Barton Community College

HLC Accreditation Evidence

Title: Assessment Presentation for Faculty

Office of Origin: Vice President of Instruction - Assessment of Student Learning

ASSESSMENT

Speaker: Jo Harrington

BARTON
COMMUNITY COLLEGE

"Assess-MINT"

Overview:
- ❑ Classroom Assessment Techniques
- ❑ Course Assessments
- ❑ Institutional Level Assessment
- ❑ Accreditation-Assurance Review
- ❑ Quality Initiative-Assessment Academy
- ❑ Update on progress

Classroom Level

Document the Classroom Assessment:

Each faculty member (associate and full-time) is asked to conduct and document at least one classroom assessment activity in each class they teach using the following:

www.tinyurl.com/submitCAT

The four steps to completing a CAT:

- Choose a learning goal to assess

- Choose an assessment technique and apply it

- Analyze the data and respond to it

- Document the assessment

Course Level

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I.   GENERAL COURSE INFORMATION

Course Number: MATH 1828
Course Title: College Algebra

V.   COURSE COMPETENCIES

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

1. Identify characteristics and perform operations on functions.
    a.   Determine the domain and range of a function.
    b.   Find arithmetic combinations and composites of functions.
    c.   Use graphing transformations to sketch the graph of a function including linear, quadratic, absolute value, square root, and cubic.

5. Given $f(x) = x^2 - 2x$ and $g(x) = 2x + 3$,
   find $(f \circ g)(x) = f(g(x))$:

   a) $2x^2 - 4x + 3$ b) $4x^2 + 8x + 3$

   c) $2x^3 - x^2 - 6x$ d) $3x^2 + x$

6. How would you move $y = \sqrt[3]{x}$ to graph $y = \sqrt[3]{x - 3}$?

Class Average: 67%

   c) 3 units up   d) 3 units down

7. Identify the domain of the function: $f(t) = \dfrac{2t - 1}{2t + 1}$

   a) $t \neq 0$ b) $t \neq \dfrac{1}{2}$

   c) $t \neq -1$ d) $t \neq -\dfrac{1}{2}$

Question Level Analysis

#	Competency	% Correct
1	Find the equation of a line	97%
2	Find a perpendicular line	87%
3	Find the domain of a function	73%
4	Evaluate a function	63%
5	Determine if a given equation is a function	77%
6	Find the zeroes of a function	10%
7	Find the composition of two functions	70%
8	Find the inverse of a function	90%

6) Find all zero(s) of the following function: $f(x) = x^2 - 5x - 8$

Determine the zeros of a function.

1 **2** **3**

Set the equation equal to 0

Solve the equation

Use the quadratic formula

CATs

- **Nods/Audible**
  - "So, to find the zeros of a function, we first set the equation equal to five, right?"

  - "Oh, then to find the zeros of a function, we first evaluate the equation at zero."

CATs

- **Documented Problem Solving/ Walk-About**
  - Solve the following equation for x, showing all steps:
    $$3x - 6 = 0$$

  - Solve the following equation for x, showing all steps:
    $$x^2 - 4x - 5 = 0$$

  - Solve the following equation for x, showing all steps:
    $$x^2 - 3x - 7 = 0$$

CATs

- **Background Knowledge Probe**

  Write out the quadratic formula used to solve:

  $$ax^2 + bx + c = 0$$

CATs

- **Progressive Notebook/Outline**

To find the zero of a function you set the equation equal to ____.

The quadratic formula is _____.

Thomas. Owen and Caldwell. Joanna. "Father and Daughter: Edward and Emily

Dickinson." *Journal of American Literature*. 40. 8.1960: 510-523.

The Question:

Identify the errors (according to the MLA guidelines)

The "Why":

For <u>each</u> error you've identified, describe in detail "why" you think it is an error.

Thomas, Owen and Caldwell, Joanna. "Father and Daughter: Edward and Emily Dickinson." *Journal of American Literature*. 40. 8.1960: 510-523.

The "Why":

The Question:

Identify the errors (according to 2009 MLA guidelines)

For each error you've identified, describe in detail "why" you think it is an error.

Let me know what explanation, more

Muddiest Point
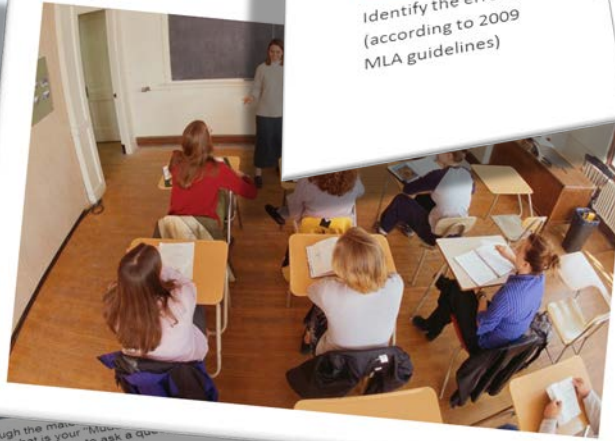
nswer the following question: As you go through the mate "Mud hat needs more explanation? In other words, what is your "Mud pecific at this point, then use this as an opportunity for you to ask a que ssignments) as you would in class.

Expand All   Print View   Show Options

Responses

Response

General
  RE:General
Preconcieved Notion
Stem and Leaf Plot
  RE:Stem and Leaf Plot
    RE:Stem and Leaf Plot
  RE:Stem and Leaf Plot
    RE:Stem and Leaf Plot
Response Unit 1
  RE:Response Unit 1
General Comment
  RE:General Comment
    RE:General Comment
Variation
  RE:Variation

Author
Instructor Harrington
Instructor Harrington
Instructor Harrington
Instructor Harrington
Instructor Harrington
Instructor Harrington

Date/Time*
10/16/2009 5:45:04 AM
10/16/2009 1:45:04 PM
10/19/2009 6:37:25 PM
10/19/2009 8:46:44 PM
10/20/2009 3:22:29 PM
10/20/2009 6:25:19 PM
10/21/2009 8:25:16 AM
10/22/2009 9:33:25 PM
10/22/2009 10:59:36 PM
10/20/2009 9:54:29 AM
10/20/2009 3:12:20 PM
10/21/2009 5:05:22 AM
10/21/2009 8:27:21 AM
10/21/2009 12:28:56 PM
10/21/2009 1:20:20 PM
10/22/2009 8:00:26 AM

Directions:
On the left si...   ve the problem.
On the right s...   ...rksheet, explain the reasoning
that you used ...   ...ach your solution in a step-by-step
approach.

Solve: log(x + 4) – log(x) = log(x + 2)

Documentation

Classroom Assessment Technique Reporting Form

The Barton assessment plan features ongoing assessment at the classroom level. All members of Barton's faculty are expected to assess student learning in their classes every semester. To document that class-level assessment is occurring, faculty are expected to submit a CAT report for each CRN they teach.

This activity is not to be considered an evaluation of your assessment techniques or your delivery of course material. Rather, it is intended to provide written documentation of classroom assessment techniques used by Barton faculty and to document the use of CAT data for improving student learning.

* Required

Last Name *

Harrington

First Name *

Joseph

Course Reference Number (CRN) *
Not SUBJ AND CRSE NUMB, we need the CRN only. (Example: 54321)

10125

Based on the results of your C.A.T., have you or will you make adjustments or adopt new strategies for this course? *

☐ Yes

☐ No

Please provide additional feedback you have regarding the adjustments or adoption of new strategies in this course. *

Answers here will vary depending on the type of C.A.T. you used and the results you obtained. Report what is important to your particular C.A.T. and results.

Something you might not think of:

You thought you were going to cover a topic, but based on the CAT results, you determined that you did not need to and thus decided to move on to another topic.

That is an Adjustment. You made a change based on the CAT that you would not have made otherwise.

Institutional Level

Board ENDs

POLICY TYPE: ENDS
POLICY TITLE: ESSENTIAL SKILLS

Statement: Students will have the essential skills to lead productive lives.

Completion of a Barton Community College degree template will enable students to:

- F-1. Study a given subject critically, including processes to analyze and synthesize important parts of the subject, to ask appropriate and useful questions about the study of this subject, and to solve problems within the subject area.

- F-2. Relate the relevance of a given subject to the individual student's life, to develop habits that encourage life-long, responsible and independent learning, and to apply appropriate and useful knowledge of the values, conventions, and institutions within an academic discipline.

- F-3. Describe how history works, including how historical perspective can strengthen understanding of a given academic subject, and how the history of human endeavor has helped develop that subject.

- F-4. Explain how technologies affect important parts of human life and how information technologies shape the study of a given subject.

- F-5. Explain how culture develops through various aspects of human endeavor, how culture develops understanding of a given subject, and how a given subject develops within different cultures.

Assessment of the General Education Outcomes will serve as an indicator of the essential skills retained by our students and their ability to lead productive lives.

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

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<u>Course Title</u>:   College Algebra

V. COURSE COMPETENCIES

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1. Identify characteristics and perform operations on functions.
   a. Determine the domain and range of a function.
   b. Find arithmetic combinations and composites of functions.
   c. Use graphing transformations to sketch the graph of a function including linear, quadratic, absolute value, square root, and cubic.

College Algebra competencies tied to F-1:
(Percentage of correct responses to a question is given)

Topic (Competency)	2010	2011	2012	2013	2014
Finding the zeros of a function	57%	55%	59%	66%	63%
ID the Domain of a function	65%	72%	71%	76%	71%
Linear Application	54%	56%	54%	62%	63%
Solve an absolute value inequality	59%	67%	65%	73%	75%
Solving exponential equations	79%	81%	81%	84%	82%
Solving systems of equations	84%	88%	87%	90%	87%
Translation of a Graph	72%	72%	75%	75%	77%

% of Correct Responses	Year							
	⊞2008	⊞2009	⊞2010	⊞2011	⊞2012	⊞2013	⊞2014	⊞2015
Row Labels								
⊟Fundamental Outcome								
⊞F-1	67%	68%	71%	73%	74%	76%	76%	79%
⊞F-2	#DIV/0!	70%	69%	71%	73%	75%	72%	78%
⊞F-3	#DIV/0!	73%	82%	77%	77%	78%	77%	75%
⊞F-4	#DIV/0!	65%	74%	68%	70%	68%	64%	78%
⊞F-5	#DIV/0!	#DIV/0!	#DIV/0!	94%	85%	92%	89%	84%
Grand Total	67%	69%	71%	72%	74%	76%	75%	78%
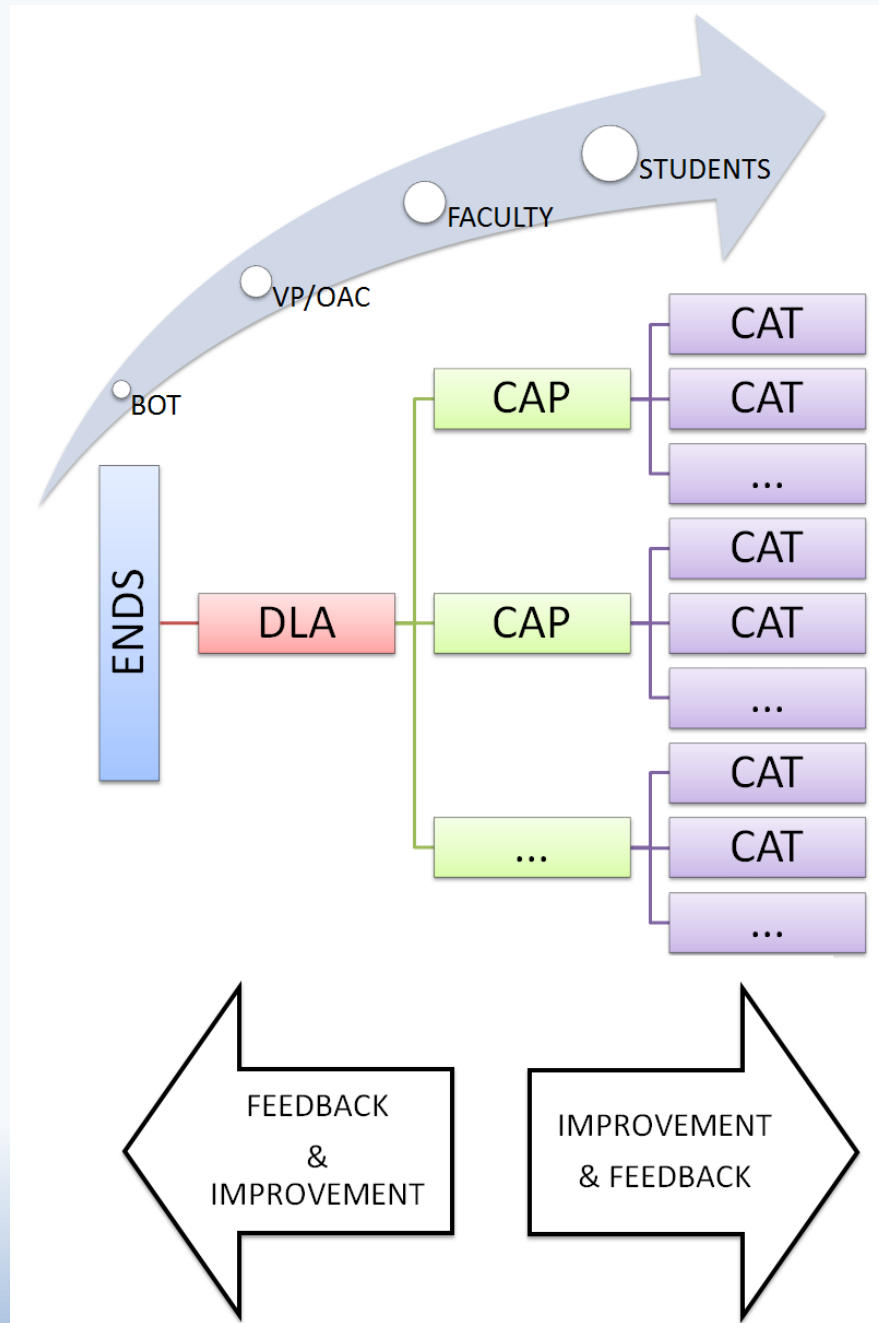
Dept	Num	Course
ACCT	1602	General Accounting
ACCT	1611	Microcomputer Account Appl
ACCT	1614	Accounting I
ACCT	1616	Accounting II
ACCT	1618	Managerial Accounting
ACCT	1625	Technical Accounting Capstone
BSTC	1036	Computer Concepts & Appl
BSTC	1685	Spreadsheet Applications
BUSI	1600	Introduction to Business
BUSI	1608	Business Law I
BUSI	1609	Business Statistics
BUSI	1702	Supervisory Development
BUSI	1802	Payroll Procedures
BUSI	1803	Principles of Management
BUSI	1805	Marketing
BUSI	1806	Advertising
BUSI	1807	Customer Service
CHEM	1806	College Chemistry I
CHEM	1808	College Chemistry II
CHEM	1814	Organic Chemistry I
DIET	1632	Human Resource Management
ECON	1615	Personal Finance
EMHS	1100	Introduction to Terrorism
EMHS	1900	Emergency Planning
EMHS	1905	Developing Volunteer Resources
EMHS	1909	Basic Skills for Emerg. Managers
ENGL	1200	Business English
ENGL	1204	English Composition I
ENGL	1206	English Composition II
ENGL	1236	Technical Communications
HIST	1400	American History to 1877
HIST	1402	American History 1877-Present
HIST	1408	Western Civilization to 1500
HIST	1409	Hist & Phil Western Cul to 1500
HIST	1410	Western Civilization 1500-Pres
HZMT	1907	Resource Conserv & Recovery Act
HZMT	1909	Clean Air & Water Qual. Reg.
HZMT	1912	Industrial Hygiene and Tox.
HZMT	1917	DOT Regulations
HZMT	1940	Introduction to Ergonomics
HZMT	1950	Characteristics of Haz. Mat.
HZMT	1962	Disaster Site Worker
LIFE	1402	Principles of Biology
LIFE	1408	Anatomy & Physiology
LIFE	1412	Principles of Microbiology
LITR	1210	Intro to Literature
MATH	1806	Technical Mathematics
MATH	1819	Business Math
MATH	1821	Basic Algebra
MATH	1824	Intermediate Algebra
MATH	1826	Intermediate & College Algebra
MATH	1828	College Algebra
MATH	1830	Trigonometry
MATH	1831	Business Calculus
MATH	1832	Analytic Geometry-Calculus I
MATH	1834	Analytic Geometry-Calculus II
MDAS	1619	Special Office Procedures
MDAS	1646	Emergency Preparedness
MDAS	1648	Medication Administration
MDAS	1652	Patient Care I
MDAS	1653	Patient Care II
MDAS	1655	Medical Admin. Aspects
MDAS	1657	Legal and Ethical Issues
MDAS	1672	Medical Terminology
MDAS	1676	Medical Transcription I
MDAS	1680	Basic Pharmacology
MLTC	1500	Urinalysis
MLTC	1502	Hematology and Coagulation
MLTC	1503	Principles of Phlebotomy
MLTC	1505	Clinical Microbiology I
MLTC	1508	Blood Banking
MUSI	1002	Introduction to Music
OFTC	1601	Keyboarding I
OFTC	1603	Keyboarding II
OFTC	1621	Business Administrative Procedures
OFTC	1650	Ten Key Mastery
OFTC	1666	Records Management
OFTC	1696	Word Processing Applications
OFTC	1697	Advanced Word Processing
OSHA	1914	General Industry Regulations
OSHA	1970	Standards for Construction
STAT	1829	Elements of Statistics
STAT	1840	Business & Economics Statistics I
STAT	1845	Business & Economics Statistics II

Accreditation

Criterion One. Mission
The institution's mission is clear and articulated publicly; it guides the institution's operations.

Criterion Two. Integrity: Ethical and Responsible Conduct
The institution acts with integrity; its conduct is ethical and responsible.

Criterion Three. Teaching and Learning: Quality, Resources, and Support
The institution provides high quality education, wherever and however its offerings are delivered.

Criterion Four. Teaching and Learning: Evaluation and Improvement
The institution demonstrates responsibility for the quality of its educational programs, learning environments, and support services, and it evaluates their effectiveness for student learning through processes designed to promote continuous improvement.

Criterion Five. Resources, Planning, and Institutional Effectiveness
The institution's resources, structures, and processes are sufficient to fulfill its mission, improve the quality of its educational offerings, and respond to future challenges and opportunities. The institution plans for the future.

A Sampling of Sub-Criterion:

- The institution has clearly stated goals for student learning and effective processes for **assessment** of student learning and achievement of learning goals.

- The institution **assesses** achievement of the **learning outcomes** that it claims for its curricular and co-curricular programs.

- The institution's processes and methodologies to **assess** student learning reflect good practice, including the substantial participation of faculty and other instructional staff members.

- The institution links its processes for **assessment** of student learning, evaluation of operations, planning, and budgeting.

- Faculty and administrators routinely review the effectiveness and uses of the organization's program to **assess** student learning.

- The organization provides adequate support for its evaluation and **assessment** processes.

- The organization clearly differentiates its learning goals for undergraduate programs by **identifying the expected learning outcomes** for each.

- **Assessment** of student learning provides evidence at multiple levels: course, program, and institutional.

A Sampling of Sub-Criterion:

- The institution uses the information gained from **assessment** <u>to improve student learning</u>.

- Results obtained through **assessment** of student learning are available to appropriate constituencies, including students themselves.

- Institutional data on **assessment** of student learning are accurate and address the full range of students who enroll.

- **Assessment** of student learning includes multiple direct and indirect measures of student learning.

- The organization integrates into its **assessment** of student learning the data reported for purposes of external accountability (e.g., graduation rates, passage rates on licensing exams, placement rates, and transfer rates).

- The organization's **assessment** of student learning extends to all educational offerings, including credit and non-credit certificate programs.

- Faculty are involved in defining **expected student learning outcome**s and creating the strategies to determine whether those outcomes are achieved.

- **Assessment** results inform improvements in curriculum, pedagogy, instructional resources, and student services.

Assurance Argument to address the Criterion for Accreditation

Analysis and Written Report:

Written report prepared by Commission Peer Reviewers documenting their conclusions regarding whether the institution meets the Criteria for Accreditation and the Federal Compliance Requirements, **including but not limited to, requirements related to assessment of student learning**, and, in the same or a different report as required by the process in which the institution participates, conclusions regarding continuous improvement and identifying deficiencies, if any, at the institution.

HLC Conference Notes

Peer Reviewer Comments:

- Frame your model based on the goal/end, for data driven decisions. What it means, what we're going to do about it, what happens now and what's next? Again, regardless of your process, that's assessment, you need to capture this.

- Who's responsible for student learning? We often go around asking people this on our site visits. They need to know the answer.

- If you have a model that generates data, great, move on to the next step. Don't spend years creating a new one and then another new one, and then buying this and that. Move on, too many of you are still on step 1.

HLC Conference Notes

Peer Reviewer Comments:

- Don't get carried away with your feedback, this is not complicated.
  - How many of you will teach a course this year that you taught last year?
  - How many of you will teach it the same way that you did last year?
  - That's assessment, that's what you need to capture and document.

- We've all had those students who habitually miss class, but always seem to show up on the day of the review.
  - Which type of student do you prefer?
  - The one who comes to class only interested in what's on the next test?
 - Or the one who's there to actually learn the material?

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Enter Years	09/2013	09/2014	09/2015	06-2017 Lock Date	09-2017	09-2018	09-2019	09-2020	09-2021	09-2022
Assurance Process	Institution may contribute documents to Evidence File			Assurance Filing (Assurance Argument and Evidence File)[1] Assurance Review (no visit[2])	Institution may contribute documents to Evidence File					Assurance Filing (Assurance Argument and Evidence File); Federal Compliance Requirements[1] Assurance Review and Comprehensive Evaluation (with visit)
Improvement: The Quality Initiative					Quality Initiative Proposal Filed (window of opportunity to submit) Quality Initiative Proposal Reviewed		Quality Initiative Report Filed Quality Initiative Report Reviewed			
Commission Decision-Making				Action to Accept Assurance Review[3]						Action on Comprehensive Evaluation and Reaffirmation of Accreditation[4]
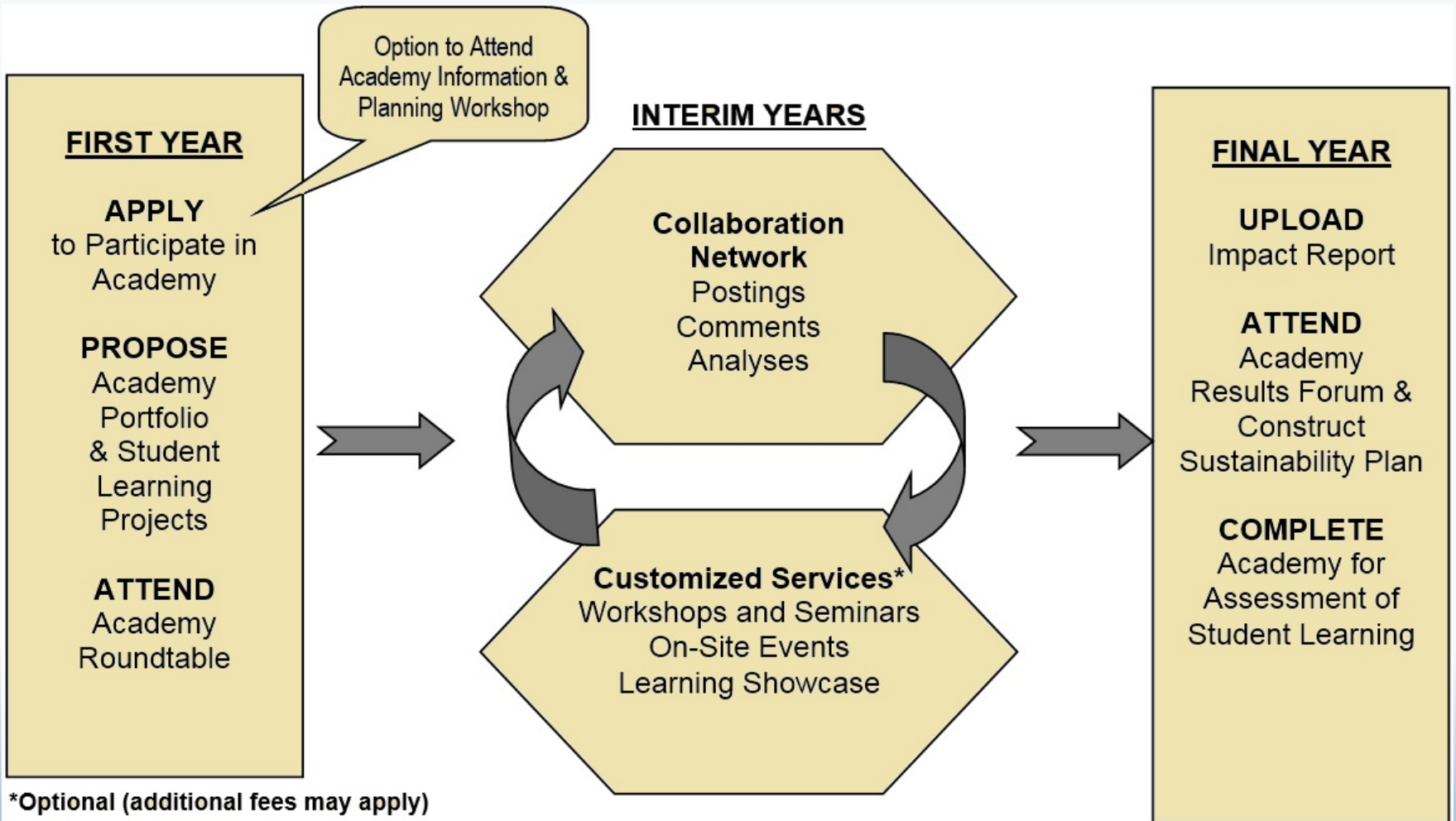
Assessment Academy Goals:

1. Automate the assessment collection/documentation processes

- Identify the data/documentation that we collect.
- Ensure that the data fills some role and is used.
- Address any Gaps where additional data/information is needed.

2. Improve communication regarding assessment

- Faculty meetings need to take place to enable healthy robust assessment conversations.

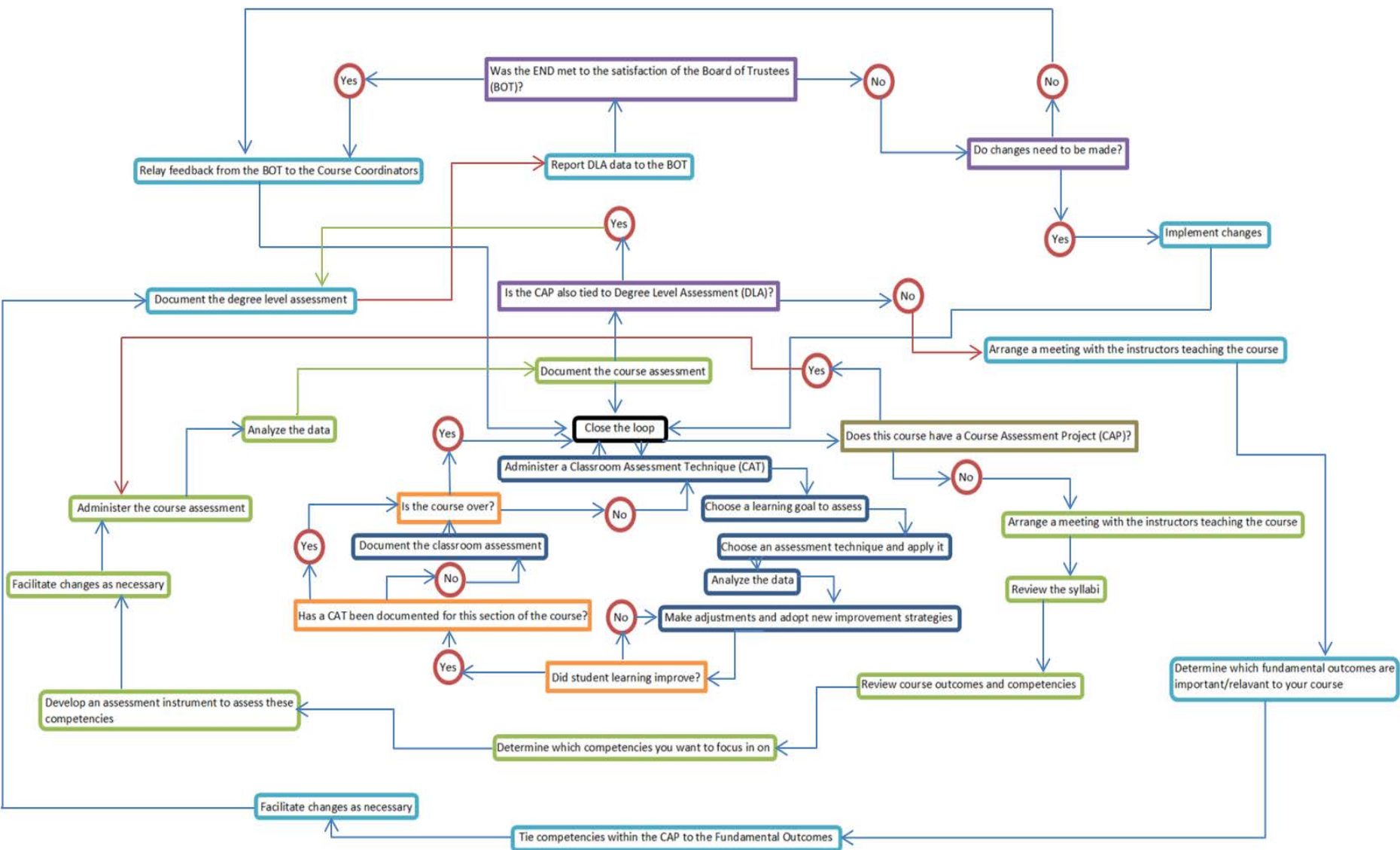- Establish processes to communicate with faculty, including adjunct faculty.

3. Establish/Develop/Document Program and Co-Curricular Assessment

- Determine which, if any, have been developed already.
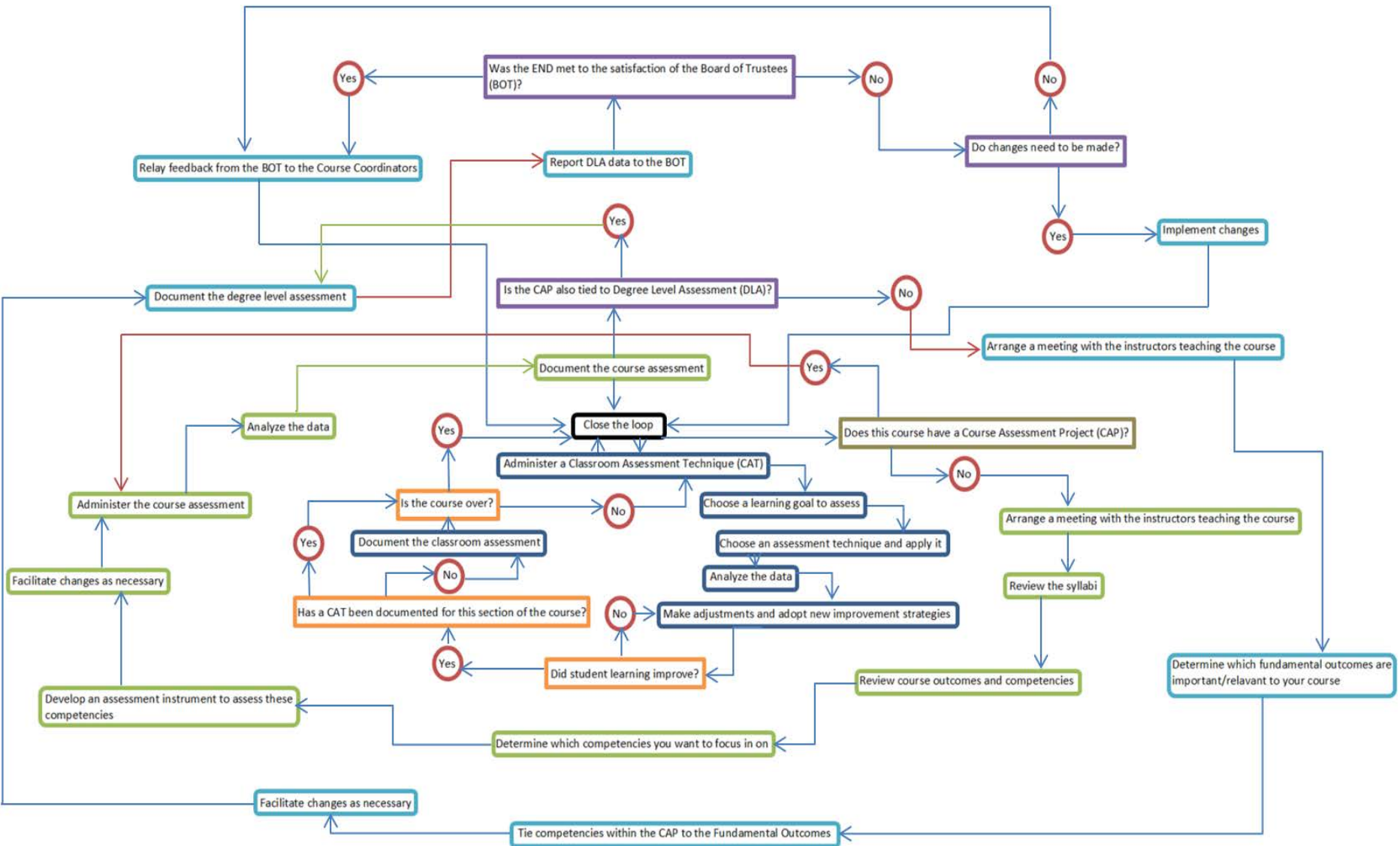- Determine where this fits in our assessment model.
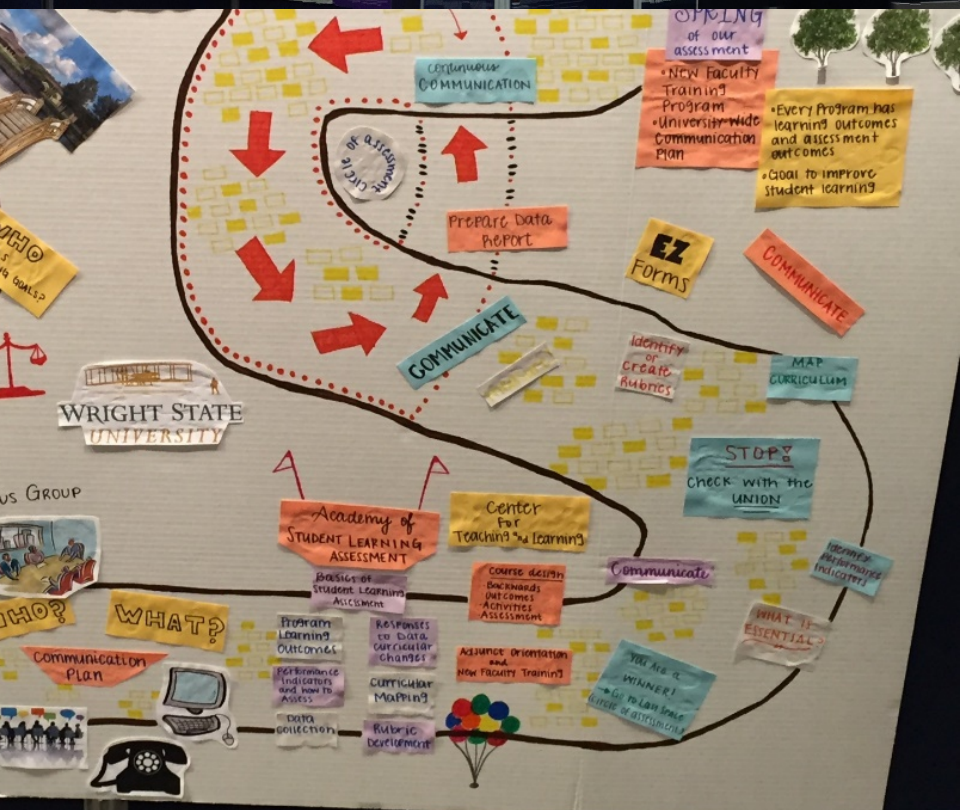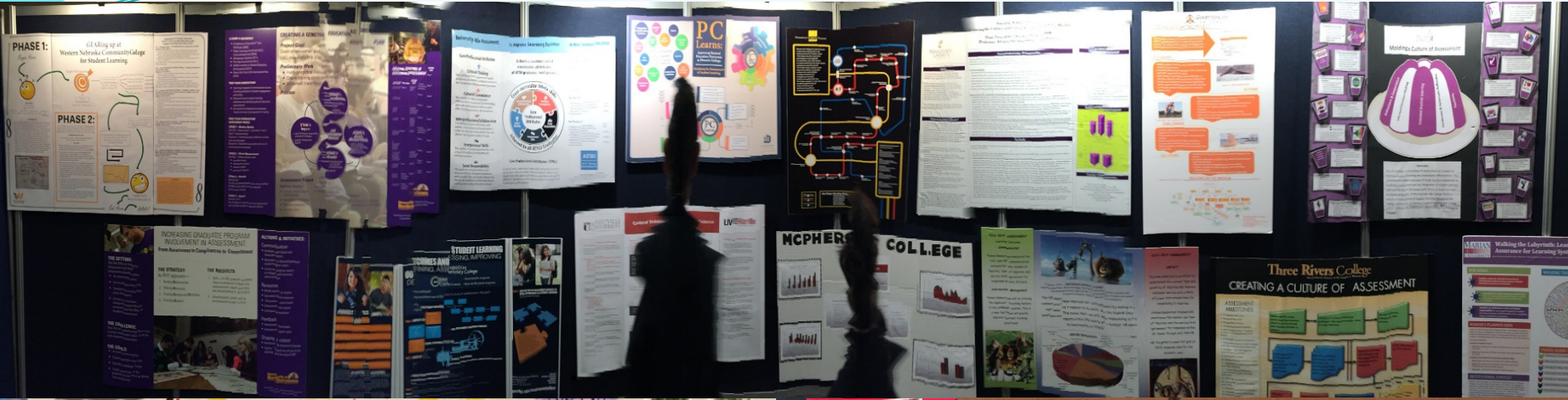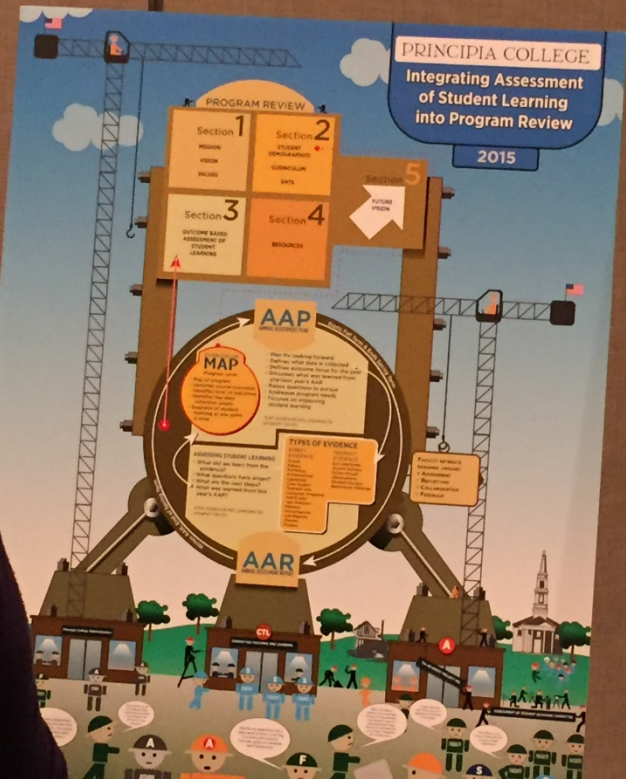
Assessment Model (PEAQ)

Assessment Model (Open Pathways)

Timeline:

- Determine data needs, inventory what is available, and a GAP analysis of the two
- Inventory current program/co-curricular level outcomes
- Continue to develop automation
- GAP analysis of outcomes
- Faculty Meeting
- Pilot some automation
- Look into communication processes for faculty
- Launch some automation

Automation Update

- **New Cat Form**

Term Code ▼	Last Name ▼	First Name ▼	Mode of Delivery for CAT you are reporting: ▼	Course Reference Number (CRN) ▼	Describe what type of C.A.T. you used and its location inside your eCompanion. If your C.A.T. is not located inside your course shell, please provide a more detailed response. ▼	Based on the results of your C.A.T., have you or will you make adjustments or adopt new strategies for this course? ▼	Please provide additional feedback you have regarding the adjustments or adoption of new strategies in this course. ▼	Enter the venue and term/cycle/semester and year ▼
201502	Harrington	Joseph	100% online (eCourse)	26151	Muddiest Point in every unit.	Yes	Completely revised lecture videos to include steps for the TI-84 calculator	Spring 2015 Session 3 (9 weeks)

Name: Jo Harrington
Positions:
- Coordinator of Assessment of Student Learning
- Mathematics Instructor

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Office: (620) 792-9186

Thank You!

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Positions:
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