

Beginning with the End: Constructing Effective Learning-Centered Outcomes

Research Enhancement
Building Infrastructure Leading to Diversity

REBUILDetroit



Primary Institution



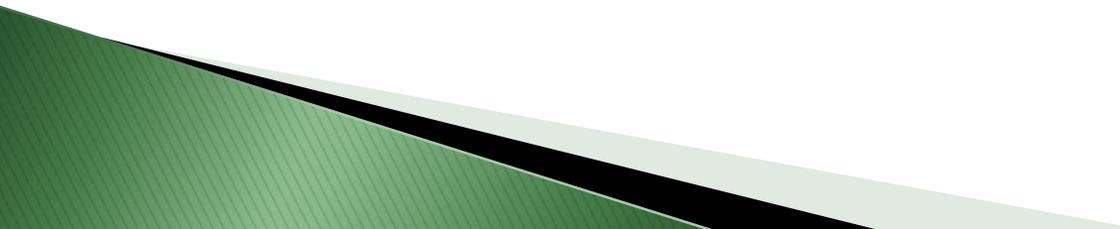
Research Partner



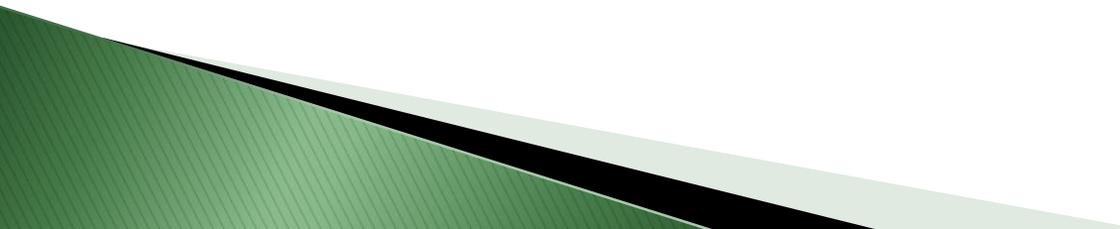
Pipeline Partner

Office for Teaching & Learning
Wayne State University
April 14, 2016

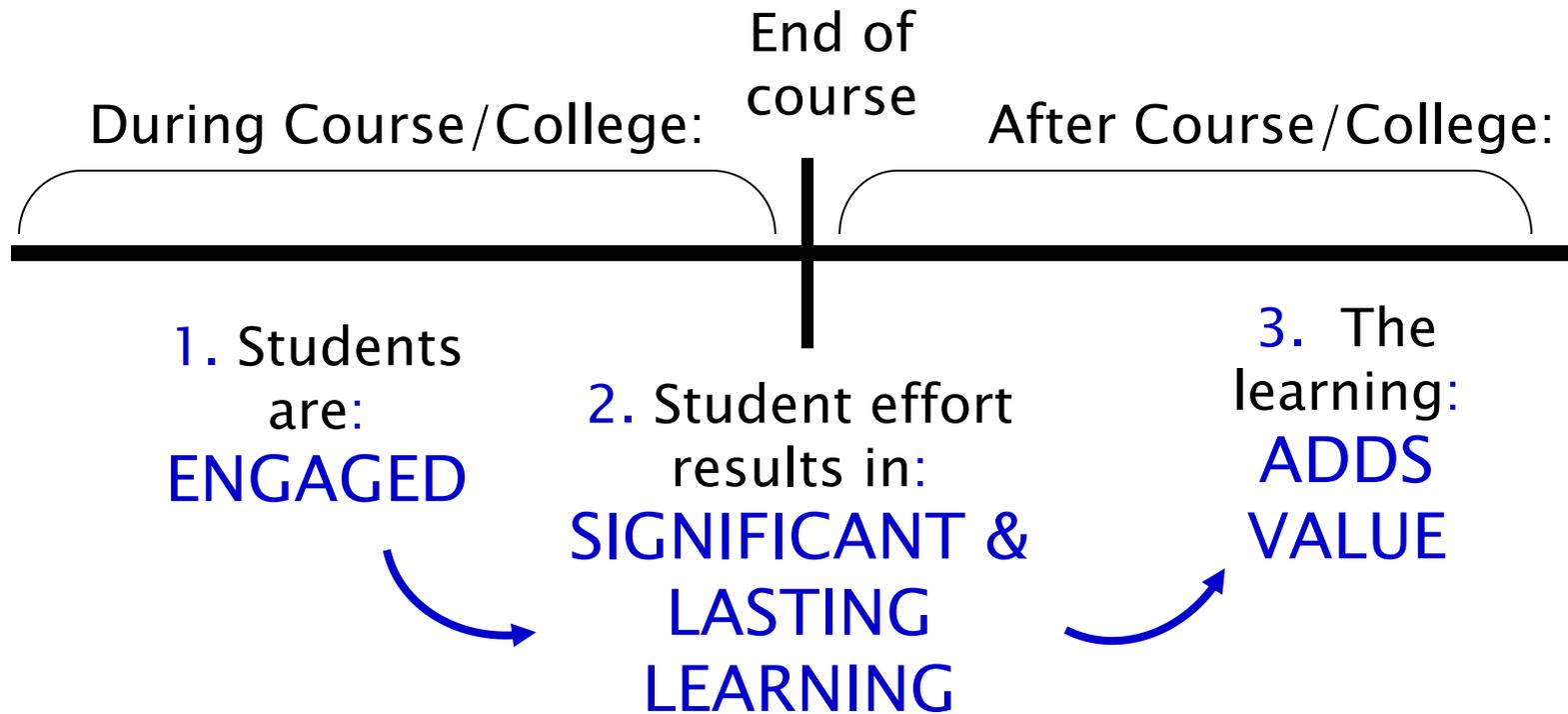
Welcome and Introductions

- ▶ Please introduce yourself including:
 - Your name
 - Institution
 - Courses you teach
 - Experience with course design
 - ▶ What do you hope to get from today's workshop?
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Learning Outcomes

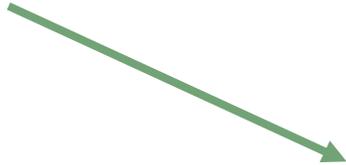
- ▶ Discuss characteristics of Backward Course Design
 - ▶ Employ a framework for classifying levels of learning outcomes (Bloom's Taxonomy)
 - ▶ Construct course learning outcomes for three key attributes
 - ▶ Revise course learning outcomes through peer review
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What makes a high quality learning experience?

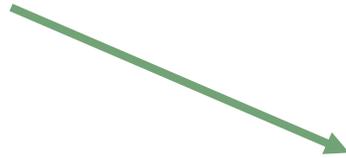


Common Approach to Course Design

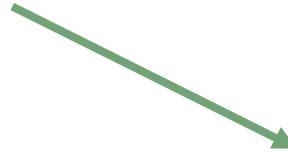
Choose Text



Identify Chapters to Cover



Prepare Lectures



Create Exams

Backward Course Design

Identify the Desired Results

What should students know, be able to do, and value as a result of taking your course?



Determine Acceptable Evidence

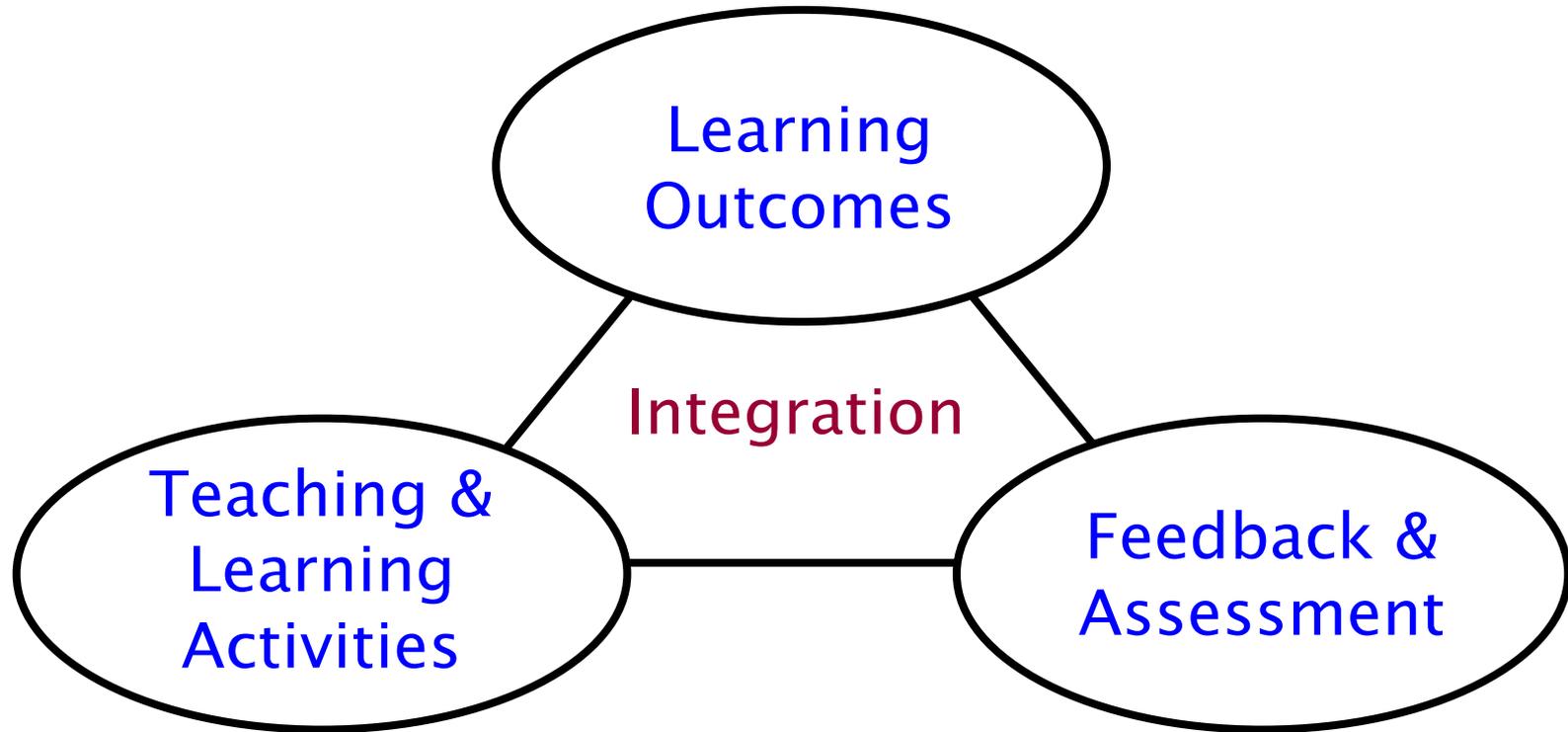
How will you know if students have achieved the desired results?



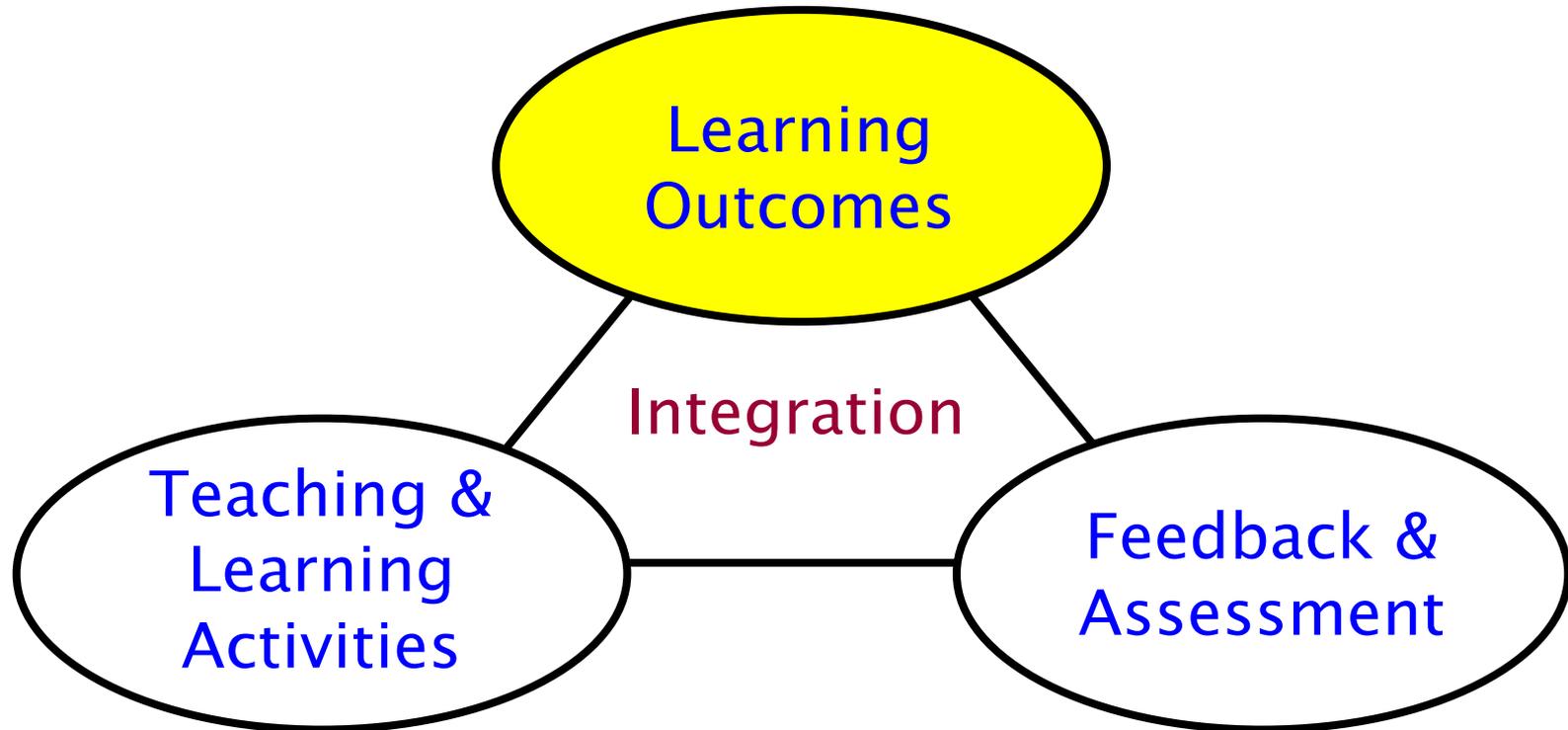
Plan Learning Experiences

What will students do to achieve the results?

Criteria of “GOOD” Course Design



Criteria of “GOOD” Course Design

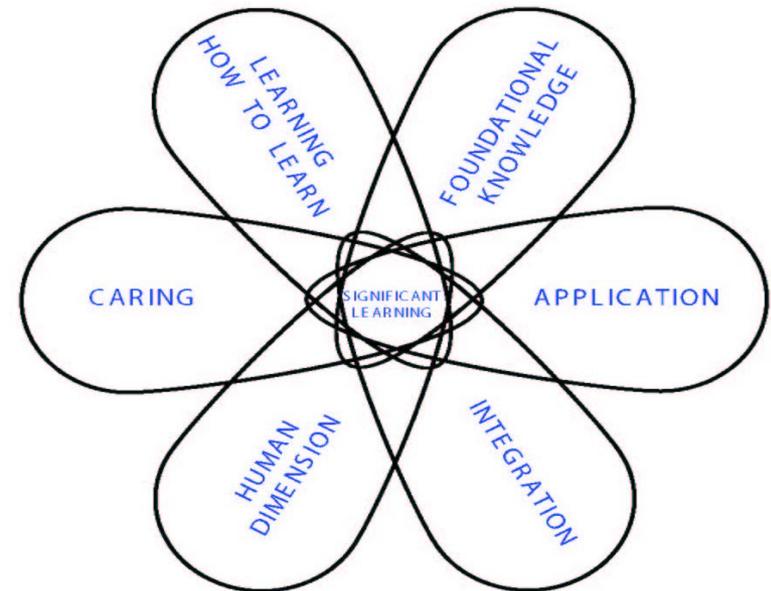


Faculty Dreams

- ▶ Think about your ideal course. This could be a one you've taught before or one you're considering teaching in the future. **If you had students who could and would learn anything and everything you wanted them to learn:**
 - ▶ What is the course? Briefly describe it.
 - ▶ In your "Dream of Dreams," what is it that you would really like them to learn?

In a course with **significant learning**, students will:

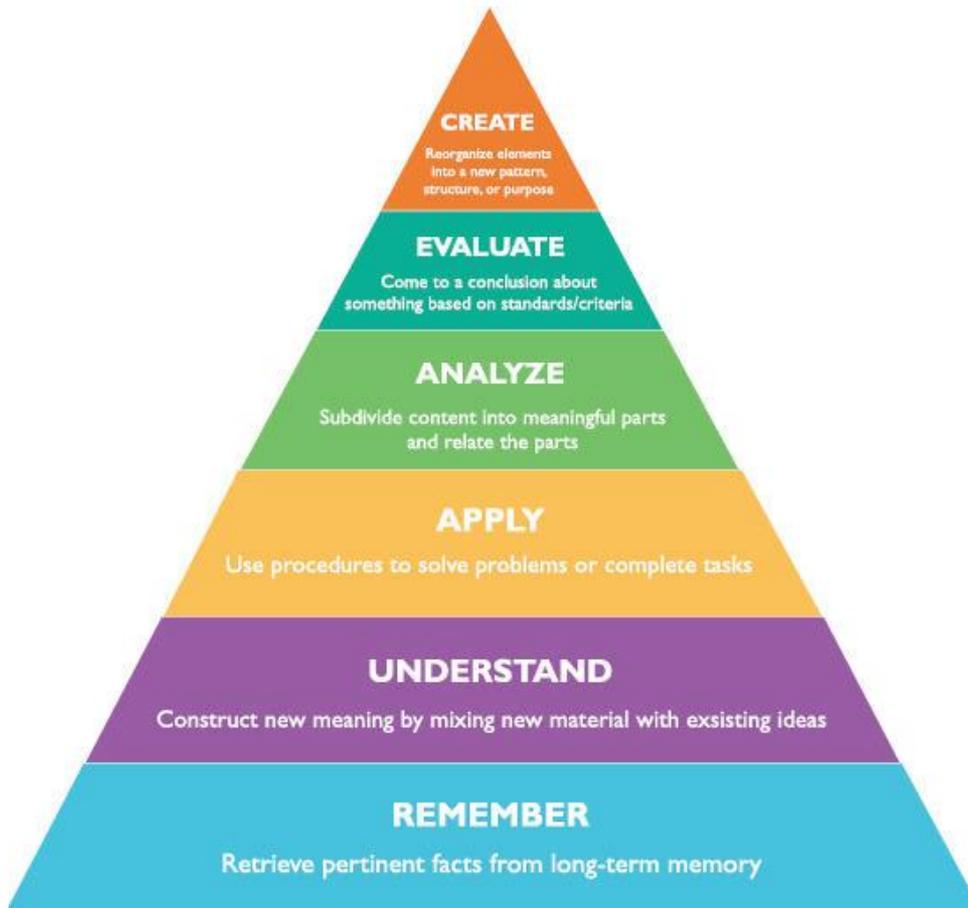
1. **Understand and remember** the key concepts, terms, relationship, etc.
2. Know how to **use** the content.
3. Be able to **relate** this subject to other subjects.
4. Understand the **personal and social** implications of knowing about this subject.
5. **Value** this subject and further learning about it.
6. Know how to **keep on learning** about this subject, after the course is over.



Your Turn

- ▶ Based on your dream course, write three learning outcomes.
- ▶ **Peer Review:** Turn to a neighbor and describe your dream course and learning outcomes.

Bloom's Taxonomy



ANALYZE

Breakdown
Calculate
Categorize
Change
Characterize
Combine
Correlate
Criticize
Debate
Deduce
Diagram
Differentiate
Examine
Experiment
Figure

Find
Infer
Inspect
Inventory
Limit
Model
Outline
Prioritize
Question
Research
Separate
Solve
Subdivide
Survey
Test

EVALUATE

Appraise
Argue
Assess
Attach
Choose
Conclude
Contrast
Critique
Decide
Defend
Discriminate
Estimate
Evaluate
Explain
Interpret
Judge

Justify
Measure
Predict
Prioritize
Prove
Qualify
Rank
Rate
Recommend
Reframe
Revise
Score
Summarize
Support
Value

CREATE

Adapt
Assemble
Categorize
Collect
Comply
Compose
Construct
Create
Design
Develop
Devise
Formulate
Generate
Incorporate
Integrate

Invent
Manage
Organize
Perform
Plan
Prepare
Produce
Propose
Rearrange
Reconstruct
Reinforce
Setup
Structure
Synthesize
Verify

REMEMBER

Arrange
Copy
Count
Define
Draw
Duplicate
Enumerate
Find
Identify
Label
List
Locate
Match
Memorize
Name

Order
Outline
Quote
Read
Recall
Recite
Recognize
Record
Repeat
Reproduce
State
Tell
Underline
View
Write

UNDERSTAND

Cite
Classify
Conclude
Convert
Demonstrate
Describe
Discuss
Distinguish
Express
Extend
Generalize
Give example(s)
Illustrate
Indicate

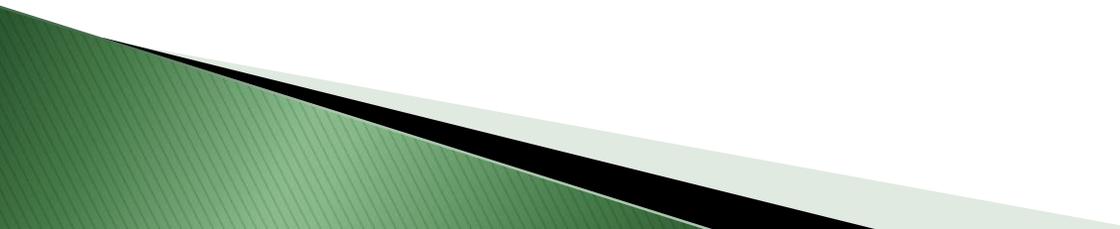
Organize
Paraphrase
Relate
Reorganize
Report
Restate
Review
Rewrite
Select
Sequence
Summarize
Trace
Transform
Translate

APPLY

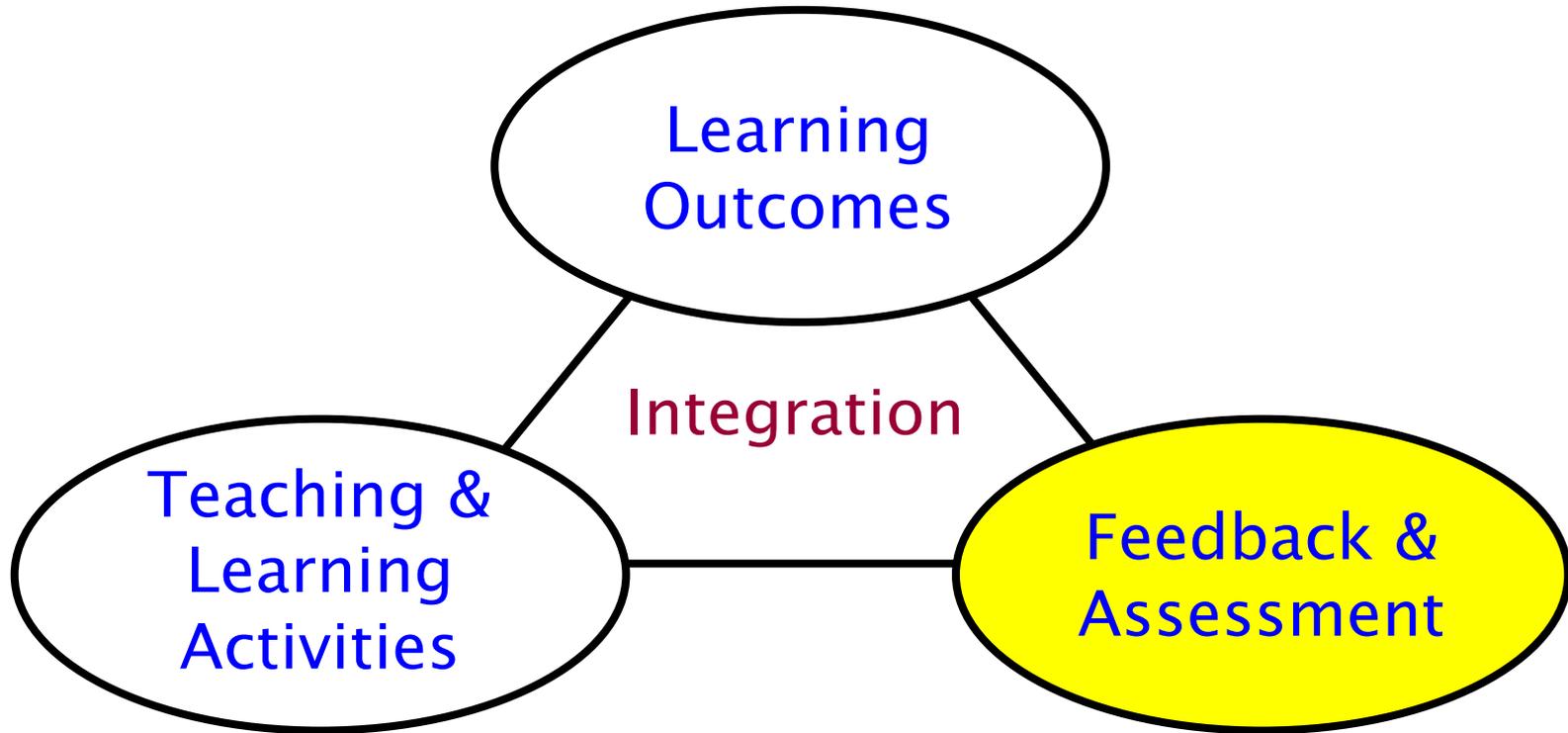
Calculate
Change
Chart
Complete
Compute
Determine
Develop
Diagnose
Discover
Dramatize
Employ
Establish
Estimate
Illustrate
Instruct

Interview
Manipulate
Modify
Operate
Practice
Predict
Produce
Role-play
Schedule
Select
Show
Sketch
Transfer
Use

Your Turn

- ▶ Modify your learning outcomes to incorporate Bloom's language.
 - ▶ **Peer Review:** Describe how you modified the language of your outcomes and discuss the implications of using Bloom's verbs.
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Criteria of “GOOD” Course Design



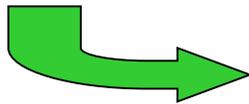
Assessing Learning

- ▶ How do you assess student learning?

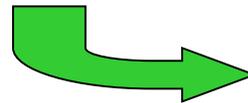
Educative Assessment

- ▶ Assessments that are designed to enhance the quality of student learning.

Forward-Looking
Assessment Task



Criteria and
Standards



Self-Assessment



Feedback

Forward Looking Assessment

- ▶ Questions or projects that require students to **imagine a situation they might realistically face** in the future and figure out what to do about it.

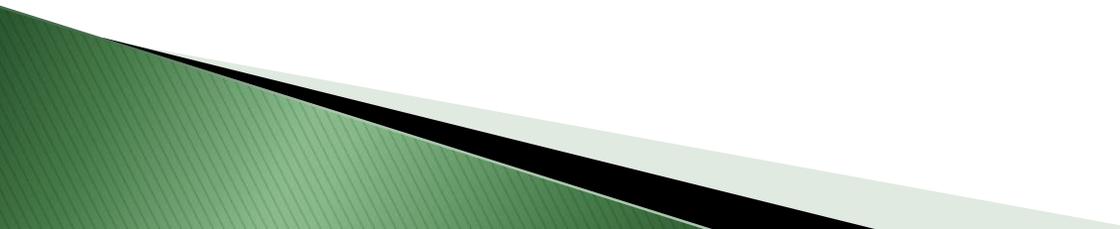
Backward Looking Assessment

Based on the article you read, name the five most important considerations for prevention and control of norovirus.

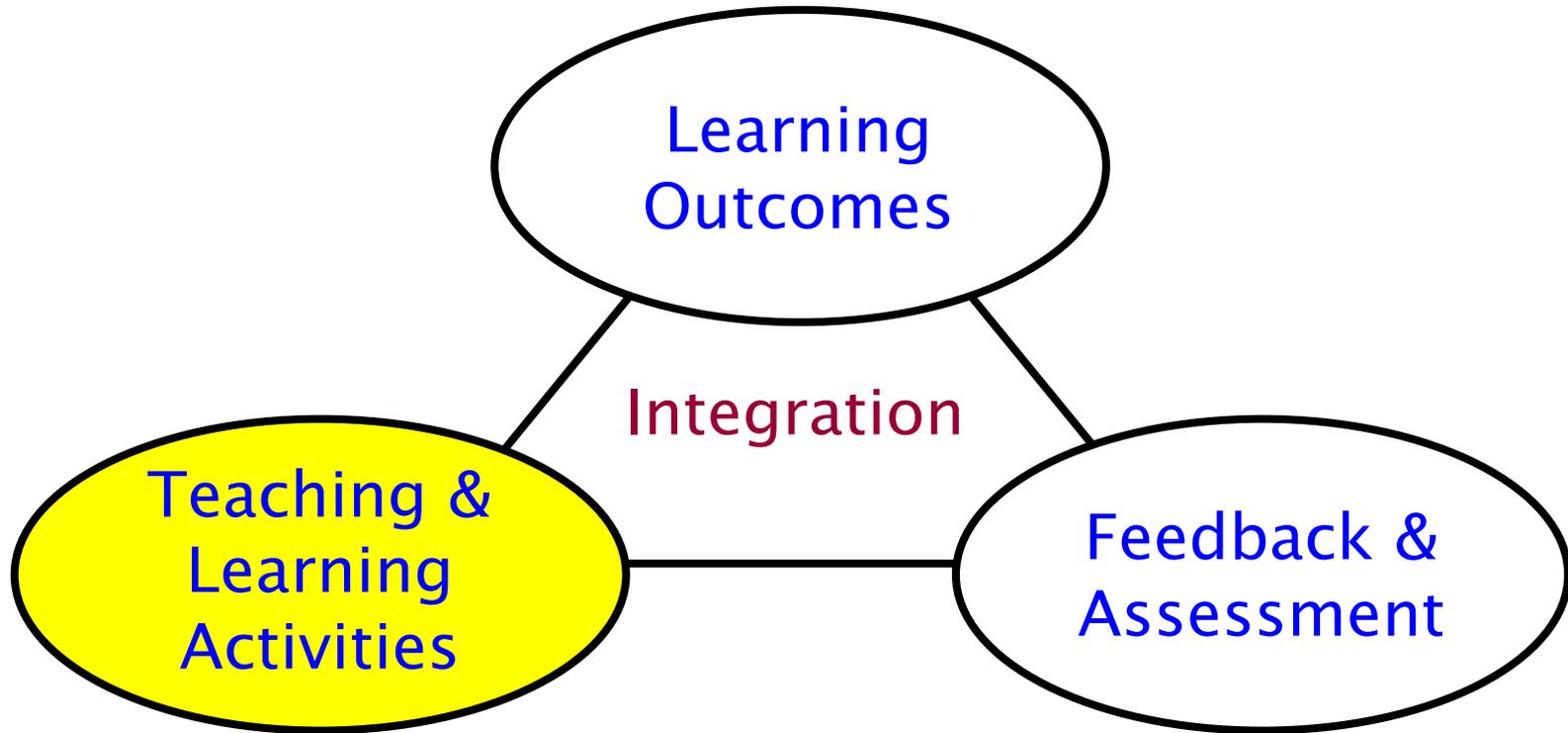
Forward Looking Assessment

You have been contacted by a major cruise line concerned about the recent norovirus outbreaks. They've asked you to outline a plan for strategies to prevent and control the virus. Justify your recommendations with evidence.

Your Turn

- ▶ Write a forward-looking assessment for one of your outcomes.
 - ▶ **Peer Review:** Turn to a neighbor and describe your forward looking assessment. Then discuss strategies or ideas to enhance it.
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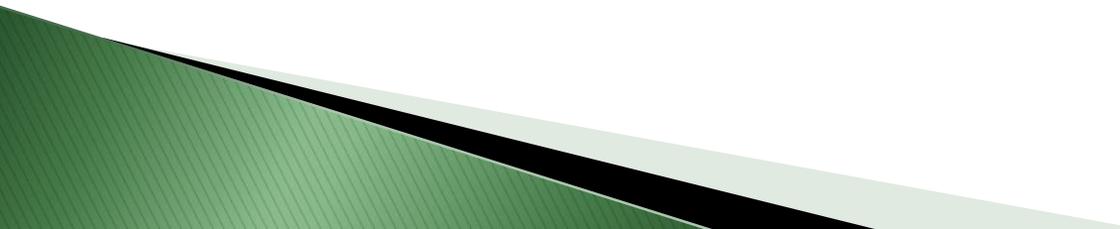
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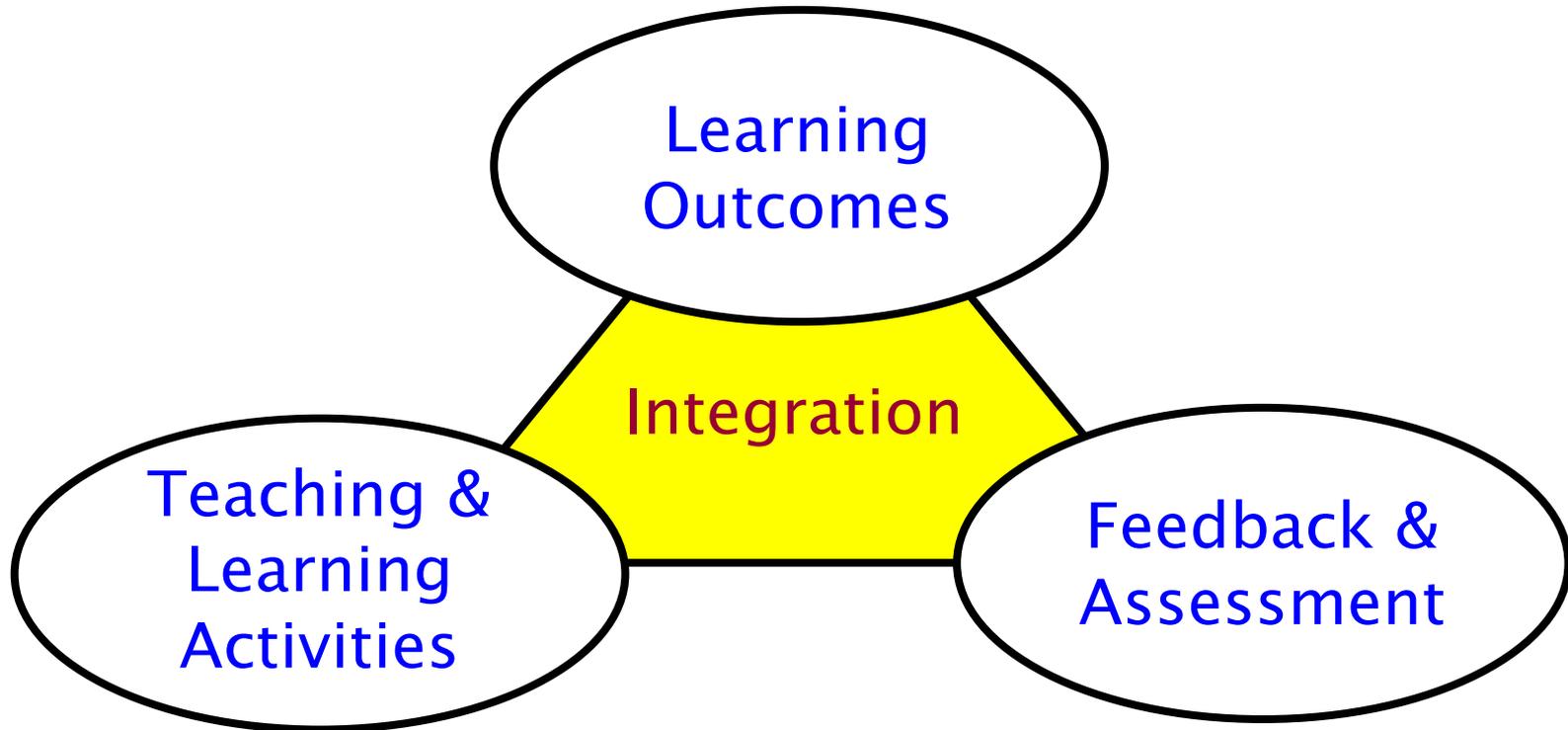
Pedagogies that Enhance Active Learning

- ▶ Small group discussion & peer instruction
- ▶ Clickers
- ▶ One-minute papers
- ▶ Demonstrations
- ▶ Case studies
- ▶ Concept mapping
- ▶ Tutorial worksheets
- ▶ Problem-based learning
- ▶ Analytical challenge before lecture (JITT)
- ▶ Computer simulations and games
- ▶ Group tests (Pyramid)
- ▶ Problem sets in groups
- ▶ Random calling
- ▶ Writing with peer review

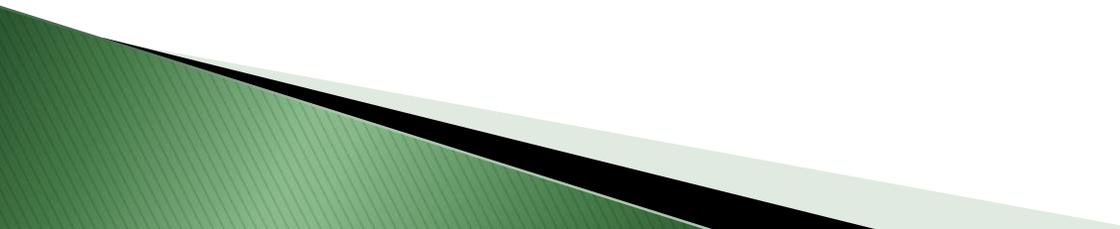
Your Turn

- ▶ Choose an active learning pedagogy that aligns with your assessment and learning outcome.
 - ▶ Turn to a neighbor and describe the instructional activity Then discuss why you chose it.
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Criteria of “GOOD” Course Design



Learning Outcomes

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**Office for
Teaching & Learning**

otl.wayne.edu