State Assessment Meeting 2011

Program Outcomes Assessment

WENDI DEW, KURT EWEN, MARY BECK & CHRISTINA HARDIN

By the end of today, you will be able to

- Evaluate learning outcome statements

- Evaluate performance indicators

- Distinguish among program assessment methods and instruments

- Employ program assessment planning and implementation at your institution

Frustration Alert!

- We're all at different stages in our program assessment work
  - Learners of new content/familiar content

- Embrace the new terminology
  - Need for consistent terminology at your College

- We might not have time to finish everything to your satisfaction
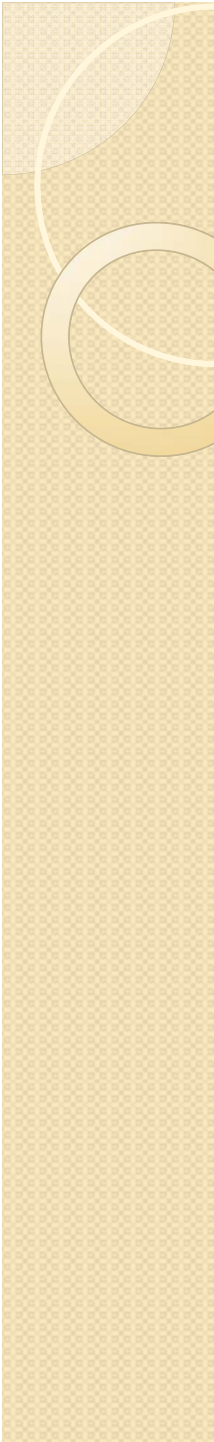
Speed Meeting Intros
30 seconds (or less!)

- Name

- Institution

- Program/Department

- "Assessing our program level outcomes provides us with a wonderful opportunity to/for_____."

Much more than accountability…

Program outcomes assessment helps us answer key questions about <u>teaching and learning</u>

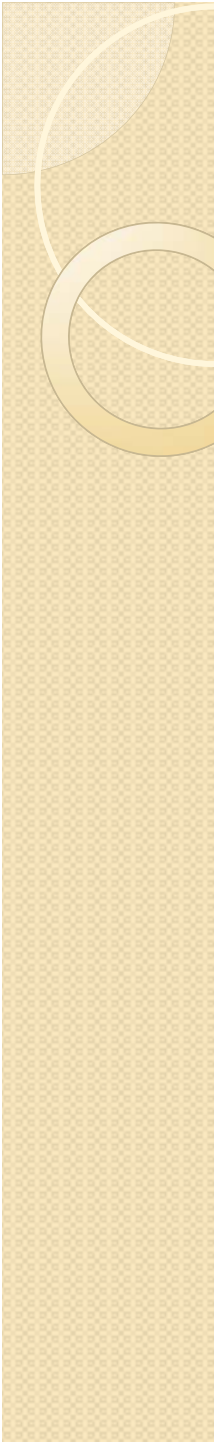# Program Assessment and Teaching & Learning Key Questions

- What should the student know or be able to do at the end of our program?
    - Program Learning Outcomes

- How will we know?
    - Assessment Method, Assessment Instrument

- How can we improve to enhance student learning?
    - Reflection and Action!

Purpose of Program Assessment

- **Improves student learning**

- Supports renewal of the curriculum so that learning happens as we intend

- Provides useful information to students, faculty, administrators, and other stakeholders

Purpose of Program Assessment is NOT

- To evaluate individual faculty members

- To prescribe individual course implementation or pedagogy

  - Although assessment can **influence** learning outcomes, curriculum, and pedagogy

Program Assessment: Opportunities for Authentic Collaboration

- College-wide discussions about teaching & learning
  - Supported by real student data
  - Focuses on <u>student</u> learning
  - Brings college and community partners together

- Build/Strengthen "connections" throughout the curriculum and co-curriculum
  - Alignment and Sequencing

- Renewal of curriculum

- Faculty development
  - Assessment
  - Outcomes-based practice
  - Learning opportunities

Distinguishing Program-Level & Course-Level Assessment

Course-Level Assessment

- Assess student learning outcomes at the end of the course

- Assign a grade to individual students

- Grading often involves only one faculty member who is teaching the course
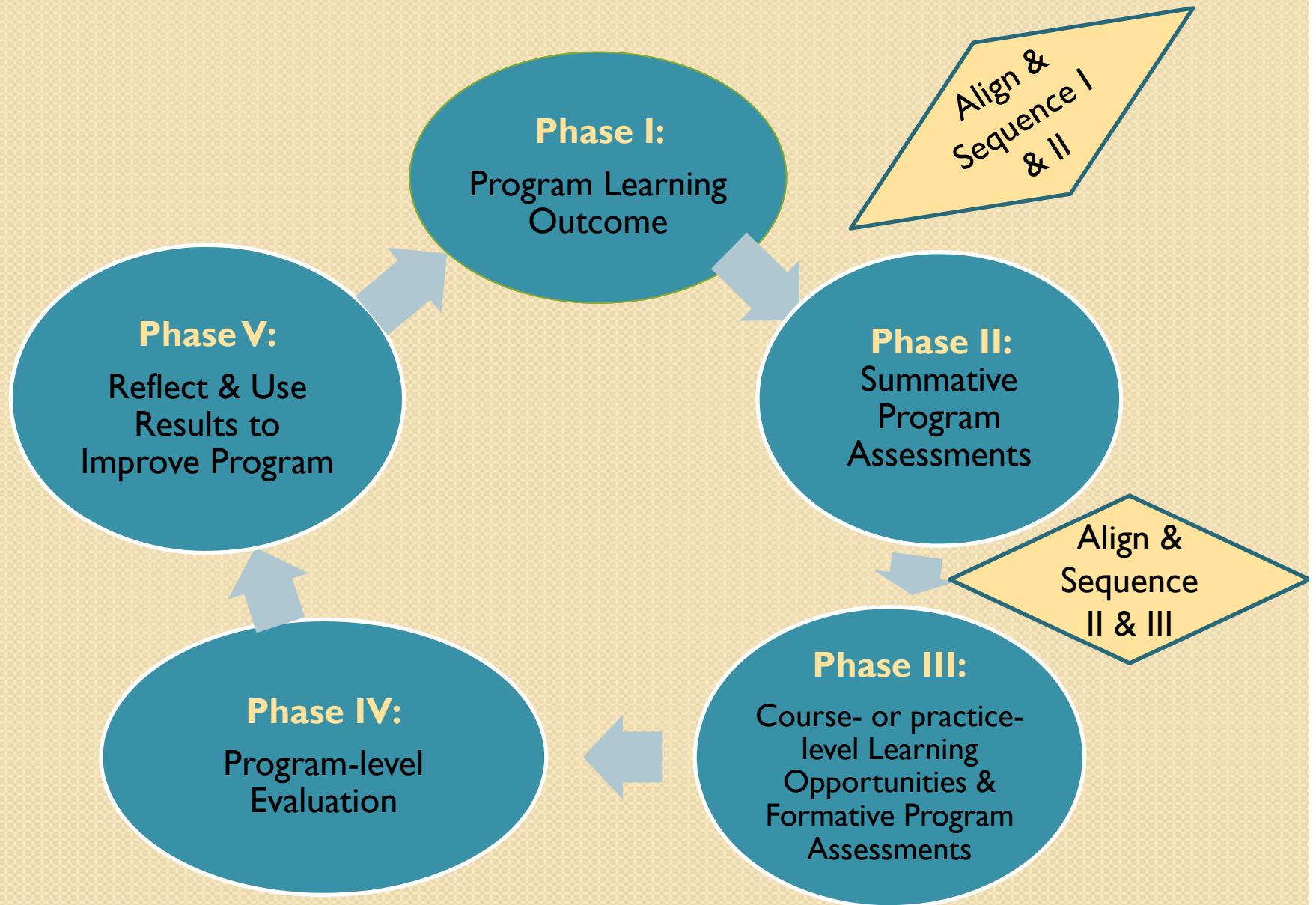
Program-Level Assessment

- Assess student learning outcomes at the end of the program

- Evaluate aggregate student artifacts for purposes of program improvement

- Evaluation involves faculty teams across the program/discipline

Program Assessment is accomplished in phases

❖See handout: *Phases of Program Assessment*

Phase I:
Program Learning Outcome

Align & Sequence I & II

Phase II:
Summative Program Assessments

Align & Sequence II & III

Phase III:
Course- or practice-level Learning Opportunities & Formative Program Assessments

Phase IV:
Program-level Evaluation

Phase V:
Reflect & Use Results to Improve Program

❖See Tan Handout: *Phases of Program Assessment*

Handout: Phases of Program Assessment

- **Phase I**
  - Determine program learning outcomes & performance indicators that reflect program's "Big Ideas"
  - Mapping/reflection check point: Align & sequence outcomes and assessments
- **Phase II**
  - Design common assessment method (eg. essay)
  - Design assessment instrument (eg. rubric)
  - Mapping/reflection check point: Align & sequence outcomes and assessments
  - Design implementation process
- **Phase III**
  - Incorporate course or practice-level learning & assessment opportunities that support program learning outcomes
- **Phase IV**
  - Implement common assessment
  - Collect student artifacts
  - Evaluate student artifacts
- **Phase V**
  - Reflect on assessment results
  - Action! Use assessment results for improvement

❖An Open and Collaborative Process is Essential for Success
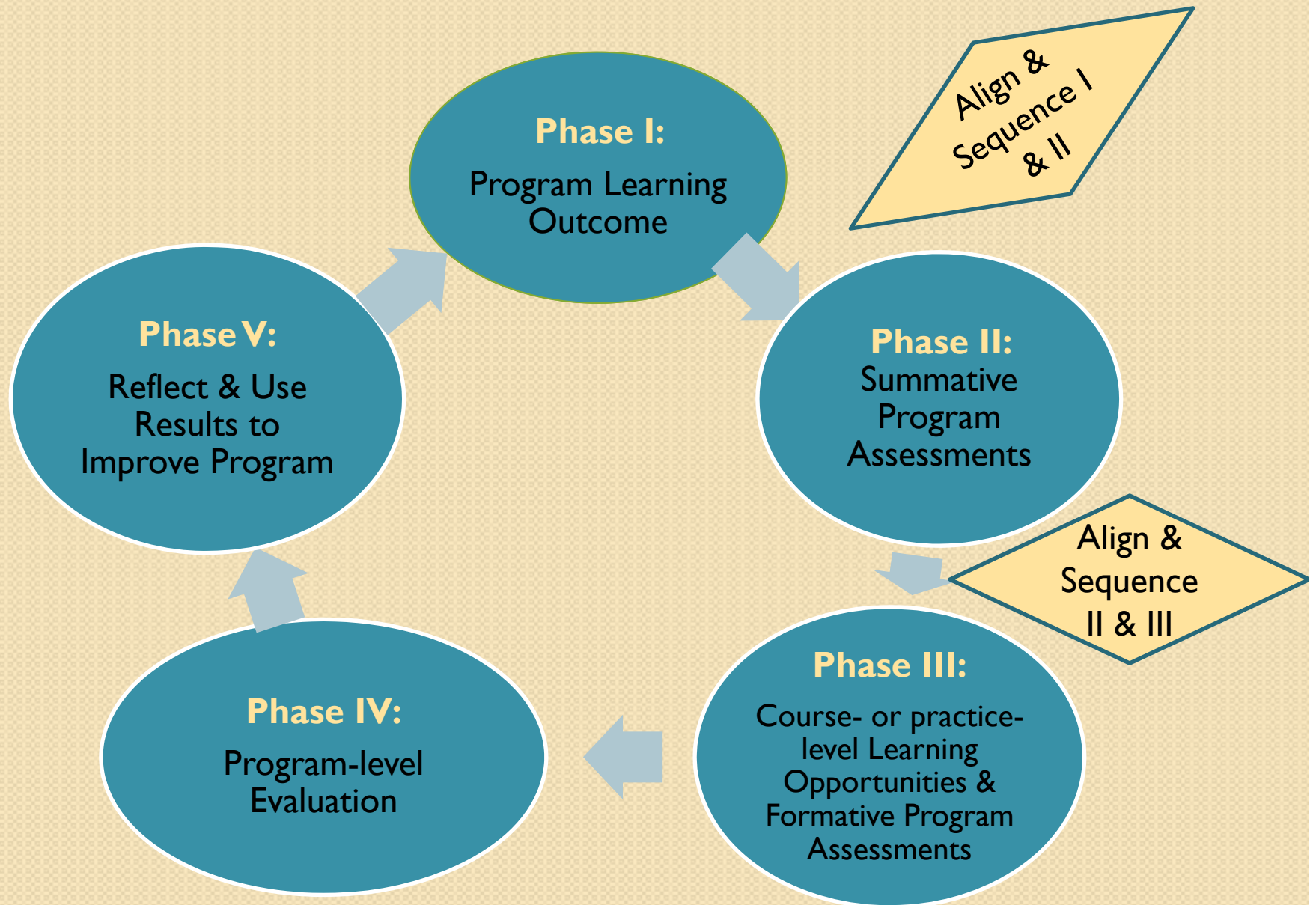
Curriculum Design Terms

- ## Aligning
  - Ensuring student learning outcomes, learning opportunities and assessments "match"

- ## Sequencing
  - Ensuring student learning outcomes and performance indicators are taught and assessed in a logical and incremental manner

✓These concepts are applied to both programs and courses.
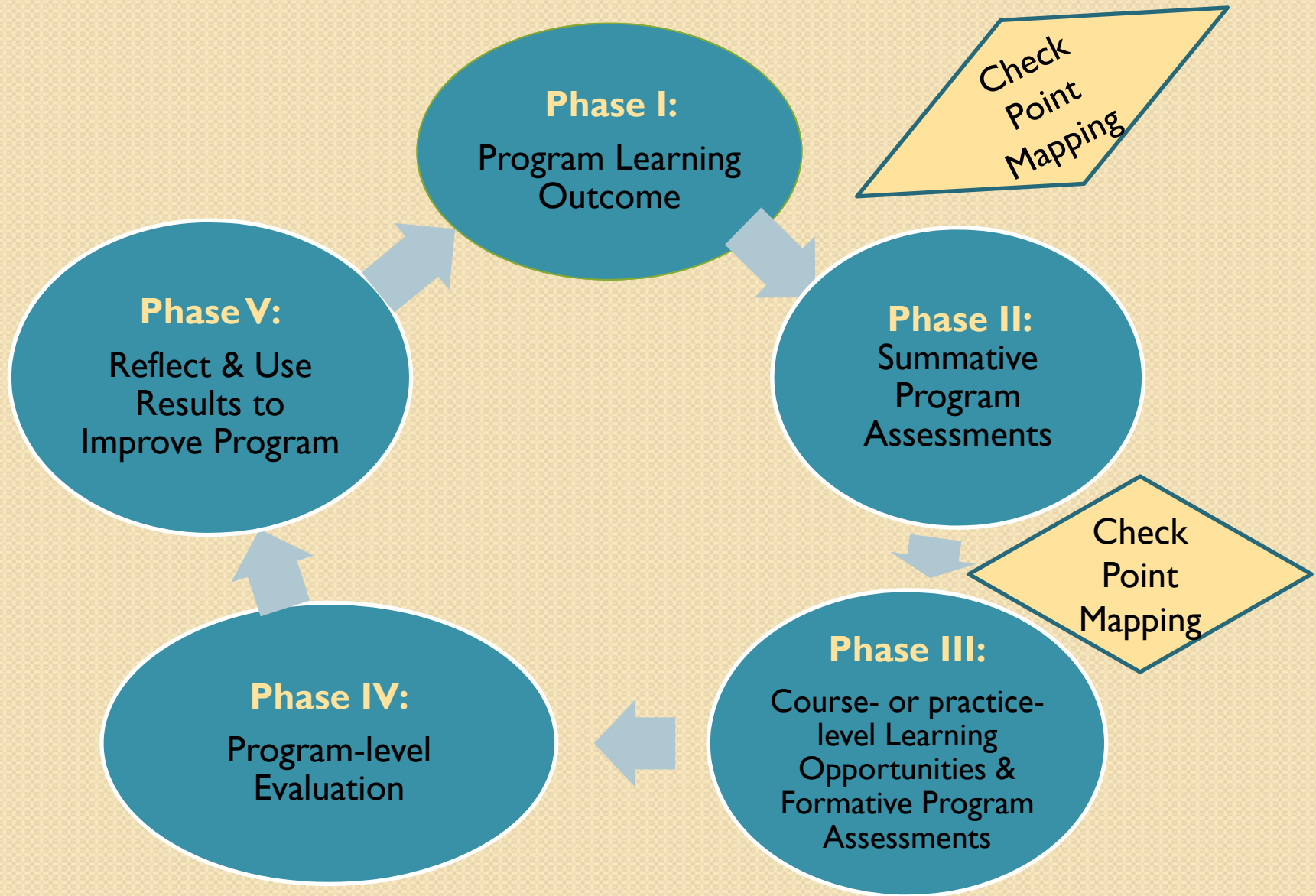
Assessment Terms

- **Summative-** at the end
  - *to measure students' <u>mastery</u> of the student learning outcomes (end of a lesson, unit, course, program)*

- **Formative-** along the way
  - *to measure the students' learning <u>progress</u> (during a lesson, unit, course, program)*

Aligning and Sequencing

Phase I:
Program Learning Outcome

Align & Sequence I & II

Phase V:
Reflect & Use Results to Improve Program

Phase II:
Summative Program Assessments

Align & Sequence II & III

Phase IV:
Program-level Evaluation

Phase III:
Course- or practice-level Learning Opportunities & Formative Program Assessments

❖See tan handout: *Phases of Program Assessment*

We accomplish alignment & sequencing through "Mapping"

Phase I:
Program Learning Outcome

Check Point Mapping

Phase II:
Summative Program Assessments

Check Point Mapping

Phase III:
Course- or practice-level Learning Opportunities & Formative Program Assessments

Phase IV:
Program-level Evaluation

Phase V:
Reflect & Use Results to Improve Program

❖An Open and Collaborative Process is Essential for Success
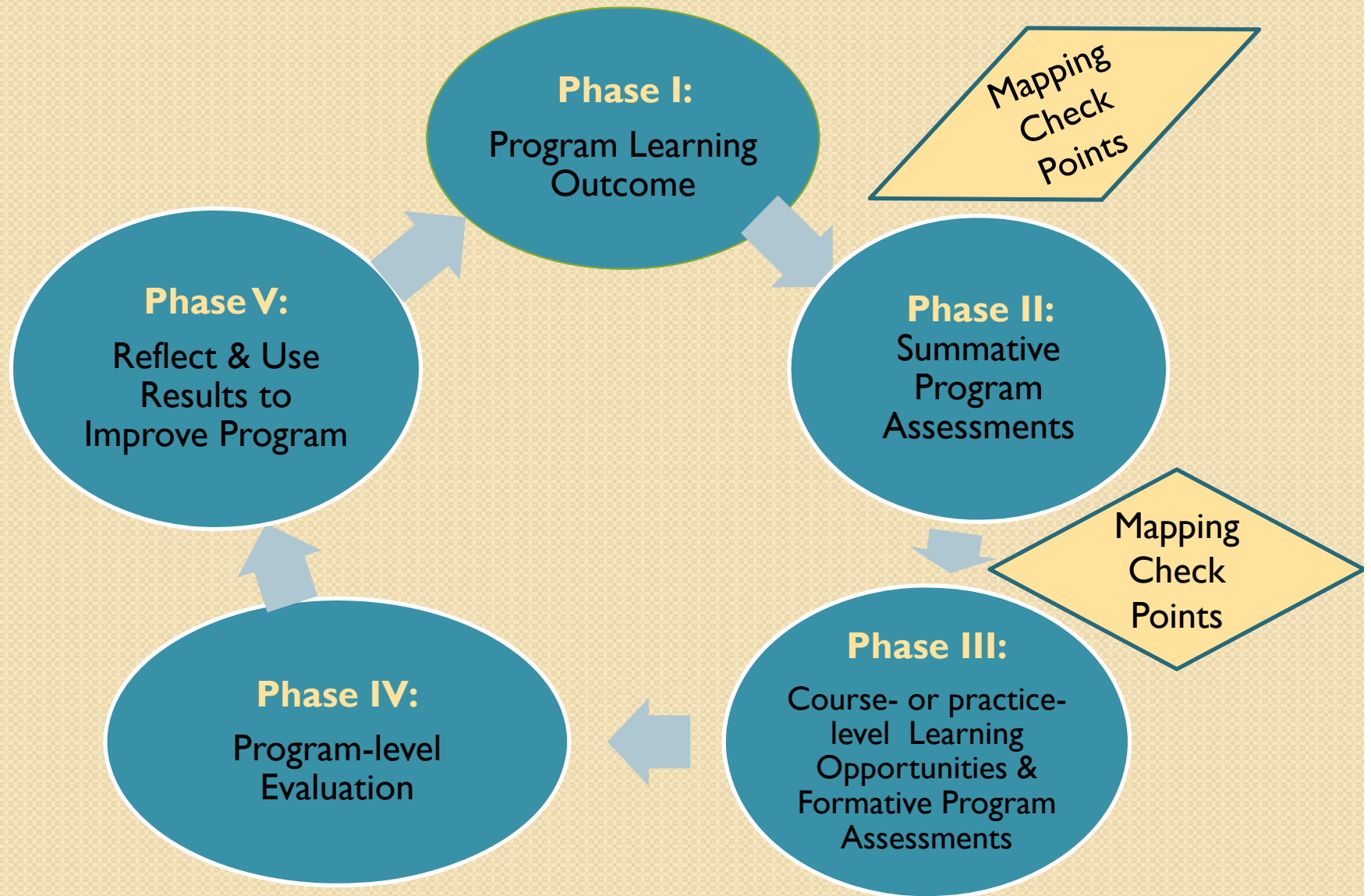
Mapping

- A <u>process</u> that ensures we are aligning and sequencing in a way that promotes students' achievement of the learning outcome(s) we have identified.

  ✓This concept is applied to both programs and courses.

"What will the students know or be able to do?"
"How will we know ?"
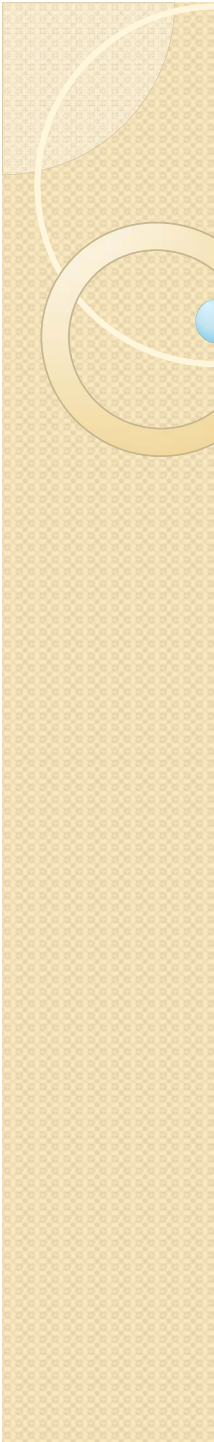
Phase I:
Program Learning Outcome

Mapping Check Points

Phase V:
Reflect & Use Results to Improve Program

Phase II:
Summative Program Assessments

Mapping Check Points

Phase IV:
Program-level Evaluation

Phase III:
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❖An Open and Collaborative Process is Essential for Success

Phase I

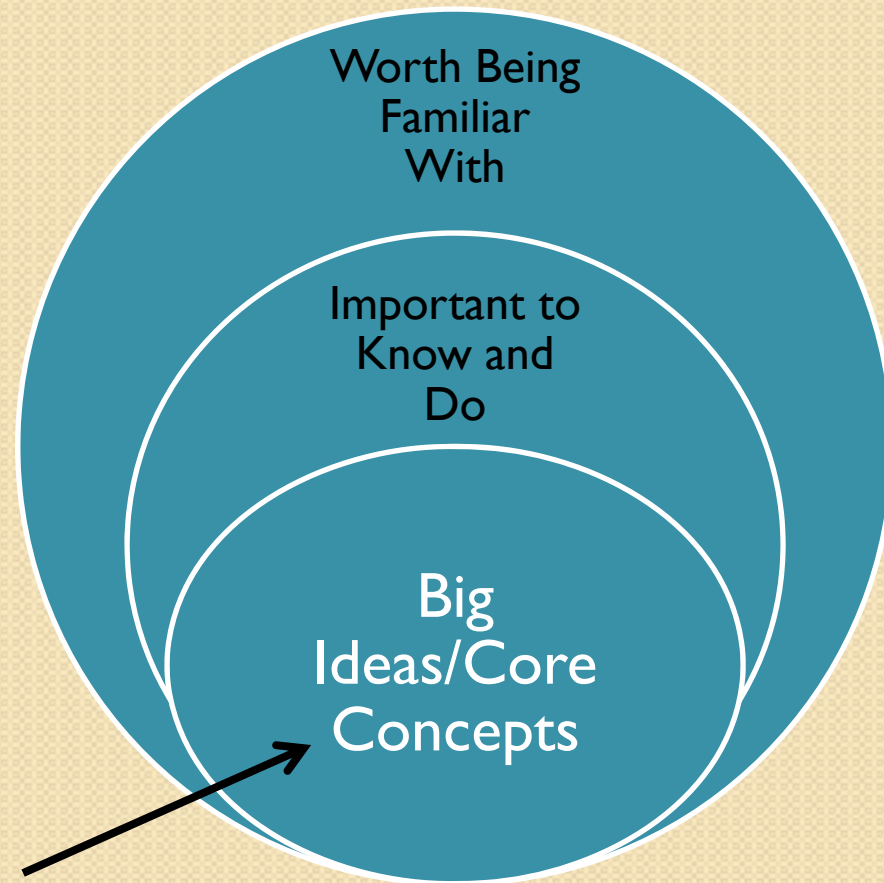## MOVING FROM "BIG IDEA" TO PROGRAM LEARNING OUTCOME

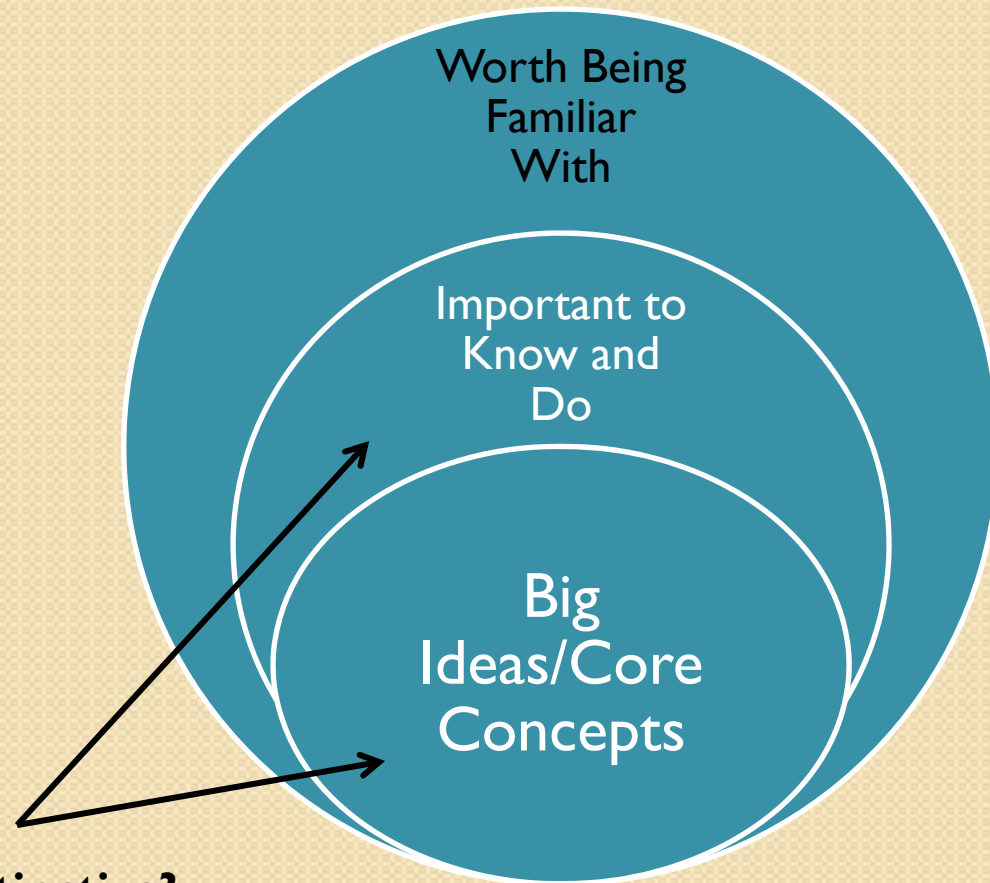# Programs Learning Outcomes Emerge from "Big Ideas"

Prioritize Program Concepts

Worth Being
Familiar
With

Important to
Know and
Do

Big
Ideas/Core
Concepts

**What do we want our program
graduates to know or do 5 years
from now?**

Based on Wiggins & McTighe

Prioritize Program Concepts

Worth Being
Familiar
With

Important to
Know and
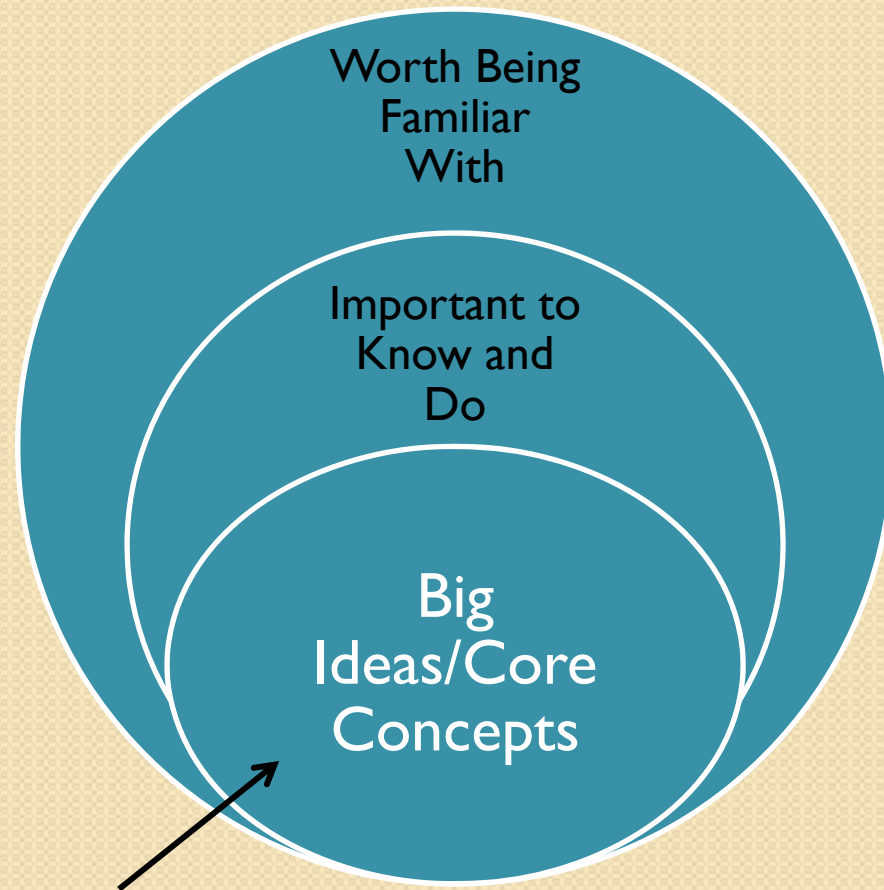Do

Big
Ideas/Core
Concepts

• **What makes our program distinctive?**

What do our stakeholders (credentialing bodies, community partners, workforce, state boards) ask of our program graduates?

Based on Wiggins & McTighe
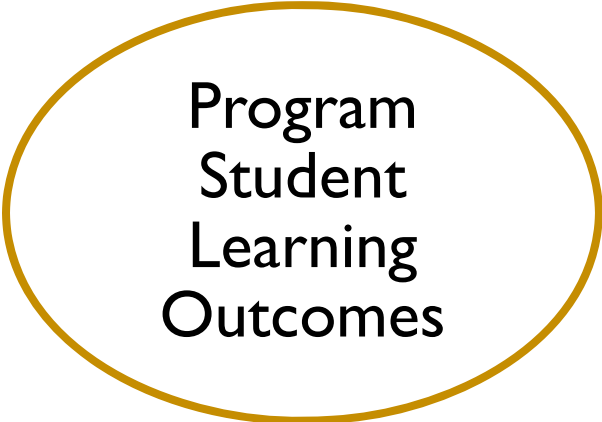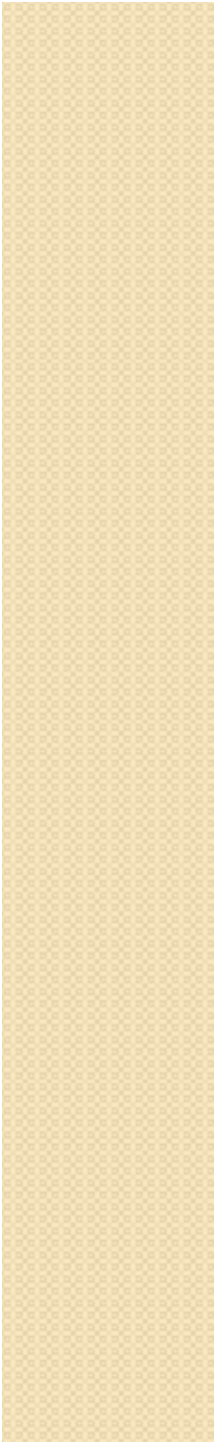
Example: Accounting Technology

Worth Being
Familiar
With

Important to
Know and
Do

Big
Ideas/Core
Concepts

Business leaders say: "Graduates should be good problem solvers"
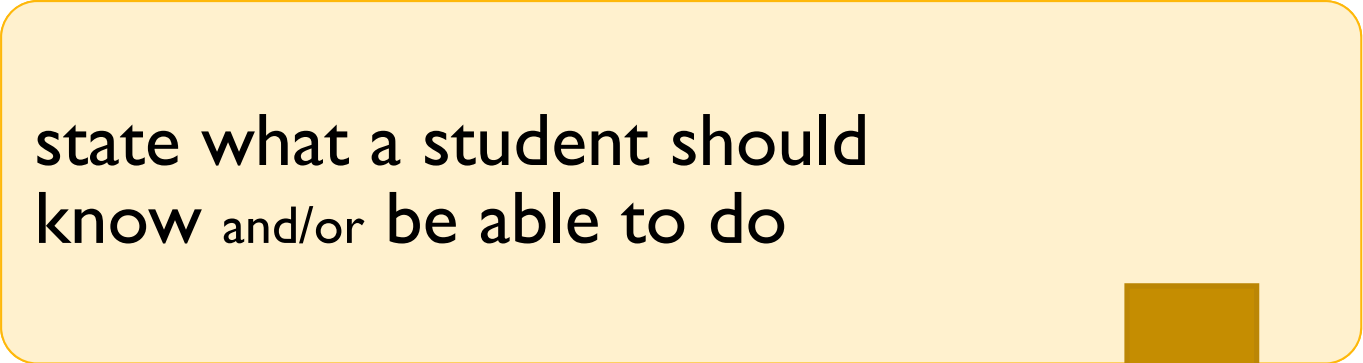
Based on Wiggins & McTighe

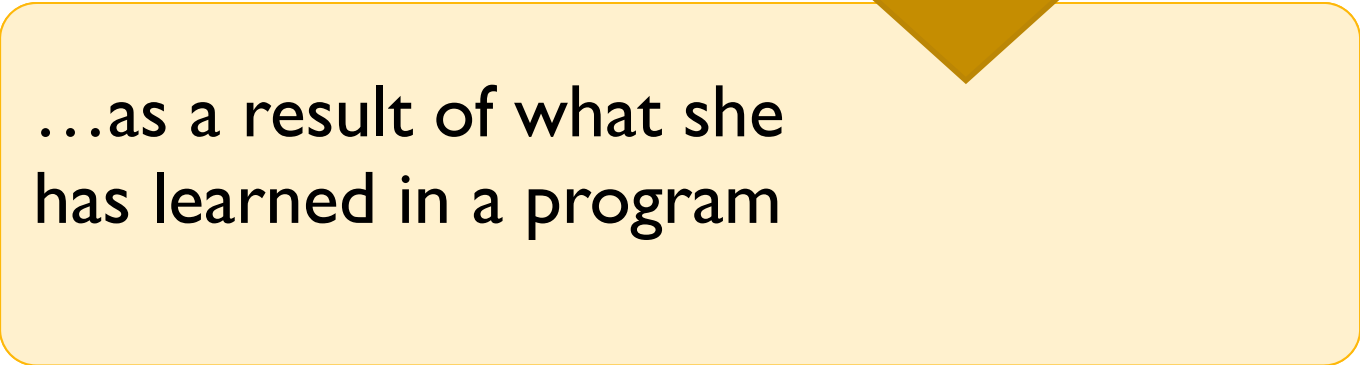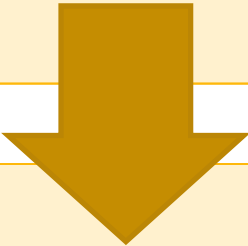# SO, NOW WE HAVE A BIG IDEA.

Next, how do we articulate a measurable learning outcome?
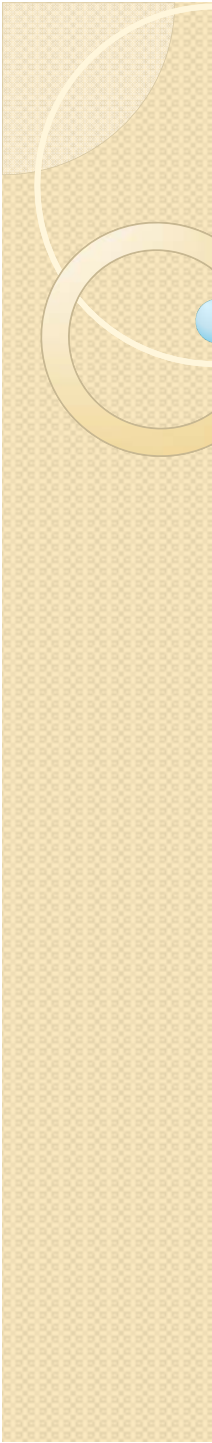
Program Student Learning Outcomes

state what a student should know and/or be able to do

…as a result of what she has learned in a program

Writing Measurable, Assessable Student Learning Outcomes (SLOs)

We use the same principles and techniques when writing a SLO(s) for a program, course, unit or lesson.

SLO Statement Structure

Students will be able to

action verb + **result/trait/product (what will be done)**

Note: All SLOs (Lessons, Units, Courses, Programs) should be one sentence, with one action verb

Example: Accounting Technology

Big Idea:

   "Graduates should be good problem solvers."

Program Learning Outcome:

The student will be able to **evaluate business and financial information to support internal decision making.**

Criteria for a Measurable Learning Outcome

Describes a Learning Result

A measurable learning outcome specifies what the student will be able to do, not what the teacher does

Specific

A measurable learning outcome addresses no more than one single result/trait/product

Action-oriented

The action verb specifies definite, assessable behaviors

Cognitively Appropriate

The action verb (Bloom's Taxonomy Thesaurus of Verbs) identifies the desired cognitive level of student thinking

Clearly Stated

The meaning of the learning outcome is easily understood by students, administrators and faculty members

Examples of Program Learning Outcomes

Students + <u>**action verb**</u> **+ result/trait /product (what will be done)**

1. The student will be able to <u>**produce**</u> **professional quality video projects.**

2. The student will be able to <u>**estimate**</u> **the costs for labor, materials, and equipment for a construction project using industry-standard software and procedures.**

3. The student will be able to <u>**structure**</u> **a safe environment in the healthcare setting.**

   ✓ Note: One sentence only, with one action verb

So…what's the big deal with the verbs & *Bloom's* cognitive levels?

Cognitive Level: Build from Lower to Higher Levels

Evaluating & Creating

Synthesizing

Analyzing

Applying

Comprehending

Remembering

Program Learning Outcomes Higher Cognitive Level
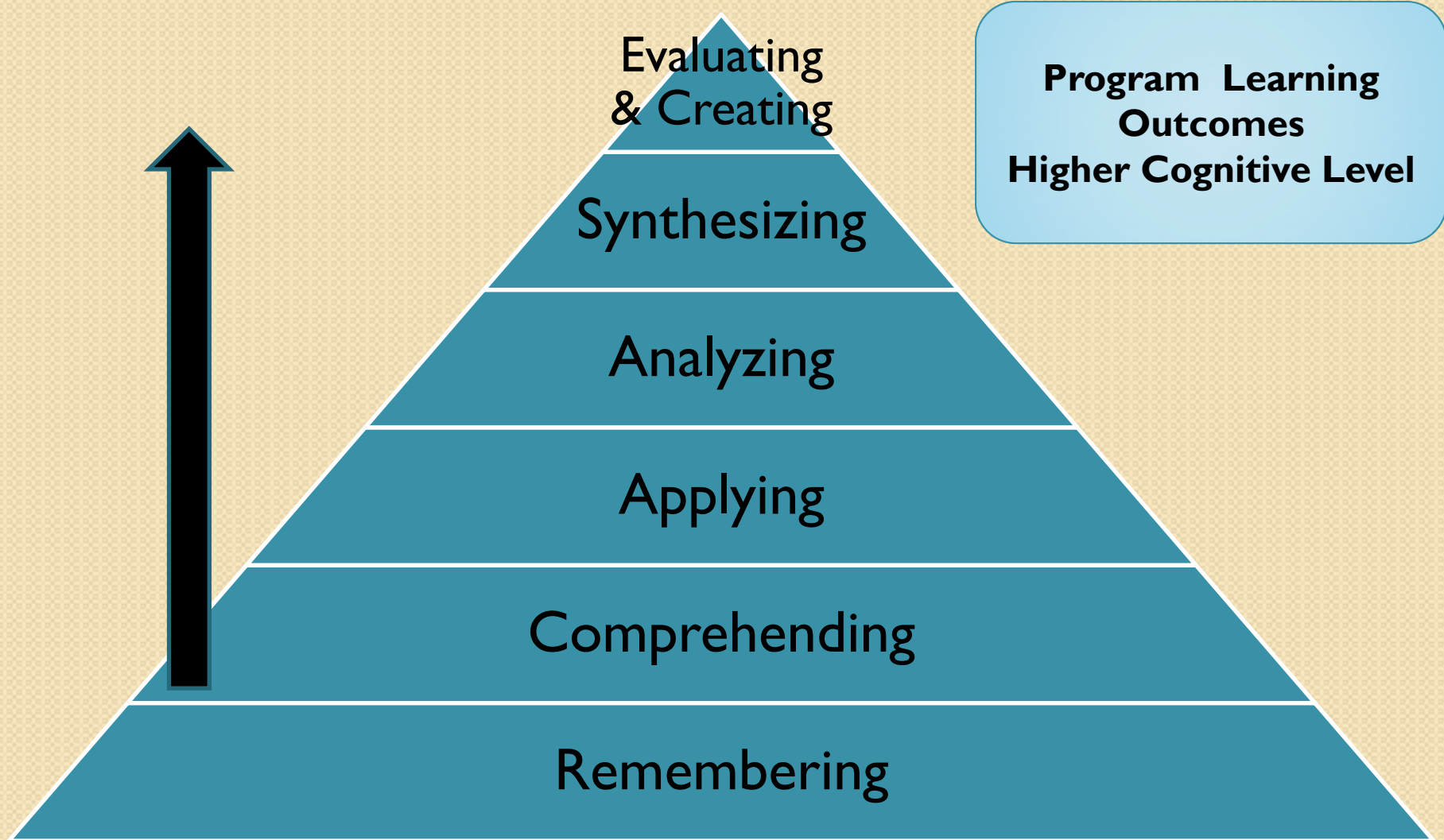
Improve this Program Learning Outcome
Think, Pair, Share (2 min)

- Student will be able to <u>analyze</u> and <u>evaluate</u> a piece of literature.

- <u>Analysis</u> is a requirement of <u>evaluation</u>

- In other words, students' learning how to <u>analyze</u> is a "building block" toward their learning how to <u>evaluate</u>

Why one action verb?

- When we measure a PLO, we measure the action…
  - each stated action verb, must be measured

- Usually the additional action verbs suggest lower order thinking that is subsumed in the PLO

Improve this Program Learning Outcome
Think, Pair, Share (4 min)

Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.

Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.

BETTER:

Students will be able to <u>apply</u> *factual information to a problem.*

BETTER BECAUSE:

- Learner is directly mentioned
- Specific because it measures one result/trait
- Measurable because it has only one action-oriented verb

Questions so far?
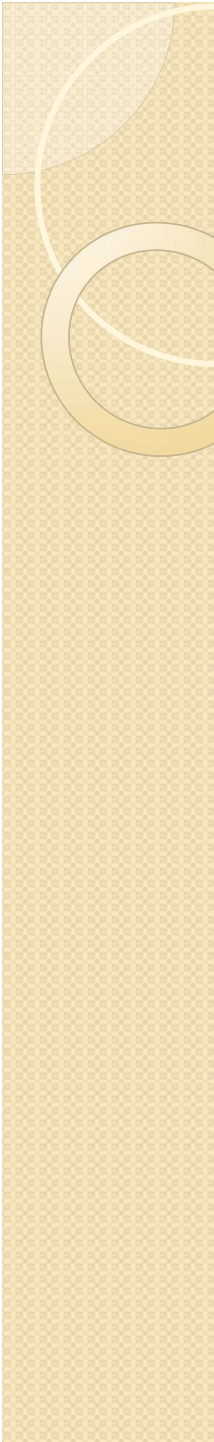
So, how do we measure (and teach!) something as big as a Program Learning Outcome ?

"Building Blocks" help us further define the PLO in measurable terms by asking…

What can my students do that will **<u>indicate</u>** they have the discrete skills that **<u>build</u>** to mastery of the student learning outcome?

The answers to this question become the <u>Performance Indicators</u> ("Building Blocks") for the PLO

- provide a <u>more specific picture </u>of students' abilities and or skills.

- define and clarify the <u>cognitive level </u>and <u>quality of performance </u>necessary to meet the requirements of the learning outcome.

Something to Note

- Performance Indicators are structured the same way as learning outcomes.

  (the only difference is that the Performance Indicators are the incremental steps to achieve the PLO)

Building to Higher Cognitive Levels

PIs to PLOs

Evaluating &
Creating

Synthesizing

Analyzing

Applying

Comprehending

Remembering

Performance Indicators

Program Learning
Outcomes
Higher Cognitive Level
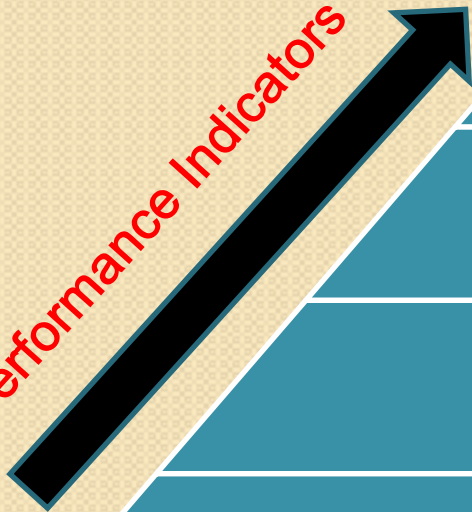
Think, Pair, Share, Write (4 min)
What are possible Performance Indicators for this
PLO?

The student will be able to <u>plan</u> a balanced diet.
(creating/evaluating)

Student Learning Outcome to Performance Indicators

➢ The student will be able to <u>plan</u> a balanced diet. (creating/evaluating)

- The student will be able to <u>examine</u> the implication of a balanced diet to good health. (analyzing)

- The student will be able to <u>describe</u> what constitutes a balanced diet. (comprehending)

- The student will be able to <u>identify</u> the components of a balanced diet. (remembering)

Building to More Complex Quality of the Results/Traits/Products
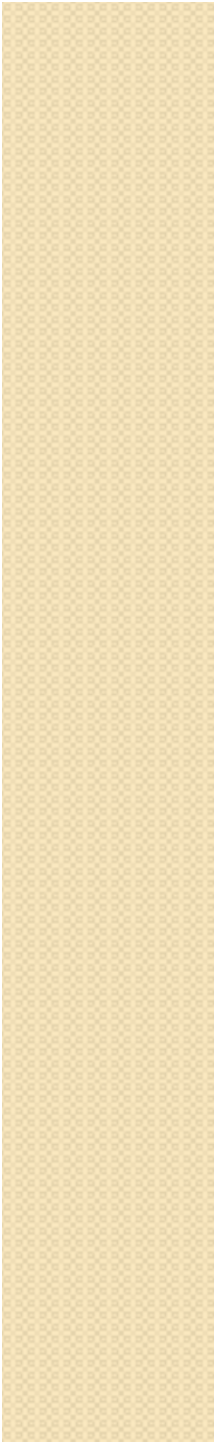
PIs to PLOs

- Learning Outcome:

Student will be able to write an essay.

- Performance Indicator:

Student will be able to write a paragraph.

Student learning … throughout a program … requires a sequenced and aligned curriculum.

Sequencing & Aligning Student Learning
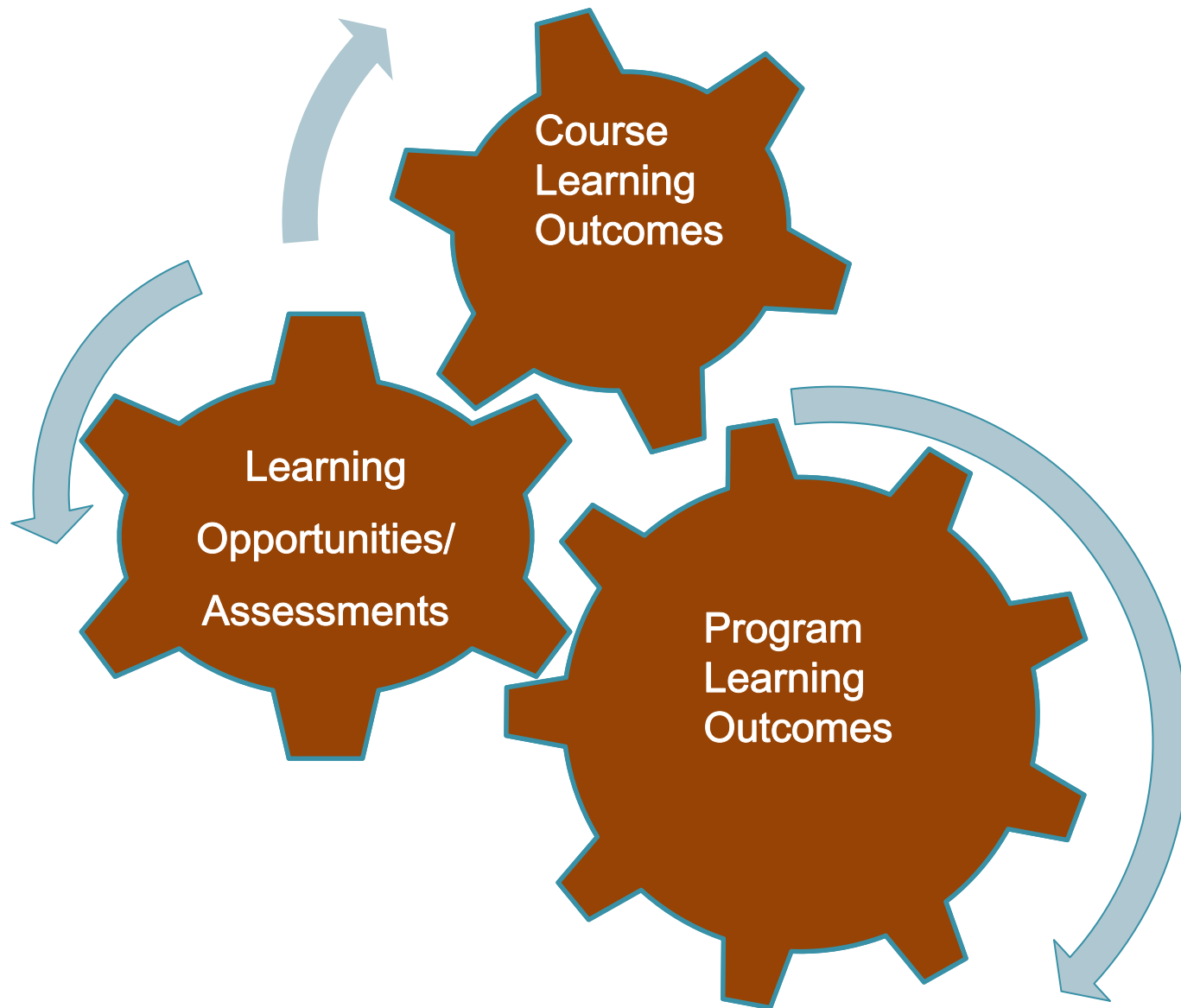
Questions so far?

Phase II

SELECTING & DEVELOPING PROGRAM ASSESSMENT METHODS & INSTRUMENTS

Assessment Terms

- Assessment Method
  - Type of assessment used to document student learning (program learning outcomes)
    - Written paper, multiple choice test, presentation, skill demonstration

- Assessment Instrument
  - Criteria and standards for assessing/evaluating student work
    - Rubric, answer key, rating scale

- Student Artifacts
  - Student work produced; observable student performance or behavior
    - Videotaped speech, timed essay, portfolio

Key Questions in Program Assessment Planning

- What will the student know or be able to do?
  - Program Learning Outcomes & Performance Indicators

- How will we know the student can demonstrate mastery of the PLO?
  - Assessment Method, Assessment Instrument

"What will the students know or be able to do?"
"How will we know they can?

Phase I: Program Learning Outcome

Align & Sequence (Mapping)

Phase V: Reflect & Use Results to Improve Program

Phase II: Summative Program Assessments

Align & Sequence (Mapping)

Phase IV: Program-level Evaluation

Phase III: Course- or practice-level Learning Opportunities & Formative Program Assessments
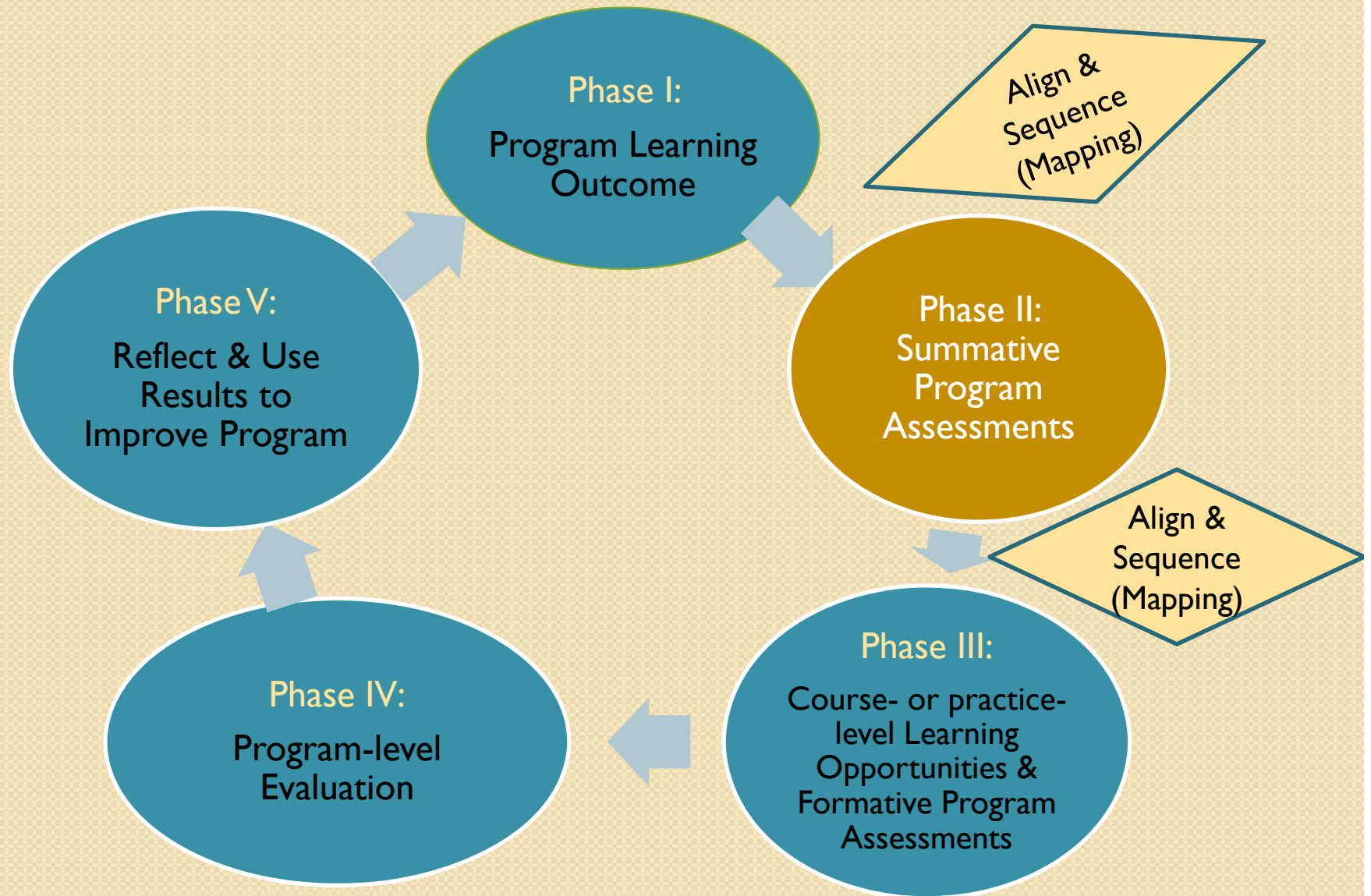
✓An Open and Collaborative Process is Essential for Success

Aligning PLOs and Assessments

- Backwater CC wants its students to be able to analyze the link between a balanced diet and overall health as a result of the Nutrition program.

- Yet, the department gives its students a multiple choice test on nutritional information definitions.

- Backwater needs help. Why?

Student learning … throughout a program … requires a sequenced and aligned curriculum and assessments.

Choosing the Appropriate Assessment Method

- Indirect Methods

- Direct Methods

Indirect Assessment Methods

- Capture student or other stakeholder <u>perceptions/ reflections</u> of student learning or the learning environment

  - Aren't sufficient by themselves to indicate student learning
  - Compliment direct methods

Some Examples of Indirect Assessment Methods

- Student satisfaction surveys
- Alumni and employer surveys
- Graduation rates
- Licensure rates/placement rates
- Focus groups

Direct Assessment Methods

- Require students to <u>demonstrate</u> knowledge and skills articulated in program learning outcomes

Some Examples of Direct Assessment Methods

- Multiple Choice Tests
- Essay Tests
- Formal Writing Assignments
  - Short papers (reflections, specialized formats);
  - Research Papers and Proposals;
  - Project Reports (e.g., financial, technical, etc);
- Designs, Models, Creative Works
- Portfolios
- Projects (Team or Individual)
- Presentations (Team or Individual)
- Internships
- Observation/Interviews, and
- Others?

When To Assess?

- Course Embedded Assessments
  - Connected to the course
  - Students are already motivated to perform at their best
  - Can be used to enhance individual courses

- End of Program Assessments

- Pre/Post Program Assessments

Moving From Assessment Method to Assessment Instrument …

Remember, assessment instruments describe criteria and standards for assessing/evaluating student work

Assessment Instruments: Establishing Criteria for Assessing Student Work

- Many types of instruments to choose from:
  - Checklist
  - Score card
  - Objective questions
  - Analytic rubric
  - Holistic rubric
  - Other?
- Each instrument has pros and cons
- ➤ Important! What will the criteria described in the instrument tell us about student learning?

Assessment Instruments

WORKING EXAMPLES

Discussion of General Education Outcome "Categories"

- **Cultural and Historical Understanding:** Demonstrate understanding of the diverse traditions of the world, and the individual's place in it.

- **Quantitative and Scientific Reasoning:** Use processes, procedures, data, or evidence to solve problems and make effective decisions.

- **Communication Skills:** Engage in effective interpersonal, oral and written communication.

- **Ethical Responsibility:** Demonstrate awareness of personal responsibility in one's civic, social, and academic life.

- **Information Literacy:** Locate, evaluate, and effectively use information from diverse sources.

- **Critical Thinking:** Effectively analyze, evaluate, synthesize and apply information and ideas from diverse sources and disciplines.

Valencia's approved General Education Program Learning Outcomes currently exist as outcome categories that still need to be articulated as actual learning outcomes with corresponding indicators.

Communicate
Analytic Rubric

Rubric for the Assessment of Written Communication

Indicators of Effective Writing	Levels of Achievement			
	Beginning	**Developing**	**Competent**	**Accomplished**
Meaning & Development: ideas, examples, reasons & evidence, point of view	**Inappropriate** No viable point of view; little or no evidence; weak critical thinking, providing inappropriate or insufficient examples, reasons, or other evidence of support	**Appropriate** Develops a point of view, demonstrating some critical thinking; may have inconsistent or inadequate examples, reasons, & other evidence of support; support tends towards general statements or lists	**Effective** Develops a point of view & demonstrates competent critical thinking; enough supporting detail to accomplish the purpose of the paper	**Insightful** Ideas are fresh, mature & extensively developed; insightfully develops a point of view & demonstrates outstanding critical thinking
Organization: focus, coherence, progression of ideas, thesis developed	**Lacking Structure** Disorganized & unfocused; serious problems with coherence and progression of ideas; weak or non-existent thesis	**Mostly Structured** Limited organization & focus; may demonstrate some lapses in coherence or progression of ideas; generally, neither sufficient nor clear enough to be convincing	**Structured** Generally organized & focused, demonstrating coherence & progression of ideas; presents a thesis and suggests a plan of development which is mostly carried out	**Perceptively Structured** Thesis presented or implied with noticeable coherence; provides specific & accurate support
Language: word choice, & sentence variety	**Inadequate** Displays frequent & fundamental errors in vocabulary; sentences may be simplistic and disjointed	**Adequate** Developing facility in language use, sometimes uses weak vocabulary or inappropriate usage or word choice; sentence structure tends to be pedestrian & often repetitious	**Proficient** Competent use of language and sometimes varies sentence structure; generally focused	**Sophisticated** Choice of language & sentence structure; precise & purposeful, demonstrating a command of language and variety of sentence structures
Conventions: grammar, punctuation, spelling, paragraphing, format	**Distracting** Errors interfere with writer's ability to consistently communicate purpose; pervasive mechanical errors obscure meaning; inappropriate format	**Fundamental** Errors interfere with the writer's ability to communicate purpose; contains an accumulation of errors; some weakness in format	**Controlled** Occasional errors do not interfere with writer's ability to communicate purpose; generally appropriate format	**Polished** Control of conventions contribute to the writer's ability to communicate purpose; free of most mechanical errors; appropriate format

THINK
Holistic Rubric

Rubric for the Holistic Assessment of Critical Thinking across the Curriculum

Valencia Community College
TVCA Learning Evidence Team

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4 Accomplished (precise, insightful, balanced, perceptive, and unified)

Does all or almost all of the following:

- Interprets information (data, ideas, or concepts) accurately, appropriately, and in-depth in new contexts
- Employs formulas, procedures, principles, or themes accurately, appropriately, and/or creatively in new contexts
- Explain—accurately and thoroughly—multiple solutions, positions, or perspectives that balance opposing points of view
- Creates a detailed conclusion or complex solution that is complete, well-supported, logically consistent, and often unique
- Integrates ideas or develops solutions that are exceptionally clear, coherent, and cohesive

3 Competent (accurate, relevant, multiplistic, logical, coherent)

Does many or most of the following:

- Presents information (data, ideas, or concepts) accurately and appropriately in familiar contexts
- Applies formulas, procedures, principles, or themes accurately and appropriately in familiar contexts
- Describes two or more solutions, positions, or perspectives accurately
- Organizes a conclusion or solution that is complete, logical, and consistent with evidence presented
- Connects ideas or develops solutions in a clear and coherent order

2 Developing (correct, appropriate, dualistic, reasonable, consistent)

Does many or most of the following:

- Reports information (data, ideas, or concepts) in familiar contexts with minor inaccuracies, irrelevancies, or omissions
- Uses appropriate formulas, procedures, principles, or themes in familiar contexts with only minor inaccuracies
- Identifies simple solutions, over-simplified positions, or perspectives with only minor inaccuracies
- Offers an abbreviated conclusion or simple solution that is mostly consistent with the evidence presented, with minor inconsistencies or omissions
- Arranges ideas or solutions into a simple pattern

1 Beginning (inaccurate, inappropriate, singular, illogical, fragmented)

Does all or almost all of the following:

- Copies information (data, ideas, or concepts) often inaccurately, incompletely, or omits relevant information
- Labels formulas, procedures, principles, or themes inaccurately, inappropriately, or omits them
- Names a single solution, position, or perspective, often inaccurately, or fails to present a solution, position, or perspective
- Attempts a conclusion or solution that is inconsistent with evidence presented, that is illogical, or omits a conclusion or solution altogether
- Lists ideas or expresses solutions in a fragmentary manner, without a clear or coherent order

*This rubric is intended for use in the assessment of student learning and the improvement of instruction at the institutional level. Please send your comments and suggestions about this rubric to Emily Hooker, Learning Evidence Associate, ehooker@valenciacc.edu.

Information Literacy Checklist

Pink Handout

Information Literacy: Locate, evaluate, and effectively use information from diverse sources.

Evaluation questions

- Overall, has the student created summaries, paraphrases, and/or quotes from sources appropriately to support his/her thesis?

- Overall, has the student properly integrated source materials in the essay?

- Overall, has the student properly documented the sources within the essay?

Scientific Reasoning
Objective Questions

Class Climate	Science General Education 2011	

Mark as shown: ☐☒☐☐☐ [Use a BLUE / BLACK PEN to place an X in the box (No Checkmarks).]

Correction: ☐■☐☒☐ [To correct a wrong answer, fill the box completely and then X the appropriate box.]

Please read the provided article, then answers the four questions below. Select the best answer for each question.

1. Which statement is <u>most</u> accurate?
- ☐ a. This report provides conclusive evidence that oil is heavier than water.
- ☐ b. The oil in the Gulf of Mexico is a heavier type of oil than oil found in other places.
- ☐ c. Large oil particles have more mass and will sink more quickly than small particles.
- ☐ d. Fresher oil is more likely to float near the water's surface than degraded oil.

2. Which of the following is <u>least</u> likely to account for oil being found on the seafloor of the Gulf of Mexico?
- ☐ a. Large oil particles sink more quickly than small oil particles.
- ☐ b. The oil has become denser as it weathers and becomes tar-like.
- ☐ c. The oil results from natural seeps that are on the Gulf seafloor.
- ☐ d. Oil has coated sand and mud particles and has sunk with the particles.

3. All of the following are competing hypotheses reported in this article, <u>except</u>:
- ☐ a. the oil comes from nearby oil seeps found on the Gulf seafloor.
- ☐ b. the oil has coated sand and mud particles and has sunk with the particles.
- ☐ c. over time, the oil becomes denser and more readily sinks.
- ☐ d. the oil in the Gulf is different from the oil found in other places.

4. The chemist from Louisiana State University doubts much oil is on the Gulf seafloor because
- ☐ a. there was not enough oil released to cover the bottom to over 2 inches thick.
- ☐ b. oil is lighter than water and would not accumulate on the Gulf seafloor.
- ☐ c. only a small amount of oil occurs in a form capable of sinking.

Assessment Methods & Instruments: Two Important Considerations

- Do the assessment method and instrument measure what we want them to measure? (validity)

- Are the assessment method and the assessment instrument used consistently in multiple uses by varied users? (reliability)

Validity: Program Outcome Assessment

- Do the assessment method and instrument measure student learning as articulated in the program learning outcome and performance indicators?

- Is the assessment method administered at a time to allow instruction and/or experiences necessary to achieve the program learning outcome?

Reliability: Program Outcomes Assessment

- If using papers, portfolios, creative works, or projects, would different evaluators give approximately the same score or rating to the assessment?
  - Will you establish common criteria (rubrics) and train evaluators course faculty or others) in their use?

- If using objective examinations, how will you know if your tests are consistent?
  - Will you get statistical measures of reliability (test-retest or internal consistency measures)?

- Are students familiar with the process and are they assessed under the same conditions?

"What will the students know or be able to do?"
"How will we know they can?

Phase I:
Program Learning Outcome

Align & Sequence (Mapping)

Phase V:
Reflect & Use Results to Improve Program

Phase II:
Summative Program Assessments

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Phase III:
Course- or practice-level Learning Opportunities & Formative Program Assessments
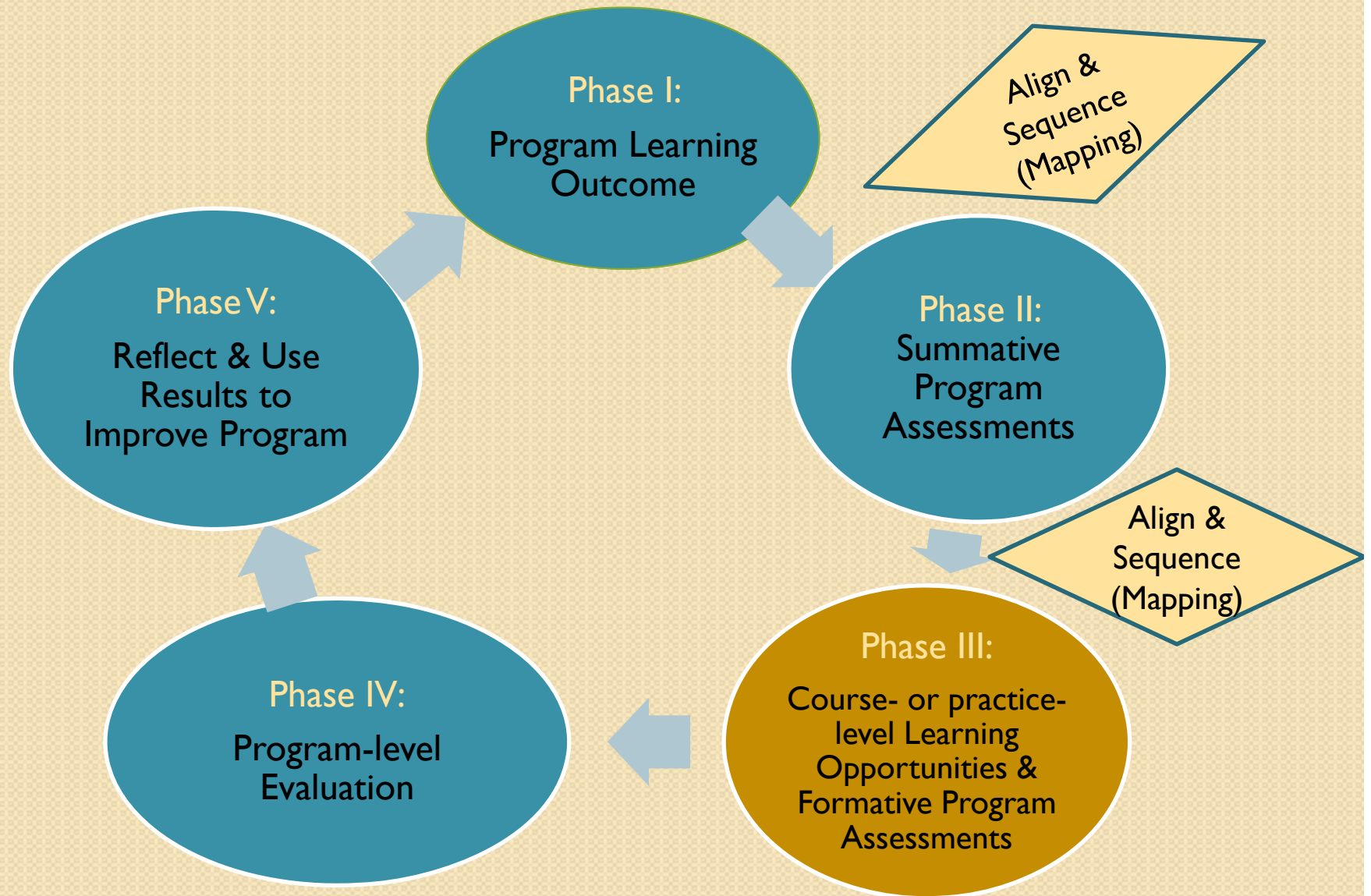
✓An Open and Collaborative Process is Essential for Success

Phase III: Here we are implementing learning & assessment opportunities in support of the Program Outcomes

PHASE III

Course- & Practice-level

learning opportunities &
assessments that support
program learning outcomes

Learning & Assessment Opportunity Methods…

inquiry

planning

practice

exploration

listening

observation

tests

writing

discussion

experimentation

discovery

presentation

reading

quizzes

Phase IV

PROGRAM-LEVEL EVALUATION

"What will the students know or be able to do?"
"How will we know they can?

Phase I:
Program Learning Outcome

Align & Sequence (Mapping)

Phase V:
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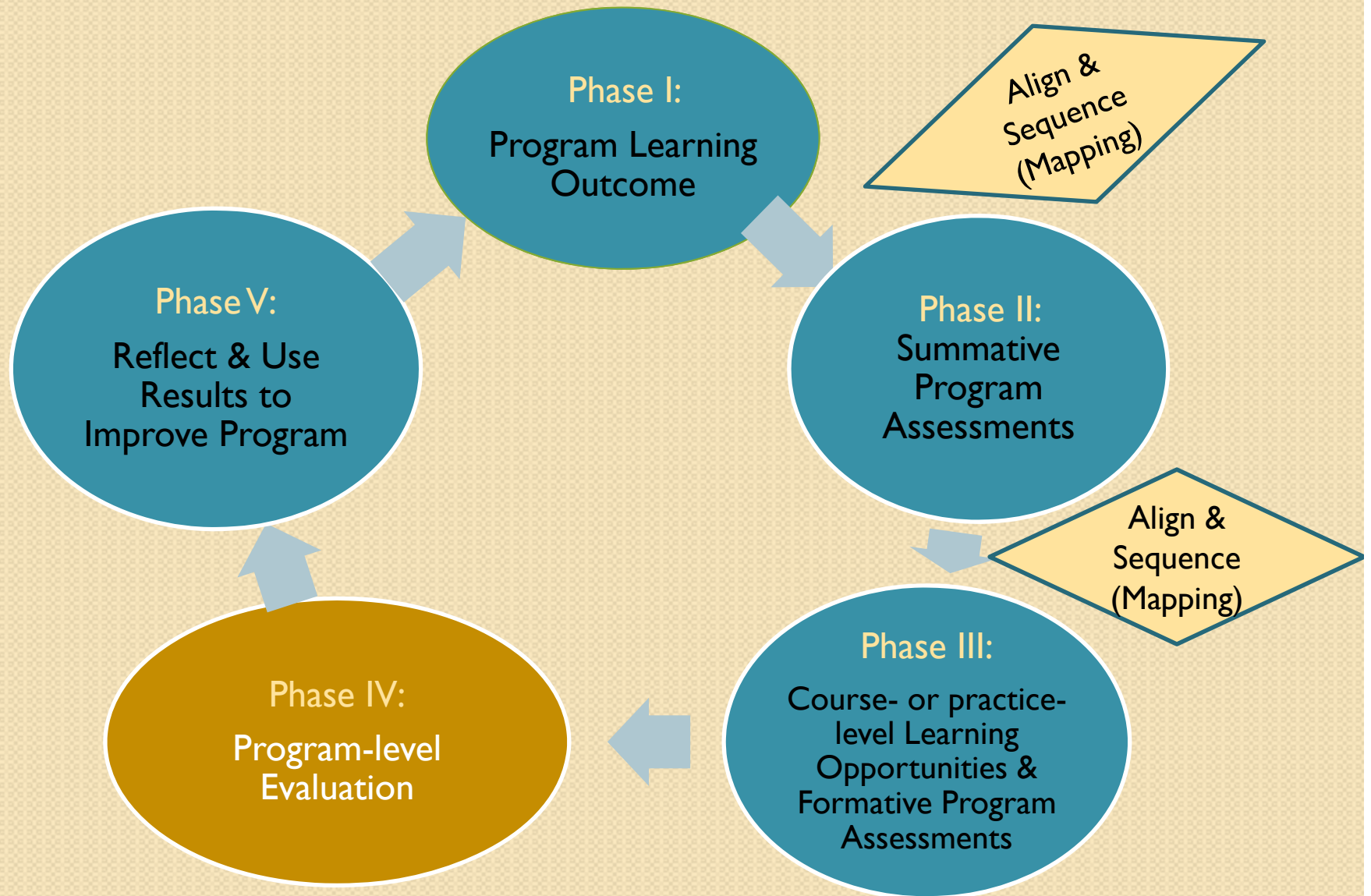
✓An Open and Collaborative Process is Essential for Success

Data Collection

- Collection of Artifacts

  - How will student work be collected?
    - Will a collection process be implemented consistently?

  - Is anonymity important for faculty or students?
    - If so, how will you ensure it?

  - How will you ensure artifacts are submitted?
    - What considerations may there be for faculty or student non-participation?
    - If sampling, will you oversample?

Sampling

- It isn't always possible to evaluate the artifacts (products, portfolios, tests, etc) produced by all students in your program.
  - What will be your sampling strategy?

- If student artifacts are to be collected using a random sample, what characteristics will be important in determining the sample?

Model in Practice: Communicate

- **General Education Program Learning Outcome:** Students will be able to engage in effective interpersonal, oral and written communication.

- **Target Course:** ENC1101-English Composition I

- **Course Level Performance Indicators:**
  Students will be able to demonstrate college-level writing.

Communicate
Analytic Rubric

Rubric for the Assessment of Written Communication

Indicators of Effective Writing	Levels of Achievement			
	Beginning	**Developing**	**Competent**	**Accomplished**
Meaning & Development: ideas, examples, reasons & evidence, point of view	**Inappropriate** No viable point of view; little or no evidence; weak critical thinking, providing inappropriate or insufficient examples, reasons, or other evidence of support	**Appropriate** Develops a point of view, demonstrating some critical thinking; may have inconsistent or inadequate examples, reasons, & other evidence of support; support tends towards general statements or lists	**Effective** Develops a point of view & demonstrates competent critical thinking; enough supporting detail to accomplish the purpose of the paper	**Insightful** Ideas are fresh, mature & extensively developed; insightfully develops a point of view & demonstrates outstanding critical thinking
Organization: focus, coherence, progression of ideas, thesis developed	**Lacking Structure** Disorganized & unfocused; serious problems with coherence and progression of ideas; weak or non-existent thesis	**Mostly Structured** Limited organization & focus; may demonstrate some lapses in coherence or progression of ideas; generally, neither sufficient nor clear enough to be convincing	**Structured** Generally organized & focused, demonstrating coherence & progression of ideas; presents a thesis and suggests a plan of development which is mostly carried out	**Perceptively Structured** Thesis presented or implied with noticeable coherence; provides specific & accurate support
Language: word choice, & sentence variety	**Inadequate** Displays frequent & fundamental errors in vocabulary; sentences may be simplistic and disjointed	**Adequate** Developing facility in language use, sometimes uses weak vocabulary or inappropriate usage or word choice; sentence structure tends to be pedestrian & often repetitious	**Proficient** Competent use of language and sometimes varies sentence structure; generally focused	**Sophisticated** Choice of language & sentence structure; precise & purposeful, demonstrating a command of language and variety of sentence structures
Conventions: grammar, punctuation, spelling, paragraphing, format	**Distracting** Errors interfere with writer's ability to consistently communicate purpose; pervasive mechanical errors obscure meaning; inappropriate format	**Fundamental** Errors interfere with the writer's ability to communicate purpose; contains an accumulation of errors; some weakness in format	**Controlled** Occasional errors do not interfere with writer's ability to communicate purpose; generally appropriate format	**Polished** Control of conventions contribute to the writer's ability to communicate purpose; free of most mechanical errors; appropriate format

Model in Practice: Communicate

- **ENC 1101 (2007-2010)**

- **College-wide Random Sample – 100 Students**
  - Stratified by campus, mode of delivery and contract status of the instructor
  - Copies of student work sent to Assessment Office
  - Student artifacts assessed by college-wide English faculty using locally-developed holistic rubric

Model in Practice: Communicate

- **Strength/Opportunity**
  - College-wide discussions about college-level writing

- **Challenges**
  - Lack of common understanding about course level versus program level assessment (exit exams)
  - "Common prompts"
  - Loss of academic freedom

Model in Practice: Scientific Reasoning

- **General Education Program Learning Outcome:** Students will be able to use processes, procedures, data or evidence to solve problems and make effective decisions.

- **Target Courses:** All General Education Science Courses

- **Course Level Performance Indicator:**

  Students will be able to assess scientific reasoning in current (~2 years) science news stories.

Scientific Reasoning
Objective Questions

Mark as shown: ☐☒☐☐☐ [Use a BLUE / BLACK PEN to place an X in the box (No Checkmarks).]

Correction: ☐■☐☒☐ [To correct a wrong answer, fill the box completely and then X the appropriate box.]

Please read the provided article, then answers the four questions below. Select the best answer for each question.

1. Which statement is most accurate?

- ☐ a. This report provides conclusive evidence that oil is heavier than water.
- ☐ b. The oil in the Gulf of Mexico is a heavier type of oil than oil found in other places.
- ☐ c. Large oil particles have more mass and will sink more quickly than small particles.
- ☐ d. Fresher oil is more likely to float near the water's surface than degraded oil.

2. Which of the following is least likely to account for oil being found on the seafloor of the Gulf of Mexico?

- ☐ a. Large oil particles sink more quickly than small oil particles.
- ☐ b. The oil has become denser as it weathers and becomes tar-like.
- ☐ c. The oil results from natural seeps that are on the Gulf seafloor.
- ☐ d. Oil has coated sand and mud particles and has sunk with the particles.

3. All of the following are competing hypotheses reported in this article, except:

- ☐ a. the oil comes from nearby oil seeps found on the Gulf seafloor.
- ☐ b. the oil has coated sand and mud particles and has sunk with the particles.
- ☐ c. over time, the oil becomes denser and more readily sinks.
- ☐ d. the oil in the Gulf is different from the oil found in other places.

4. The chemist from Louisiana State University doubts much oil is on the Gulf seafloor because

- ☐ a. there was not enough oil released to cover the bottom to over 2 inches thick.
- ☐ b. oil is lighter than water and would not accumulate on the Gulf seafloor.
- ☐ c. only a small amount of oil occurs in a form capable of sinking.

Blue Handout

Model in Practice: Scientific Reasoning

- **All Gen. Education Science Courses (2009-2011)**

- **College-wide assessment available to all students enrolled**
  - Spring term Gen. Ed. Science courses (8574 students/150 course sections)
  - ClassClimate Survey Tool using scanable paper and online response options
  - 1950 students participated (onsite)

Model in Practice: Scientific Reasoning

Anwser Distribution for All Surveys Combined

	Q1	Q2	Q3	Q4
A	21.1%	36.9%	14.9%	23.3%
B	13.2%	19.1%	15.5%	24.9%
C	18.5%	27.5%	15.9%	51.8%
D	47.3%	16.4%	53.7%	0.0%

C   A   D   C
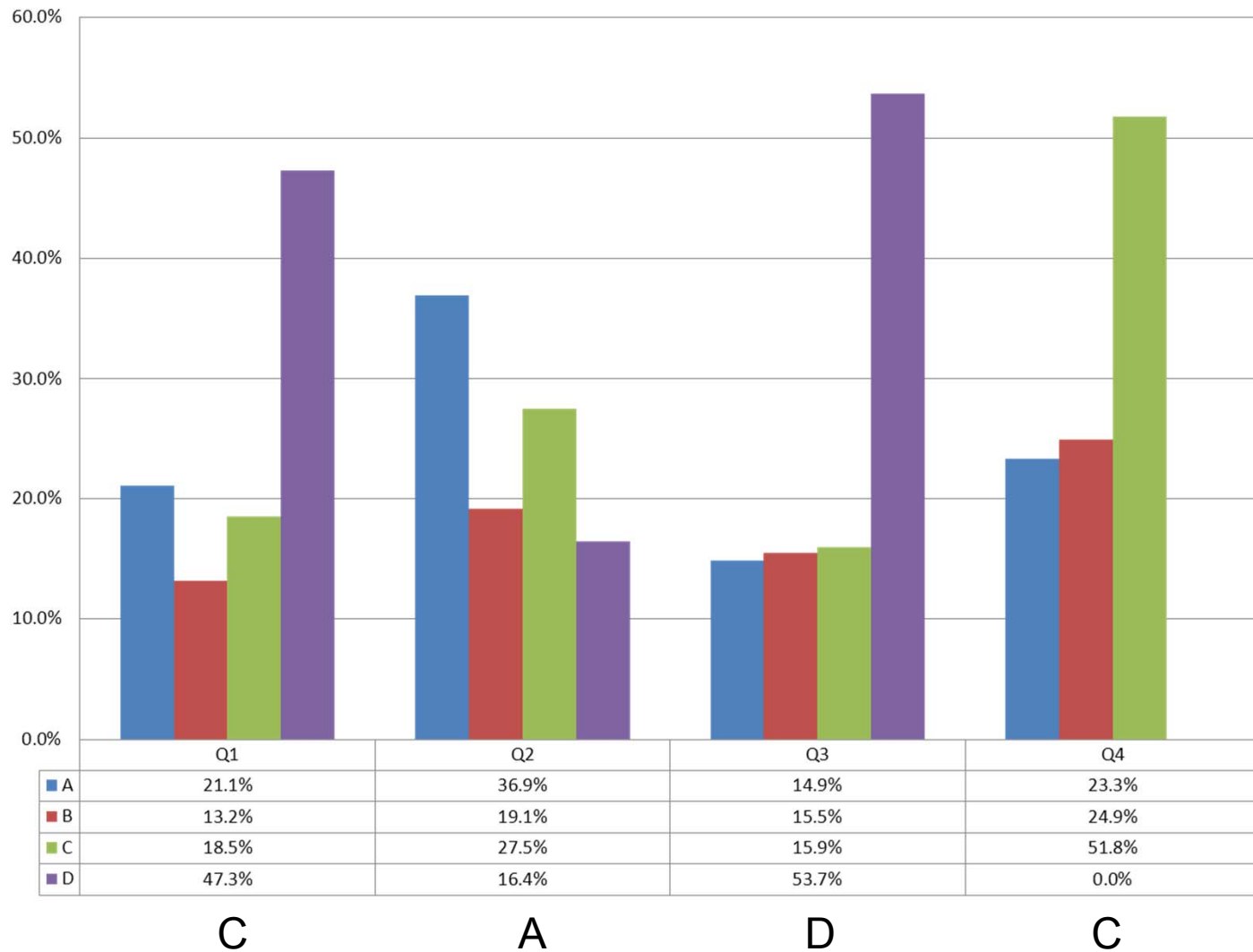
Model in Practice: Scientific Reasoning

- **Strength/Opportunity**
  - Formative assessments
  - Faculty support system
  - Robust statistical data
- **Challenges**
  - Participation
  - Timing of implementation
  - Technology
  - Writing effective questions
- **Next Steps**
  - Refine implementation
  - Develop an assessment for information literacy

Model in Practice: Information Literacy

- **General Education Program Learning Outcome:** Students will be able to locate, evaluate, and effectively use information from diverse sources.

- **Target Course:** ENC1101-English Composition I

- **Course Level Performance Indicators:**
  - Students will be able to:
    - Select appropriate material from which to summarize, paraphrase, and/or quote
    - Integrate source materials into the documented essay
    - Cite sources using parenthetical documentation
    - Construct a properly formatted works cited/reference page

Model in Practice: Information Literacy

- **Target Course:** ENC 1101- English Composition I (2011)

- **College-wide Random Sample – 100 Students**
  - Stratified by campus, mode of delivery and contract status of the instructor
  - 54 student essays were collected and assessed on Assessment Day

Information Literacy
Checklist

Pink Handout

Information Literacy: Locate, evaluate, and effectively use information from diverse sources.

Evaluation questions

- Overall, has the student created summaries, paraphrases, and/or quotes from sources appropriately to support his/her thesis?

- Overall, has the student properly integrated source materials in the essay?

- Overall, has the student properly documented the sources within the essay?

Model in Practice: Information Literacy

Q1: Overall, has the student created summaries, paraphrases, and/or quotes from sources appropriately to support his/her thesis?							
Team							
	A	**B**	**C**	**D**	**E**	**Total**	**%**
Y	7	4	4	2	6	23	46%
N	4	7	3	8	5	27	54%

Q2: Overall, has the student properly integrated source materials in the essay?							
Team							
	A	**B**	**C**	**D**	**E**	**Total**	**%**
Y	6	4	3	0	3	16	32%
N	5	7	4	10	8	34	68%

Q3: Overall, has the student properly documented the sources within the essay?							
Team							
	A	**B**	**C**	**D**	**E**	**Total**	**%**
Y	5	2	4	1	2	14	28%
N	6	9	3	9	9	36	72%

Model in Practice: Information Literacy

- **Strength/Opportunity**
  - Process was clear
  - Better understanding of program level assessment

- **Challenges**
  - Number of essays received

- **Next Steps**
  - Faculty voted to improve instruction of 2 of the performance indicators (linked to questions 2 and 3)
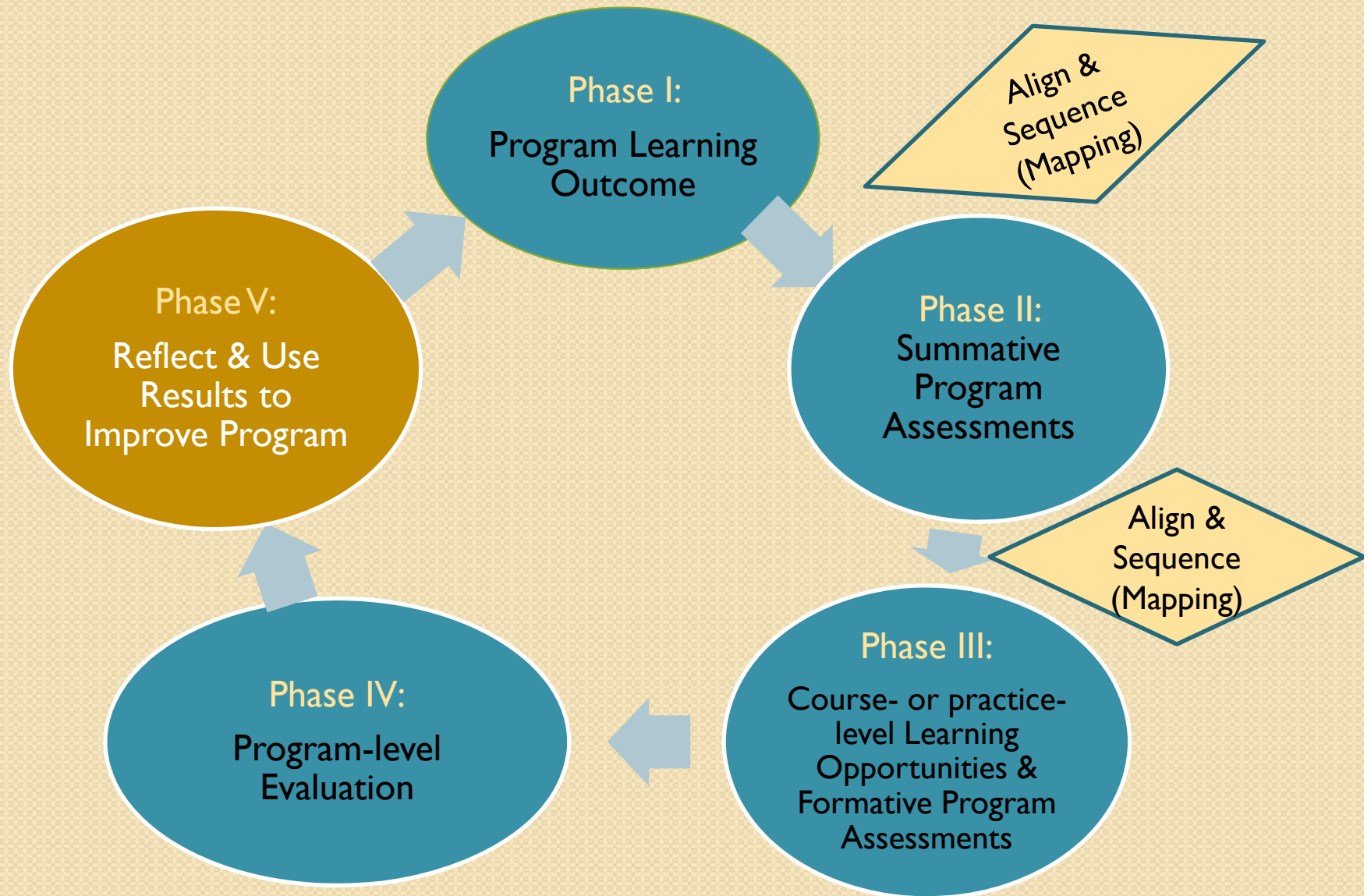   - Discussion of best practices that lead to student learning
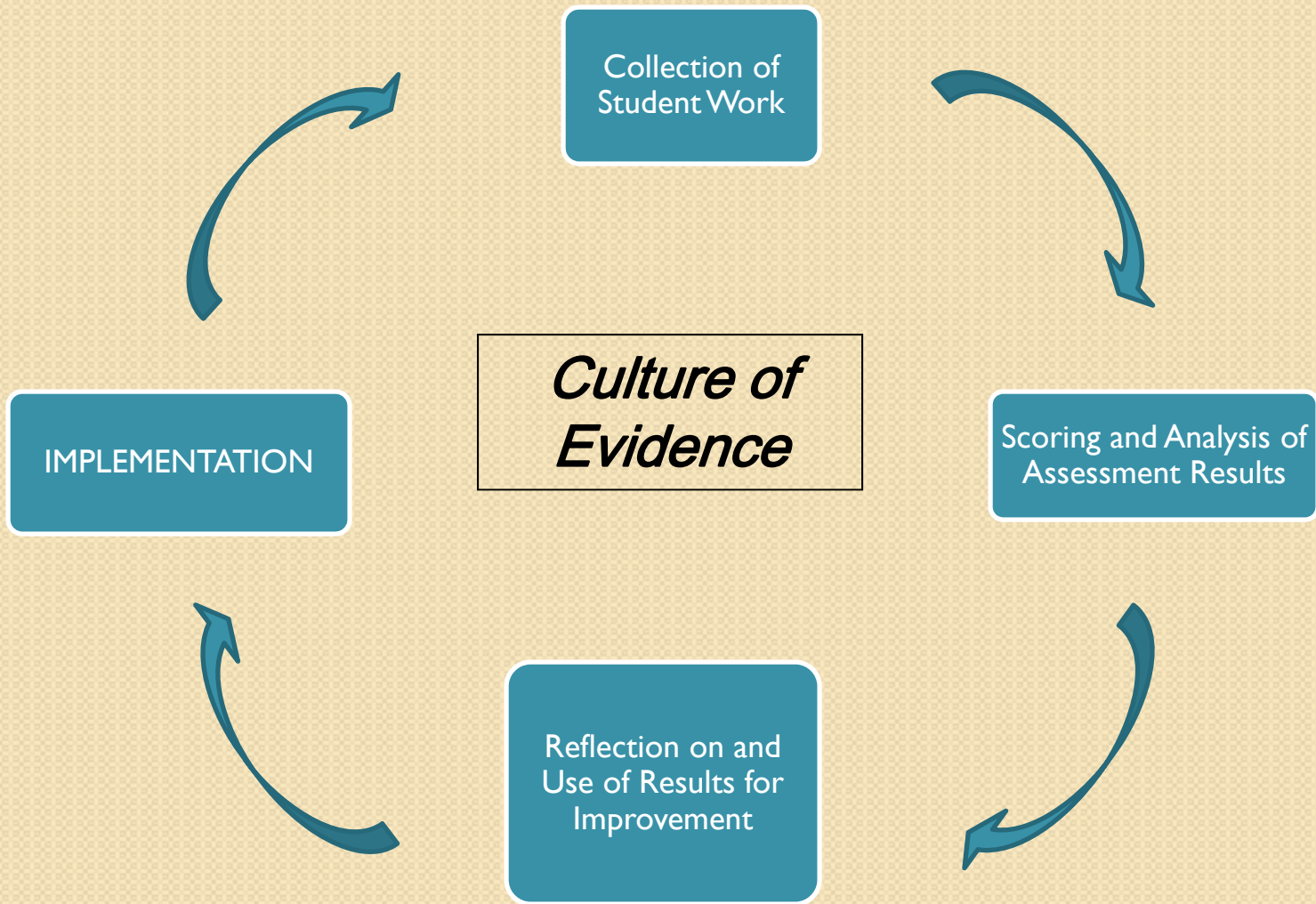
Phase V

REFLECTION AND USE OF RESULTS

"What will the students know or be able to do?"
"How will we know they can?

Phase I:
Program Learning Outcome

Align & Sequence (Mapping)

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✓An Open and Collaborative Process is Essential for Success

Reflecting & Using Results

Collection of Student Work

Scoring and Analysis of Assessment Results

Reflection on and Use of Results for Improvement

IMPLEMENTATION

Culture of Evidence

Maintaining Program Assessment

- Create a plan that includes:

  - Broad faculty and staff engagement in dialogue about assessment results

  - An opportunity to reflect on those results and plan improvements to the process or curriculum

  - A clear indication of how and when recommended improvements will be implemented

Let's Recap!

Write 2-3 basic principles for successful program assessment from what we discussed today or from your own experience.

Pair, Share (4 min)

Basic Principles of Program Assessment

- Embedded into the regular practice of teaching and learning
- Data-centric
- Faculty Development is imperative in all stages
- Faculty-driven
- Ongoing, continuous
- Focus on improvement of student learning
- Student-centered
- Collaboration and communication during all stages

Evolution of Program Assessment at Your Institution

NEXT STEPS FOR YOUR COLLEGE'S PROGRAM ASSESSMENT WORK

Checkpoint: Think, Pair, Share (5 min)

Using the Evolution of Program Level Assessment Rubric:

- Identify what level your institution is at for each of the stages.

- Discuss what you might do to move to the next level of achievement.

Be prepared to report out to the larger group.

Purple Handout

Evolution of Program Level Assessment

Element/ Progress/Stage	1. Initial	2. Developing	3. Emerging	4. Developed	5. Full Circle
Learning Outcomes					
Curriculum/ Program Mapping					
Methods and Measures					
Assessment Infrastructure					
Findings					
Use of Findings					

Thanks for your feedback!

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