Liberal Education and America’s Promise: Why Focus on Signature Assignments Now

Indiana Signature Assignments Workshop
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The Big Picture

“The world in which today’s students will make choices and compose lives is one of disruption rather than certainty, and of interdependence rather than insularity.”

College Learning for the New Global Century
(AAC&U 2007)
Liberal Education & America’s Promise

Excellence for Everyone as a Nation Goes to College

“A COLLABORATION BETWEEN EDUCATORS, STUDENTS, POLICYMAKERS, AND BUSINESS AND COMMUNITY LEADERS”
LEAP in 2014

Bringing Democracy and Economic Opportunity Together – Through the Power and Value of A Horizon-Expanding, Innovative, and Transformative Liberal Education
To Ensure Our Democratic and Economic Future, Students Need

- The Capacity to Envision
- Analytical Skills to Test Alternatives
- The Desire and Ability to Solve Problems Across Difference
- Wisdom to Consider Larger Contexts and Consequences
- Commitment to Devote Time and Talent to the Making of a Better World
Narrow Learning is Not Enough
The LEAP Essential Learning Outcomes

- **Knowledge of Human Cultures and the Physical and Natural World**
  *Focused* on engagement with big questions, enduring and contemporary

- **Intellectual and Practical Skills**
  *Practiced* extensively across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance

- **Personal and Social Responsibility**
  *Anchored* through active involvement with diverse communities and real-world challenges

- **Integrative and Applied Learning**
  *Demonstrated* through the application of knowledge, skills, and responsibilities to new settings and complex problems
Our curricula—including the work we assign students to do across the curricula—must build their capacity to succeed and flourish in a world of complexity, change, and interdependence. We need to work together on new designs for assignments that accomplish this goal.
How Are Workplace Demands Changing?

“How human work will increasingly shift toward two kinds of tasks: solving problems for which standard operating procedures do not currently exist, and working with new information—acquiring it, making sense of it, communicating it to others….today, work that consists of following clearly specified directions is increasingly being carried out by computers and workers in lower-wage countries. The remaining jobs that pay enough to support families require a deeper level of knowledge and the skills to apply it.”

The Changing Workplace

Figure 3: Index of Changing Work Tasks in the U.S. Economy 1960-2009

- Red: Working with New Information
- Blue: Solving Unstructured Problems
- Orange: Routine Manual Tasks
- Yellow: Non-Routine Manual Tasks
- Green: Routine Cognitive Tasks

Employers Focus on Capacity for Learning/Problem-Solving

“The premium on lifelong learning just keeps going up…the world is changing even faster. Learning how to love learning is becoming more important – and the importance of static knowledge is going down….Students have to have knowledge and know how to use it—know AND do. All learning should revolve around projects.”

David Rattray, Senior Director, Education & Workforce Development, LA Chamber of Commerce
National Surveys of Employers on College Learning and Graduates’ Work Readiness

AAC&U commissioned Hart Research Associates (in 2006, 2007, 2009, and 2013) to interview employers (C-level suite executives and, in 2009 additional human resource professionals) whose companies report that hiring relatively large numbers of college graduates


Raising the Bar: Employers’ Views on College Learning in the Wake of the Economic Downturn (AAC&U, 2010)

It Takes More Than a Major: Employer Priorities for College Learning and Student Success (AAC&U, 2013)

See: www.aacu.org/leap/public_opinion_research
It Takes More Than A Major: Employer Priorities for College Learning and Student Success

Key findings from survey among 318 employers Conducted January 9 – 13, 2013 for

Association of American Colleges and Universities
Our company puts a priority on hiring people with the intellectual and interpersonal skills that will help them contribute to innovation in the workplace.

Candidates’ demonstrated capacity to think critically, communicate clearly, & solve complex problems is more important than their undergraduate major.

Our company is asking employees to take on more responsibilities and to use a broader set of skills than in the past.

Innovation is essential to our company/organization’s continued success.

The challenges employees face within our company are more complex today than they were in the past.
Employers value cross-cutting skills and support liberal arts, diversity, and civic learning

- **Ethical judgment and integrity**: 76% very important, 96% fairly important
- **Comfortable working with colleagues, customers, and/or clients from diverse cultural backgrounds**: 63% very important, 96% fairly important
- **Demonstrated capacity for professional development and continued new learning**: 61% very important, 94% fairly important
- **Interest in giving back to the communities in which our company is located or those that it serves**: 26% very important, 71% fairly important
- **Knowledge of global cultures, histories, values, religions, and social systems**: 16% very important, 55% fairly important
Key Capabilities Open the Door for Career Success and Earnings

“Irrespective of college major or institutional selectivity, what matters to career success is students’ development of a broad set of cross-cutting capacities…”

Anthony Carnevale, Georgetown University Center on Education and the Workforce
Reason #2

To ensure that we are setting up students for long-term professional success, all students need direct experience—across the curriculum—probing and tackling unscripted problems. If they are invested in the problems, they are more likely to develop the problem-solving capacities they need.
Employers endorse research, applied learning, and project-based curricula

**Percentage of Employers Who Say Practice Will Help Students A Lot or A Fair Amount to Succeed in the Workplace**

<table>
<thead>
<tr>
<th>Practice</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Research and Evidence-Based Analysis</td>
<td>83%</td>
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<tr>
<td>Expecting students to develop the skills to research questions in their field and develop evidence-based analyses</td>
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<tr>
<td><strong>Senior Projects</strong></td>
<td>79%</td>
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<tr>
<td>Students complete significant project before graduation, demonstrating knowledge in major &amp; analytical, problem-solving, communication skills</td>
<td></td>
</tr>
<tr>
<td><strong>Internships and Community-Based Work</strong></td>
<td>78%</td>
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<tr>
<td>Students complete internship or community-based field project to connect classroom learning with real-world experiences</td>
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<tr>
<td><strong>Collaborative Research</strong></td>
<td>74%</td>
</tr>
<tr>
<td>Expecting students to develop the skills to conduct research collaboratively with their peers</td>
<td></td>
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It Takes More Than a Major and More Than a Random Collection of Courses

“Beware. Your degree is not a proxy for your ability to do any job. The world only cares about — and pays off on — **what you can do with what you know** (and it doesn’t care how you learned it). And in an age when innovation is increasingly a group endeavor, it also cares about a lot of soft skills — leadership, humility, collaboration, adaptability and loving to learn and re-learn. This will be true no matter where you go to work.”

*Lazslo Bock, senior VP of people operations, Google (quoted in NY Times 2/23, 2004)*
How Do We Get There? And How Will We Know If We’ve Succeeded?

- Re-map the curriculum—more intentional designs; more cross-disciplinary work
- Connect general education requirements/skill-building with upper-division project-based curricula in majors
- Require every student to do problem-based work and evidence-based research
- Embed real-world application at multiple levels
Implications for Disciplines, Assignments, and Assessments,

• Entire educational experience—through scaffolded curricula, assignments, and assessments—should build capacity to grapple with big questions and unscripted problems

• Disciplinary inquiry still foundational, but students need to connect disciplines to other perspectives and understand limitations of disciplines

• Students’ portfolios can organize their own documentation and development of key capacities
How Might This Work in the Real World?

- Kentucky Quality Collaboratives Project (connected to new General Education outcomes-based transfer policy)
- Gen Ed Transfer organized around broad SLOs
- Professional Learning Communities
- Eg. Math, Developmental Math, and Statistics faculty worked together across system to design and scaffold assignments—and coordinate assessments
KY Example: Quantitative Reasoning

1. Interpret information in mathematical or statistical forms. (LEAP B)*
2. Illustrate and communicate mathematical and/or statistical information symbolically, visually, and/or numerically. (LEAP A, B and C)*
3. Determine when computations are needed and to execute the appropriate computations. (LEAP B)*
4. Apply an appropriate model to the problem to be solved (LEAP A, C and D)*
5. Make inferences, evaluate assumptions, and assess limitations in estimation modeling and/or statistical analysis. (LEAP B, C and D)*

*QR courses should meet all five SLOs.
Assignment Scaffold

Service Learning Project
✓ All dimensions of rubric
  o Faculty team plus students, community partners

Math Acceleration Exercise
✓ Symbolic communication & computation
  o Faculty of record

Inquiry Project
✓ All dimensions of rubric
  o Faculty & Critical Friend

Interpret mathematical and/or statistical information.

Illustrate and communicate math/stat information symbolically, visually, and/or numerically.

Determine and execute necessary computations.

Apply appropriate models to solve problems.

Make inferences, evaluate assumptions, & assess limitations in modeling and/or statistical analysis.
Reason #3

• Declining public confidence in the quality/value of college degrees

• Policymakers respond with increased demands for accountability—need assessment results that are easily communicated but also calibrated to these 21st-century learning outcomes

• Why we must coordinate signature assignments; scaffold them; and use them for common assessment purposes
Signature Assignments—Scaffolded Across the Curriculum Can Help Students Understand the True Power of Education

“In a world of relentless change, all students need the kind of education that leads them to ask not just ‘how do we get this done?’ but also ‘what is most worth doing?’”

College Learning for the New Global Century, 2007