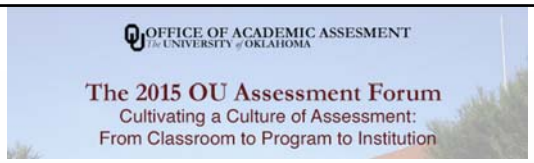

Elements of a Culture of Informed Decision-Making

Gloria M. Rogers, PhD
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September 24, 2015
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Overview

- How can you support the evolution of a meaningful culture in a way that reduces resistance and workload at the same time?
- How do you evolve and sustain a meaningful data-informed culture over time?
- What are you currently doing that you need to stop doing, or what do you need to modify, or what should you start doing that you are not doing currently?
- How to evaluate the extent to which you have developed a culture of data-informed decision making.
- How do you know when you have arrived?

What motivates us to participate?

- What is good for the institution or the program (e.g., compliance with institutional mandates, accreditation)?
- What is good for students (e.g., improved learning, meaningful engagement?
- Too much focus on the PROCESS of assessment (necessary but not sufficient)
- Not enough focus on student learning (did the time and effort put in the process really make an improvement in student learning?)

20+ years later

Elements of a "culture"

- ✓ Vocabulary
- ✓ Written Materials
- ✓ Formal & Informal Policies and Procedures
- ✓ Organizational Structure
- ✓ Social Knowledge
- ✓ Reward Structure
- ✓ Rites & Rituals

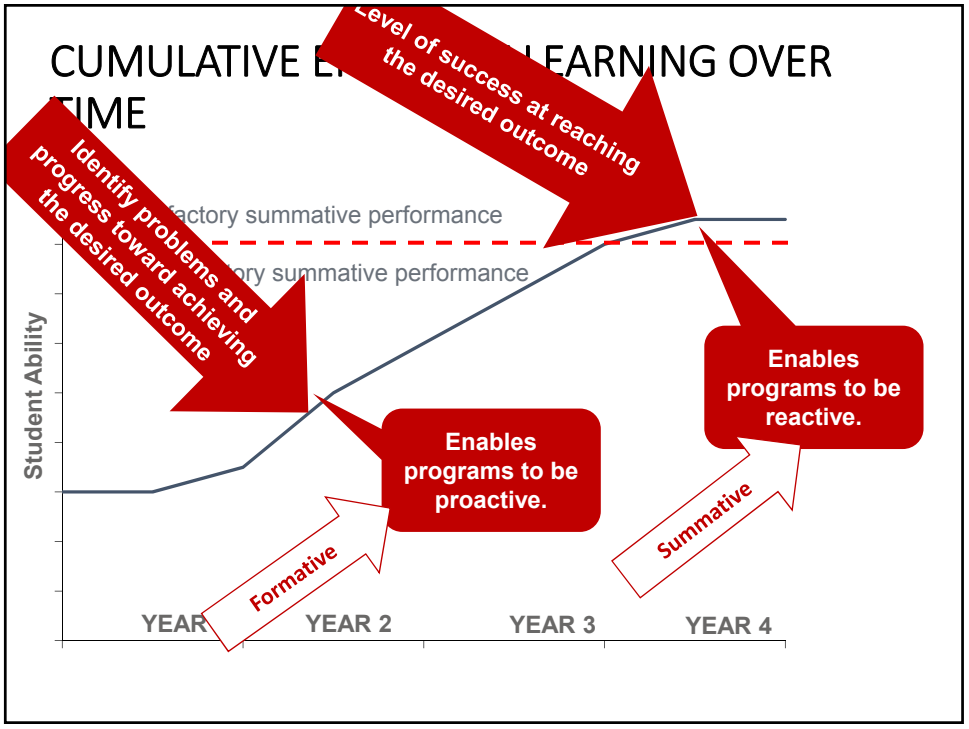
Modified from Susan Hatfield, HLC Senior Scholar

Culture of learning

- Purpose of assessment is to understand what students know and can do
  - In and of itself, assessment does not produce learning
  - It enables faculty to understand when, where, if student learning is taking place
- What do we know about the processes that promote student learning?
- Research on the principles of student learning are in and the evaluation of the data collected (assessment) should help us to understand how we can capitalize on those principles.

Research results--Students learn best when:

- Learning occurs best when we build on what students already know
- Student learning is cumulative over time
  - What students learn in one course, they use, practice, and develop in other courses.



Research results--Students learn best when:

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- Learning is an active process (importance of students active involvement in their own learning)

VS

Research results--Students learn best when:

- Learning occurs best when we build on what students already know
- Student learning is cumulative over time
  - What students learn in one course, they use, practice, and develop in other courses.
- Learning is an active process (importance of students active involvement in their own learning)
- Learners perform better when expectations for their learning is clear

Importance of language

- The absence of a common language impedes the ability to engage in meaningful conversations
- There is no common language in higher education around outcomes assessment
- Institutions/programs should develop a common language in spite of differences among accrediting agencies/professional societies
- Language conveys meaning and clarity

ASSESSMENT TERMS	OTHER POSSIBLE TERMS FOR THE SAME CONCEPT
Program Educational Objectives	Goals, Outcomes, Purpose, Mission, etc.
Student Outcomes	Goals, Objectives, Competencies, Standards, etc.
Performance Indicators	Performance Criteria, Competencies, Outcomes, Standards, Rubrics, Specifications, Metrics, etc.
Assessment	Evaluation
Evaluation	Assessment

TERMS	DEFINITIONS
Program Educational Objectives	Program educational objectives are broad statements that describe what graduates are expected to attain within a few years of graduation. Program educational objectives are based on the needs of the program's constituencies.
Student Outcomes	Student outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the skills, knowledge, and behaviors that students acquire as they progress through the program.
Performance Indicators	Specific, measurable statements identifying student performance(s) required to meet the outcome; confirmable through evidence.
Assessment	Assessment is one or more processes that identify, collect, and prepare data to evaluate the attainment of student outcomes. Effective assessment uses relevant direct, indirect, quantitative and qualitative measures as appropriate to the outcome being measured. Appropriate sampling methods may be used as part of an assessment process.
Evaluation	Evaluation is one or more processes for interpreting the data and evidence accumulated through assessment processes. Evaluation determines the extent to which student outcomes are being attained. Evaluation results in decisions and actions regarding program improvement.

Importance of language

- The absence of a common language impedes the ability to engage in meaningful conversations
- There is no common language in higher education around outcomes assessment
- Institutions/programs should develop a common language in spite of differences among accrediting agencies/professional societies
- Language conveys meaning and clarity
- Programs should have a common understanding of the performance indicators for the outcomes.

Language of student learning outcomes (Social knowledge)

- Students will demonstrate effective communication skills appropriate to the audience.
  - Who decides what are indicators of "effective communication skills?"
  - What type of communication skill?
    - Written
    - Oral
    - Graphical
  - At what level of performance?

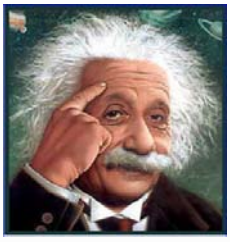
Business Administration Map	Macro-Economics	Micro-Economic	Microcomp App for Bus	Writing for Bus	Pre-Cal (Bus)	Intro to Bus	Bus Statistics	Prin Mgmt	Prin Mktg	International Bus	Prin Acctg I	Prin Acctg II	Bus Law I	Mtg Financ
I = Introduce; R = Reinforce; E = Emphasize	Econ 207	Econ 208	CS 214	Eng 200	Math 1165	Busi 201	Busi 203	Busi 211	Busi 231	Busi 241	Busi 251	Busi 252	Busi 281	Busi 371
Writing Competencies														
Identify a subject and formulate a thesis statement.						I			R					
Organize ideas to support a position.				I		R			R				R	
Write in a unified and coherent manner appropriate to the subject matter.				I		R			R				R	
Use appropriate sentence structure and vocabulary.				I		R			R				R	
Document references and citations according to an accepted style manual.						I			R				R	
Critical Thinking Competencies														
Identify business problems and apply creative solutions.								I	R	R	R		R	E
Identify and apply leadership techniques.								I					R	E
Translate concepts into current business enviroments.								I	R	R	R		R	E
Analyze complex problems by identifying and evaluating the components of the problem.								I			R	R	E	E
Quantitative Reasoning Competencies														
Apply quantitative methods to solving real-world problems.					I		R				R	R		E
Perform necessary arithmetic computations to so quantitative proble														
Evaluate informatio n tabular, numeric graphical form.														
Recognize the reas														

I = Introduce (knowledge/comprehension)
R = Reinforce (application/analysis)
E = Emphasize (evaluation/synthesis)

Ability to write effectively

Performance Indicators	Exceeds standard	Meets standard	Progressing to standard	Below standard
Supporting details provided to enhance the quality of the report	Provides clarity of detail that enhances the overall quality of the report	Provides details that support the premise of the report	Includes some details, but also includes extraneous or loosely related material	Includes inconsistent or few details which interfere with the meaning of the text
Logical organizational pattern is used to enhance understanding	Organizational pattern is logical and conveys completeness & wholeness	Organizational pattern is logical with minor lapses	Evidence of organization but completeness & wholeness is lacking	Little evidence of organization or any sense of wholeness & completeness
Use of language is appropriate to audience	Uses effective language that makes engaging, appropriate word choices for audience	Appropriate word choices for intended audience & purpose	Limited & predictable vocabulary, perhaps not appropriate for intended audience & purpose	Has a limited or inappropriate vocabulary for the intended audience & purpose
Application of the rules of standard English	Consistently follows the rules of Standard English for conventions	Basically follows the rules for Standard English for conventions with only minor lapses	Generally does not follow the rules of Standard English for conventions	Does not follow the rules of Standard English for conventions
Use of graphics that enhance audience understanding	Figures and charts are appropriate, clear and communicate well to the audience	Figures and charts are clear and, with a few exceptions, communicate clearly to the audience.	Figures and charts are used to communicate but lack consistency in format and style detracting from audience understanding.	Figures and charts are missing or have deficiencies in formatting and style which detract from understanding.

Program writing rubric



Not everything that counts can be measured; not everything that can be measured counts.

Research results--Students learn best when:

- Learning occurs best when we build on what students already know
- Student learning is cumulative over time
  - What students learn in one course, they use, practice, and develop in other courses.
- Learning is an active process (importance of students active involvement in their own learning)
- Learners perform better when expectations for their learning is clear
- Learners perform better when they get feedback on their performance

Ability to write effectively

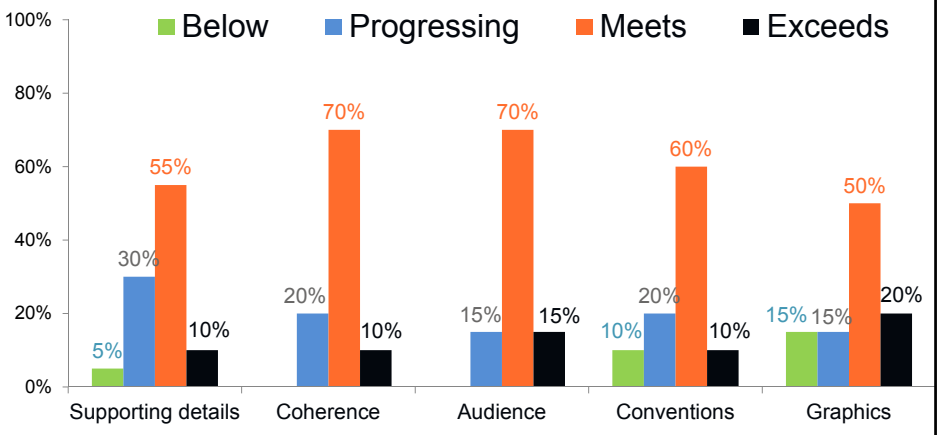
Performance Indicators	Excellent 16-20	Good 11-15	Fair 6-10	Poor 1-5
Supporting details provided to enhance the quality of the report .25	Provides clarity of detail that enhances the overall quality of the report	Provides details that support the premise of the report	Includes some details, but also includes extraneous or loosely related material	Includes inconsistent or few details which interfere with the meaning of the text
Logical organizational pattern is used to enhance understanding .20	Organizational pattern is logical and conveys completeness & wholeness	Organizational pattern is logical with lapses	Evidence of organization but completeness & wholeness is lacking	Little evidence of organization or any sense of wholeness & completeness
Use of language is appropriate to audience .15	Uses effective language; makes engaging, appropriate word choices for purpose	Effective language appropriate word choices for intended audience & purpose	Limited & predictable vocabulary, perhaps not appropriate for intended audience & purpose	Has a limited or inappropriate vocabulary for the intended audience & purpose
Application of the rules of standard English .15	Consistently follows the rules of Standard English for conventions	Basically follows the rules for Standard English for conventions with only minor lapses	Generally does not follow the rules of Standard English for conventions	Does not follow the rules of Standard English for conventions
Use of graphics that enhance audience understanding .25	Figures and charts are appropriate, clear and communicate well to the audience	Figures and charts are clear and, with a few exceptions, communicate clearly to the audience.	Figures and charts are used to communicate but lack consistency in format and style detracting from audience understanding.	Figures and charts are missing or have deficiencies in formatting and style which detract from understanding.

Program writing rubric

Student total possible points = 100

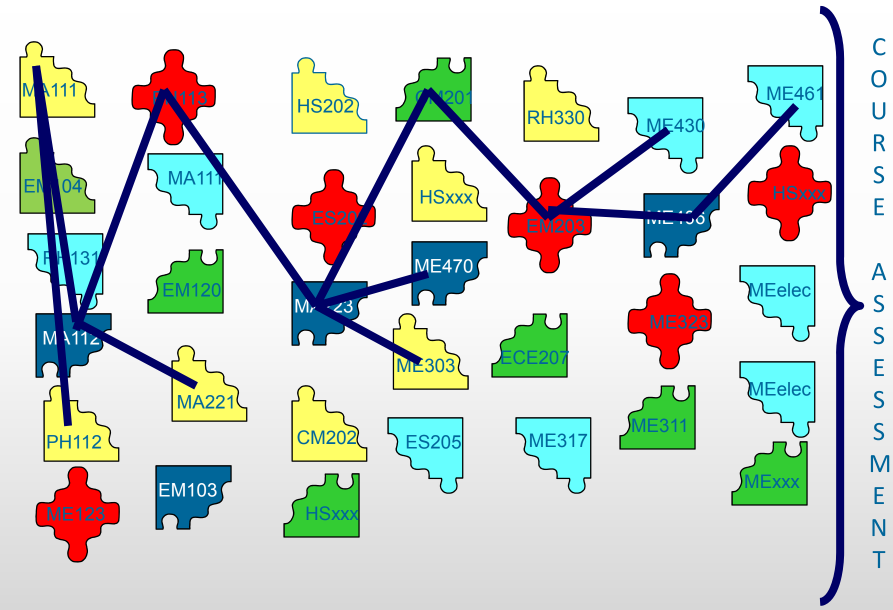
COMMUNICATION SKILLS

(60 STUDENTS/2 SECTIONS)

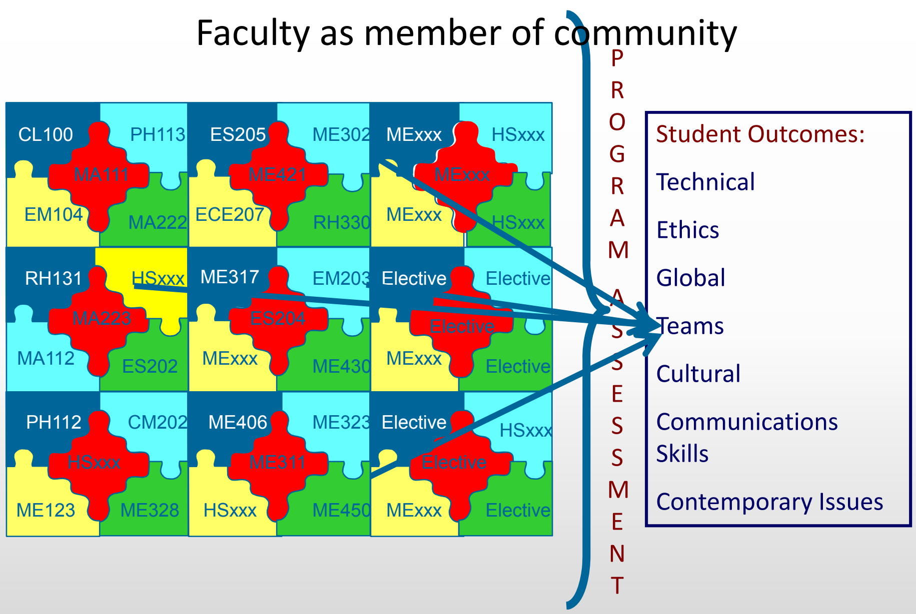


Social knowledge: What is the role of the faculty

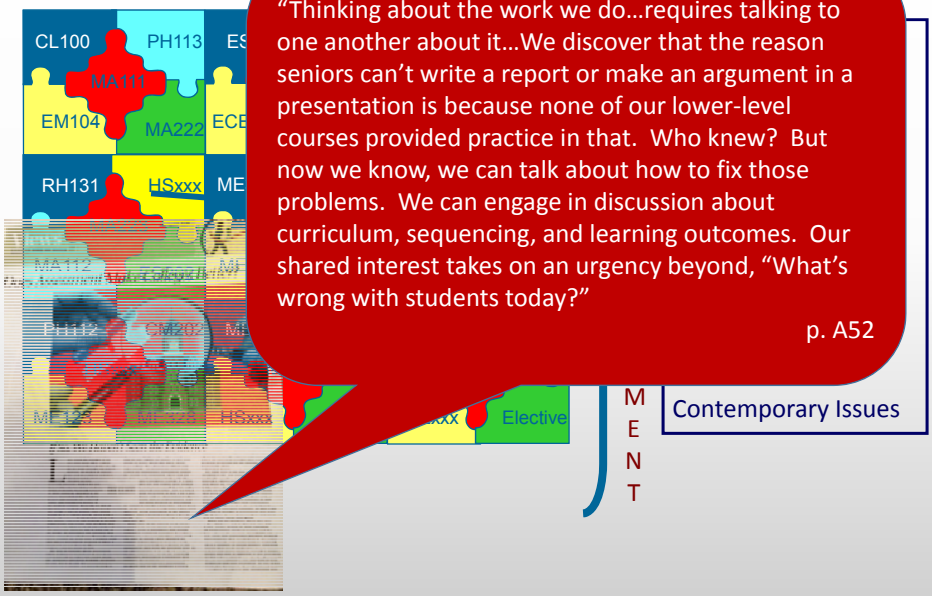
Faculty as expert and mediator of learning in classroom



Faculty as member of community



Faculty as member of community



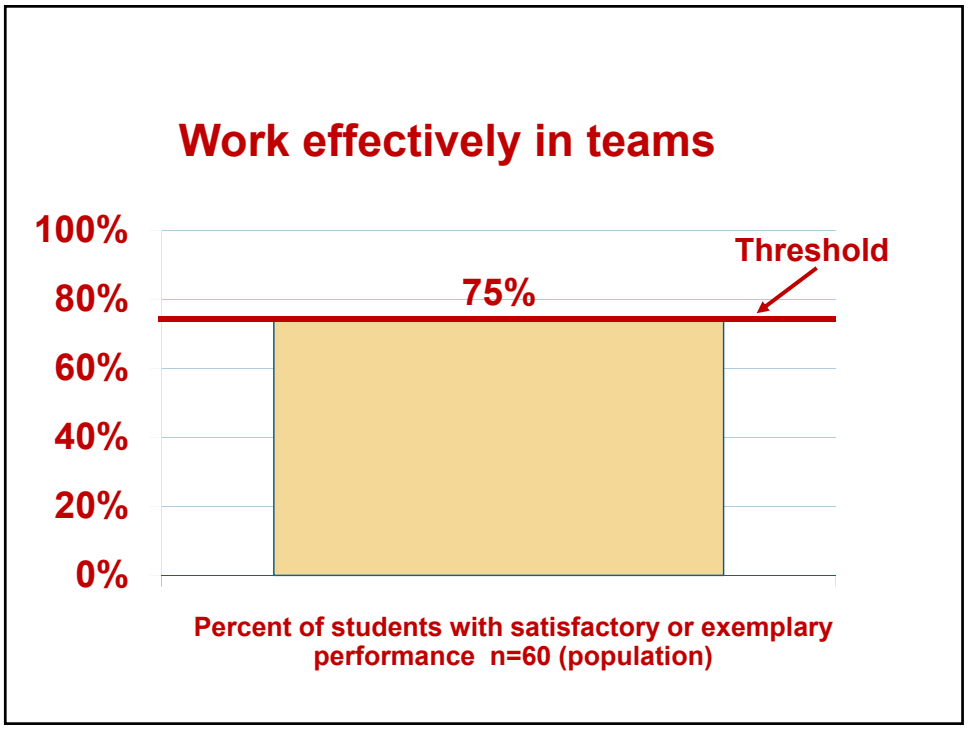
"Thinking about the work we do…requires talking to one another about it…We discover that the reason seniors can't write a report or make an argument in a presentation is because none of our lower-level courses provided practice in that. Who knew? But now we know, we can talk about how to fix those problems. We can engage in discussion about curriculum, sequencing, and learning outcomes. Our shared interest takes on an urgency beyond, "What's wrong with students today?"

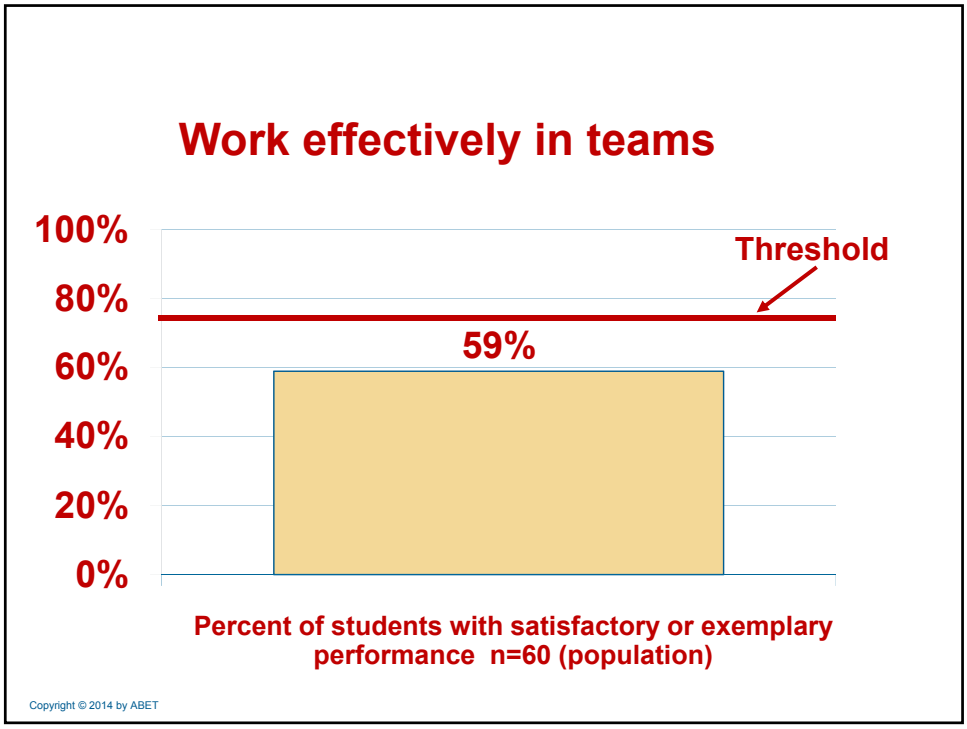
p. A52

Difference between Data and Information

Work Effectively in Teams

	Unsatisfactory	Developing	Satisfactory	Exemplary
Research & Gather Information	Does not collect any information that relates to the topic.	Collects very little information--some relates to the topic.	Collects some basic information--most relates to the topic.	Collects a great deal of information--all relates to the topic.
Fulfill Team Role's Duties	Does not perform any duties of assigned team role.	Performs very little duties.	Performs nearly all duties.	Performs all duties of assigned team role.
Share in work of team	Always relies on others to do the work.	Rarely does the assigned work--often needs reminding.	Usually does the assigned work--rarely needs reminding.	Always does the assigned work without having to be reminded.
Listen to Other Teammates	Is always talking--never allows anyone else to speak.	Usually doing most of the talking--rarely allows others to speak.	Listens, but sometimes talks too much.	Listens and speaks a fair amount.




Work effectively in teams
100%
80%
60%
40%
20%
0%
Threshold
59%
Percent of students with satisfactory or exemplary performance n=60 (population)
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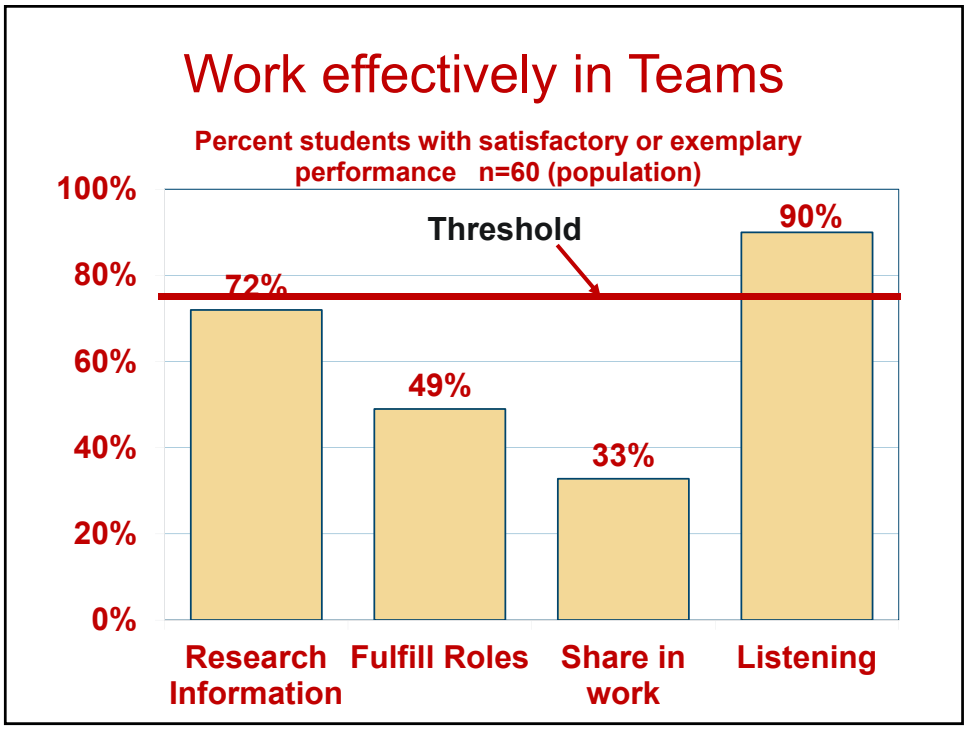

Work effectively in Teams
Percent students with satisfactory or exemplary performance n=60 (population)
100%
80%
60%
40%
20%
0%
Threshold
72%
49%
33%
90%
Research Information
Fulfill Roles
Share in work
Listening

We now have information…what's next?

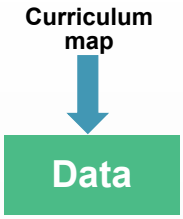
Evaluation

- Assessment is not a controlled experiment
- This is a *data-informed*, not data-driven process
- Evaluation
  - One or more processes for interpreting the data and evidence accumulated through assessment processes
  - Determines the extent to which student outcomes are being attained
  - Results in decisions and actions regarding program improvement

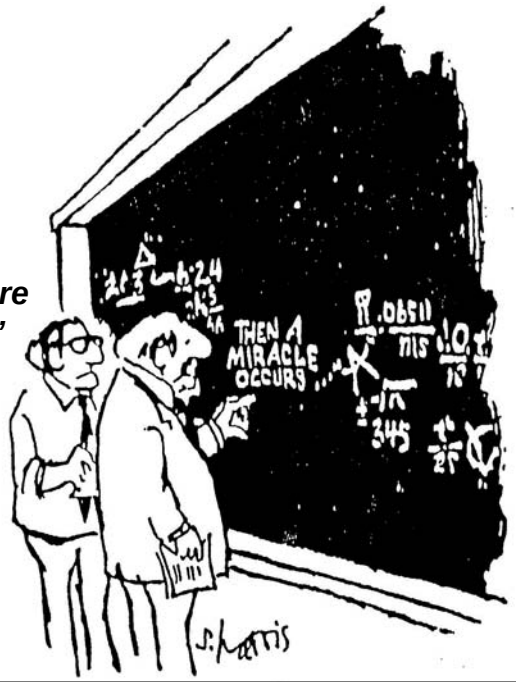
Evaluation

- Evaluation = data + wisdom
  - Data are necessary but not sufficient
- Take advantage of faculty wisdom and insight
  - NOT just anecdotal, but includes the human element as well
  - Data tell you WHAT
  - Wisdom tells you WHY
    - Why are students not at the level of learning that we anticipated?
- Action taken should be consistent with principles of student learning

Evaluation

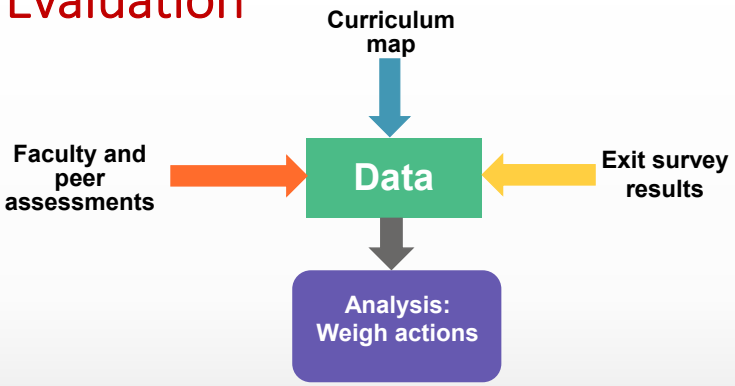


"I think you should be more explicit here in Step Two."

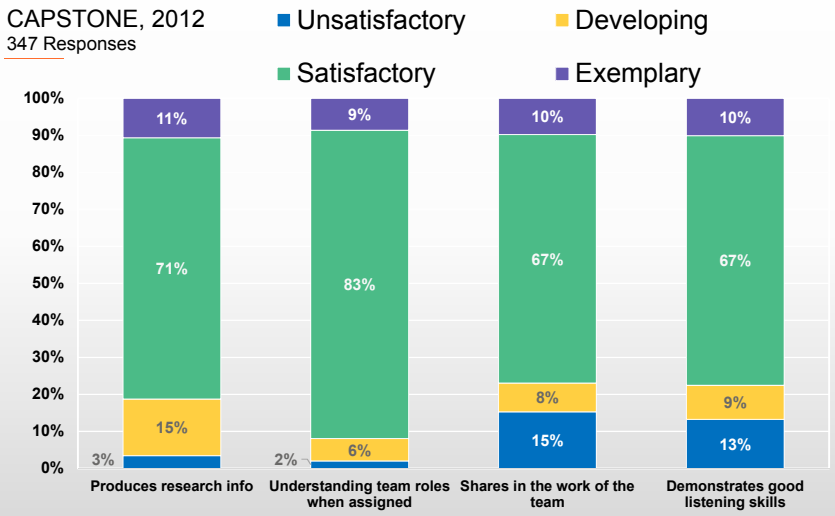


Business Administration Map	Macro-Economics	Micro-Economic	Microcomp App for Bus	Writing for Bus	Pre-Cal (Bus)	Intro to Bus	Bus Statistics	Prin Mgmt	Prin Mktg	International Bus	Prin Acctg I	Prin Acctg II	Bus Law I	M Fin
I = Introduce; R = Reinforce; E = Emphasize	Econ 207	Econ 208	CS 214	Eng 200	Math 1165	Busi 201	Busi 203	Busi 211	Busi 231	Busi 241	Busi 251	Busi 252	Busi 281	B 3
Writing Competencies														
Identify a subject and formulate a thesis statement.						I			R					
Organize ideas to support a position.				I		R			R				R	
Write in a unified and coherent manner appropriate to the subject matter.				I		R			R				R	
Use appropriate sentence structure and vocabulary.				I		R			R				R	
Document references and citations according to an accepted style manual.						I			R				R	
Critical Thinking Competencies														
Identify business problems and apply creative solutions.								I	R	R	R		R	
Identify and apply leadership techniques.								I					R	
Translate concepts into current business enviroments.								I	R	R	R		R	
Analyze complex problems by identifying and evaluating the components of the problem.								I			R	R	E	
Quantitative Reasoning Competencies														
Apply quantitative methods to solving real-world problems.					I		R				R	R		
Perform necessary arithmetic computations to solve quantitative problems.					I		R				R	R		
Evaluate information presented in tabular, numerical, and graphical form.					I		R				R	R		
Recognize the reasonableness of														

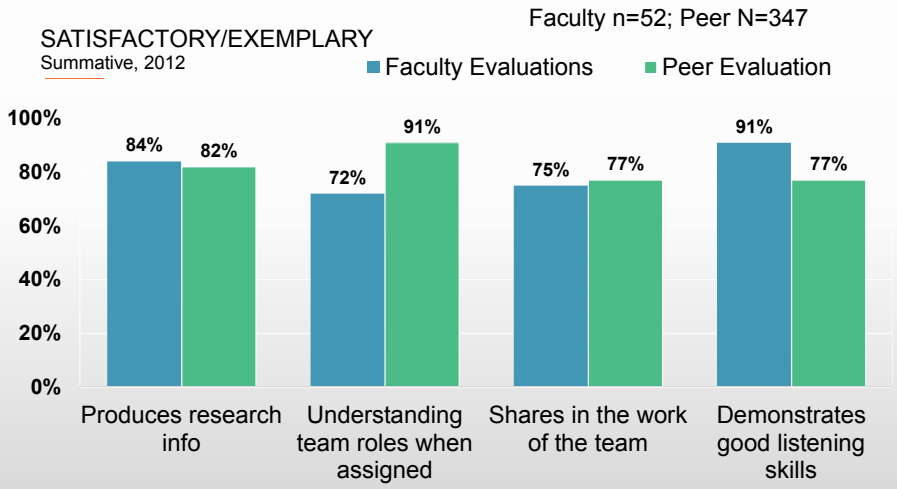
Evaluation



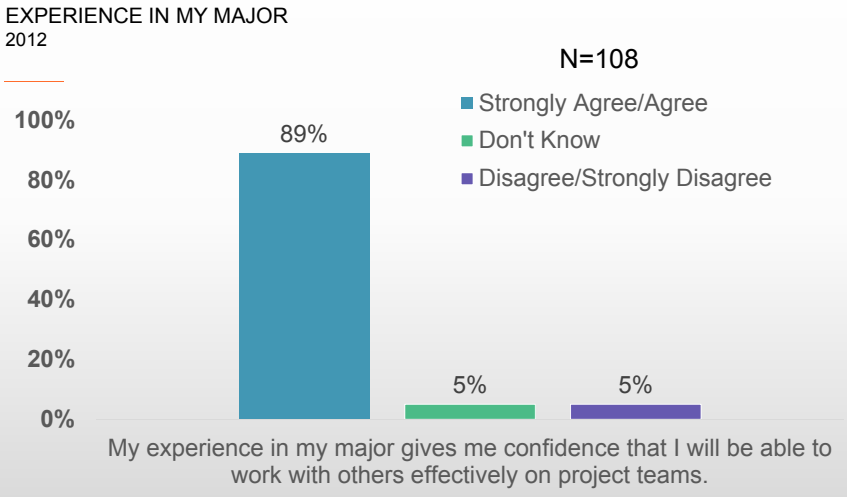
PEER EVALUATIONS



COMPARE FACULTY & PEER EVALUATIONS



SENIOR SURVEY ITEM



FORMATIVE ASSESSMENT

U=Unsatisfactory D=Developing S= Satisfactory E= Exemplary

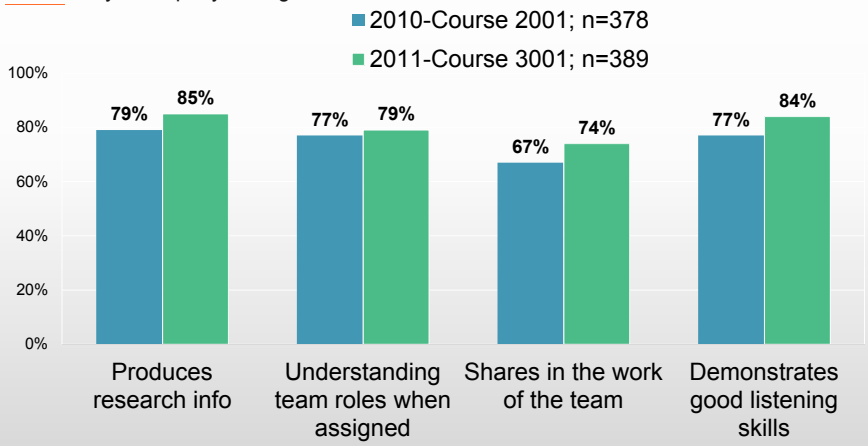
COURSE 2001 N=378	Unsat	Dev	Sat	Ex
Produces research info	10	11	74	5
Understanding team roles when assigned	13	10	72	5
Shares in the work of the team	25	8	57	10
Demonstrates good listening skills	18	5	60	17

COURSE 3001 N=389	Unsat	Dev	Sat	Ex
Produces research info	4	11	80	5
Understanding team roles when assigned	5	16	74	5
Shares in the work of the team	8	18	64	10
Demonstrates good listening skills	9	7	67	17

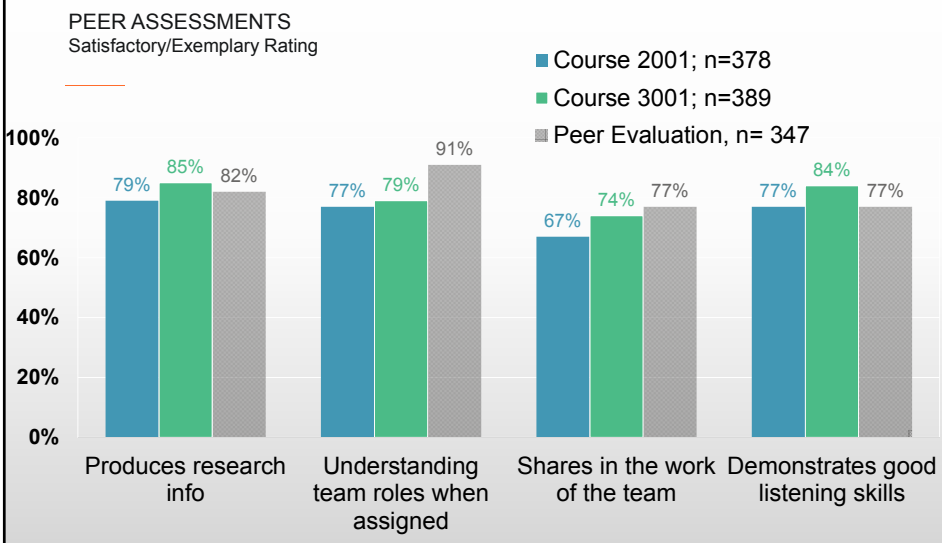
FORMATIVE DATA

PEER ASSESSMENTS

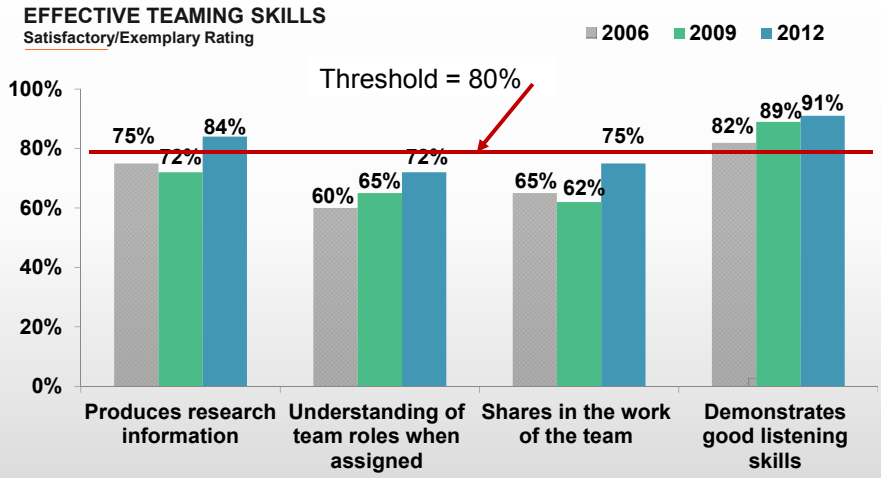
Satisfactory/Exemplary Rating



COMPARE FORMATIVE/SUMMATIVE: PEER ASSESSMENTS



SUMMATIVE TREND DATA



Student Outcome: Students will demonstrate the ability to work effectively in teams.

Performance Indicators	Educational Strategies	Method(s) of Assessment	Where summative data are collected	Where formative data collected	Summative data Cycle (yrs)	Time of data collection	Threshold for Performance
1. Produces research information for the team	1011, 2001, 2060, 3001, 4092	Peer Evaluations Faculty Evals Senior Surveys	4092 4092 On-line survey	2001 (y2 of cycle), 3001 (y3 of cycle)	3 yrs	2009, 2012	80%
2. Demonstrates understanding of team roles when assigned	1011, 2001, 2060, 3001, 4092	Peer Evaluations Faculty Evaluations Senior Surveys	4092 4092 On-line survey	2001 (y2 of cycle), 3001 (y3 of cycle)	3 yrs	2009, 2012	80%
3. Shares in the work of the team	1011, 2001, 2060, 3001, 4092	Peer Evaluations Faculty Evals Senior Surveys	4092 4092 On-line survey	2001 (y2 of cycle), 3001 (y3 of cycle)	3 yrs	2009, 2012	80%
4. Demonstrates good listening skills	1011, 2001, 2060, 3001, 4092	Peer Evaluations Faculty Evals Senior Surveys	4092 4092 On-line survey	2001 (y2 of cycle), 3001 (y3 of cycle)	3 yrs	2009, 2012	80%

Results Summary (direct measures) 2009: A sample of 56 students (52% of 2009 cohort) were assessed for the summative assessment. This represents 2 of 4 sections of 4092 (which is the second semester of a two-semester team experience.) The percent of the sample that demonstrated each indicator at satisfactory or exemplary were as follows: Indicator 1 - 72%; Indicator 2 - 65%; Indicator 3 - 62%; Indicator 4 - 89%

Actions 2010: The faculty who integrated teaming into their courses met in the fall of 2007 and 2008 to review the formative data and make recommendations for changes during those academic years. Based on the analysis of the summative results, the department asked faculty to provide the teaming scoring rubrics to students with the course assignments where the students were provided opportunities to demonstrate their teaming skills as defined by the outcomes. A sub-committee of the department Curriculum Committee met to review the outcomes. It was decided not to make any changes at this time. Faculty decided that they would review their assignments to be sure that students were given adequate opportunities to demonstrate the performance identified for teaming. Faculty also agreed to make students performance on the performance indicators a part of their grade for the activity. The Teaching/Learning Center will also provide a seminar for faculty on how to integrate effective teaming into the classroom.

Second-Cycle Results Summary 2012: A sample of 59 students (51% of cohort) were assessed for the summative assessment. This represents 2 of 4 sections of 4092 (which is the second semester of a two –semester team experience.) Based on changes made, the following improvements were seen: Indicator 1 – +12% (84%); Indicator 2 - +7% (72%); Indicator 3 - +13% (75%); Indicator 4 - +2% (91%).

Actions 2013: The faculty who integrated teaming into their courses met in the fall of 2010 and 2011 to review the formative data and make recommendations for changes during those academic years. Although progress was made on all indicators, the Curriculum Committee recommended that the department take another look at all the indicators related to teaming. The Teaching/Learning Center was asked to provide the department faculty some feedback on the indicators and also provide other examples of teaming indicators. This will be one of the issues that will be discussed at the Department retreat for possible revisions for the 2014 academic year.

Student Outcome: Students can work effectively in teams

Results Summary (direct measures) 2009: A sample of 56 students (52% of 2009 cohort) were assessed for the summative assessment. This represents 2 of 4 sections of 4092 (which is the second semester of a two-semester team experience.) The percent of the sample that demonstrated each indicator at satisfactory or exemplary were as follows:

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ABET

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Faculty evaluation of evidence leading to decision-making.

Learners perform best when expectations for their learning are clear

Actions 2010: culty who integrated team to their courses met in the fall of 2007 and to review the formative da nd make recommendations for changes during se academic years. Based on the analysis of the summative results, the dep ment asked faculty to provide the teami students with th course assignments where the students opportunities to emonstrate their teaming skills as defin sub-committee of the department Curriculum Committee outcomes. It was decided not to make any changes at this tim culty decided that they would review their assignments to be sure that stude were given adequate opportunities to demonstrate the performance identifie for teaming. Faculty also agreed to ma students performance on the outcomes a part of their grad ching/Learning Center will also provide a seminar for fa effective teaming into the classroom.

Learners perform best when they get feedback on their performance

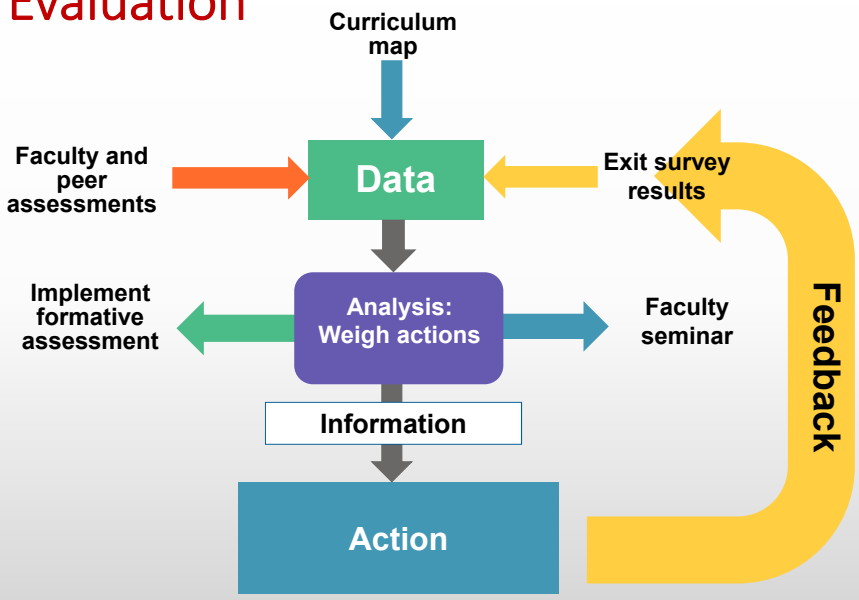
Learning occurs best when we build on what students already know

Student Outcome: Students can work effectively in teams

Second-Cycle Results Summary 2012: **A sample of 59 students (51% of cohort) were assessed for the summative assessment. This represents 2 of 4 sections of 4092 (which is the second semester of a two –semester team experience.) Based on changes made, the following improvements were seen: Indicator 1 – +12% (84%); Indicator 2 - +7% (72%); Indicator 3 - +13% (75%); Indicator 4 - +2% (91%).**

Actions 2013: The faculty who integrated teaming into their courses met in the fall of 2010 and 2011 to review the formative data and make recommendations for changes during those academic years. Although progress was made on all indicators, the Curriculum Committee recommended that the department take another look at all the indicators related to teaming. The Teaching/Learning Center was asked to provide the department faculty some feedback on the indicators and also provide other examples of teaming indicators. This will be one of the issues that will be discussed at the Department retreat for possible revisions for the 2014 academic year.

Evaluation



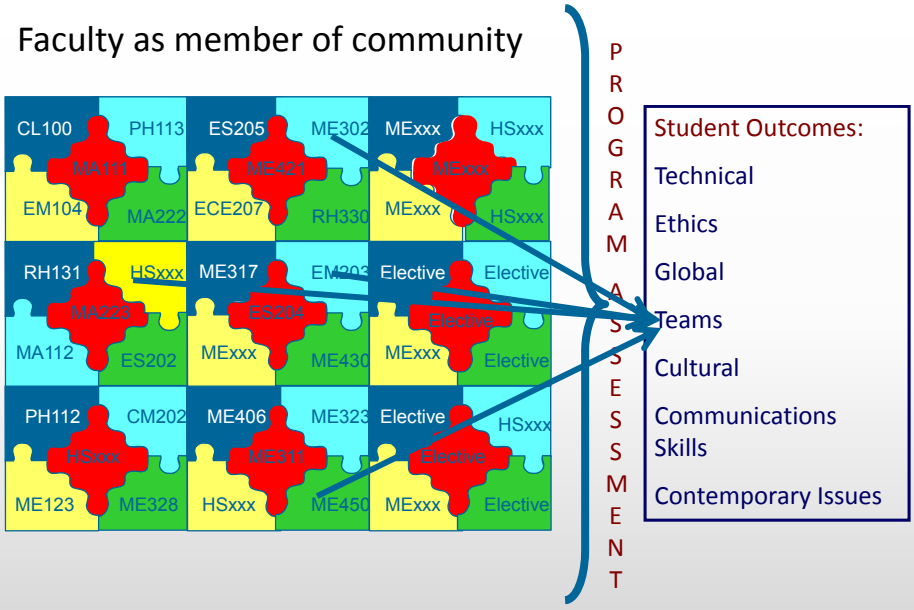
Evaluation

Modified from: http://www.soltiusme.com/soltius/services/continuous-improvements

People – Who do we involve?

- Most important resource above all is PEOPLE.
- Don't squander faculty time.
- Some faculty should be involved in:
  - Assessment committee work
  - Data collection
  - Data analysis
  - Outcome "champion"
- All faculty should be involved in:
  - Affirming performance indicators for outcomes
  - Mapping curriculum to performance indicators
  - Reviewing results—at some level
  - Implementing recommendations—at some level

Faculty as member of community



People – Who do we involve?

- Students
  - Avoid a “stealth” assessment process.
  - Students should be knowledgeable about the STUDENT OUTCOMES.
  - Students should know the level of performance that is expected of them.
  - Students should be given timely feedback on their performance related to the student outcomes.

People – Who do we involve?

- Students
  - Research on learning is definitive:
    - Students learn best when expectations for their performance is clear AND they get timely feedback on their performance.

How to Sustain (strengthen or support)

- Identify what is working
- Have courage to stop doing things that aren't working
- Don't confuse data collection with actionable information (necessary but not sufficient)
- Widen circle of active participants with a clear, shared purpose
- Petition for needed resources (link to strategic initiatives)
- Educate through communication and participation

How to Sustain:

- Empower others
- Coordination with current initiatives
  - e.g., Digital initiative
- Produce meaningful results
- Reassess your strategies if necessary
  - Continuous improvement applies to processes as well as outcomes
- Celebrate success (formally and informally)
- Keep your eye on the prize

Elements of a "culture"

- ✓ Vocabulary
- ✓ Written Materials
- ✓ Formal & Informal Policies and Procedures
- ✓ Organizational Structure
- ✓ Social Knowledge
- ✓ Reward Structure
- ✓ Rites & Rituals

Modified from Susan Hatfield, HLC Senior Scholar

How do you know you have arrived?

Self-assessment

CLIMATE **CULTURE**

Isolated Pervasive
1------2------3------4------5------6------7------8------9------10

Temporary Ongoing
1------2------3------4------5------6------7------8------9------10

Personality Driven Structurally Driven
1------2------3------4------5------6------7------8------9------10

Surface Embedded
1------2------3------4------5------6------7------8------9------10

Externally driven Internally driven
1------2------3------4------5------6------7------8------9------10

Program accreditation Improvement & Validation
1------2------3------4------5------6------7------8------9------10