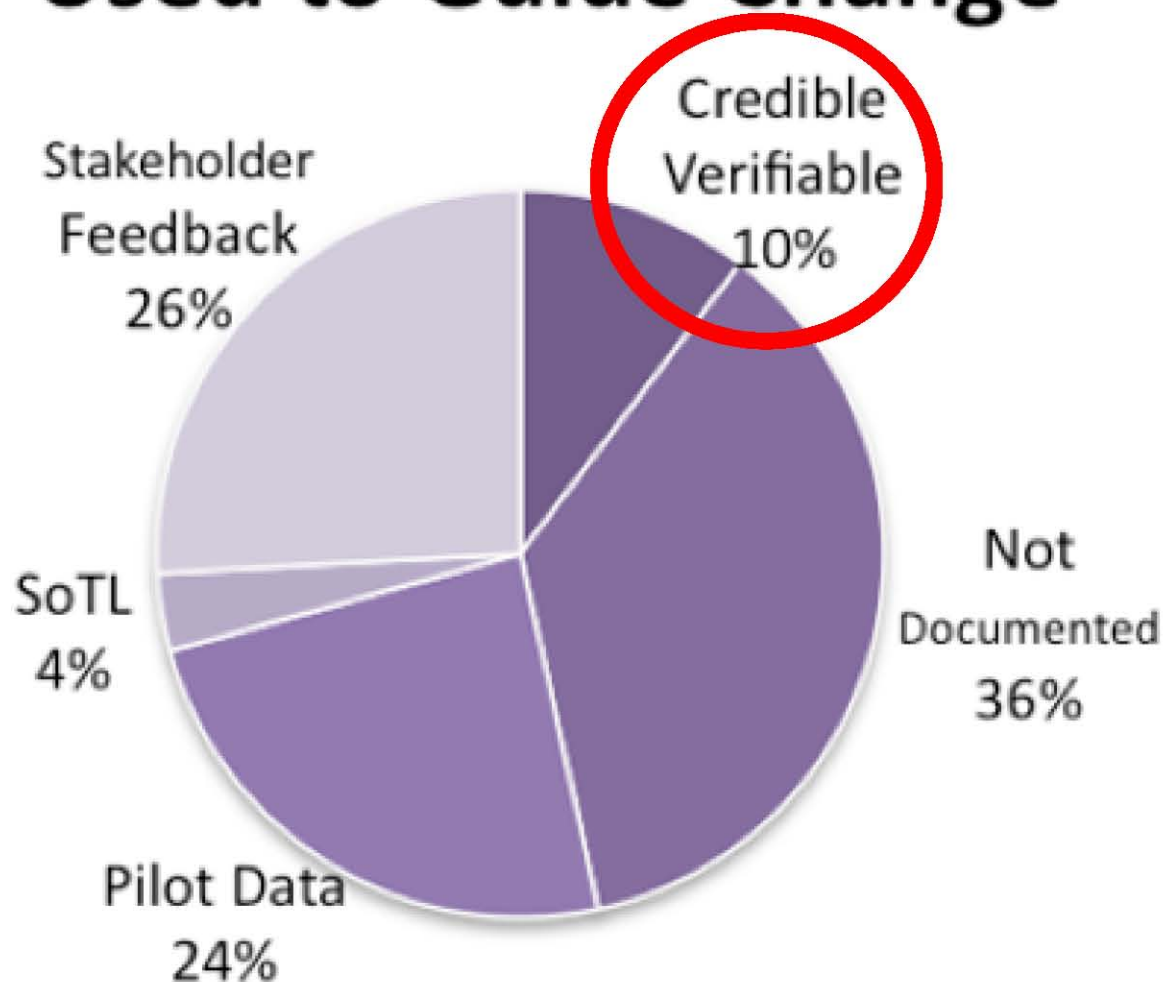
Almost 20% of Graduating Class



WSU Outcomes Progress



Information Used to Guide Change



Information type WSU Programs used in the 2009-2010 cycle to inform or guide change

***What is Learned
&
Applied***

SAMPLE FINDINGS

Finding:

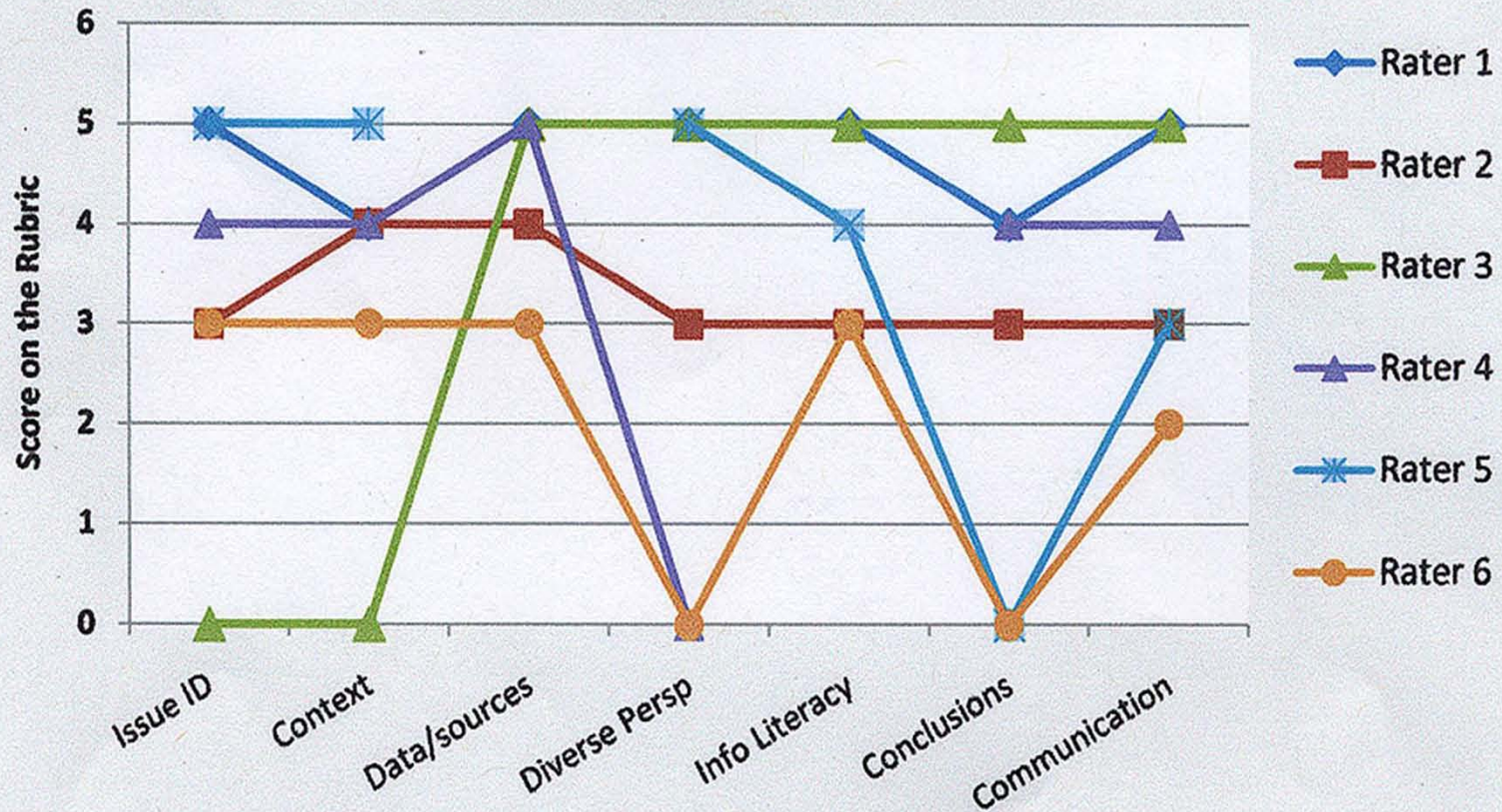
More than 50% consistently fail intro calculus

Action:

1. Ask Why
2. Follow Successful Students
3. Experiment
4. Isolate Problem:
exponentials

SAMPLE FINDINGS

Rater Reliability on Assignment Prompt #2 Hist 300
History, Spring 2009, 6 Raters



SAMPLE FINDINGS

Finding:

Inconsistent perceptions of goals, performance expectations as reflected in assignments and grading....

Action:

“Imagine how students perceive our curriculum?”

Initiate peer assignment review.

*WHAT **NOT** TO
REPORT?*

ON THE OTHER HAND...

[HTTP://CHRONICLE.COM/BLOGS/MEASURING/MEASURING-STUDENT-LEARNING-MANY-TOOLS/27541](http://chronicle.com/blogs/measuring/measuring-student-learning-many-tools/27541)

*“We ’ve got a lot of the assessment down.
We ’ve got rubrics. We ’ve got e-portfolios.
We have all sorts of stuff out there.*

But we need to improve its yield.

*And that ’s more of a political process, more
of a cultural process.”*

*—Charles Blaich,
The Wabash Project 2010*

SAMPLE FINDINGS

Goal:

Action:

Adopt commercial admissions exam to screen out at-risk students.

SAMPLE FINDINGS OF CONCERN

Finding:

Graduating seniors are weak on global, cultural and societal contexts,” and “They were not quick to identify the areas in which they were ignorant.”

Action:

Report that students are meeting expectations.

SAMPLE FINDINGS OF CONCERN

Finding:

A majority of majors did not “meet expectations” on any outcomes.

Action:

1. Raise entry requirements
2. Provide more rigor in required courses.
3. Lower expectations given the quality of the students.

SAMPLE FINDINGS OF CONCERN



SAMPLE 5

**Action:
Dismiss senior
&
alumni survey
findings...**

SAMPLE FINDINGS OF CONCERN

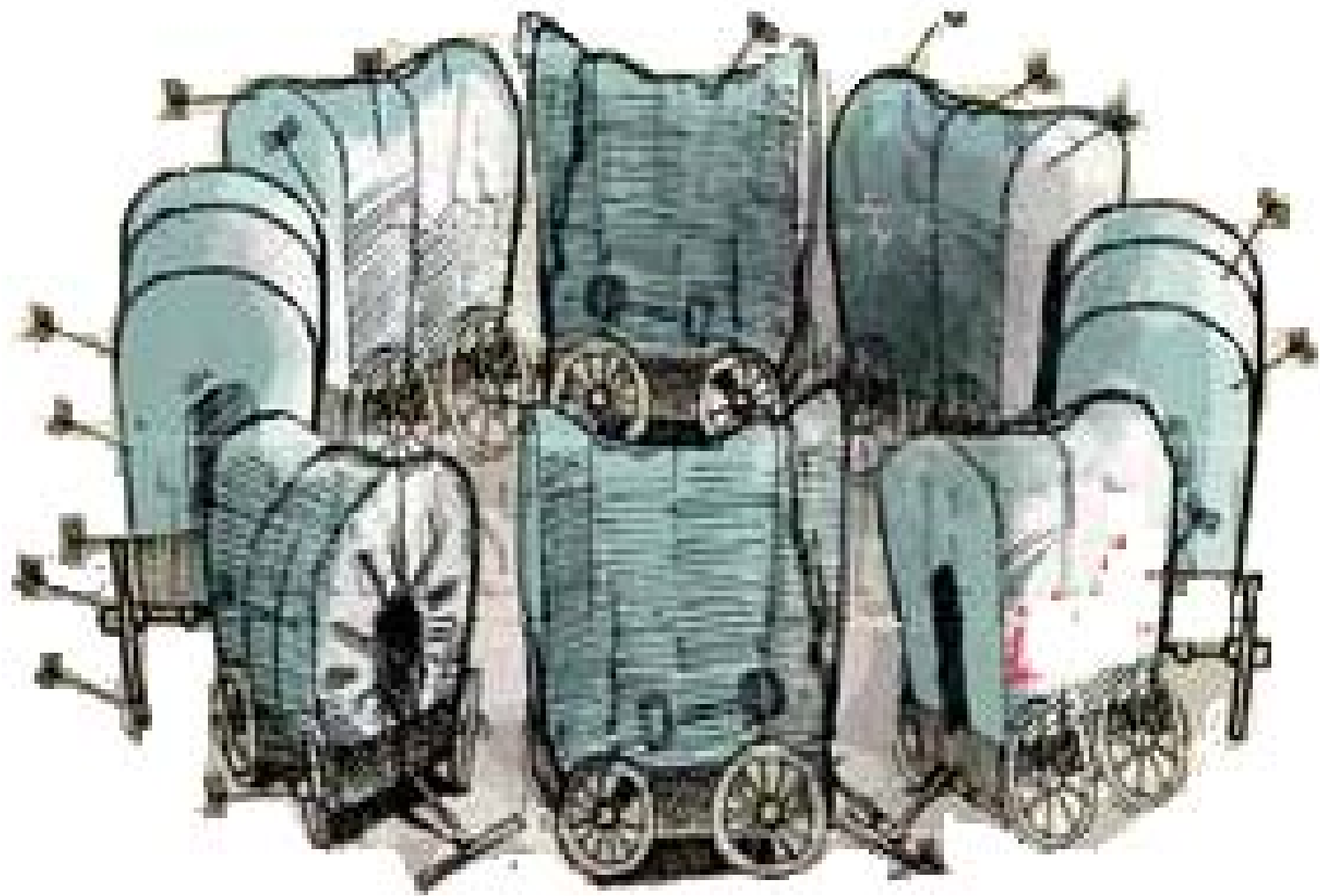
Finding :

“We are giving too many 4s.”

Action:

Stop giving too many 4s





SAMPLE FEEDBACK

Junior faculty:

“How should we respond to the Office of Assessment’s feedback on our assessment plan?”

Tenured professor:

“Oh -kiss my ass! I have been here long enough to know that THAT thing will be flushed down the toilet, so I wouldn't worry too much.”

“The future effectiveness of institutional accreditation in both promoting good practice and in reinforcing the academy’s assumption of consistent and transparent standards of student academic achievement lies entirely in the hands of the academy and its leadership.”

—Peter Ewell

<http://www.learningoutcomeassessment.org/occasionalpaperone.htm>

EPILOGUE



SAMPLE FINDINGS OF... CONCERN

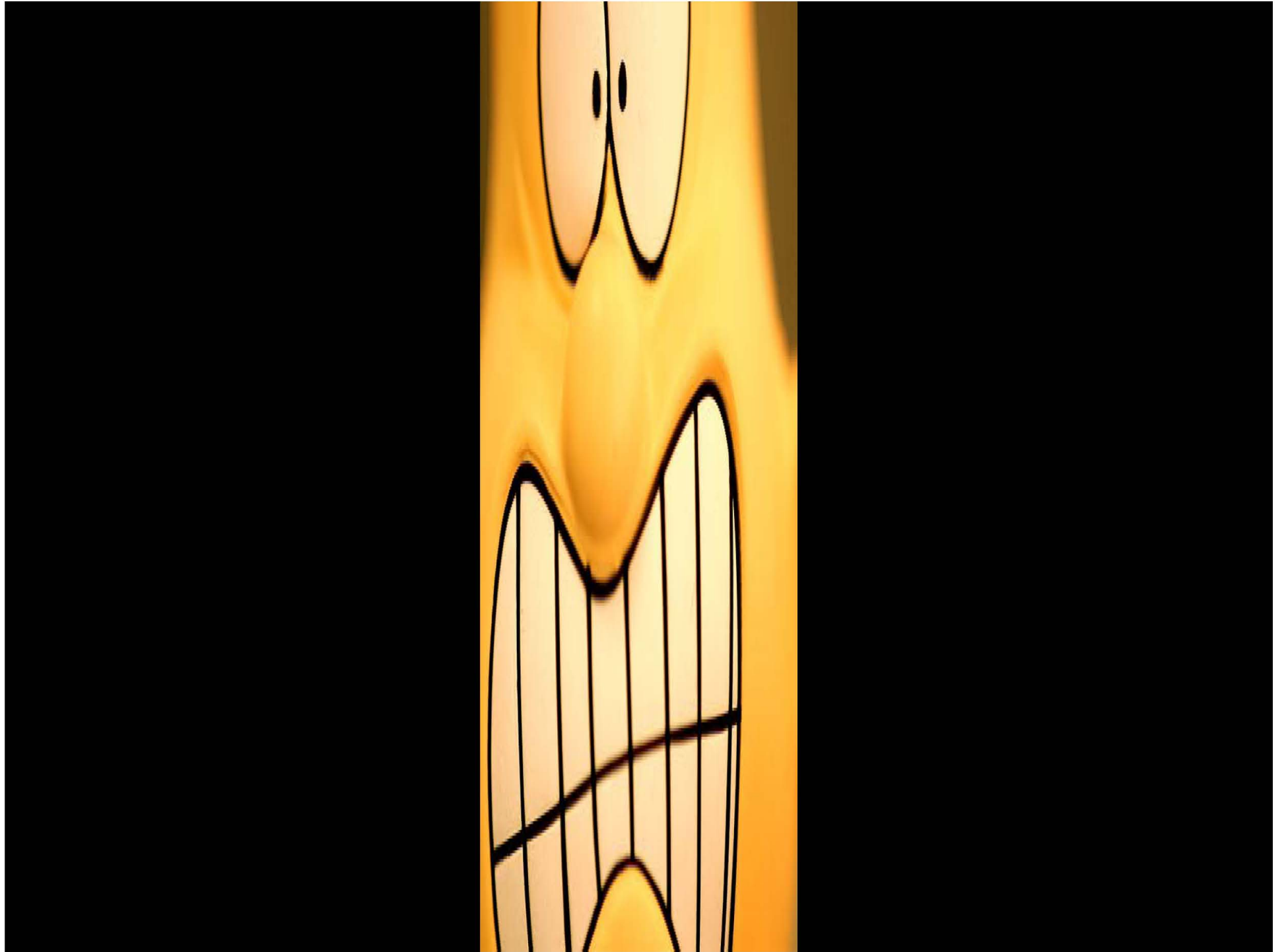
Finding:

**Report submitted to
NWCC&U in
October...**

**The report reveals
that 33% of units
have reported
perfunctory
assessment results.**

Action:











QUESTIONS?



communitylearning.wordpress.com

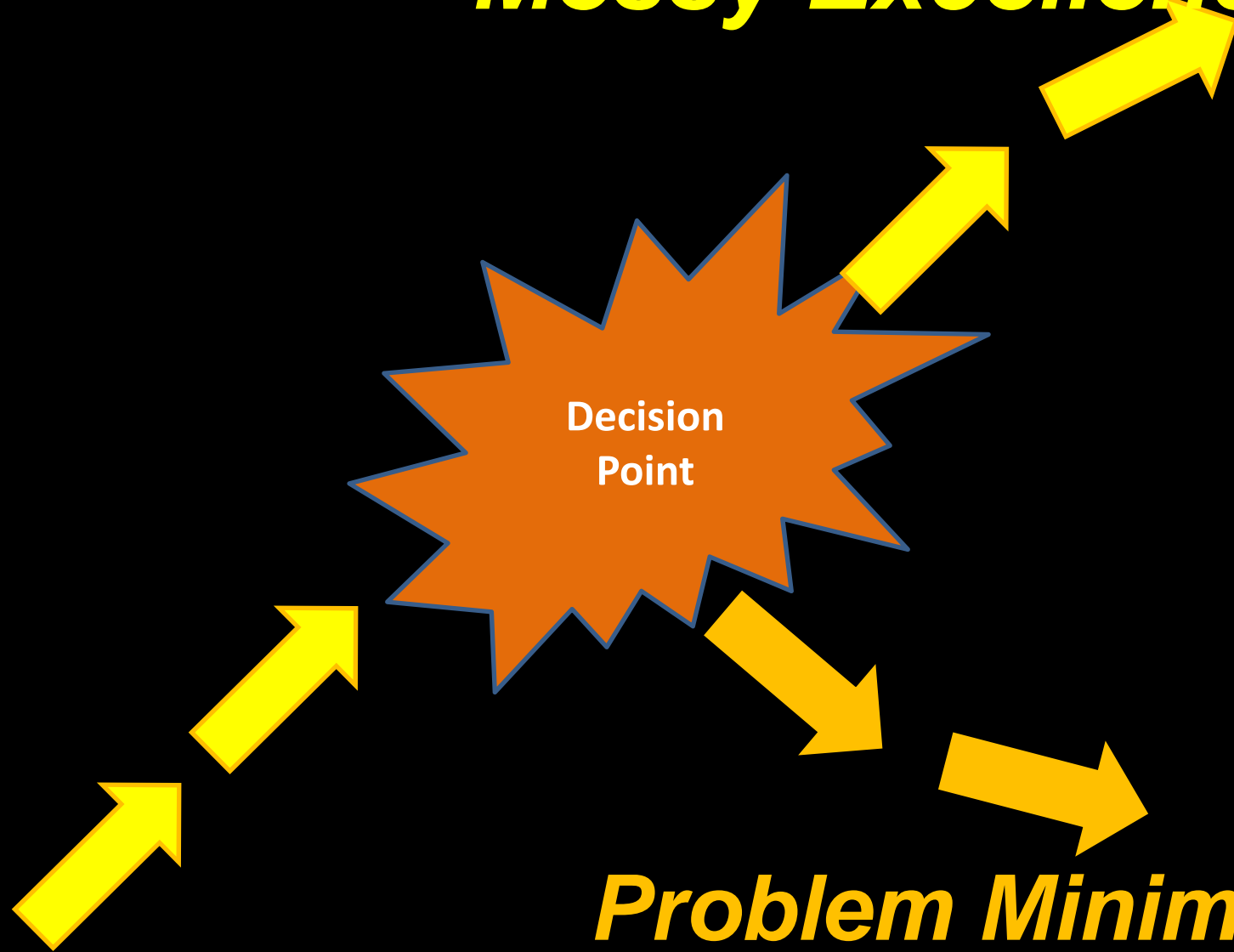
10

Inexplicable Optimism

?



Messy Excellence



Problem Minimization

BEREITER, C., & SCARDAMALIA, M. (1983). LEVELS OF INQUIRY IN WRITING RESEARCH. IN P. MOSENTHAL, L. TAMOR, S. A. WALMSLEY (EDS.), RESEARCH ON WRITING: PRINCIPLES AND METHODS (PP. 325). NEW YORK: LONGMAN.

ENGAGING FACULTY IN ASSESSMENT & IMPROVEMENT

Assess Student Performance

Faculty Participate in Assessment

Improve Student Learning Opportunities

Increase Faculty Awareness of Effective Practices

ENGAGING FACULTY IN ASSESSMENT & IMPROVEMENT

- New Course at Clemson includes mini-research projects
- Case study course at Sam Houston State University
- University of Wisconsin made gains reflecting on different scientific methodologies

Engaging Faculty in the Assessment and Improvement of Students' Critical Thinking Using the CAT, Stein and Haynes; *Change*, March/April 2011, pp 44-49



Washington State University

College of Veterinary Medicine

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Ag. Animals



Horses



Dogs



Cats



Camelids



Exotics

Washington State University's College of Veterinary Medicine is one of the nation's top veterinary schools.

What's New?

[Great-horned Owl Chick Returned to Nest](#)

[CE WEBINAR April 13 by Dr Dale Moore on Colostrum Management for Dairy Calves](#)

[Kids Judge! 2011 Photos](#)

[A Dime in Time Donations to WSU PATH Program](#)

ENGAGING FACULTY

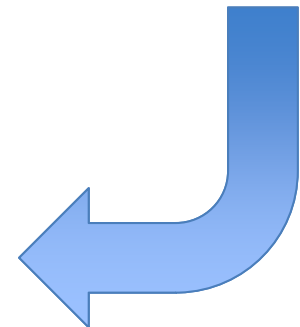
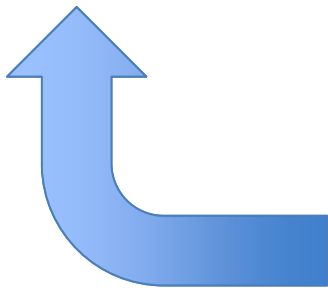
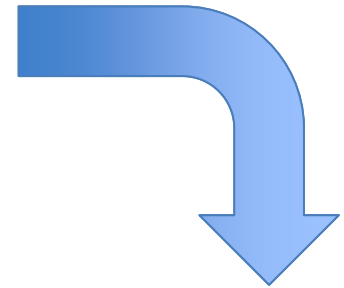
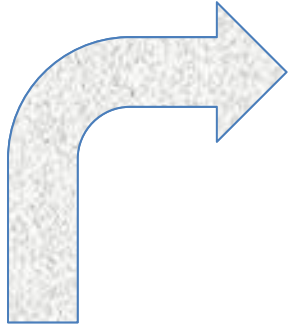
Assess Student Performance

Faculty Participate in Assessment

Improve Student Learning Opportunities

Engage Faculty In New Context!

Increase Faculty Awareness of Effective Practices



The WSU
Inter/National Coalition For
Electronic Portfolio Research
Study



Promote > Student Agency

Hi-Jacked with Course Management Systems

Teacher-Centered

Assign Task

Study & Perform

Test & Submit

Learner-Centered

Cooperate

Study, Interact,
Reflect & Perform

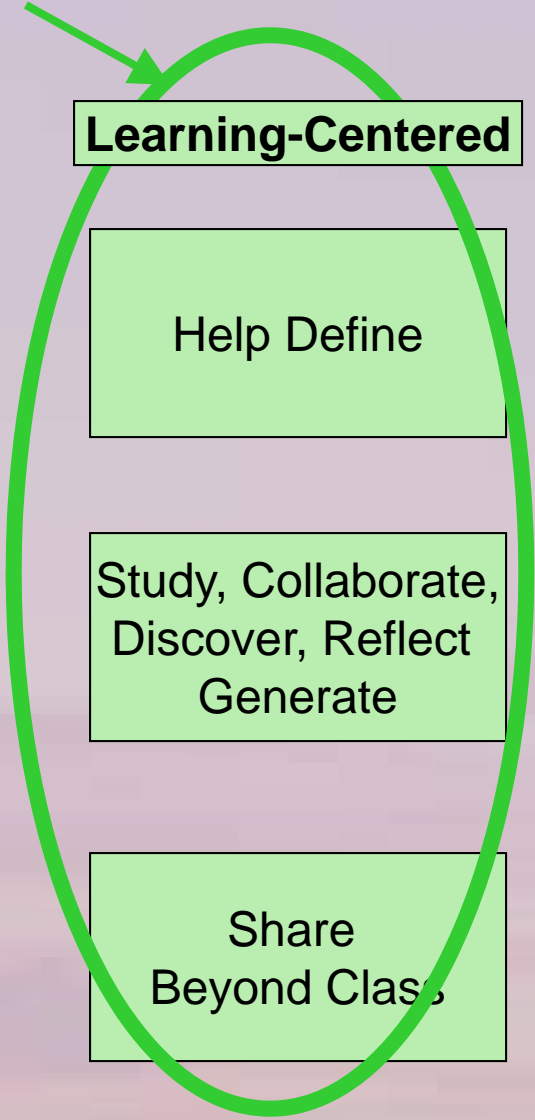
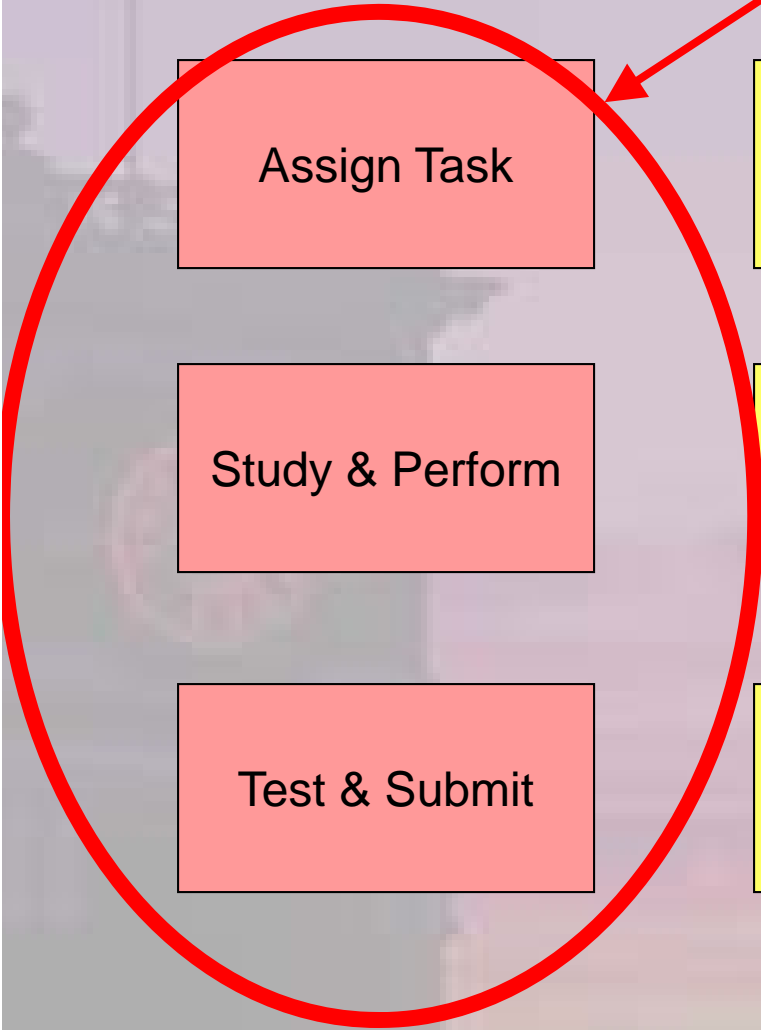
Test & Submit

Learning-Centered

Help Define

Study, Collaborate,
Discover, Reflect
Generate

Share
Beyond Class



KEY FINDINGS

Teaching-Centered

Value course management

Do NOT value

learning growth

sharing knowledge

building community

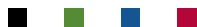
using multimedia

Are unfamiliar with ePortfolios & not likely to use

Request training on tools and on the value of the tools.



How do we present to them the value of new tools?



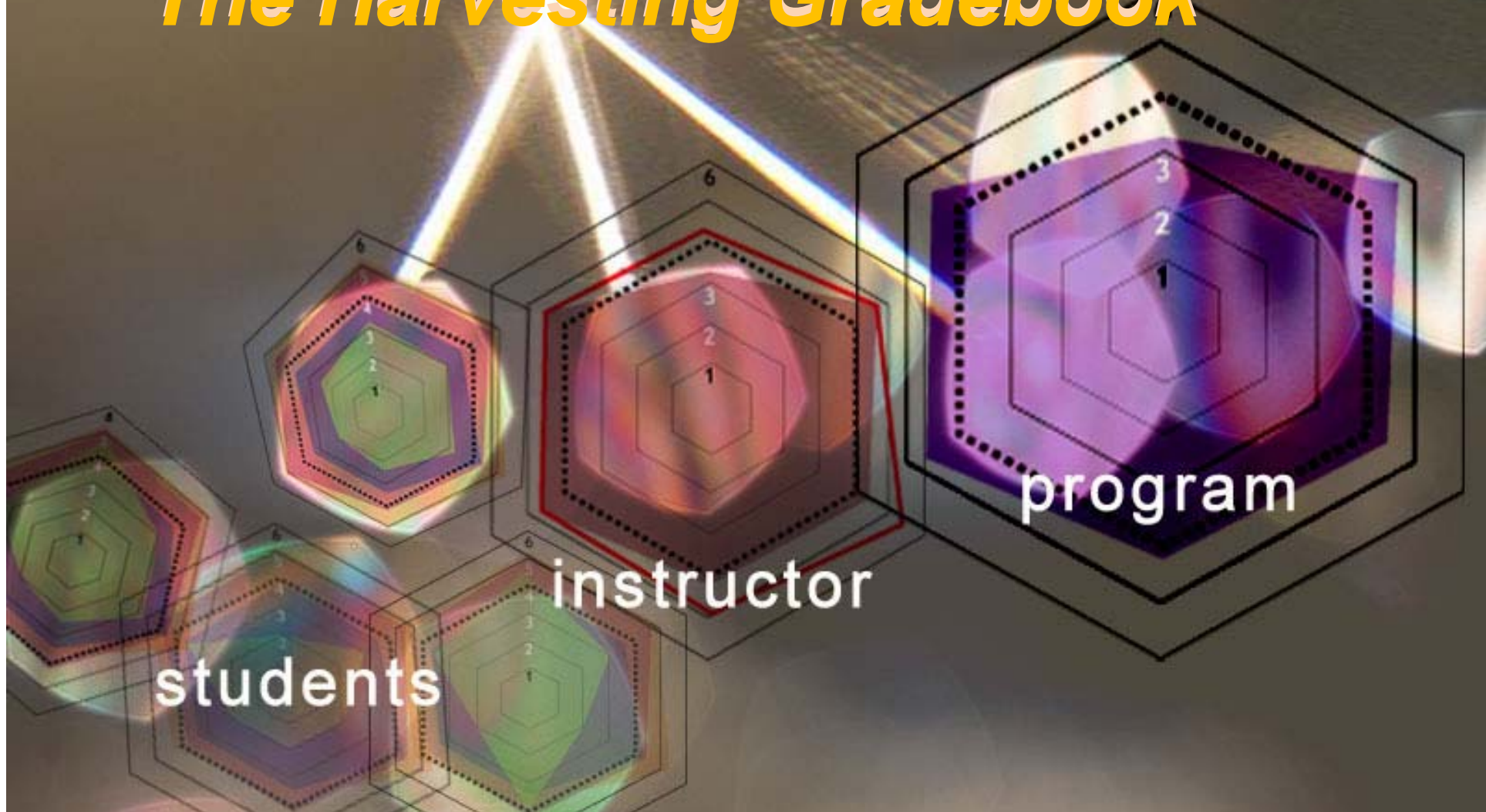


remember the milk™ BETA



Feedback can be routed back to multiple audiences.

The Harvesting Gradebook



PS Shapiro, Can...

General M...

am Faculty

Students & Faculty

Feedback!



Forecasting fashion is more analysis and less hunch than most people are aware. The analysis requires a market analysis that includes variables drawn from multiple sources, with regional as well as temporal considerations. The variables used in the analysis were selected according to principles

Integrative Thinking

Example	Example	Example
...

Nordstrom's

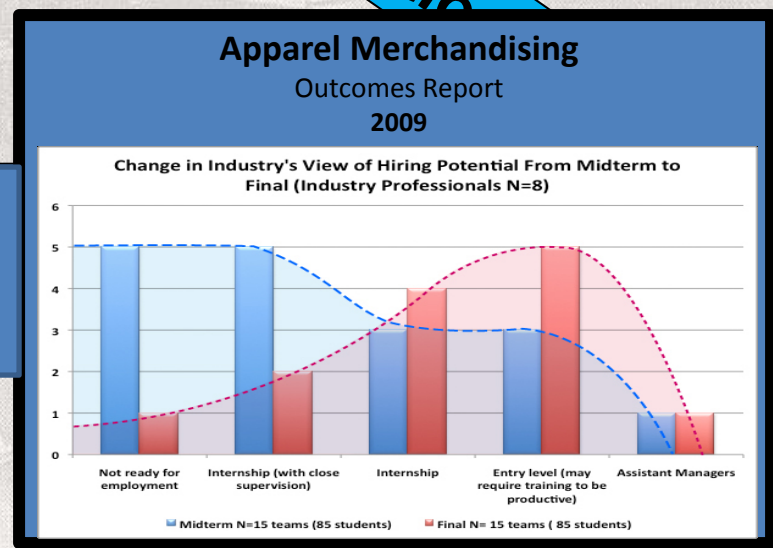
Career Services

Butler Bag

Carlin Internatio

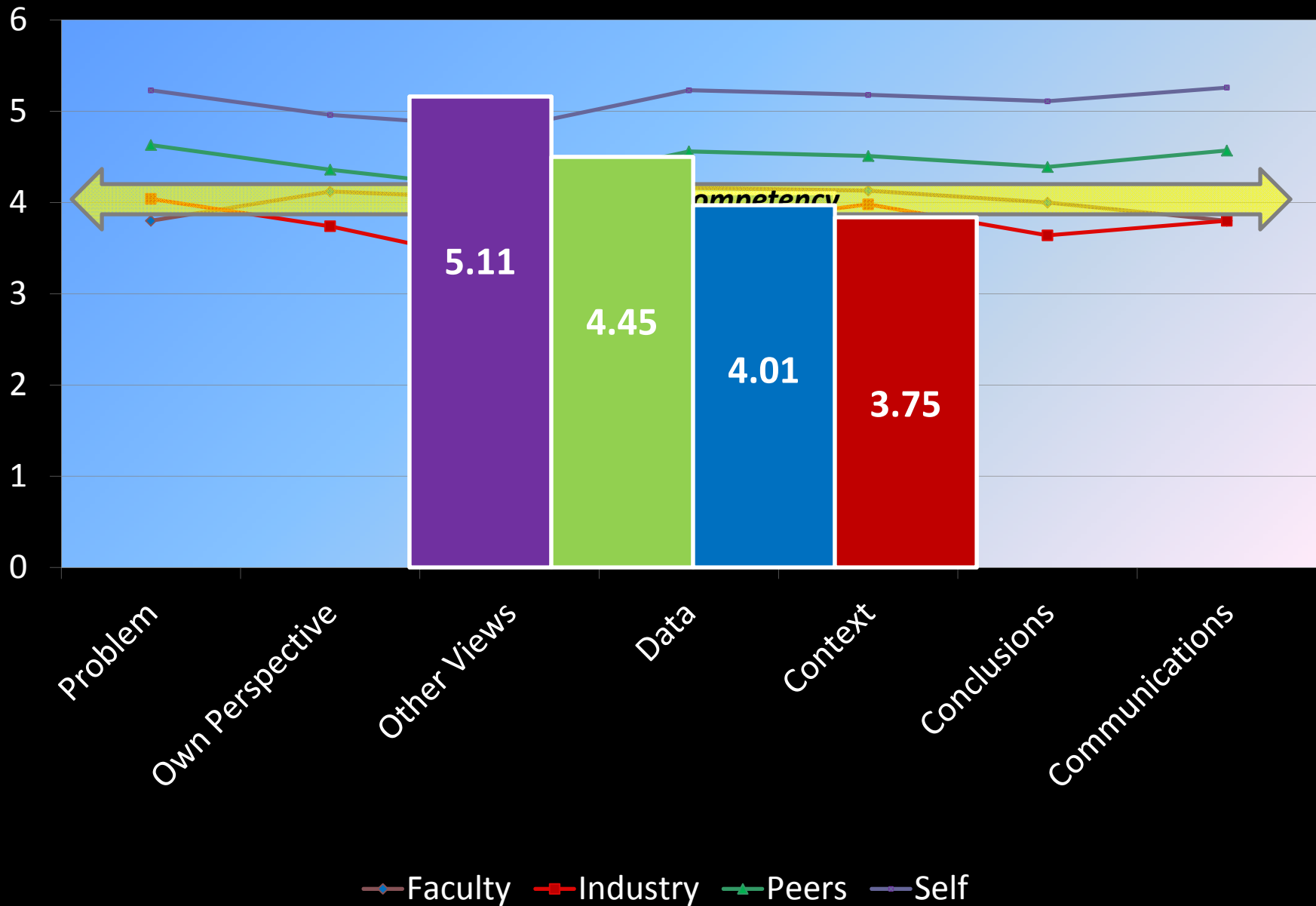
WASHINGTON STATE UNIVERSITY
World Class. Face to Face.

A-Z Index Campuses myWSU Contact Us



2009 5/25/09

PROJECT CRITICAL THINKING RATINGS BY GROUP



EMPLOYERS SAY...

“My business partner and I were so impressed with the work of the students assigned to our two teams that we have asked them to contact us regarding summer internships...”

“We would be happy to participate in similar projects in the future and/or arrange introductions to other companies who might also be interested.”



The Gene and Linda Voiland School of
Chemical Engineering and Bioengineering



THE DEVELOPMENT OF
THE REACTOR
NOW RECRUITS ALUMNUS

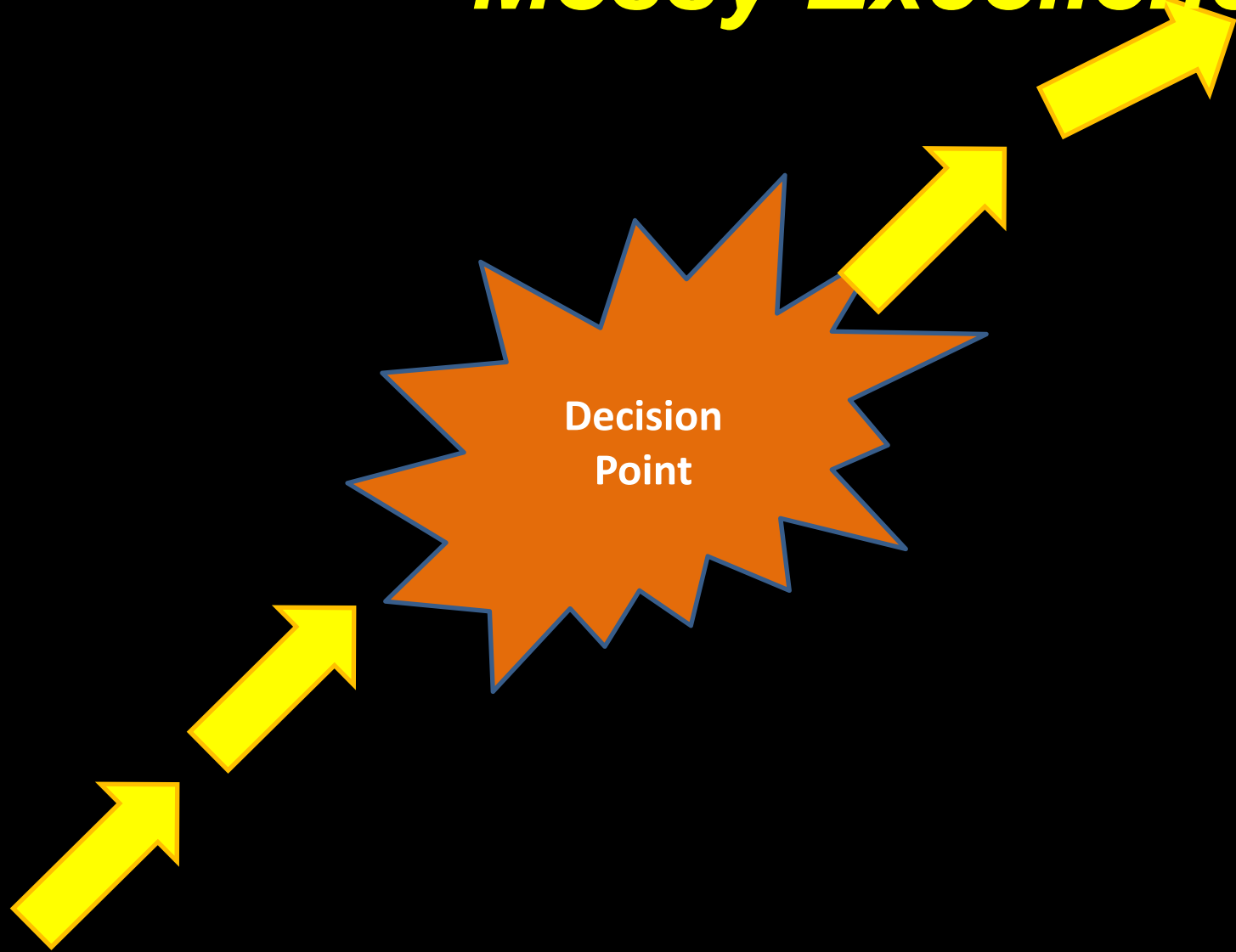
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Messy Excellence



An aerial photograph of a large agricultural field. In the upper left, a red tractor is moving across the field, leaving a trail of dust. In the lower right, a large, intricate spiral pattern is visible in the soil, consisting of many concentric, slightly irregular rings. The overall color of the field is a warm, golden-brown.

QUESTIONS?

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