## GENERAL EDUCATION & ASSESSMENT: DESIGN THINKING FOR STUDENT LEARNING

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## ASSOCIATE PROVOST, A. L NDNER DIRECTOR OF ASSESSMENT, T. BROPHY CHAIR OF THE ASSESSMENT SUBCOMMITTEE, E. CZARNECKA





## PRE-CONFERENCE WORKSHOP WH2:

LEARNING ASSESSMENT TECHNIQUES: AN INTEGRATIVE APPROACH TO PROMOTING & ASSESSING DEEP LEARNING PRE-CONFERENCE WORKSHOP WH2:

## CLAIRE MAJOR, U of ALABAMA

## LEARNING ASSESSMENT TECHNIQUES: AN INTEGRATIVE APPROACH TO PROMOTING & ASSESSING DEEP LEARNING

### **Resources: books**

- 1. "Classroom Assessment Techniques" a handbook for college teachers
- 2. "Collaborative Learning Techniques"
- 3. *"Student Engagement Techniques"* by Patricia Cross
- 4. *"Learning Assessment Techniques"* by Elizabeth Barkley & Claire Howell Major

WH2 continued: Individual instructor-oriented session

How do you document that student achieved outcomes?

Method of two CATS:



- a) 1 min paper: What did you learn?
- b) Muddiest point in the lecture: What was the muddiest point in the lecture?

1. Learning assessment is tied to the teaching; not separate

2. Should be seamless

3. Assessment should promote learning

4. It should improve learning as it assesses it

## LATs are organized using Fink's Significant Learning Taxonomy

	CATs vs.	LATs
-Method:	Indirect & dire	ect Direct
-Purpose:	Formative-	Summative-
Impro	ove teaching	Document learning
-Framework:	Bloom's	Fink's
-Examples:	Traditional	Blended
	On-site	Flipped Large lectures
-Uses of data:	Both Improve	teaching & learning
		Document effective
		teaching
		Data for assessment

# Learning Assessment Technique process is a three phase process:

- o Assessment Reasons
- o Implement Assessment
- o Respond to data



## ASSESSMENT *REASONS*-WHY TO ASSESS STUDENT?

- Determine state of student's knowledge
- Fix teaching problems
- Give feedback on progress of learning

   -in comparison to others
   -according to predetermined criteria
- Report to institutional &/or external stakeholders

Thinking about the question & reasons can affect your assessment

## **IMPLEMENT LAT: FIRST- SELECT LAT**

- How do you want student to be assessedlecture, seminar...?
- How complex an activity to be assessed?
- How to engage students-Use quick write? (Each LAT in Claire's book provides guidance for student engagement techniques)

## **RESPOND TO DATA**

## By answering the assessment question-Whose learning are you gauging? -Student's -Institution's By data analysis -Quantitative -Qualitative

## **EXAMPLES OF DATA ANALYSIS**

## Quantitative

- -Simple counts and tallies
- -Descriptive statistics
- -Frequency
- -Percentage
- -Mean
- -Median
- -Quartile



## WH2 continued: PHASE 3 EXAMPLES OF DATA ANALYSIS

## > Qualitative

-Key word analysis
-Frequent repetition of a term
-Usual use of word
-Thematic development
-Cross-case comparison



For Gen Ed- *standard way* is based on simple counts & tallies, & descriptive statistics: **An Excel file; Pie diagram** 

How many students met course expectations at 70%? How many did not? How many exceeded expectations?

## LAT cycle closes the loop: assess/evaluate/improve

- -Identify significant learning goals
- -Select the purpose
- -Implement the assessment
- -Get outcomes
- -Document & analyze results
- -Report to stakeholders

-Adjust the goals to improve learning (CS43: example of Melissa Wright, U of Buffalo) WH2 continued: **CONSIDERATIONS** 

-Faculty involvement in assessment integral/ resistance

- -Knowledge is messy & complicated; assessment oversimplifies it
- -Objectives & outcomes feel binary- <u>not a continuum</u> -Aiming for enduring learning
- -Learning assessment must be part of our teaching
- -Data are fresh, but when stored can be evidence
- -Use results for teaching/learning improvement
- -We should take agency in assessment of learning

## **POSTER SESSION**

GENERAL EDUCATION & ASSESSMENT: DESIGN THINKING FOR STUDENT LEARNING

#2; Energizing Faculty: Outcomes Assessment as a Wicked Problem-Hamline University; Caroline Hilk, Mike Reynolds, Andy Rundquist

 #3: Making Sense of Assessment in General Education: Data
 Collection, Management, Reporting- Southern Illinois University; Pat Manfredi

**#7: Now That We Have Data.....- Yavapai College**; Suzanne Waldenberger, Molly Beauchman

# 23: Critical Core: Extending the Skills of a General Education
 Beyond General Education Courses- Central Piedmont Community
 College; Terina Lathe

## Continued: POSTER SESSION on **ASSESSMENT**

#2; **Energizing Faculty**: Outcomes Assessment as a Wicked Problem-Hamline University; Caroline Hilk, Mike Reynolds, Andy Rundquist

- Faculty Workshop "Wicked Problem"- to sift through data & focus on student learning & faculty expertise in shaping for assessment
- Assessment organized as a faculty research project to engage faculty in closing the loop & improving SLOs
- Provided variety of data from 9 different sources; ex., NSSE 2015; AAC&U VALUE Project Summary of Results for Written Comm, Crit Think & Quantitative Literacy; Capstone Writing Assessment Report, & others
- ♦ Q: How can we turn from what we diagnose [in assessment] to specific plans of action to improve student learning?

## Continued: POSTER SESSION on **ASSESSMENT**

- ♦ Selected one case study= written communication
- ♦ Examine the evidence around one aspect= grammar/mechanics
- Developed diagnosis re "wicked" problems around student learning on campus via integrating multiple different data sources
- ♦ Asked for potential ways to address & solve the problem
- How the data suggested variety across different student constituencies and departments
- Workshop provided faculty with norming instruction
- Faculty received credit for participating in the workshop- names were provided to the Deans
- Food incentive
- Financial incentive- \$50/person

### #3: Making Sense of Assessment in General Education: Data

Collection, Management, Reporting- Southern Illinois University; Pat Manfredi

#### **GE Assessment Challenges:**

- ♦ Courses spread across disciplines
- ♦ Learning objectives interpreted differently
- ♦ Different methods of assessing activities in various courses
- ♦ Faculty do not like writing reports

### **Assessment Plans**

- $\diamond$  1. Instructors submit an assessment plan
- ♦ 2. 1 to 3- learning objectives selected to assess the course
- ♦ 3. Each objective assessed once or twice
- $\diamond$  4. Determine course **activities** to be used for the assessment
- ♦ 5. Explain the relationship between the assessed activities & selected learning objectives
- $\diamond$  6. Activities assessed using six-level scale

### #3: Making Sense of Assessment in General Education: Data

Collection, Management, Reporting- Southern Illinois University; Pat Manfredi

#### **Assessment Plans**

- Activities assessed using six-level scale: 5 through 1 &
   NE=assessment activity not completed
- Instructors have a latitude to use rubrics; assign points; assign percentages; use letter grades; MUST provide a conversion guide into six-level scale

#### **Assessment Scores**

- Instructors submit assessment scores in Excel workbook
- Some instructors use D2L= Learning Management System (assess directly within the course shells)
- Spreadsheets contain students' ID numbers

#### #3: <u>Making Sense of Assessment in General Education</u>: Data Collection, Management, Reporting- Southern Illinois University; Pat Manfredi

### Student Information System (=BANNER) data

At the end of each semester, the Director of U Core Curriculum gets a spreadsheet with final grades, demographic information, student IDs and names

#### **Program level reports prepared in Excel**

- Assessment data combined with Student Information System data (two Excel files)
- Assessment results converted to a six-level scale
- Pre- & Post-Assessment comparison: More Proficient, Less Proficient, or Same Proficiency (separate column)
- Use Power Pivot
- Create Tables for each learning objective showing numbers and percentage performance at predefined proficiency levels
- Create Tables & Charts comparing performance at each level across learning objectives & academic terms
- Use "Slicer" button to select results for student subgroups: females, Hispanic, etc

**#7: Now That We Have Data....-** Yavapai College; Suzanne Waldenberger, Molly Beauchman

Assessment of student attainment of **10** General Education Core Curricular Outcomes (GECCO) at **2 data points**:

-in General Education course &

-in a course required in AAS degree program

Assessment process focuses on rubrics, disaggregation of data,
 & feedback loops

- 1. Surveys of faculty & staff
- 2. Identified Gen Ed categories

3. Identified learning outcomes for each category (during Convocation Week, & Spring Semester- faculty & staff)

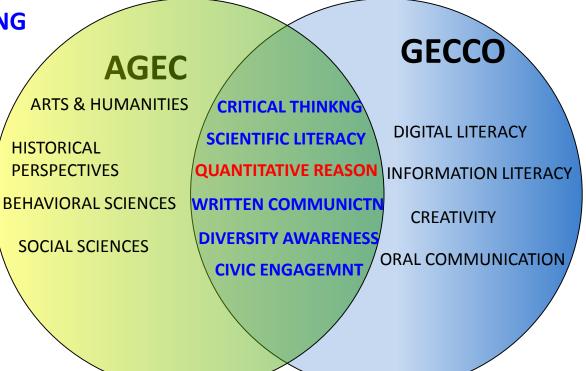
4 14-categories assessed on a staggered schedule in a 5-year cycle; Each year, 2 GECCO and 1 AGEC are added;

## **#7: Now That We Have Data....- Yavapai College**; Suzanne Waldenberger, Molly Beauchman

#### CATEGORIES:

WRITTEN COMMUNICATION **ORAL COMMUNICATION HISTORICAL PERSPECTIVES QUANTITATIVE REASONING SCIENTIFIC REASONING BEHAVIORAL SCIENCES** CREATIVITY **CRITICAL THINKING ARTS & HUMANITIES CIVIC ENGAGEMENT DIVERSITY AWARENESS** SOCIAL SCIENCES **DIGITAL LITERACY INFORMATION LITERACY** 

## GEN ED @ YC



#7: Now That We Have Data.....- Yavapai College; Suzanne Waldenberger, Molly Beauchman

### QUANTITATIVE LITERACY/NUMERACY/QUANTITATIVE RESONING=

- "habit of mind", competency & comfort in working with numerical data SLOs:
  - **1**. USE APPROPRIATE MATHEMATICAL LANGUAGE & OPERATIONS
  - 2. APPLY MATHEMATICAL CONCEPTS TO "REAL WORLD" SITUATIONS
  - **3**. CREATE, ANALYZE & INTERPRET VARIOUS REPRESENTATIONS OF DATA
  - **4**. USE A VARIETY OF PROBLEM SOLVING STRATEGIES & EVALUATE THEIR APPROPRIETNESS

#### DATA COLLECTED YEAR 1 & 2

- ♦ DATA COLLECTED FROM ALL MATH COURSES & ONE COURSE IN EACH OF 27 AAS DEGREES
- $\diamond\,$  Assessments imbeded in courses
- ♦ SCORES BASED ON 4-POINT DESCRIPTIVE RUBRIC:
  - ♦ ADVANCED PROFICIENCY (4)
  - $\diamond$  PROFICIENCY (3)
  - ♦ DEVELOPING PROFICIENCY (2)
  - ♦ LIMITED/NO PROFICIENCY (1)

#7: Now That We Have Data.....- Yavapai College; Suzanne Waldenberger, Molly Beauchman

#### DATA COLLECTION PROCES

- ♦ INSTRUCTOR SUBMITS DATA FOR 10-RANDOMLY SELECTED STUDENTS IN EACH COURSE USING BANNER (REGISTRATION SYSYTEM)
- ♦ GEN ED COURSES SUBMIT SCORES FOR EACH OF 4 SLOS
- ♦ AAS PROGRAM COURSES MAY SELECT "NA"=NOT APPLICABLE FOR AN OUTCOME

#### **3 YEAR RETURN DATA**

- ♦ ASSESSMENT DAY WORKSHOP IN SEPTEMBER
- ♦ SESSIONS SCHEDULED AROUND EACH GEN ED CATEGORY FOR FACULTY WHO SUBMITTED DATA
- ♦ DATA IN FORMAT OF EXCELL FILES & BAR GRAPHS & PIE GRAPHS
- ♦ REPORT COMPARES GEN ED & AAS PROGRAM OUTCOMES

- #: 23 Critical Core: Extending the Skills of a General Education Beyond General Education Courses- Terina Lathe & Shantell Strickland-Davis; Central Piedmont Community College
  - SLOs:
  - Communication
  - Critical thinking
  - Personal Growth & Cultural Literacy
  - Information Technology & Quantitative Literacy
  - Assessed in all curriculum courses, in all associate degree programs
  - > More than 150 faculty, staff & administrative members
  - Use of standards: Degree Qualification Profile, Liberal Education & America's Promise, & AAC&U Value Rubrics & others
  - CRITICAL CORE initiative developed a plan for student's academic, professional & personal progress to meet requirements of ever-evolving globalized workforce

#: 23 Critical Core: Extending the Skills of a General Education Beyond General Education Courses- Terina Lathe & Shantell Strickland-Davis; Central Piedmont Community College

Preferred 21<sup>st</sup> century skills/abilities according to employers:

- Work well in diverse teams- Personal Growth & Cultural Literacy
- Understand science & technology & use in real-world- Information Technology & Quantitative Literacy
- Write & speak well- Communication
- Think clearly about complex problems- Critical thinking
- Analyze a problem & develop solution- Critical thinking
- Understand global context in which work is now done- Personal Growth & Cultural Literacy
- Be creative & innovative in solving problems- Information Technology & Quantitative Literacy
- Apply knowledge & skills in new settings- Critical thinking
- Understand numbers & statistics- Information Technology & Quantitative Literacy
- Strong sense of ethics & integrity- Personal Growth & Cultural Literacy

CS4: Moving Assessment Forward Through Intentional Planning

Tara Rose Director of Assessment University of Kentucky



Multi State Collaborative Assessment

CS4: Moving Assessment Forward Through Intentional Planning

- MSC is a national initiative to assess students' essential knowledge & skills using: VALUE rubrics course imbedded assignments actual student coursework used
- First year: 9 states & 76 institutions
- Third year: 13 states involved
- o SLOs
  - Quantitative Literacy QL
  - Critical Thinking CT
  - Written Communication WC
  - Civic Engagement CE

CS4: Moving Assessment Forward Through Intentional Planning

## MAKING MEANING FOR FACULTY:

- INTENTIONAL PLANNING
- CAMPUS LEVEL ARCHIVES FOR DATA COMPARISONS
- FACULTY INCLUSION
- NORMING & SCORING

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### MAKING MEANING FOR FACULTY:

## • INTENTIONAL PLANNING ON MAY 6

- Vision
- Recruitment
- Time commitment
- Timing of internal/external scoring
- Flexibility on commitment with students= students automatically enrolled (no IRB form); need to ask to be dropped out; faculty fill up the paperwork
- Flexibility in artifact collection- 3 options: download assignments, thumb drive, hard copies

CS4: Moving Assessment Forward Through Intentional Planning

### MAKING MEANING FOR FACULTY:

- CAMPUS LEVEL ARCHIVES FOR DATA COMPARISONS
  - Use 4 SLOs to measure students' performance in:
    - Quantitative Literacy QL
    - Written Communication WC
    - Critical Thinking CT
    - Civic Engagement CE
  - If learning meets expectations as a whole; & in comparison to MSC in 4 year & 2 year institutions
  - If learning meets expectations at course level
  - In the future: measure growth by comparing results of freshman vs. seniors

CS4: Moving Assessment Forward Through Intentional Planning

### MAKING MEANING FOR FACULTY:

### • FACULTY INCLUSION

- Minimal engagement= one assignment only
- Deep engagement= norming sessions & scoring
- > A
- > B
- ≻ C
- > D

CS4: Moving Assessment Forward Through Intentional Planning

### **MAKING MEANING FOR FACULTY**:

### O NORMING & SCORING



- Faculty paid for norming & scoring \$250/day
- Rubric norming training: 1 d internal; 3-4 d out of state
- Read & score assignments: 75-100/2 months external; 10-40 over 6 hrs internal
- Use of technology
- > Opportunity to train a member
- Artifact for MSC= written assignment at least 3 pages; must align to VALUE rubric; for course assessment- different rubric

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### MAKING MEANING FOR FACULTY:

### **DATA REPORTING, FEEDBACK & CONNECTION**

University-level report

- Overall MSC scoring
- Overall UK scoring

Instructor-level report

- External rubric scores for students' assignments
- Internal scores UK vs. overall course
- Mean scores
- Others

## Raw data file

• Gender, race, age, credits earned, major, Pell eligibility.....

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### **RESULTS OF ASSESSMENT:**

- Civic Engagement: external 2.24/2.16 internal
- Critical Thinking: external 2.22/1.81 internal Internal UK project vs. entire course score in CT
  - Explanation of issues: 2.38/3.17
  - Evidence 2.28/2.67
  - Influence of context & assumptions 1.19/2.58
  - Student's position 2.19/2.92
  - Conclusions 2.18/2.75

## • Quantitative Literacy:

- Interpretation 3.53/3.34
- Representation 3.55/3.26
- Calculation 3.44/3.23
- Application 3.28/3.02
- Assumptions 2.72/2.79
- Communication 3.53/3.26

INTERNAL SCORES WERE LOWER THAN EXTERNAL= INTERNAL SCORERS HARDER ON STUDENTS

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#### **RESULTS OF ASSESSMENT:**

#### • Written Communication: % by score

- Score 4 39% externally scored
- Score 3 42%
- Score 2 18%
- Score 1 1%

## Summary: MSC BY NUMBERS

- $\diamond$  4 SLOs
- ♦ 30 faculty participated
- ♦ 26 courses assessed
- ♦ 39 faculty scorers
- ♦ 20 disciplines
- ♦ 517 senior assignments (project) VALUE RUBRIC

ALL ASSESSMENT INITIATIVES USED DIFFERENT TOOLS:

USE THE SAME TOOLS: AQUA PLATFORM & VALUE RUBRIC

CS4: Moving Assessment Forward Through Intentional Planning

## TASKSTREAM AQUA BY COURTNEY PEAGLER

- 1. AQUA= STREAMLINED DIRECT ASSESSMENT PLATFORM
- 2. EASY TO USE; FOCUSES ON OUTCOMES
- 3. CAN UPLOAD ASSIGNMENTS
- 4. STREAMLINED FACULTY SCORING
- 5. REPORTS: CLEAN DISPLAY- FOX & WHISPER; FILTERS TO USE DEMOGRAPHICS; SCORING & ANALYSIS IN REAL TIME

#### 6. ADVANTAGES:

- 1. Multiple files/student's ID
- 2. Ability to define project's scope
- 3. Sample of double scoring
- 4. Ease of scoring
- 5. Track evaluator activity
- 6. Assignment of scorers
- 7. Rubric creation
- 8. Filtering by demographics
- 9. Norming

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## TASKSTREAM AQUA BY COURTNEY PEAGLER

#### **2. ENHANCEMENTS**

- Specificity in AQUA files
- Organization of projects
- Inability to delete assignment after artifacts are submitted
- o Uploading refresh
- o Inter-rater reliability
- o Norming

# <u>Suggestion</u>: Invite Taskstream representative to discus AQUA

# CS10: Ensuring Quality Assessment in General Education: Validity, Reliability & Fairness

# DAVE MILLER University of Florida



## Multi State Collaborative Assessment

#### **CONCURRENT SESSIONS- Dave Miller**

## ASSESSMENT BEST PRACTICES EVOLVED FROM "CLOSING THE LOOP"

- 1. Continuous improvement cycle
- 2. Faculty driven
- 3. Sustainable process
- 4. Direct & indirect measures of assessment
- 5. Validity, reliability & fairness

**CONCURRENT SESSIONS-** Dave Miller

### **"THE STANDARDS"**

#### STANDARDS FOR EDUCATIONAL & PSYCHOLOGICAL TESTING 2014

## VALIDITY

The degree to which evidence & theory support the interpretations of the assessments...most fundamental consideration (p.11)

### RELIABILITY

Consistency of scores across replications of a testing procedure...always important (p.33)

#### FAIRNESS

Fundamental issue that tests are fair to all individuals

## **MULTI STATE COLLABORATIVE MSC**

- $\diamond$  92 institutions
- ♦ 288 faculty using VALUE rubrics
- VALUE embraces the variables that other assessment approaches control or eliminate in their consideration of student learning
- ♦ Scoring 4, 3, 2, 1, 0
- The approach to sampling was to raise up the inherent diversity on many levels-race, ethnicity, courses, credit levels, etc...., not to wash it out!
- ♦ Scorers had training for norming- faculty development

CONCURRENT SESSIONS CS30: Excellence in Assessment Designations: Lessons from the Field

Natasha Jankowski et al. Associate Director NILOA University of Illinois



NILOA= National Institute for Learning Outcomes Assessment

CS30: Excellence in Assessment Designations: Lessons from the Field

#### EIAD=

- National recognition program for assessment leaders
- Evaluation based on NILOA transparency framework
- Focuses on campus-wide assessment
  - i. Campus level
  - ii. College level
  - iii. Program level
  - iv. Course level assessments

There are variety of roads to conduct assessmenthighlight the difference!

#### CONCURRENT SESSIONS CS30: Excellence in Assessment Designations: Lessons from the Field

#### **EIA**= SEVERAL UNIVERSITIES OBTAINED THE DESIGNATION

#### MOUNT ST. JOSEPH UNIVERSITY; 2,200 students; MARY KAY

#### SELF STUDY RESULTS: USED 6 SLOS:

- ➤Communication
- ➤Critical Thinking
- ➤ Ethics
- ➤Cultural Competence
- ➢Social Responsibility
- ➢Integrative Learning



- Identified distinctive profile of strengths & growth opportunities (in COMMUNICATION)
- Revised Core Curriculum in 2014
- Course-embedded assessment- third party raters- assessment at different points. RATERS very important!
- VALUE rubrics
- 3 day assessment- faculty paid \$100 & food

CONCURRENT SESSIONS CS30: Excellence in Assessment Designations: Lessons from the Field

**EIA**= SEVERAL UNIVERSITIES OBTAINED THE DESIGNATION

KANSAS STATE UNIVERSITY; 24,000 students; FREDERICK BURRACK

- ♦ STUDENTS SEE VALUE IN LEARNING & DO LEARNING
- ♦ STUDENT LEARNING ASSESSED THROUGH OUTCOMES THEY SET UP
- ♦ PEER REVIEWERS PROVIDE FEEDBACK
- $\diamond$  5 SLOs:
  - $\diamond$  Knowledge
  - ♦ Critical Thinking
  - ♦ Communication
  - $\diamond$  Diversity
  - $\diamond$  Integrity
- SUGGESTION: INVITE F.B. TO UF!



CS30: Excellence in Assessment Designations: Lessons from the Field

#### **EIA**= SEVERAL UNIVERSITIES OBTAINED THE DESIGNATION

#### **GENERAL EDUCATION:**

To what extend students learn within 8 areas they specified?

- Empirical & quantitative reasoning
- Human diversity
- Physical sciences
- Aesthetic interpretation
- Social sciences
- Historical perspective
- Global issues & perspective
- Ethical reasoning & responsibility ASSESSMENT PROCESS IS PEER REVIEWED

CONCURRENT SESSIONS CS30: Excellence in Assessment Designations: Lessons from the Field

#### **EIA**= SEVERAL UNIVERSITIES OBTAINED THE DESIGNATION

- Data collected at student level, not program level
- Data dis-aggregated by demographic, survey, outcome, or other factors
- Office of Assessment>TWEETER feed send out once a week about student learning data
- Value of different aspects of data
- Online interactive dashboards
- Combining direct data with indirect data> information about survey results by year, demographics, gender, etc
- Program improvement
- The assessment tool kit is autonomy & authenticity!
- DO NOT GET EXTERNAL ASSESSORS; TRUST THY OWN FACULTY!

# CONCURRENT SESSIONS CS40: IT TAKES A VILLAGE: KEY STRATEGIES FOR ENGAGING MORE FACULTY IN ASSESSMENT

Jillian Kinzie et al. Associate Director NSSE Institute University of Indiana <u>SUGGESTION</u>: INVITE TO UF



# CONCURRENT SESSIONS CS40: IT TAKES A VILLAGE: KEY STRATEGIES FOR ENGAGING MORE FACULTY IN ASSESSMENT

Jillian Kinzie et al.

SHARES HER OWN POWER POINT PRESENTATION WITH US



