Better Together
Highly Effective Practices for Engaged Learning

Terrel L. Rhodes
September 16, 2016
Duquesne University
A 21st Century Liberal Education Has Three Main Aims:

- Training the mind
- Developing personal character
- Preparing for civic life
A Twenty-First-Century Liberal Education

## Changing Nature of the Degree

<table>
<thead>
<tr>
<th>FROM</th>
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<tbody>
<tr>
<td>• Credits tied to seat time</td>
<td>• Demonstrated proficiencies, Essential Learning Outcomes</td>
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<tr>
<td>• Major and GE</td>
<td>• Evaluated through actual work, projects over time</td>
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<td>• Grades</td>
<td>• Intentional educational pathways; integrative learning</td>
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<tr>
<td>• Knowledge Transmission</td>
<td>• Meaning-making, sense-making, problem solving</td>
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<tr>
<td>• Limited Access to Engaged Learning</td>
<td>• High Impact Practices for all, everywhere</td>
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Emerging Consensus on Quality Among Faculty, Educational Professionals and Employers
AAC&U Survey of Member Institutions’ CAOs Hart Research Report

Recent Trends in General Education Design, Learning Outcomes, and Teaching Approaches
(Released January 2016)
85% of institutions have a common set of intended learning outcomes for all undergraduates.

Yet, only 9% report that almost all of their students understand those intended learning outcomes.

Directions: Brainstorm as many hypotheses/explanations/related questions as possible that would help us “unpack” these data related to student learning.
A Working Hypothesis…
Accountability
** Middle States is coming!!**

Teaching, Learning, & Assessment
@ institutional scale, language privileges accountability, reducing assessment to mechanical process
Proportions of Member Institutions that Assess Learning Outcomes in Departments

Does your institution assess learning outcomes across the curriculum? If it does, are students’ cumulative learning outcomes assessed in departments?

2008

- All/Most departments: 56% assess learning outcomes
- A few/No departments: 16% assess learning outcomes
- Planning to do so: 28%

2015

- All/Most departments: 77% assess learning outcomes
- A few/No departments: 10%
- Planning to: 24%

85% assess within departments in 2008
68% assess within departments in 2015

13% planning to not assess learning outcomes in 2015
Assessing Cumulative Learning Outcomes in General Education

Does your institution assess cumulative learning outcomes in general education across multiple courses?

November – December 2008

- Assess learning outcomes: 52%
- Do not assess learning outcomes: 48%

Planning to do so: 42%

July – October 2015

- Assess learning outcomes: 67%
- Do not assess learning outcomes: 33%

Planning to do so: 25%
Implications for Action
My Fantasy…
So how do we do this?
By design.
Effective teaching is not magic, it is by design.
What do we need to do?

• Reframe assessment as a pedagogical innovation.
• Leverage the learning sciences.
• Move beyond the mean.
• Visualize to make change.
• Model the learning.
However, research highlights the importance of faculty.
Engaged at work = Great Jobs and Great Lives:

• Thirty-nine percent of college graduates are engaged at work.

• 54% percent are thriving in purpose well-being; 49% are thriving in social well-being, 47% in community well-being, 42% in financial well-being, and 35% in physical well-being. Only 11% of college graduates are thriving in all five elements of well-being. More than one in six graduates are not thriving in any of the elements.

• As many graduates from the Top 100 U.S. News & World Report schools are engaged in their work as graduates from other institutions.

• There were no differences in employee engagement by race or ethnicity, or by whether the graduate had been the first in the family to attend college.

(Gallup Purdue Index Report 2014)
Faculty & the Purdue Gallup Index

Thrive at Work:

2.2x Higher if … I had a mentor who encouraged me to pursue my goals and dreams.

1.9x Higher if … My professors at [College] cared about me as a person.

2.0x Higher if … I had at least one professor at [College] who made me excited about learning.

2.3x Higher if … graduates experience all three
What’s a sane, reasonable educator to do?

▪ Go back to what’s really important
  – “TLA”
  – Teaching
  – Learning
  – Assessment

▪ Identify best practices & resources
▪ Share and collaborate
Teaching

▪ What is the purpose of college teaching?
  – Long-Term Retention & Transfer of Essential Learning Outcomes

▪ What YOU do as an instructor, however, matters far less than what you ask the LEARNERS to do.

(Halpern & Hakel, 2003)
Learning is...

- A process, not a product.
- A change in knowledge, beliefs, behaviors, or attitudes. This change unfolds over time.
- Not something done to us, it is something we DO ourselves.
- The direct result of how we interpret and respond to our experiences – conscious and unconscious, past and present.

(Ambrose et al., 2010)
What we process, we learn.
Strategies + Processing = Learning

What we do instructionally, both in-class as well as the assignments we design for students to complete

What the students do when engaging in class or completing assignments

Change in knowledge, beliefs, behaviors, or attitudes that unfolds over time

All the pieces must ALIGN appropriately!
Curriculum Engagement and Design
Learning Outcomes
Approach: Step 1

- Rather than create PATHway SLOs, program faculty can decide to use existing course SLOs.
- Courses have been assessed, course-by-course, and from the GE program lens, for years.
From University of Connecticut Assessment Office “Curricular/Co-Curricular Mapping Primer”

http://www.assessment.uconn.edu/primer/mapping1.html
Curricular Map = Visual Representation of a Guided Learning Pathway
Step 2. Illuminating the alignment between outcomes and curriculum:

Using a curriculum map

A visual representation, usually in the form of a table or matrix, that shows the alignment of assignment or course with program learning outcomes.
# Classes in the Social Justice Path

<table>
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<th>Course/Instructor</th>
<th>Courses</th>
<th>SLO 1</th>
<th>SLO 2</th>
<th>SLO 3</th>
<th>SLO 4</th>
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Approach to Course Mapping

Faculty map one or more course SLO to one or more PATHway SLO:

GIS/Geog. 31: Introduction to GIS

Relevant Path SLOs:

• Students will demonstrate knowledge of key concepts related to the study of sustainability, including planetary carrying capacity, climate change, and ecological footprint.

• Students will be able to explain how sustainability relates to their lives and their values, and how their actions impact issues of sustainability at the individual, and at local, regional, and global levels.

Course SLOs:

• Describe the fundamentals of cartographic design, including the use of appropriate coordinate systems, projection, scale and geographically referenced data.

• Compare/contrast vector and raster data models to determine which is best suited to a particular GIS application.
Step 3. Design or identify meaningful, embedded ways of gathering evidence

Signature Assignments

• An assignment embedded in a course and used for course work, but also

• An assignment designed and designated for assessment of particular student learning outcomes

• May be used across courses, programs, colleges
Introduction to Microeconomic Analysis

Article Analysis #3:

Topics: Price Elasticity of Demand, Tax Revenue, Burden of Taxation, Supply and Demand Analysis, Economic Efficiency, Normative Economics, Positive Economics, Equity or Fairness

Examine the microeconomic issues raised in the New York Times Article “States Look at Tobacco to Balance the Budget,” by Shaila Dewan, March 20, 2009 (http://www.nytimes.com/2009/03/21/us/21tobacco.html?ref=us). Your article analysis should address the following:

A. Why were States considering increases in the tax on tobacco as a means by which to increase the amount of tax revenue collected? What assumption(s) underlie this policy option for increasing tax revenue?

B. Calculate the price elasticity of demand for tobacco based on the information provided in the article. Based upon your calculation, what will be the impact of an increase in the sales tax on tobacco on total tax revenue?

C. Who do you hypothesize, based upon your understanding of elasticity and tax burdens, will incur a greater burden of the increased tax on cigarettes, consumers or producers?
   - Indicate any assumptions that underlie your analysis.
   - Represent the increase in the sales tax in a supply and demand diagram indicating impact on equilibrium price and quantity.
   - Indicate the relative share of the tax paid by producers and consumers.

D. What are the normative economic issues raised in this article?
Main points

• Value on student work and voice
• Emphasis on using assessment as a means to give student a sense of their capacity
• Most importantly, assessment that serves the need of student learning
(Re)Design accordingly.
Guided Learning Pathways for Quality & Inclusive Excellence

- Sequence Programs, Courses, and Well-Designed Assignments to Foster Essential Learning Outcomes
  - Map ELOs across entire program, @ progressively more challenging levels from initial courses to final studies
  - Connect curriculum visibly with the wider world and students’ own questions, while providing clarity, direction and progress points or “markers” for students
  - Provide multiple on-ramps for students in transition
Curricular Mapping = An On-Going Process
Curricular Map Purpose:

▪ Students should know where they are going, why they are going there, and what is required of them to get there.

▪ Improves student achievement supported by providing road map for developing a coherent educational journey guided by professionals collaborating to bring about greater student success in being career and citizen ready upon graduation.

~Based on OK Dept of Ed Statements
What do you need? What do you do?

- Define outcomes
- Identify curricular and co-curricular experiences that address them
- Courses and experiences/events coded according to learning outcomes they address
  - I–Students introduced to outcome
  - P–Students afforded opportunities to practice
  - R–Students receive reinforcement of practiced
  - M–Students demonstrate level of mastery
- Indicate if assessed
<table>
<thead>
<tr>
<th>Content</th>
<th>Introductory Course</th>
<th>Research Methods</th>
<th>Advanced Content Course A</th>
<th>Laboratory / Practicum Course</th>
<th>Advanced Content Course B</th>
<th>Advanced Content Course C</th>
<th>Advanced Content Course D</th>
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<td>Mastery / Assessed</td>
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Center for University Teaching, Learning, and Assessment
http://uwf.edu/cutla/
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What do you need? What do you do?
High-Impact Practices

★ First-Year Seminars and Experiences
★ Common Intellectual Experiences
★ Learning Communities
★ Writing-Intensive Courses
★ Collaborative Assignments and Projects
★ Undergraduate Research
★ Diversity/Global Learning
★ Service Learning, Community-Based Learning
★ Internships
★ Capstone Courses and Projects
★ ePortfolios
Average % Increase in Outcomes w/ Participation in Multiple HIPs Vs. No Participation (by Race)

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<td>White</td>
<td>12%</td>
<td>25%</td>
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Average % Increase in Outcomes w/ Participation in Multiple HIPs Vs. No Participation (by First-Generation & Transfer Status)
What Could It Look Like All Together?
Our Work
Assignment and High-Impact Practice
Scaffolding Using the Problem-Solving VALUE Rubric

Define Problem
- Ability to construct clear & insightful problem statement

Identify Strategies
- Identify multiple approaches for solving problem that apply in specific context

Propose Solutions/Hypothesis
- Propose one or more solutions/hypotheses that show deep comprehension; sensitive to contextual factors

Evaluate Potential Solutions
- Evaluation of solutions is deep and elegant, including history, review of logic and reasoning, feasibility, and weighing of impacts

Implement Solutions
- Implements solution in manner that addresses thoroughly and deeply multiple contextual factors of the problem

Evaluate Outcomes
- Reviews results relative to the problem defined with thorough specific considerations

First-year Seminar
- Service-Learning
- Inquiry Project
- Service-Learning
- Capstone
Signature Work

In Signature Work, students integrate, apply, demonstrate, reflect on, and communicate their cumulative learning in a project or activity lasting at least one semester, in which they grapple with complex questions that matter, and which require input from multiple disciplines and perspectives.
Signature Work Matters Because

Integrative, applied, and reflective learning are positively associated with student growth in
Critical thinking skills
Moral reasoning ability
Inclination toward lifelong learning

Pascarella and Blaich, “Lessons from the Wabash National Study of Liberal Arts Education,” 2013
Signature Work Matters Because . . .

• We need graduates with the *capacity and commitment* to address complex problems in their personal and civic lives, and in their workplaces.

• Students accomplish signature work through *guided learning pathway* curricula and co-curricular experiences, in which they can develop and connect their knowledge and skills across broad and specialized study, and over time.
Design Thinking
A Guided Curricular Pathway

**FIRST-YEAR INQUIRY and COLLEGE WRITING**

**CREATIVE & ARTISTIC INQUIRY**

**CULTURAL/HISTORICAL INTERPRETATION**

**SCIENCE EXPLORATIONS**

**SOCIO-ECONOMIC ANALYSIS**

**CROSS-CULTURAL and GLOBAL STUDIES**

**QUANTITATIVE REASONING**

**E-PORTFOLIO SHOWS STUDENT’S**

- Diversity and global learning courses
- High-Impact Practices (HIPs)
- Courses related to major field

- Writing intensive
- Intensive in quantitative analysis
- Both writing intensive and intensive in quantitative analysis

**THEMATIC COURSE CLUSTERS**
Three or more courses across multiple disciplines, including the major field. A student examines questions important to him/her and to society.

**SECOND-YEAR INQUIRY SEMINAR**
Cross-disciplinary questions and student signature project

**SIGNATURE WORK**
A student’s best work, which can take many forms (e.g., capstone, internship, field work, research; community-based research)

**PROBLEM-BASED LEARNING AND PROFICIENCIES OVER TIME**

*For students in two-year degree programs, this work is Signature Work. For students in four-year degree programs, it is preparatory for Signature Work. Transfer students may take the second-year inquiry seminar at the original institution or following transfer.*