Four-Step Data Collection Process for Pathways Courses

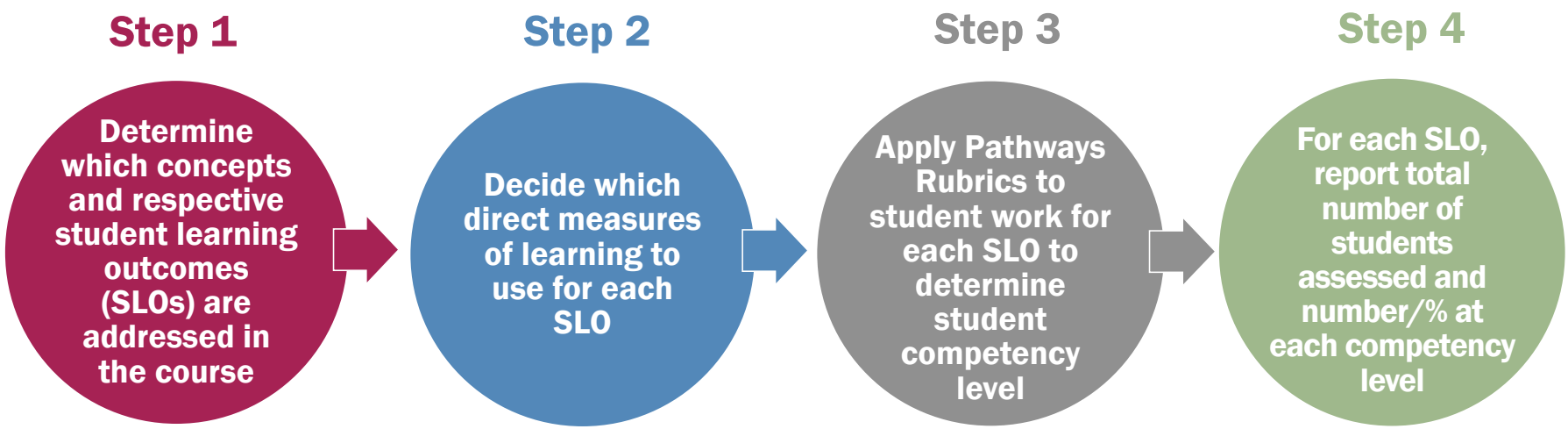
Assessment & Evaluation, Office of Academic Decision Support

What Will Assessment Data Be Used For?

- To inform teaching and learning in the Pathways general education curriculum
- SACSCOC accreditation
- SCHEV reporting

Assessing a Pathways Course

Each faculty member will:



Determining Which Concepts and Student Learning Outcomes Are Addressed

- Consult the official course proposal to:
  - Determine which core and integrative concepts are covered in the course
  - Determine which student learning outcomes in each of the core and integrative concepts are covered in the course
- The instructor will be responsible for assessing all concepts and student learning outcomes addressed in the official course proposal

Step 1

Directly Measure Each Student Learning Outcome

Instructors should choose a direct measure to use for each student learning outcome

Decide which direct measures of learning to use for each SLO

Step 2

Direct measures:

- are observable, tangible, and visible
- allow the evaluation of student products or performances embedded within a course
- demonstrate a student's knowledge, skill, or ability

Examples of Direct Measures

Student Products	Performance Ratings	Tests and Quizzes
• Capstone projects, portfolios, case studies, films, audio recordings, material artwork, research papers, field notes, experiments	• Teaching concepts, musical or theatrical performances, debates, discussions, oral presentations	• Multiple choice questions, short answer questions, essays

Each Pathways student learning outcome should be assessed independently using the appropriate Pathways Rubric

Assessment vs. Grading

Overall course grades and assignment / exam grades are typically NOT direct measures of a specific student learning outcome.

Questions to Consider When Choosing an Assessment Measure

- Does the assessment measure match the cognitive level of the student learning outcome?
- Will the measure yield results specific enough to know where improvements can be made?
- Does the measure provide reasonably accurate information?

Using Pathways Rubrics to Determine Student Competency

Instructors will determine student competency levels for their courses by applying the Pathways Rubrics

This rubric was created to assess student learning in Pathways courses and will evolve as the Pathways general education program is implemented.

DISCOURSE

Student Learning Outcome	Below Competent	Competent	Above Competent
1. **Discover and comprehend information from a variety of written, oral, and visual sources.**	Inconsistently demonstrates the ability to paraphrase or summarize information from written, oral, or visual texts, but not from all three approaches. Insufficiently references sources or neglects to incorporate sources.	Consistently demonstrates the ability to paraphrase or summarize information accurately from written, oral or visual texts. References sources, such as a list of work cited or examples required.	Uses written, oral, and visual sources to draw more complex inferences about the message and attitude of the work. Exhibits a more nuanced understanding of individual sources through comparison and synthesis.
2. **Analyze and evaluate the content and intent of information from diverse sources.**	Inconsistently demonstrates the ability to identify the content and intent of diverse sources. Demonstrates a minimal ability to identify and analyze rhetorical strategies. Inconsistently analyzes patterns, examples, arguments.	Consistently demonstrates the ability to evaluate the content and intent of diverse sources. Identifies and analyzes rhetorical strategies. Analyzes patterns, examples, arguments.	Thoroughly evaluates the content and intent of diverse sources. Effectively compares and contrasts sources' assumptions, context, and rhetorical strategies. Critiques, discusses and debates patterns, examples, and arguments from diverse sources.
3. **Develop effective content that is appropriate to a specific context, audience, and/or purpose.**	Lacks precision and specificity to a designated context, audience, and/or purpose. Inconsistently contextualizes content. Demonstrates minimal attention to audience, purpose, and/or context.	Demonstrates precision and specificity to a designated context, audience, and/or purpose. Consistently produces contextualized content. Analyzes audience, purpose and/or context and tailors the message accordingly.	Demonstrates a thorough understanding of a designated context, audience, and purpose that is responsive to all elements of the work. Effectively conveys contextualized content to an intended audience. Develops content that is highly appropriate and effective for varied audiences, contexts, and purposes.
4. **Exchange ideas effectively with an audience.**	Lacks development, focus, and clarity. Fails to articulate a defined audience. Does not use appropriate communicative skills: oral, written and/or visual. Does not communicate essential idea and/or argument supported by a range of appropriate sources and/or examples.	Communicates ideas with clarity and consistency. Identifies the target audience. Uses appropriate communicative skills: oral, written and/or visual. Communicates essential idea and/or argument supported by a range of appropriate sources and/or examples.	Expresses focused, well-developed ideas, with clarity. Tailors specific messages for a target audience. Incorporates communicative skills and resources most appropriate for content, genre, and/or audience. Conveys a compelling idea and/or argument that exhibits complexity and nuance in the choice of sources, and/or examples.
5. **Assess the product/ presentation, including feedback from readers or listeners.**	Assessment of product/presentation is fragmented. Feedback is not incorporated in product/presentation. Intended purpose is not achieved.	Evaluates, assesses, and reflects on the product/presentation and incorporates feedback from readers and/or listeners when appropriate. Critically reflects on the product.	Anticipates feedback from an audience and incorporates changes to meet the needs of that target audience. Critically reflects on the product and process.

Sample Rubric

Apply Pathways Rubrics to student work for each SLO to determine student competency level

Step 3

Interpreting the Pathways Rubrics

The Pathways Rubrics:

- Were created by VT faculty who typically teach general education courses
- Are intentionally broad so they can be applied to various courses and disciplines
- Will be interpreted by Pathways instructors and applied to the direct measure selected for each student learning outcome met in the course

Example: Discourse

Discourse: Student Learning Outcome #1	Assessment Measure	Please give more detail regarding the measure you chose and/or further specify "other" response	Assessment Criteria (Applying the Pathways Rubrics)
Discover and comprehend information from a variety of written, oral, and visual sources	O Direct Observation O Essay O Multiple Choice X Short Answer O True / False O Other	Short-answer question on essay test requiring students to summarize information from written, oral, and visual texts.	<u>Pathways Discourse Rubric:</u> Below Competent: Inconsistently demonstrates the ability to paraphrase or summarize information from written, oral, or visual texts, but not from all three approaches. Insufficiently references sources or neglects to incorporate sources. Competent: Consistently demonstrates the ability to paraphrase or summarize information accurately from written, oral, or visual texts. References sources, such as a list of work cited or examples required. Above Competent: Uses written, oral, and visual sources to draw more complex inferences about the message and attitude of the work. Exhibits a more nuanced understanding of individual sources through comparison and synthesis.

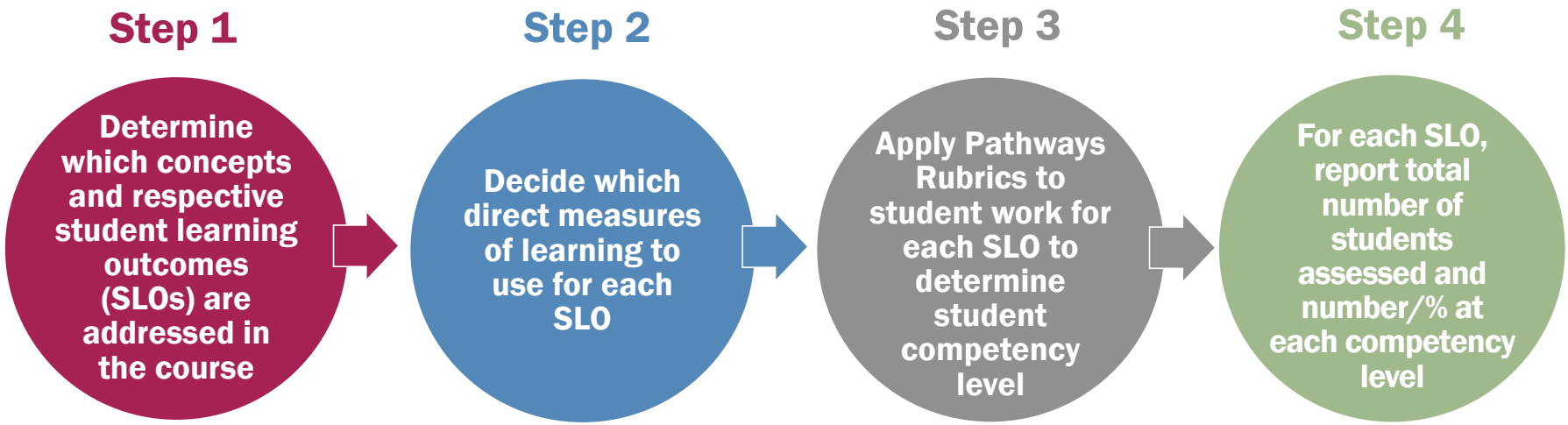
Example: Reasoning in the Natural Sciences

Natural Sciences: Student Learning Outcome #1	Assessment Measure	Please give more detail regarding the measure you chose and/or further specify "other" response	Assessment Criteria (Applying the Pathways Rubrics)
Explain the foundational knowledge of a particular scientific discipline	O Direct Observation O Essay X Multiple Choice O Short Answer O True / False O Other	Nine multiple choice items embedded on the final exam in the course.	<u>Pathways Reasoning in the Natural Sciences Rubric will be interpreted as:</u> Below Competent: Students will correctly respond to 5 or fewer items. Competent: Students will correctly respond to 6 or 7 items. Above Competent: Students will correctly respond to 8 or 9 items.

Data Collection in Large Courses

- Faculty may choose to collect assessment data for a *minimum* sample of 20 randomly selected students
- In such cases, all students should complete the same assignments, but only the work of the sampled students would need to be reviewed by the instructor using the Pathways Rubrics and reported

Example



Concept: Discourse.
Student Learning Outcome: Discover and comprehend information from a variety of written, oral, and visual sources.

Assessment measure: Short answer.

Apply assessment criteria: Student is below competent, competent, or above competent.

Prepare the report: Example to follow.

Reporting the Data

Each time a Pathways course is taught, faculty will:

- Report on each Pathways student learning outcome addressed in the course
- Supply the number and percentage of students who are below competent / competent / above competent

For each SLO, report total number of students assessed and number/% at each competency level

Step 4

Reporting the Data

Instructors will submit a report for each course at the end of each semester.

Discourse: Student Learning Outcome #1	Assessment Measure	Please give more detail regarding the measure you chose and/or further specify "other" response	Assessment Criteria (Applying the Pathways Rubrics)	Total Number of Students Assessed	Below Competent #/% of Students	Competent #/% of Students	Above Competent #/% of Students
Discover and comprehend information from a variety of written, oral, and visual sources	O Direct Observation O Essay O Multiple Choice X Short Answer O True / False O Other	Short-answer question on essay test requiring students to summarize information from written, oral, and visual texts.	(Pathways Discourse Rubric Criteria Included Here)	75	19 / 25.3%	40 / 53.3%	16 / 21.3%

Reporting the Data

Natural Sciences: Student Learning Outcome #1	Assessment Measure	Please give more detail regarding the measure you chose and/or further specify "other" response	Assessment Criteria (Applying the Pathways Rubrics)	Total Number of Students Assessed	Below Competent #/% of Students	Competent #/% of Students	Above Competent #/% of Students
Explain the foundational knowledge of a particular scientific discipline	O Direct Observation O Essay X Multiple Choice O Short Answer O True / False O Other	Nine multiple choice items embedded on the final exam in the course.	(Pathways Instructor Criteria Included Here)	247	55 / 22.3%	110 / 44.5%	82 / 33.2%

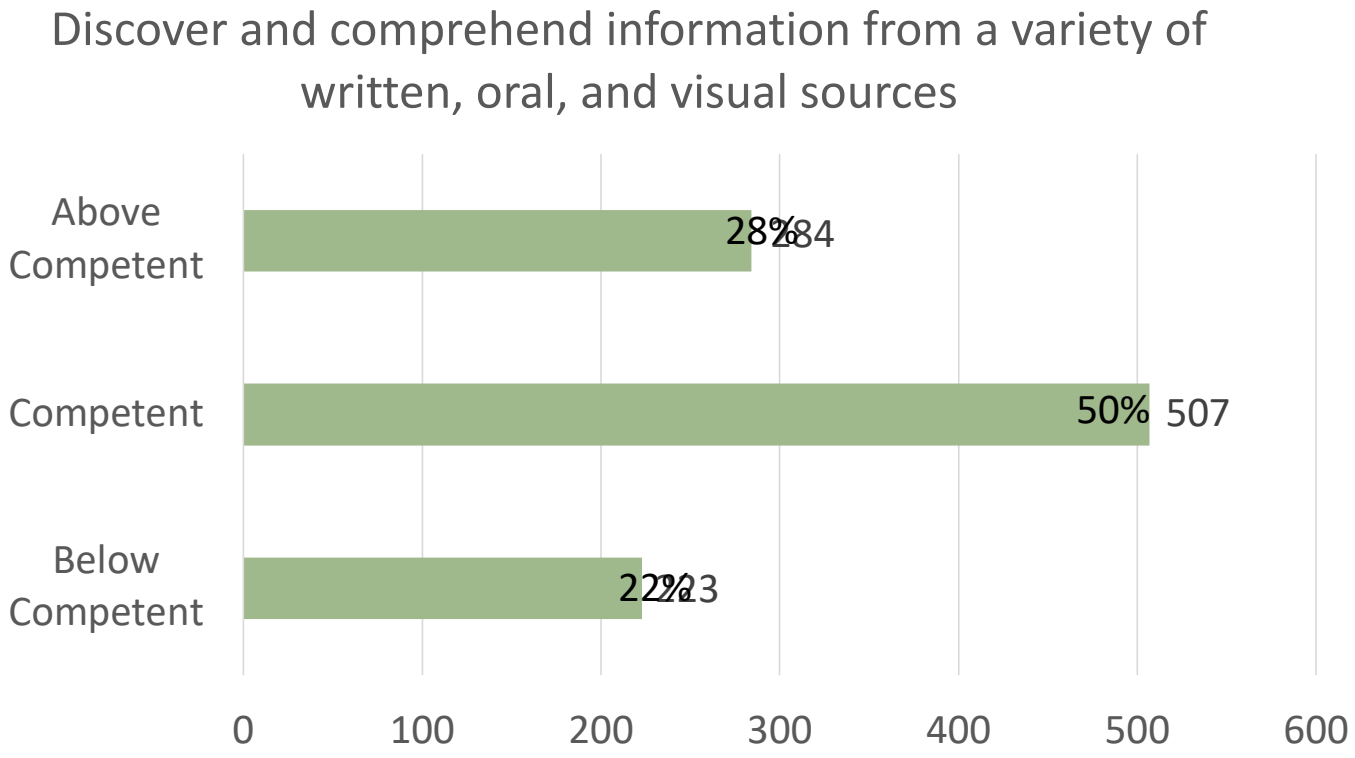
Data Management

- Pathways assessment data will be aggregated at the level of student learning outcomes and concepts
- The data will NOT be identifiable by student, instructor, or course
- Each semester, Assessment & Evaluation will summarize performance data and present overall percentages for each student learning outcome

Data Management

- This information will be presented to faculty and displayed on the Pathways website
- Interested faculty will gather yearly to discuss and reflect on the findings, and to recommend ways to improve the curriculum

Example Data Presentation: Discourse



University N size for this indicator = 1,014

Where to find assistance…

With general questions about Pathways and the proposal process:	With assessment:	With course planning:
Stephen Biscotte, Director of General Education	Assessment & Evaluation in the Office of Academic Decision Support	Center for Excellence in Teaching and Learning
gened@vt.edu	oae@vt.edu	cider@vt.edu

Questions?

www.pathways.prov.vt.edu/assessment