The Importance and Impact of Assessment

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Prairie Futures

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Assessment should be the driving factor for projects.

- Why are we doing this project?
  - Do we align with our users/clients/participants?
- What do we want to know?
  - What are our outcomes?
  - Focus on few indicators for each outcome
- When?
  - Sustainable assessment

Self-Assessment
Continuous Improvement of Program-Level Assessment of Student Learning [1]

0-not in place; 1-beginning stage of development; 2-beginning stage of implementation; 3-in place and implemented;
4-implemented and evaluated for effectiveness; 5-implemented, evaluated and at least one cycle of improvement

Stakeholder/Constituent Involvement (Those who have a vested interest in the outcome of the program)	RATING	**Program Educational Objectives** (Graduates performance after completing program)	RATING	**Student Outcomes** (Desired knowledge, skills, attitudes, behaviors, by the time students complete program)	RATING	**Student Outcomes aligned with educational practices**	RATING	**Assessment Processes**	RATING	**Evaluation**	RATING
Stakeholders are identified		Objectives are determined		Outcomes are identified		Desired performance is mapped to curricular practices and/or strategies (e.g., courses/ teaching methodology)		Assessment is on-going and systematic at the program level		Assessment data are systematically reviewed	
Primary stakeholders are involved in identifying/ affirming program educational objectives		Objectives are publicly documented		Number of outcomes are manageable		Practices/strategies are systematically evaluated using outcomes assessment data		Multiple methods are used to measure each outcome		Evaluation of results are done by those who can effect change	
Primary stakeholders are involved in periodic evaluation of educational objectives		Number of objectives are manageable		Outcomes are publicly documented		Where necessary, educational practices are modified based on evaluation of assessment data		Both direct and indirect measures of student learning are used to measure outcomes		Evaluation of assessment data is linked to curricular practices/ strategies	
Sustained partnerships with stakeholders are developed		Objectives are aligned with mission statement		Outcomes are linked to educational objectives				Assessment processes are reviewed for effectiveness and efficiency		Evaluation leads to decision making/ action	
		Objectives are periodically evaluated for continued relevancy		Outcomes are defined by a manageable number of measurable performance indicators				When needed, assessment methods are modified based on evaluation processes			

Source: AAHE/NCA Higher Education Learning Commission

Assessment Loop

Two Paradigms of Assessment

	Continuous Improvement	*Accountability*
Strategic dimensions		
Purpose	Formative (improvement)	Summative (judgment)
Orientation	Internal	External
Motivation	Engagement	Compliance
Implementation		
Instrumentation	Multiple/triangulation	Standardized
Nature of evidence	Quantitative and qualitative	Quantitative
Reference points	Over time, comparative, established goal	Comparative or fixed standard
Communication of results	Multiple internal channels	Public communication, media
Use of results	Multiple feedback loops	Reporting

Ewell, Peter T. (2007). Assessment and Accountability in America Today: Background and Context. In Assessing and Accounting for Student Learning: Beyond the Spellings Commission. Victor M. H. Borden and Gary R. Pike, Eds. Jossey-Bass: San Francisco.

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Course Grades ≠ Assessment

- Grades have limited use for program assessment as they do not have diagnostic value.
- Grades can be a ‘flag,’ but do not point to specific strengths and weaknesses of what students know or can do.
- A student’s grade in a course or on a project or exam represents the student’s performance on an set of aggregated knowledge/skills.

Importance of Setting a Goal

- Goals allow you to measure progress
- Makes you accountable
- Motivates

Performance Indicators are Comparable to Leading Economic Indicators

- Concept used in economics
- Identify specific characteristics of the economy that are significant indicators of the current state and predict future trends
  - Not everything
  - Those that are the most critical in predicting how well the economy is doing
  - Several characteristics taken together

An outcome is a stated goal of what your students should be able to do.

you will be able to…

(some verb)

(some noun phrase)

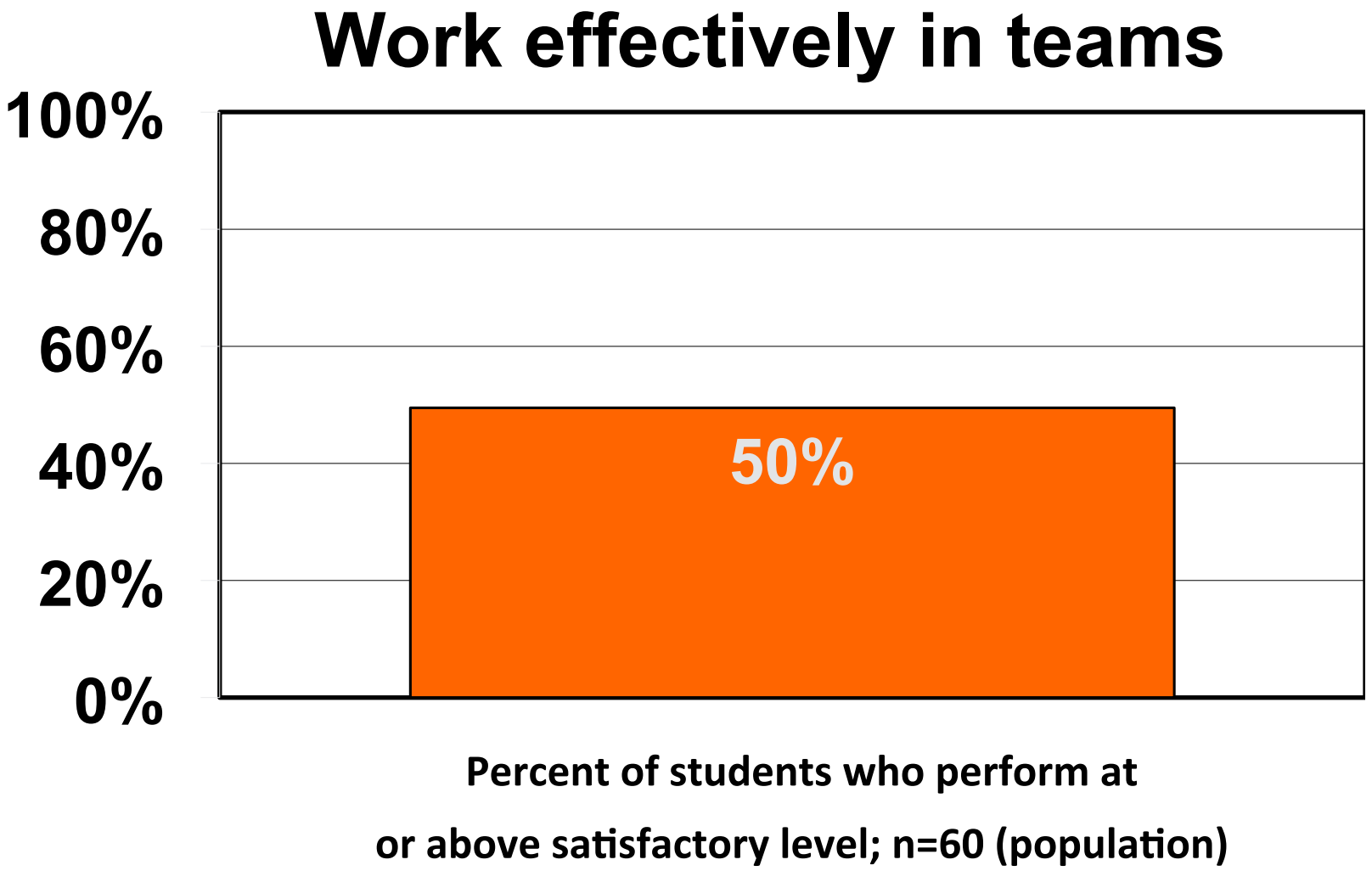
Developing performance indicators

- Two essential parts
  - Subject content
    - Content that is the focus of instruction (e.g. steps of the design process, chemical reaction, scientific method)
  - Action verb
    - Direct students to a specific performance (e.g. list, analyze, apply, etc.)
  - Value free
    - Free from subjective values or standards

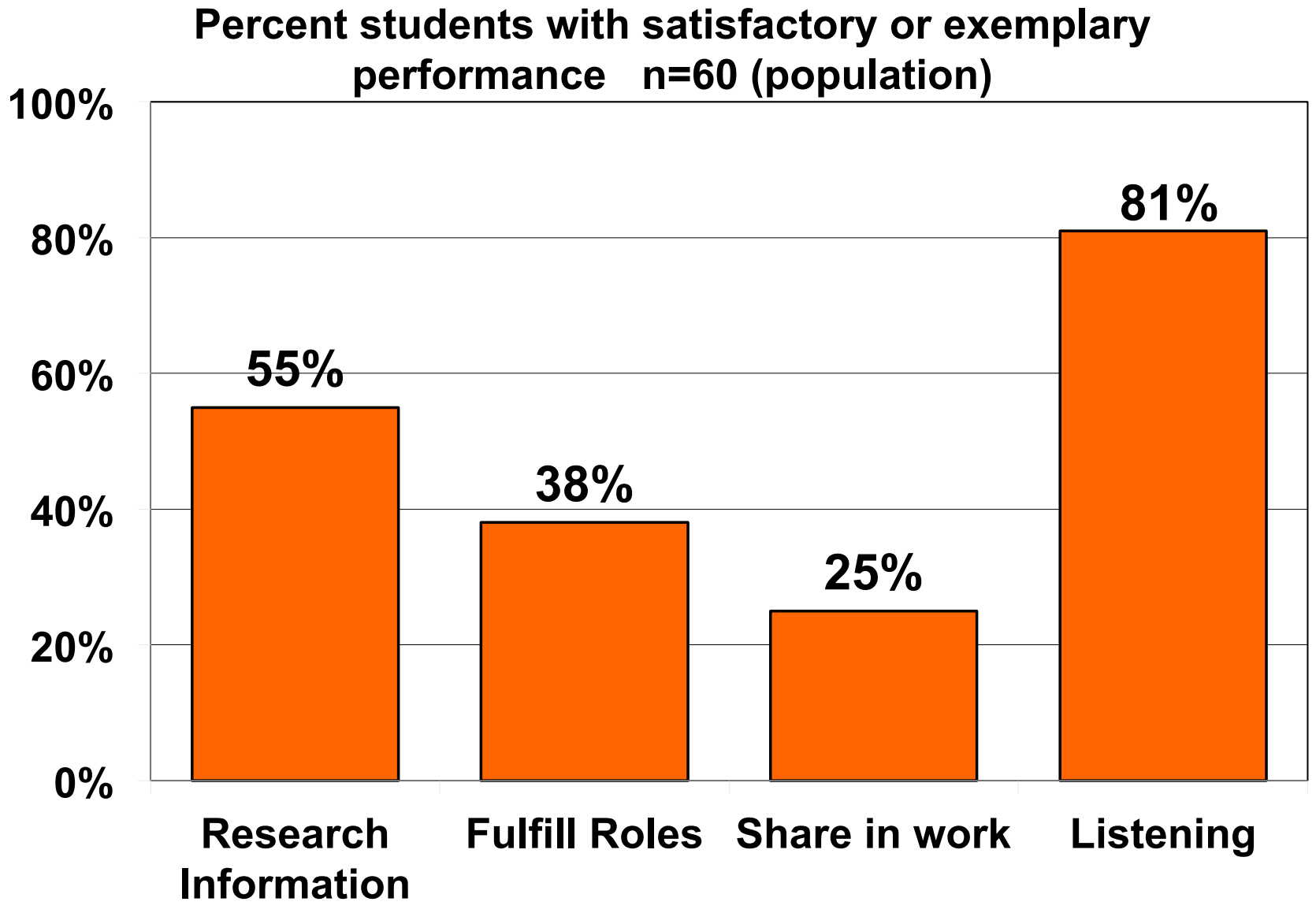
Importance of well-stated performance indicators

- Provides faculty with clear direction for implementation in the classroom
- Makes expectations explicit to students (great pedagogy)
- Focuses data collection

Example of Results - Formative

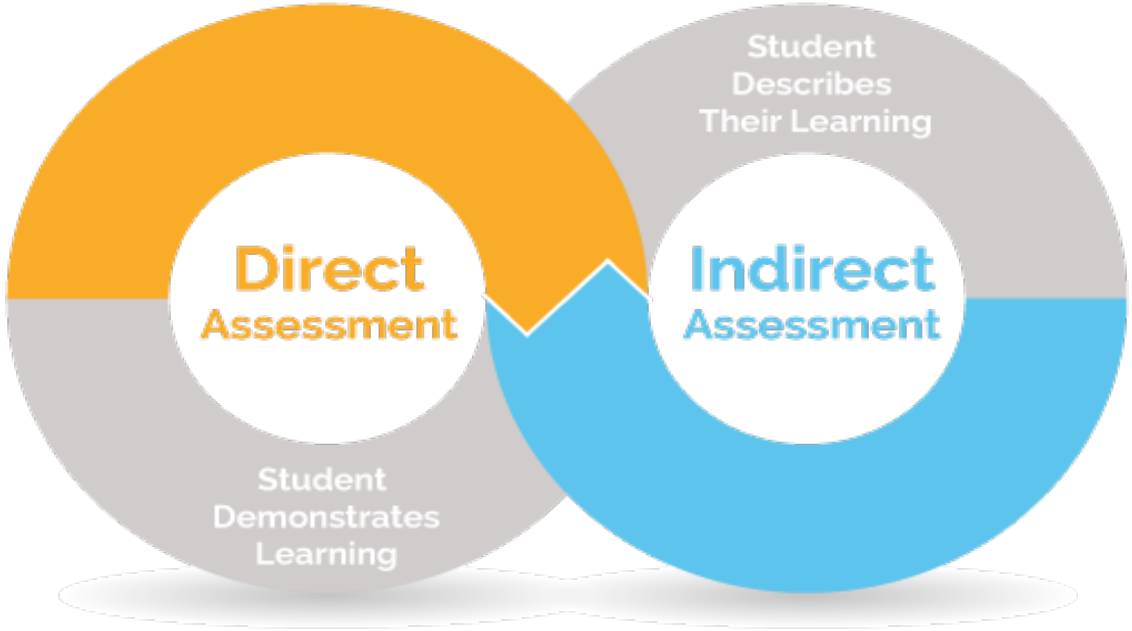


Teaming Skills - Formative



Direct Measures

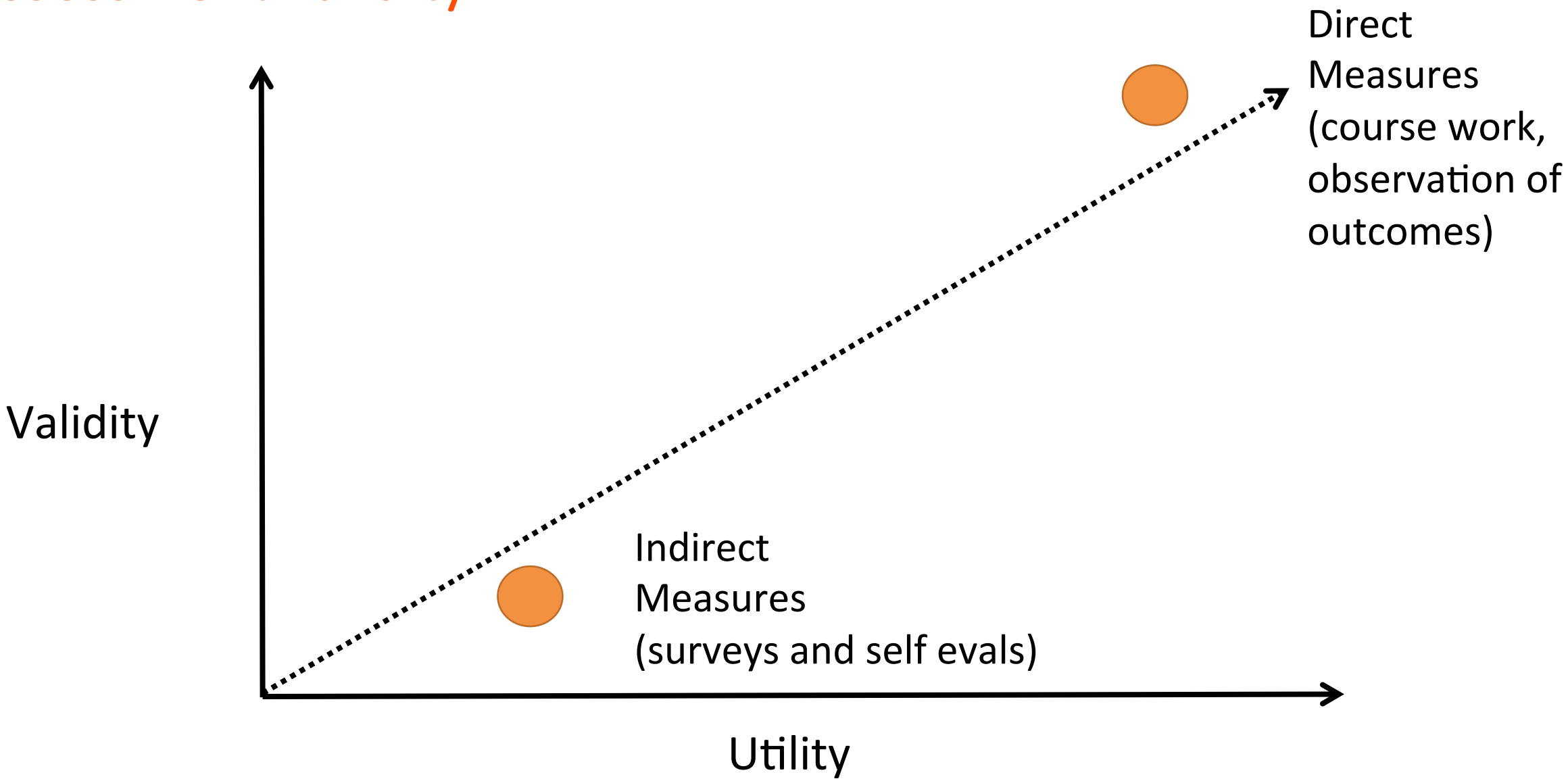
Provide for the direct examination or observation of student knowledge or skills against measurable student outcomes



Indirect measures of student learning ascertain the opinion or self-report of the extent or value of learning experiences

INDIRECT MEASURES

Assessment validity



Direct

- Exit and other interviews
- Standardized exams
- Locally developed exams
- Portfolios
- Simulations
- Performance appraisal
- External examiner
- Oral exams
- Behavioral observations

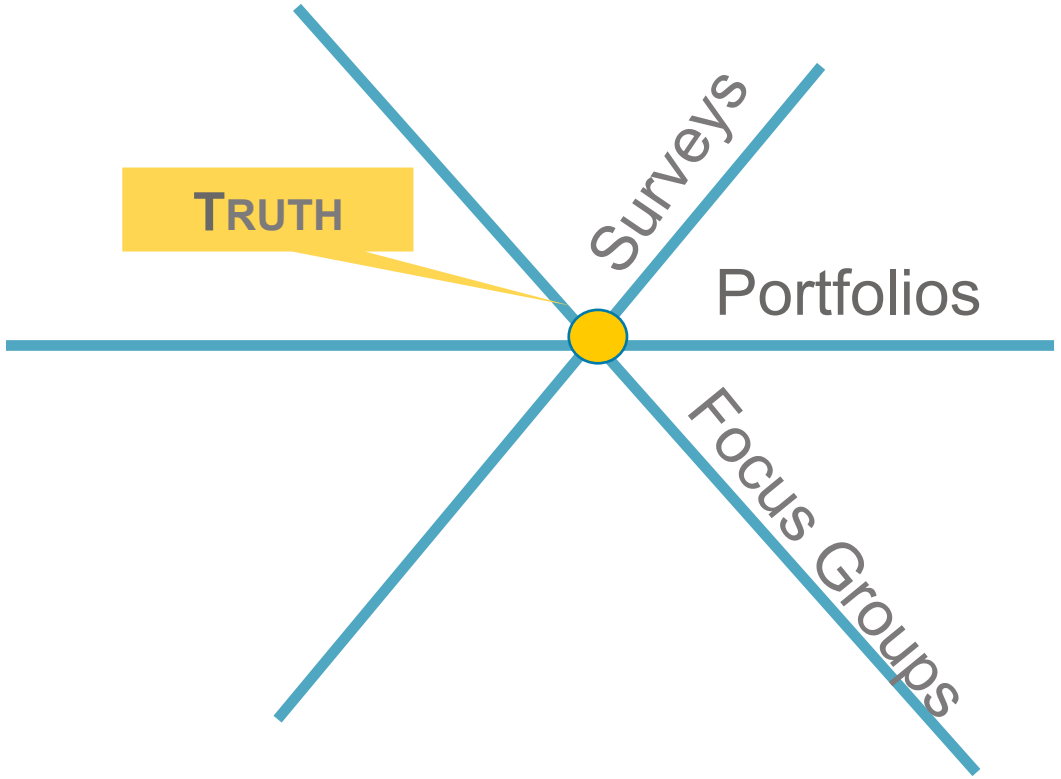
Indirect

- Written surveys and questionnaires
- Exit and other interviews
- Archival records
- Focus groups

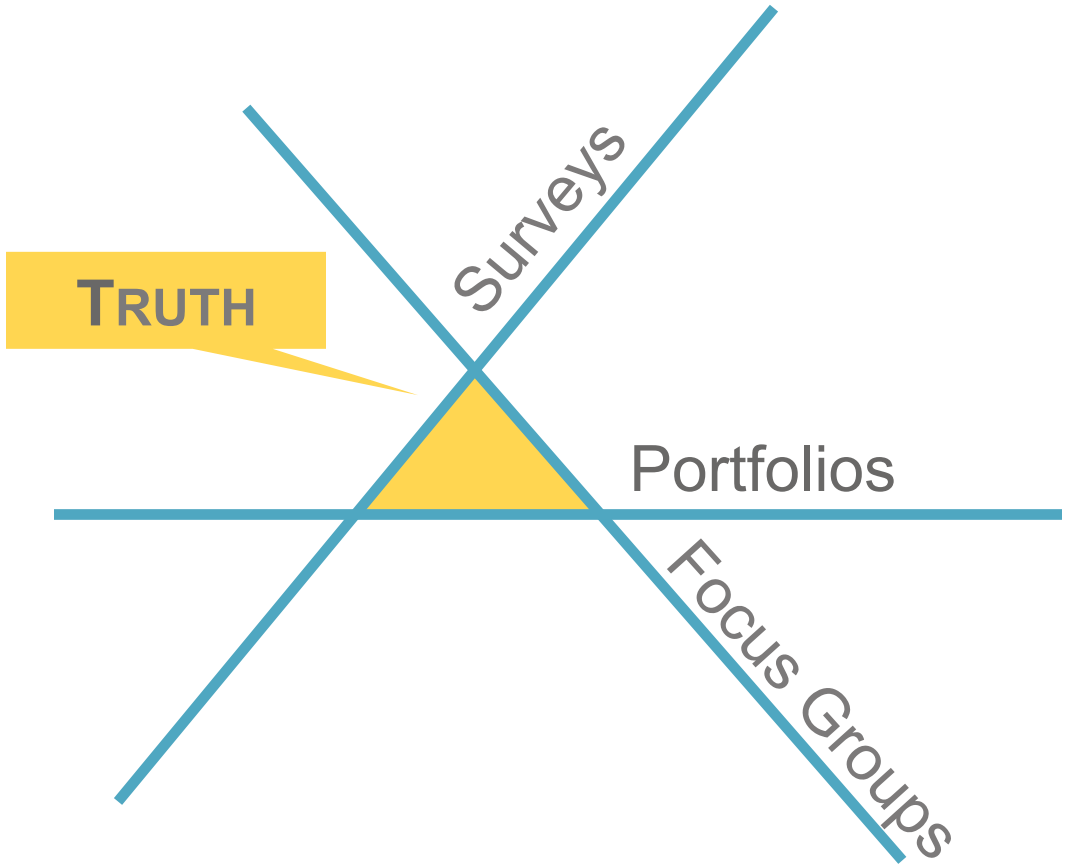
Whether or not a particular assessment method is direct or indirect depends on the nature of what is being measured and how the method is being used.

Triangulation

Mixed methods



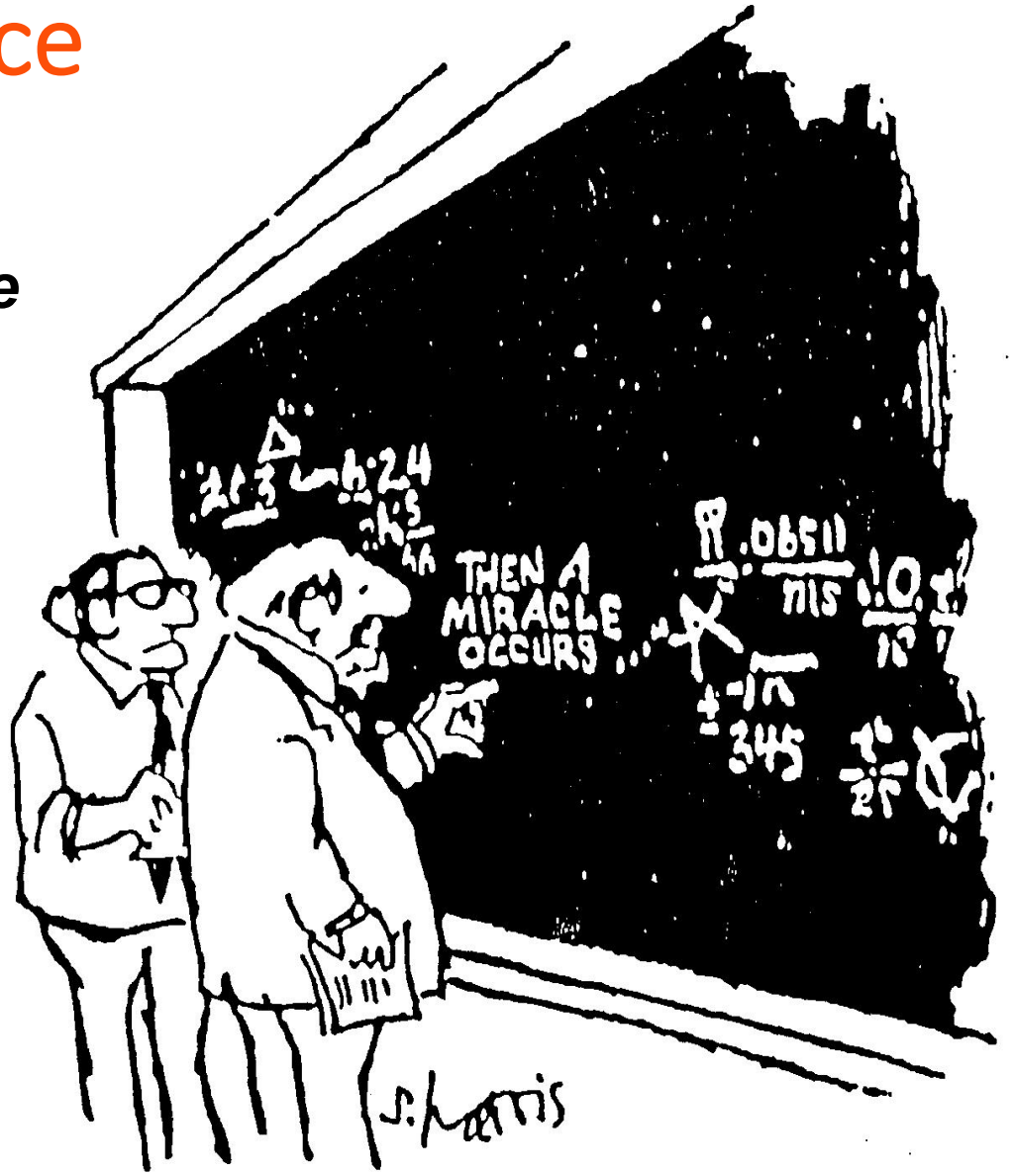
Triangulation



Adapted from Joseph Hoey
Vice President, Accreditation Relations and Policy at Bridgepoint Education

Linking results to practice

"I think you should be more explicit here in Step Two."



Performance indicator Explicit. This indicator is explicitly stated as performance for this course.
Demonstrate Competence. Students are asked to demonstrate their competence on this performance indicator through homework, projects, tests, etc.
Formal Feedback. Students are given formal feedback on their performance on this indicator.
Not covered. This performance indicator is not addressed in this course.
Note: Clicking on the link 'view rubric' will show you the scoring rubric for that particular performance indicators related to the outcome.

PERFORMANCE INDICATORS	INDICATOR EXPLICIT	DEMONSTRATE COMPETENCE	FORMAL FEEDBACK		NOT COVERED
RECOGNITION OF ETHICAL AND PROFESSIONAL RESPONSIBILITIES.					
1. Demonstrate knowledge of professional codes of ethics. View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
2. Evaluate the ethical dimensions of professional engineering, mathematical, and scientific practices. View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
AN ABILITY TO WORK EFFECTIVELY IN TEAM					
1. Research & Gather Information . View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
2. Fulfill Team Role's Duties . View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
3. Share in work of team . View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
4, Listen to Other Teammates . View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
AN ABILITY TO COMMUNICATE EFFECTIVELY IN ORAL, WRITTEN, GRAPHICAL, AND VISUAL FORMS					
1. Identify the readers/audience, assess their previous knowledge and information needs, and organize/design information to meet those needs. View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
2. Provide content that is factually correct, supported with evidence, explained with sufficient detail, and properly documented. View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
3. Test readers/audience response to determine how well ideas have been relayed. View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐
4. Submit work with a minimum of errors in spelling, punctuation, grammar, and usage. View rubric or make a comment (optional)	☐ YES	☐ YES	☐ YES		☐

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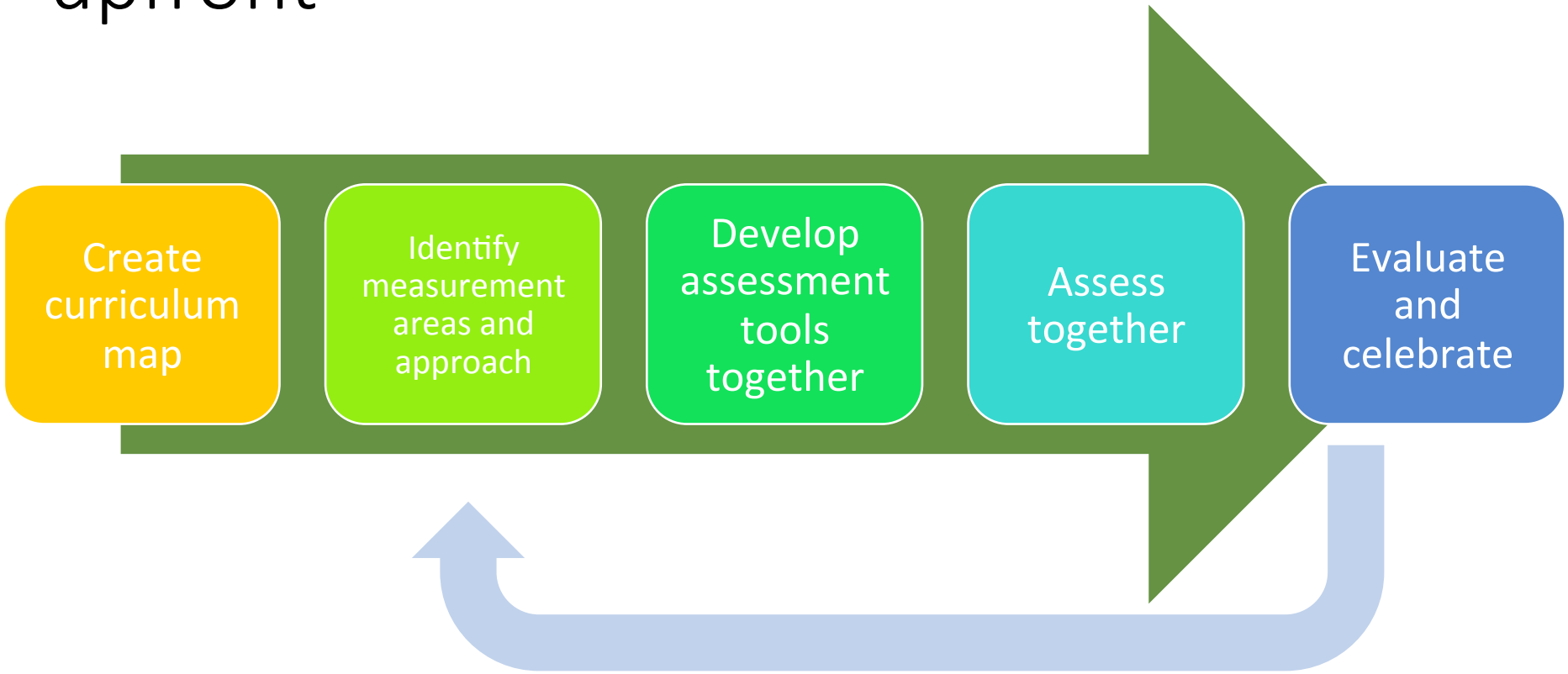
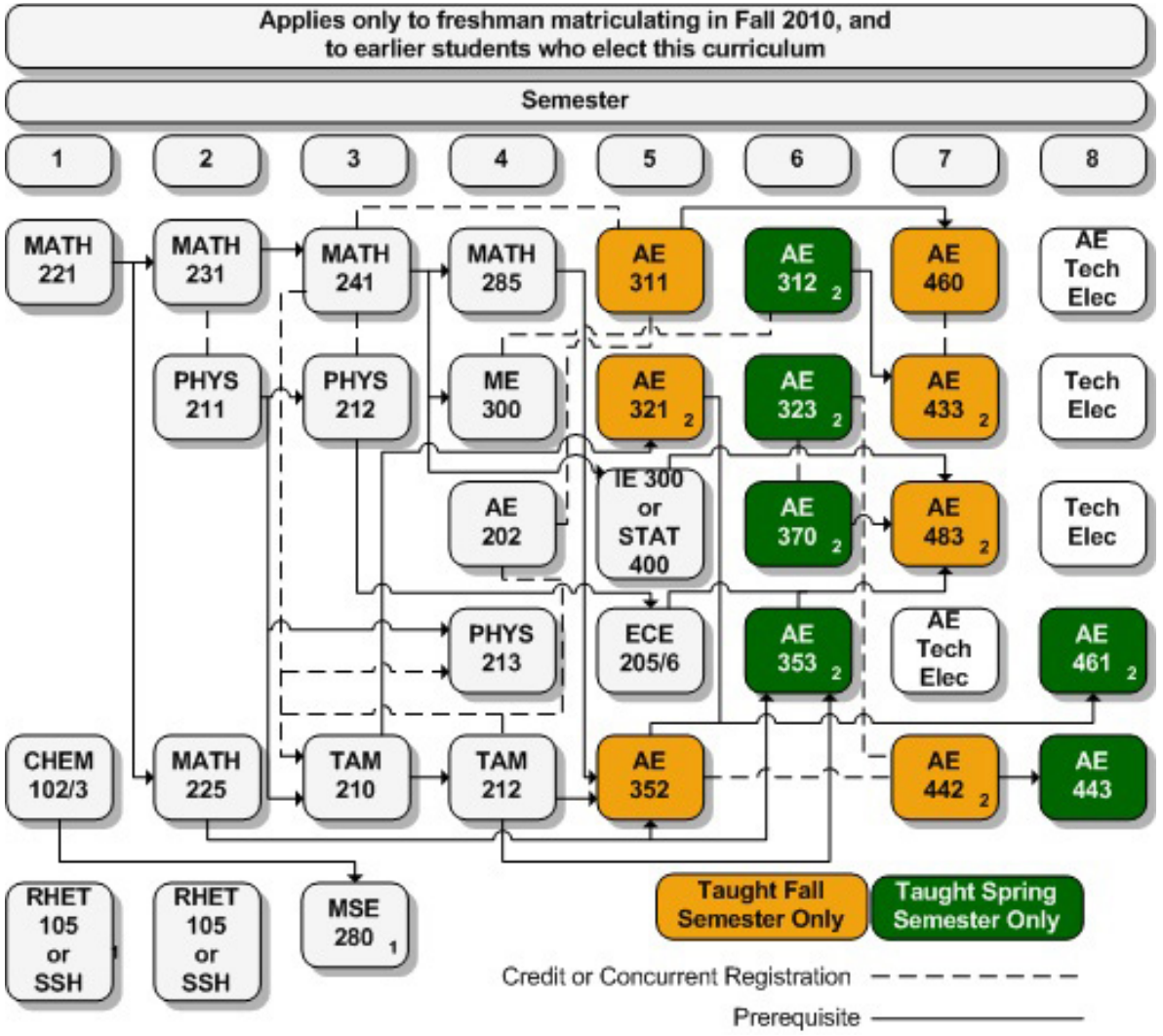
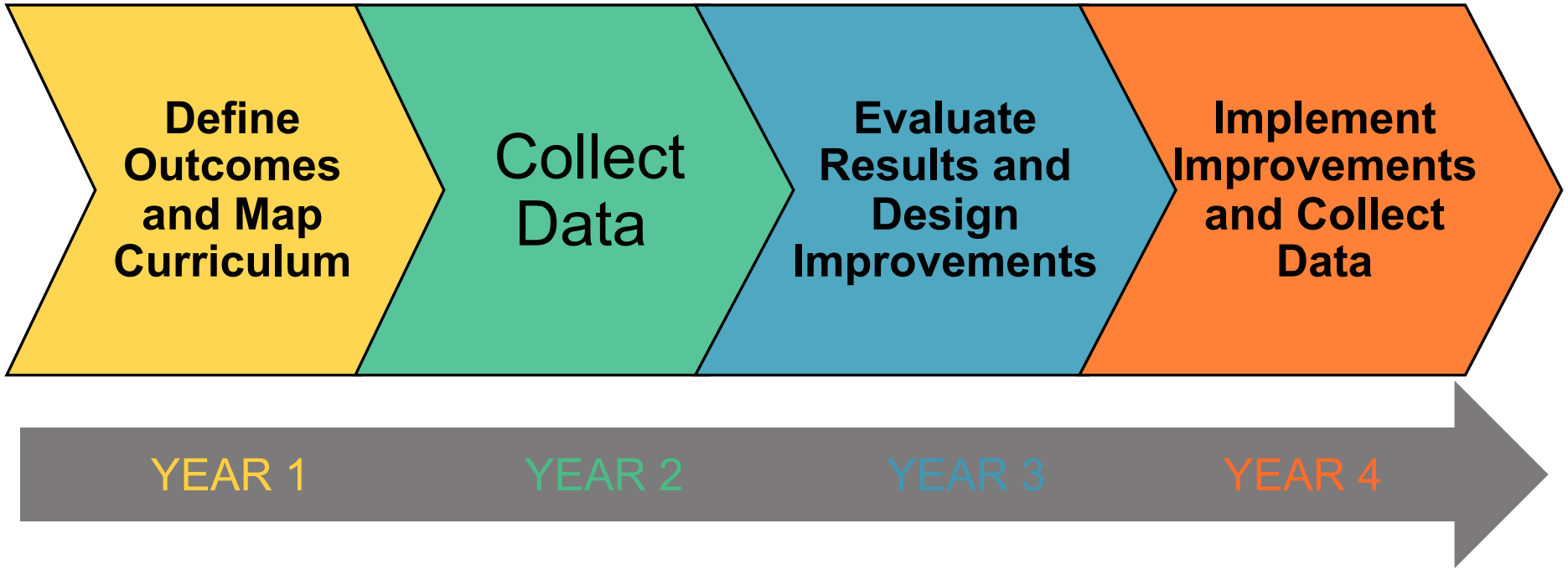
Reducing faculty burden is accomplished by spending the time upfront



Curriculum Maps help guide students and faculty through educational expectations

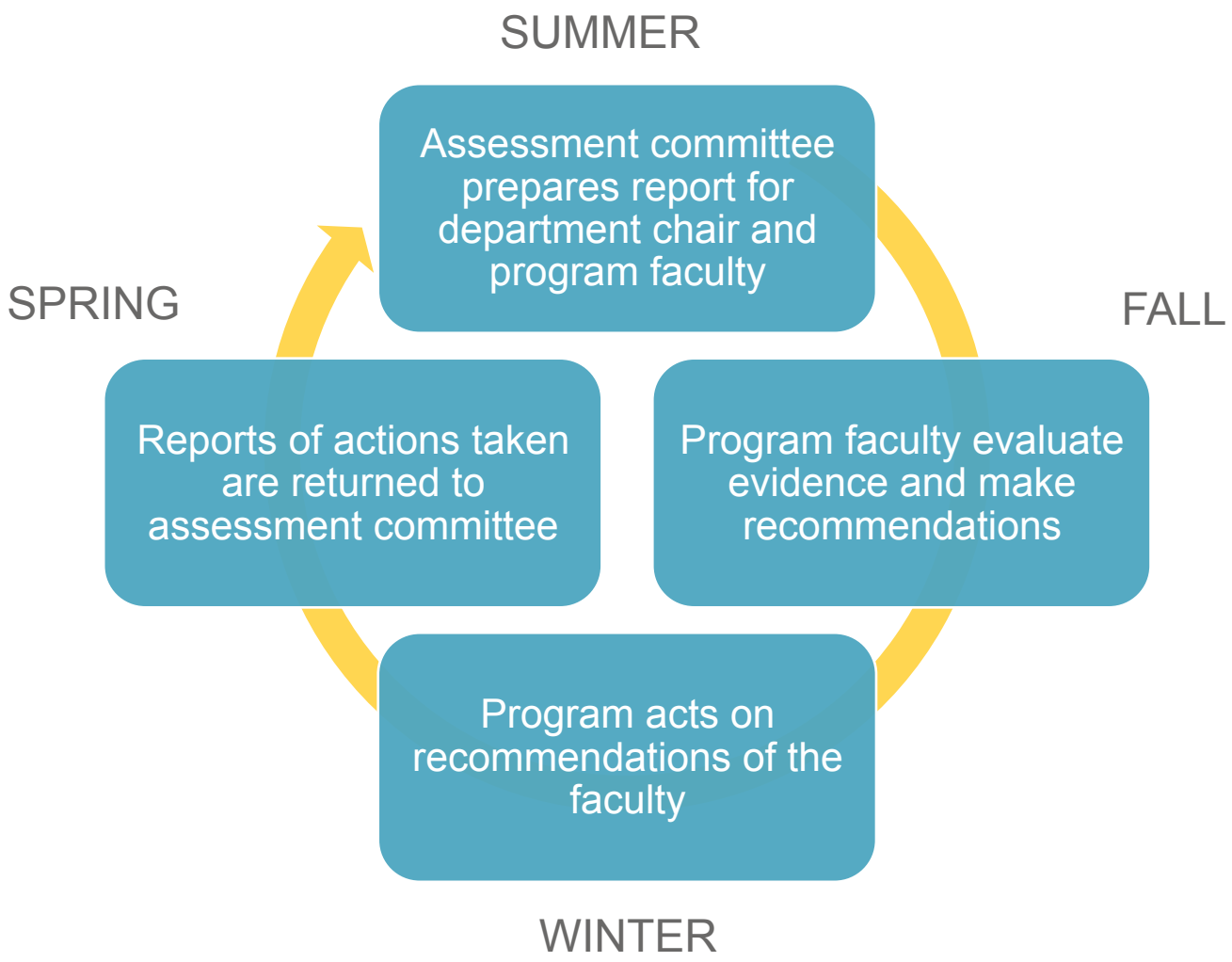



Define Outcomes and Map Curriculum
Collect Data
Evaluate Results and Design Improvements
Implement Improvements and Collect Data
YEAR 1
YEAR 2
YEAR 3
YEAR 4

STUDENT OUTCOMES	15-16	16-17	17-18	18-19	19-20	20-21
A recognition of ethical and professional responsibilities	A	E	C	A	E	C

A= Assess; E= Evaluate;
C= Change (if necessary)

Example of an annual cycle



Reporting your results

- What (are you assessing)
- Who
- When
- What (are your results)
- What (did you do with the results)
- What (difference did it make)

Common mistakes

- Too many data, not enough information
  - Reporting numbers or percentages without putting them into context
    - How many students in cohort
    - How many students provided data
- Not describing how the data are evaluated
- Using very complex charts describing your assessment processes