



Fall 10-2008

## Black Holes and Gaseous Processes: Big Mistakes in Assessment

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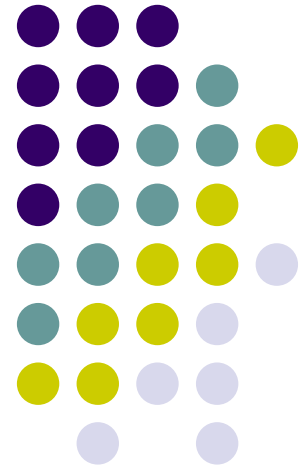


# Black Holes & Gaseous Processes: Big Mistakes in Assessment

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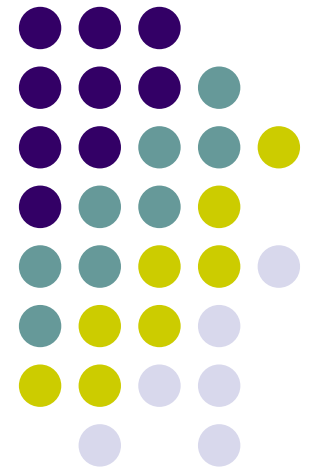
Western Michigan University  
October 2008

Susan Hatfield  
Assessment Director  
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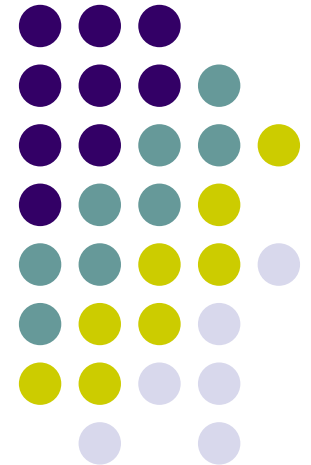
# Assuming it Will Go Away

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# Creating a Culture of Assessment instead of a Culture of Learning

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## **Assessment**

**Instrument Driven**

**National Norms**

**Trend Lines**

**Collection**

**How do we compare?**

## **Learning**

**Outcome Driven**

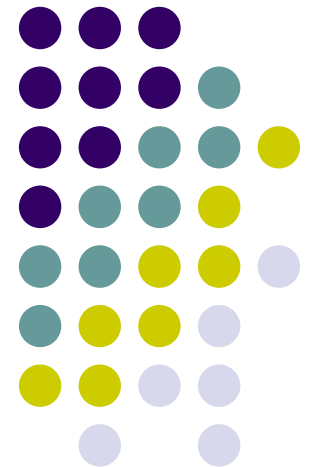
**Targets & Goals**

**Relational Data**

**Analysis**

**What does it mean?**

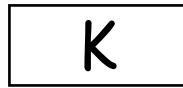
# Forgetting to Make a Curriculum Map



Program Level  
Student Learning  
Outcomes



Course  
1



Course  
2



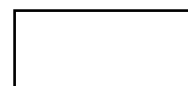
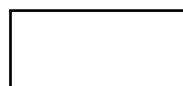
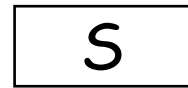
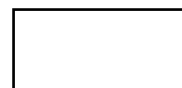
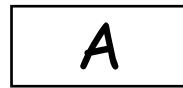
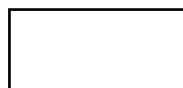
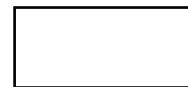
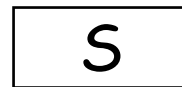
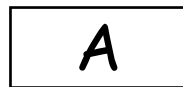
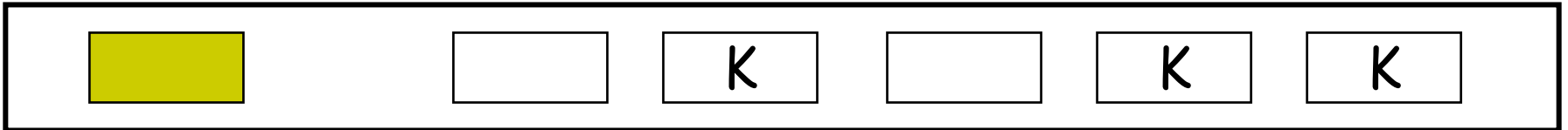
Course  
3



Course  
4










Course  
5



**K= Knowledge/Comprehension; A= Application / Analysis; S= Synthesis /Evaluation**

Program Level  
Student Learning  
Outcomes



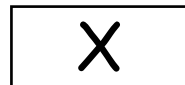
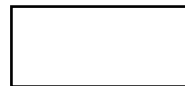
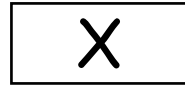
	Course 1	Course 2	Course 3	Course 4	Course 5
	X		X		X
		X		X	X
		X	X	X	
		X		X	X
	X	X		X	
					
	X		X	X	



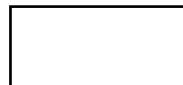
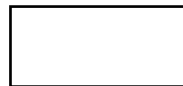
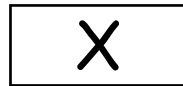
Program Level  
Student Learning  
Outcomes



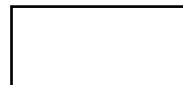
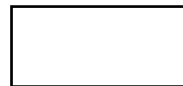
Course  
1



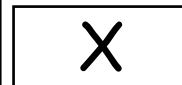
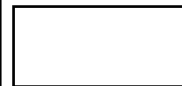
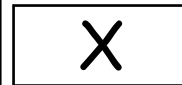
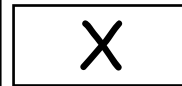
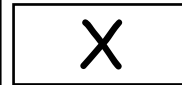
Course  
2



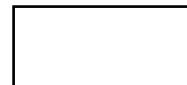
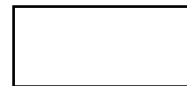
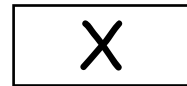
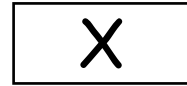
Course  
3



Course  
4

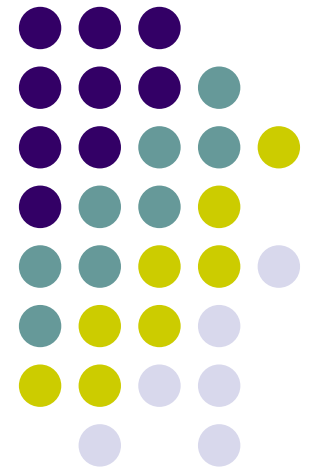


Course  
5



# Not Aligning Campus Processes with Assessment

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# Process Alignment



Course Proposals - learning outcomes?

Program Proposal - curriculum map?

Program Review - assessment data?

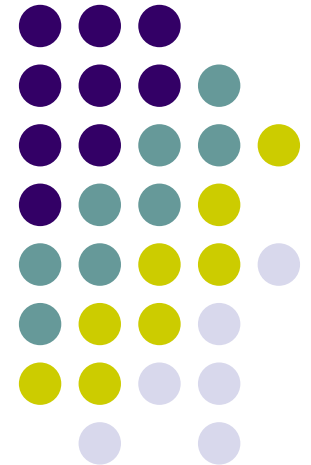
Master Syllabi - program outcomes?

Reporting Structure - assessment office?

Promotion, Renewal, Tenure - rewarded?

# Choosing Assessment Methods before Defining Outcomes

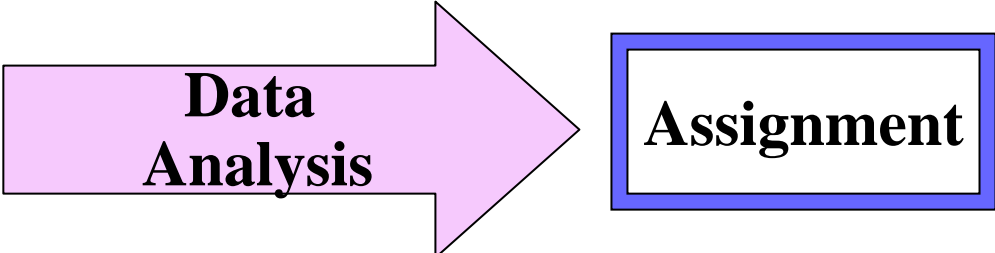
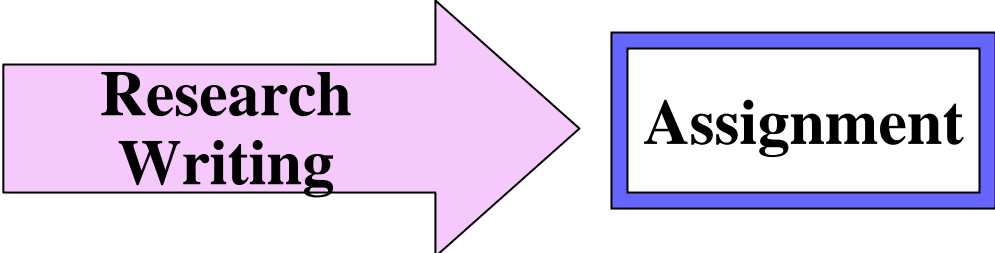
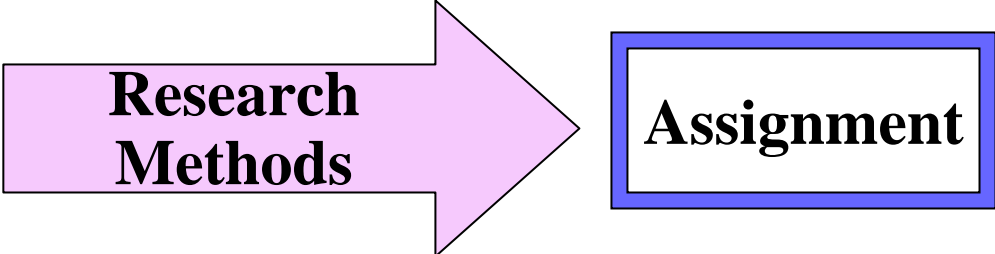
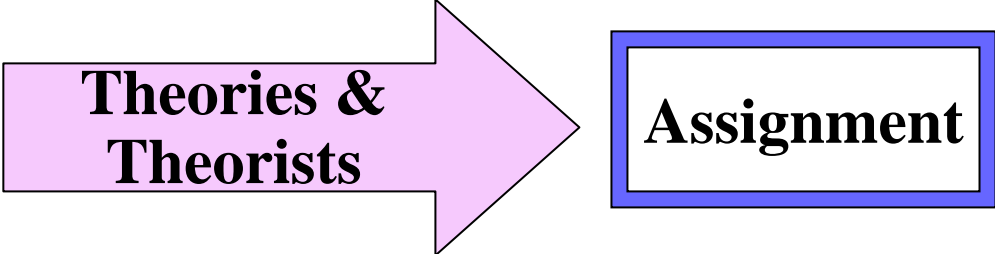
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**P  
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L  
I  
O**

<b>organization</b>		√	
<b>presentation</b>			√
<b># of submissions</b>			√
<b>multi media</b>		√	
<b>navigation</b>			√
<b>captions</b>	√		

**Outcomes:**



# Outcomes:

**interpretation**

**analysis**

**design**

**compose**

**P  
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**creativity**

**clarity**

**coherence**

**reflection**

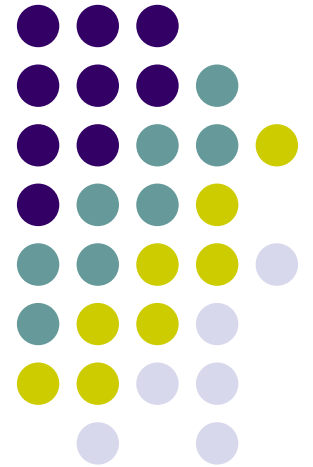
**relevance**

**influence**

	√	
		√
		√
	√	
		√
√		

# Too Many Program Level Learning Outcomes

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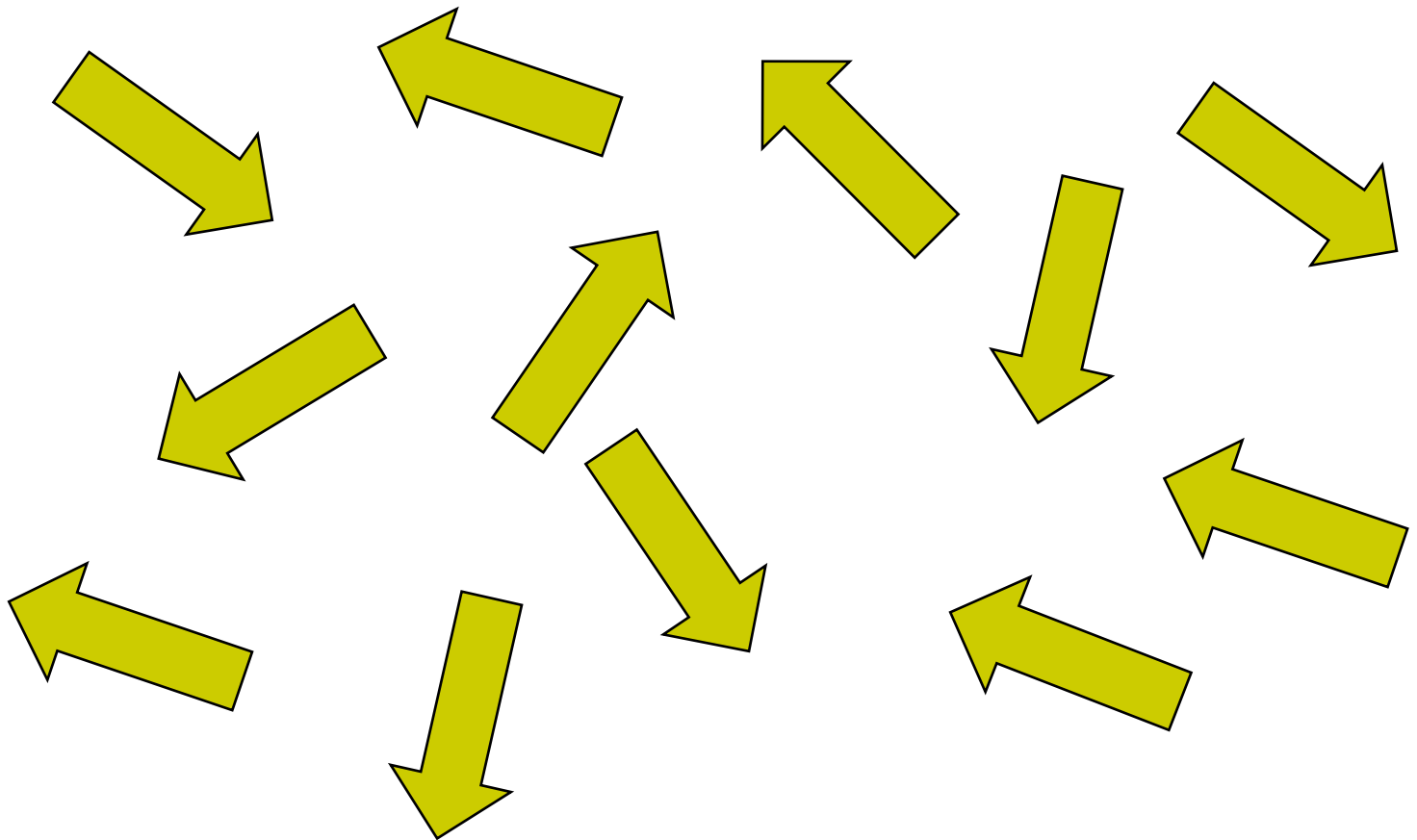


# Learning Outcomes

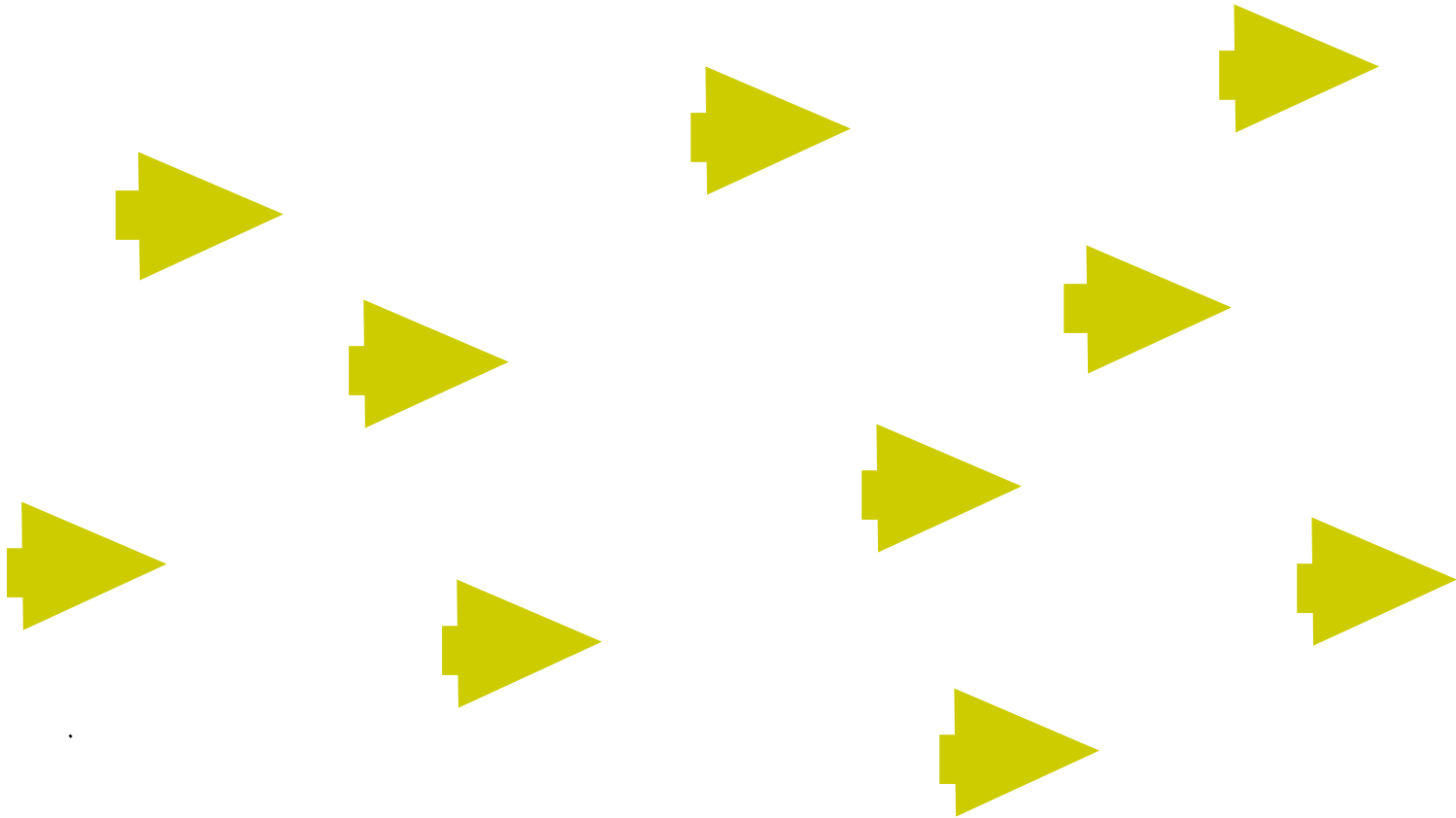


- **NOT** a compilation of your course level student learning outcomes
- **NOT** intended to represent everything that your students learn in the program

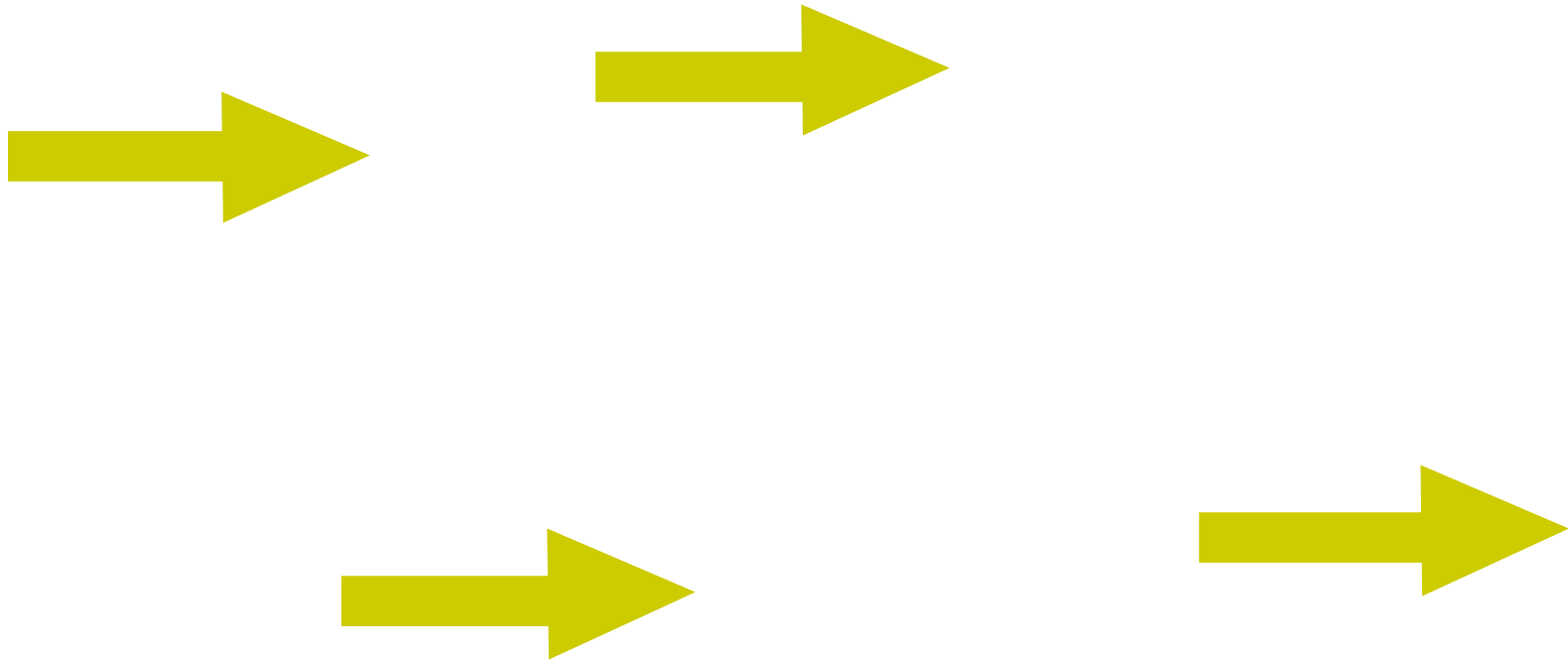
# Exertion without Intention



# Intention without Exertion

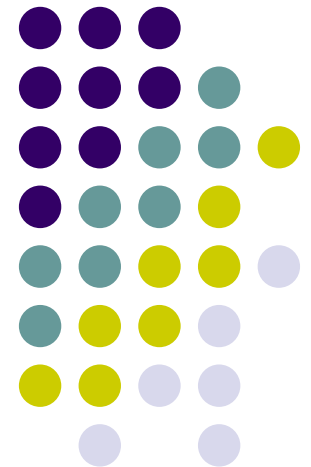


# Intention and Exertion



# Poorly Written Student Learning Outcomes

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# Student Learning Outcomes



- Students should be able to comprehend, interpret, analyze and critically evaluate material in a variety of written and visual formats.

# Student Learning Outcomes



- Students will demonstrate creative and evaluative thinking in the analysis of theoretical and practical issues in the areas of politics, the economy, and the environment.

# Student Learning Outcomes



- FORMAT:

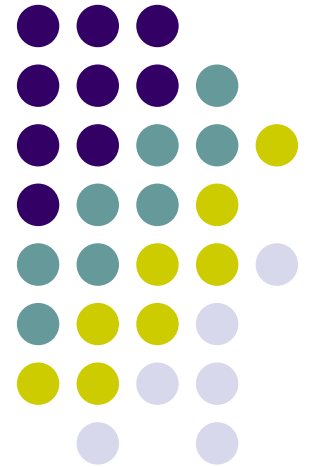
Students should be able to

<<action verb>> <<something>>



# Inappropriate Program Level Learning Outcomes

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# Student Learning Outcomes



- Students will have a basic knowledge of human anatomy

# Student Learning Outcomes



- Students will be able to define 200 key medical terms

**COMPREHENSION**

**EVALUATION**

**APPLICATION ANALYSIS**

**SYNTHESIS**

**KNOWLEDGE**

	Associate			Arrange	Appraise
Cite	Classify		Analyze	Assemble	Assess
Count	Compare	Apply	Appraise	Collect	Choose
Define	Compute	Calculate	Calculate	Compose	Compare
Draw	Contrast	Classify	Categorize	Construct	Criticize
Identify	Differentiate	Demonstrate	Classify	Create	Determine
List	Discuss	Determine	Compare	Design	Estimate
Name	Distinguish	Dramatize	Debate	Formulate	Evaluate
Point	Estimate	Employ	Diagram	Integrate	Grade
Quote	Explain	Examine	Differentiate	Manage	Judge
Read	Express	Illustrate	Distinguish	Organize	Measure
Recite	Extrapolate	Interpret	Examine	Plan	Rank
Record	Interpolate	Locate	Experiment	Prepare	Rate
Repeat	Locate	Operate	Inspect	Prescribe	Recommend
Select	Predict	Order	Inventory		Revise
State	Report	Practice			
Tabulate	Restate	Report			
Tell	Review	Restructure			
Trace	Tell	Schedule			
Underline	Translate	Sketch			
		Solve			
		Translate			
		Use	Test	Write	Test
		Write			Validate

Lower division course outcomes

**COMPREHENSION**

**EVALUATION**

**KNOWLEDGE**

**APPLICATION ANALYSIS**

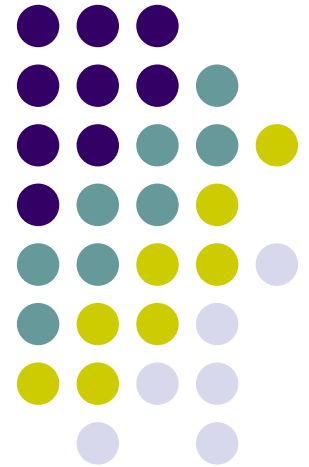
**SYNTHESIS**

	Associate			Arrange	Appraise
Cite	Classify		Analyze	Assemble	Assess
Count	Compare	Apply	Appraise	Collect	Choose
Define	Compute	Calculate	Calculate	Compose	Compare
Draw	Contrast	Classify	Categorize	Construct	Criticize
Identify	Differentiate	Demonstrate	Classify	Create	Determine
List	Discuss	Determine	Compare	Design	Estimate
Name	Distinguish	Dramatize	Debate	Formulate	Evaluate
Point	Estimate	Employ	Diagram	Integrate	Grade
Quote	Explain	Examine	Differentiate	Manage	Judge
Read	Express	Illustrate	Distinguish	Organize	Measure
Recite	Extrapolate	Interpret	Examine	Plan	Rank
Record	Interpolate	Locate	Experiment	Prepare	Rate
Repeat	Locate	Operate	Inspect	Prescribe	Recommend
		Order	Inventory	Produce	Revise
		Practice	Question	Propose	Score
		Report	Separate	Specify	Select
		Represent	Summarize	Synthesize	Standardize
		Reproduce	Test	Write	Test
		Retrieve			Validate
		Underline			
		Use			
		Write			

Upper division  
Course / Program  
outcomes

# Relying on Indirect Assessment Measures of Learning

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# Direct Measures of Learning



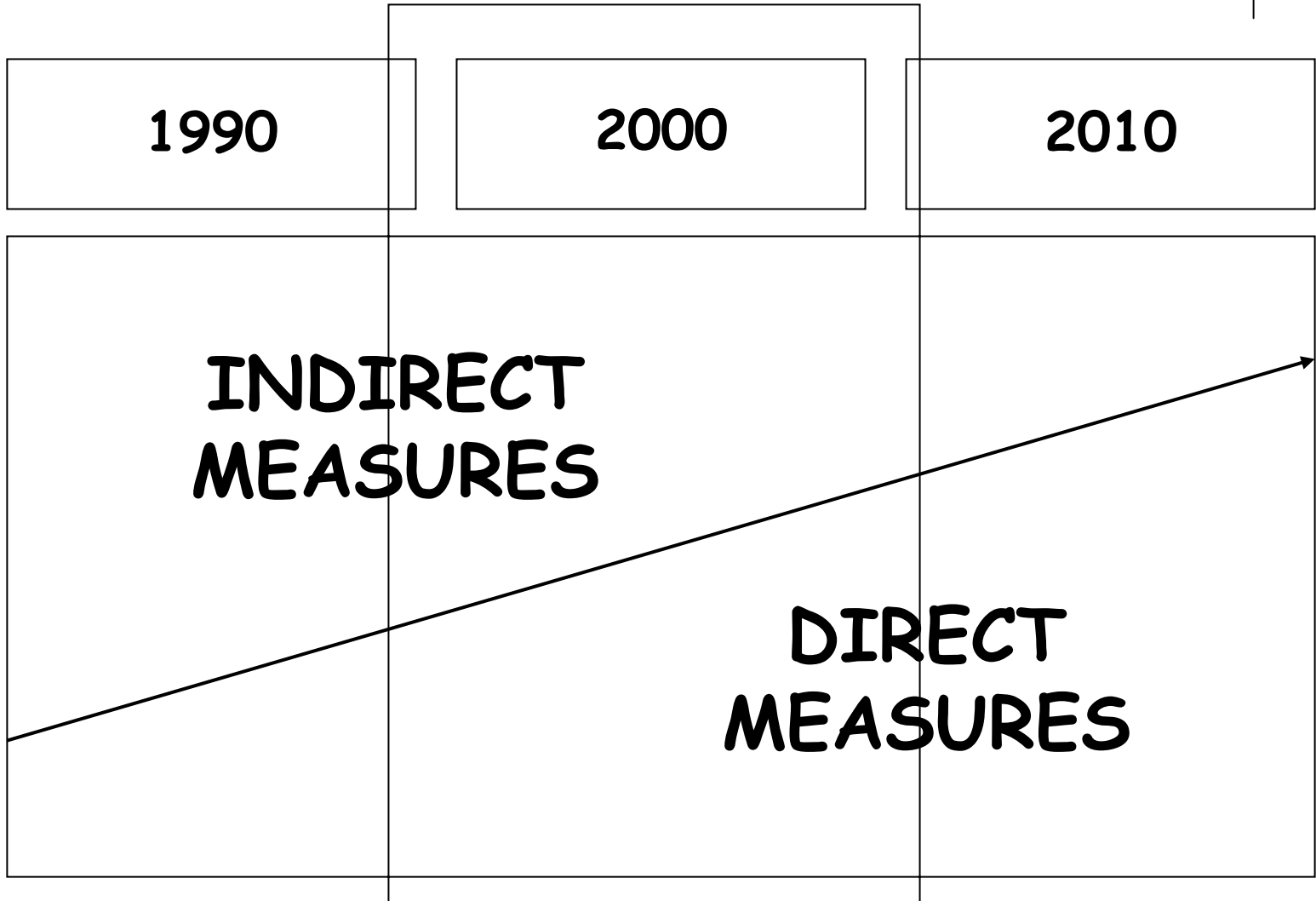
- Capstone experience
- Standardized tests
- Performance on national licensure certification or professional exams
- Locally developed tests
- Essay questions blind scored by faculty
- Juried review of senior projects
- Externally reviewed exhibitions performances
- Evaluation of internships based upon program learning outcomes

# Indirect Measures of Learning



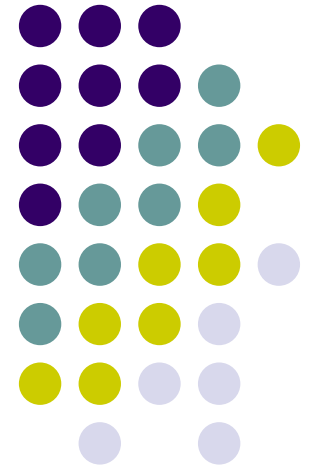
- Alumni, employer, and student surveys (including satisfaction surveys)
- Exit interviews of graduates and focus groups graduate follow up studies
- Retention and transfer studies
- Length of time to degree
- ACT scores
- Graduation and transfer rates
- Job placement rates





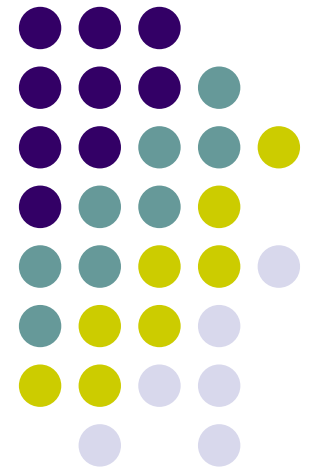
# Making Assessment the Responsibility of One Person

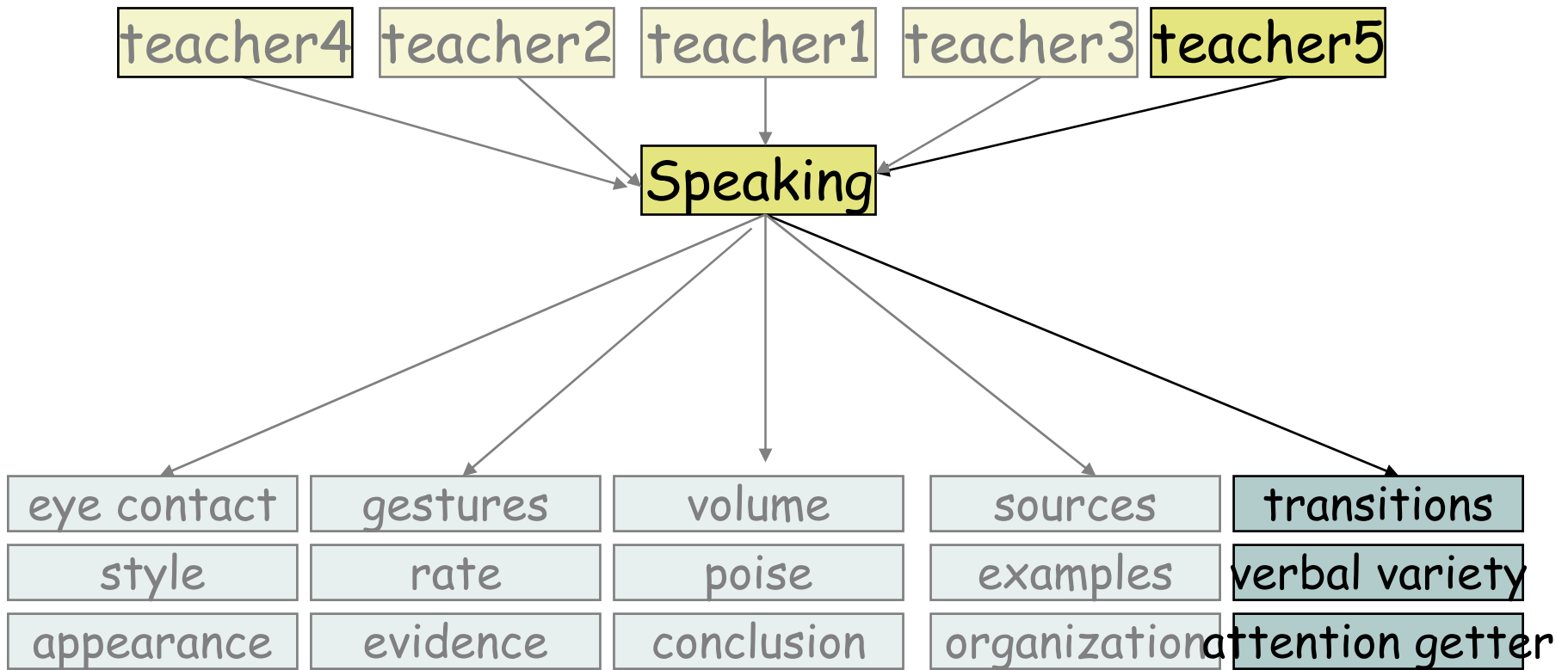
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# Allowing Each Faculty Member to “Own” the Program Level Outcomes

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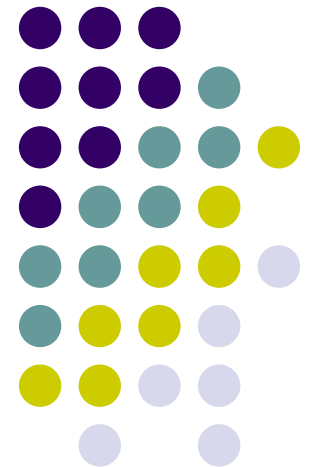


# Can our students deliver an effective Public Speech?

eye contact	gestures	volume	sources	transitions
style	rate	poise	examples	verbal variety
appearance	evidence	conclusion	organizational	attention getter



# Rushing to Close the Loop

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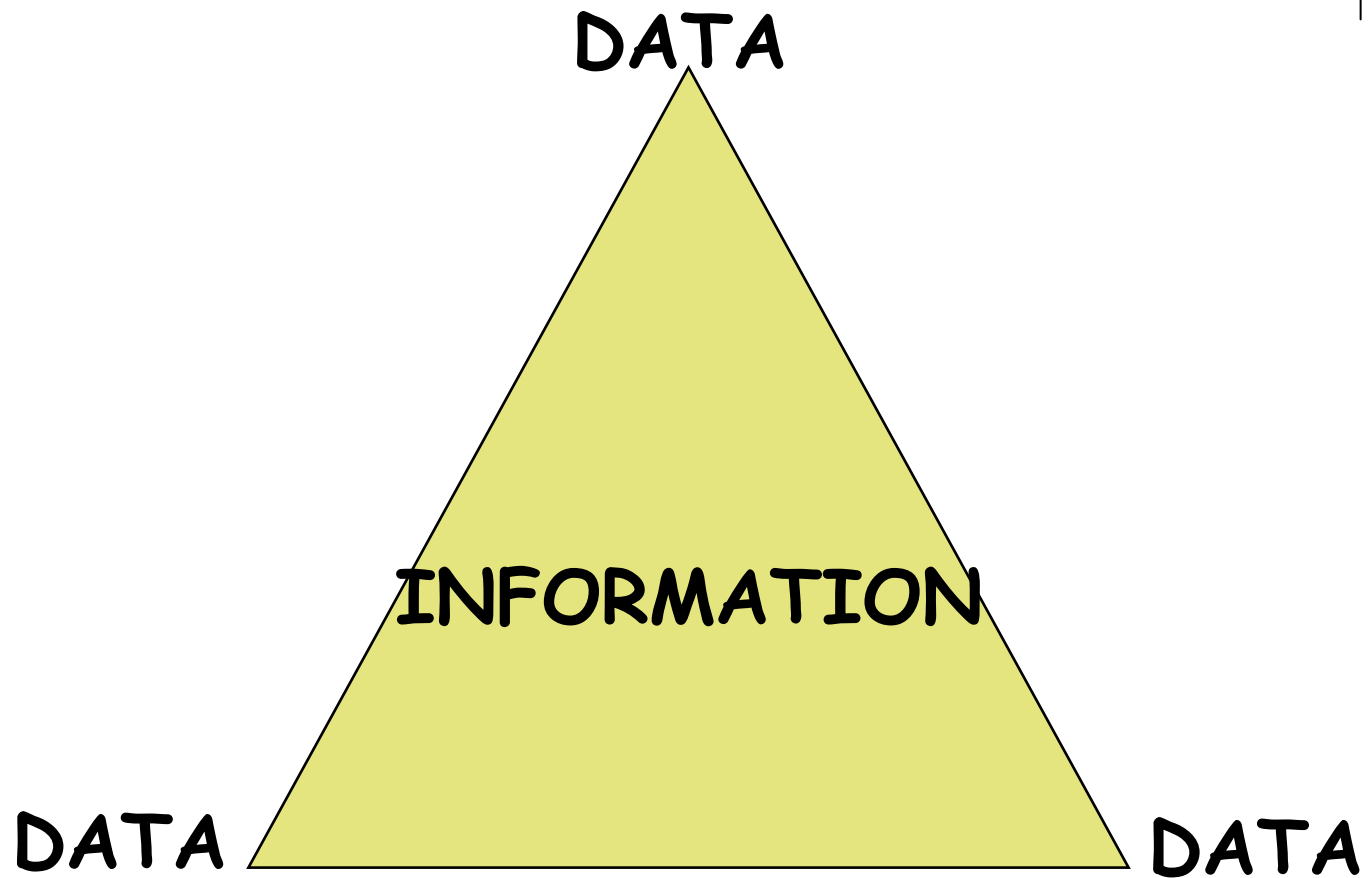


# Multiple Observations



# Patterns of evidence





# Consistency



Examines the same practice of and individual or group over time

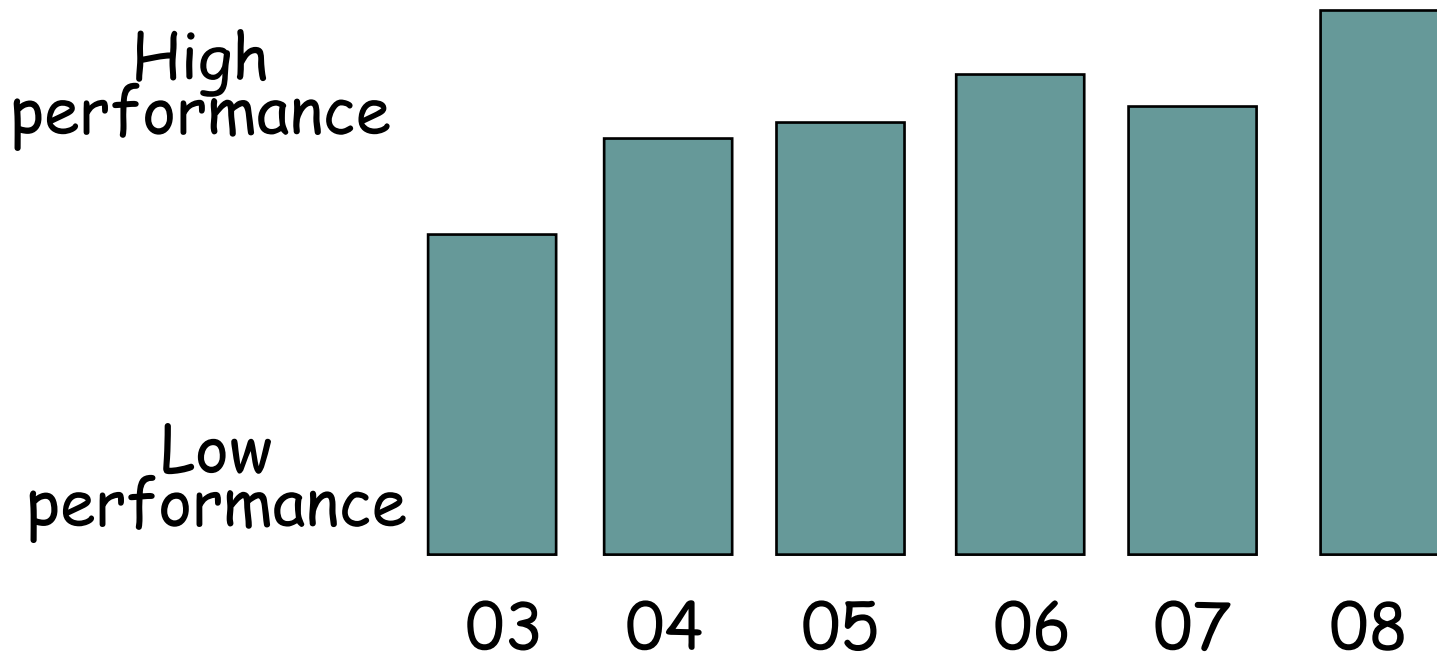
Key question:

- » Has this person or group acted, felt, or performed this way in the past / over time?

# Consistency



How well are students performing on the departmental learning outcome measures?



# Consensus



Comparison to or among groups of students

- » Variation between disciplines, gender, other demographic variables

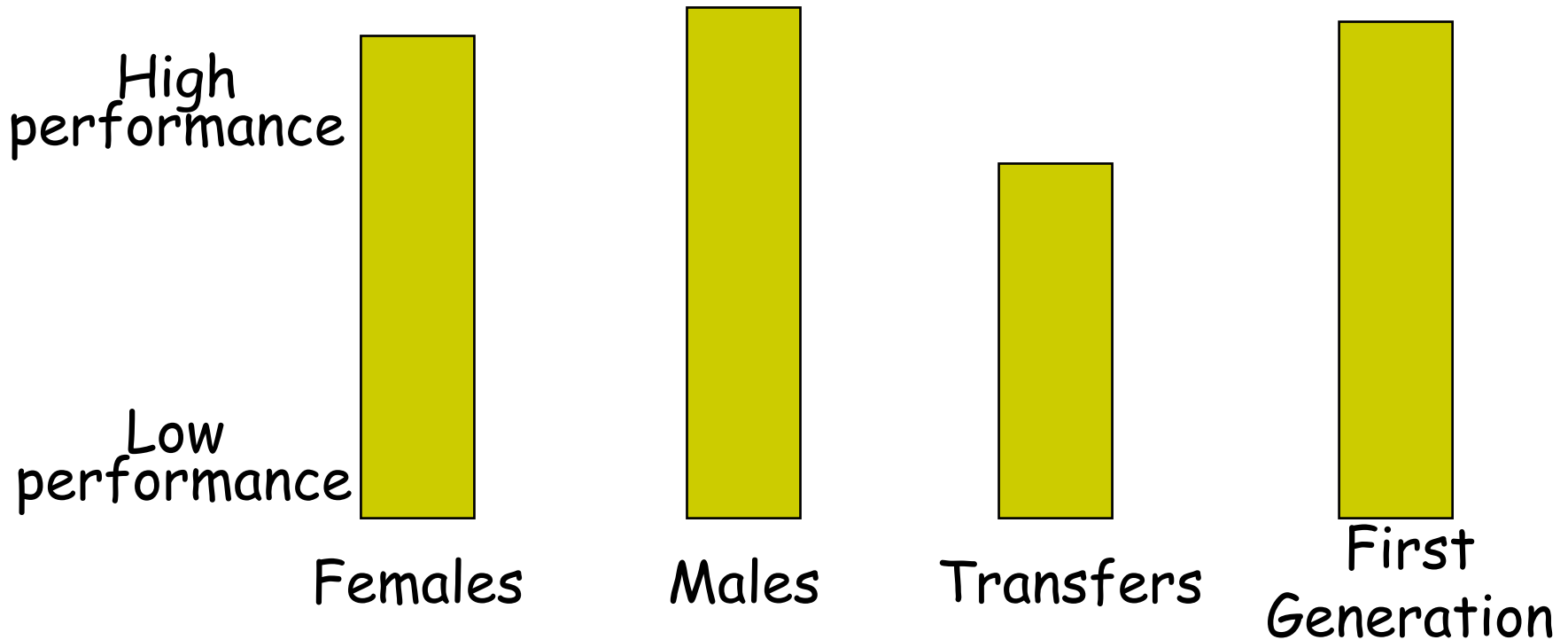
Key questions:

- 1 What is the general feeling, outcome, attitude, behavior?
- » Do other groups of people act, perform or feel this way?

# Consensus



How well are students performing on the departmental learning outcome measure?



# Distinctiveness



Examines individual or cohort perspectives across different outcomes

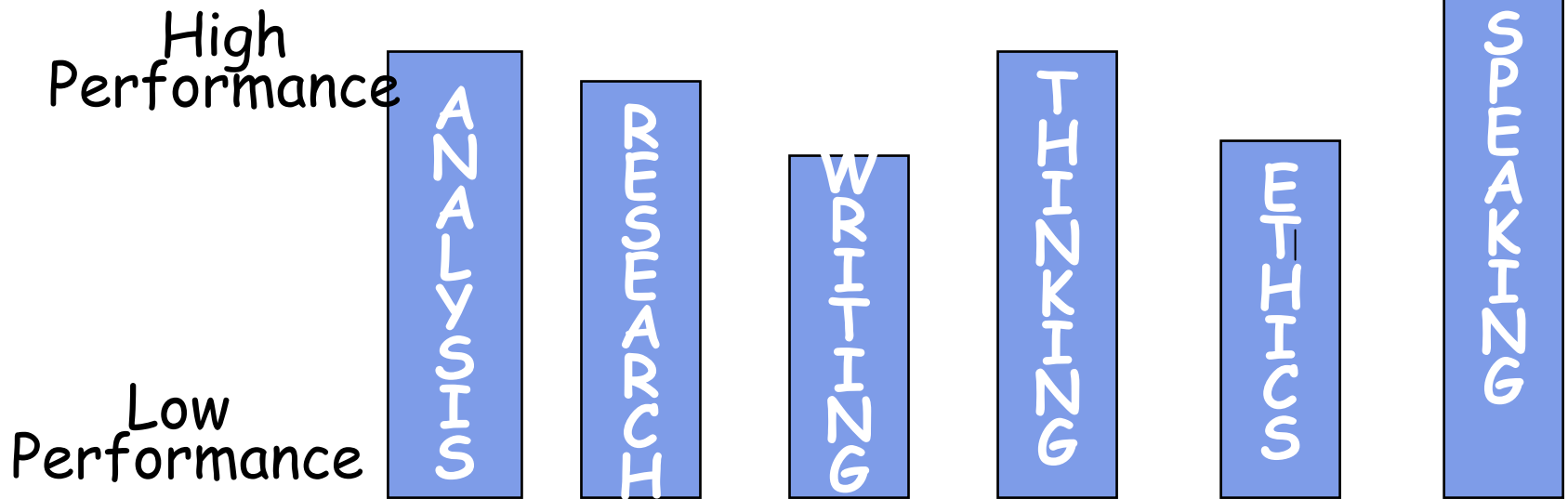
Key Question:

- » Does a person or group perform equally as well on different outcomes?



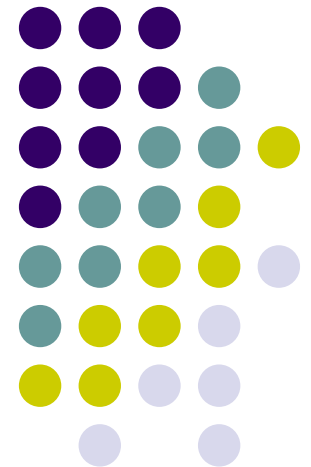
# Distinctiveness

How well are our students performing on the learning outcomes?



# Creating Black Holes

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# The Black Holes of Assessment



Lack of....

Infrastructure

Commitment

Leadership

Resources

Acknowledgment

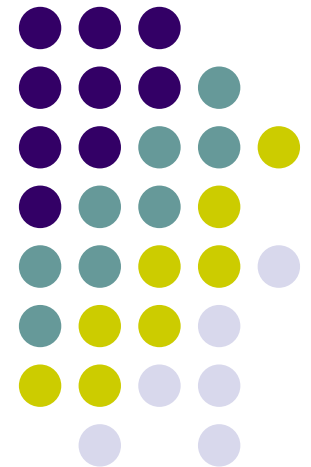
Feedback

Discussion



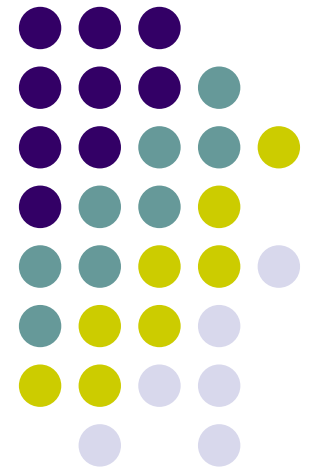
# Assuming Collecting Data is Doing Assessment

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# Allowing the Process to become Gaseous

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# Timeframe



- Identify student learning outcomes  
2008-2010
- Create curriculum map:  
2010-2012
- Design assessment plan:  
2012-2014
- Identify assessment methods:  
2014-2016
- Begin to implement plan:  
2017

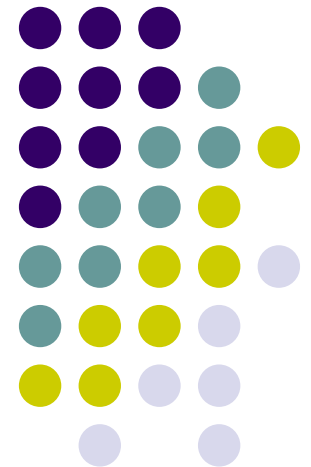


# Timeframe

- Identify student learning outcomes  
Next Week
- Create curriculum map:  
Two Weeks After That
- Design assessment plan:  
Next Month
- Identify assessment methods:  
Summer and Fall 2008
- Begin to implement plan:  
January 2009

# Making Assessment Harder Than it Needs to Be

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# Exams



- Instead of....
- Returning exams without discussion
- Try.....
- Aggregate the data across students to see what they know, and with which concepts they are struggling.

# Grading



- Instead of....
- Giving papers points or letter grades
- Try.....
- Using a rubric that allows you to analyze students' strengths and weaknesses individually and collectively

# Program Level Assessment



- Instead of....
- Having a huge list of every single concept to be learned in the program
- Try.....
- Identifying the top five or six things you want students to know or be able to do and map those outcomes to the courses in the curriculum.

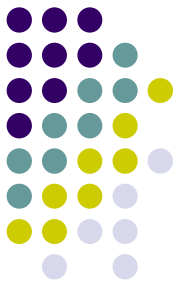


# Assessment



- Instead of....
- Conducting an assessment program without telling the students about it...
- Try.....
- Making the learning outcomes for the course and program explicit to the students so they know what is expected of them.

# Assessment



- Instead of....
- Collecting tons of data
- Try.....
- Focus on a few key learning outcomes and collect, discuss and analyze that data.

# Assessment



- Instead of....
- Attempting to implement your entire assessment plan at once
- Try.....
- Take one outcome at a time and figure out the best way to assess it -- then try another one

# Black Holes & Gaseous Processes: Big Mistakes in Assessment

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