Deep Learning, Liberal Education, and Institutional Practice
Emerging Findings, Provocative Lessons

The Promise:
- An educational experience resulting in “a reinvigorated liberal education of high quality for all students” (p. 10), one that “prepares them for personal success and fosters a just, democratic society” (p. 21).

- Greater Expectations, AAC&U

The Goal:
- We “hope for students to engage intellectually and seriously with what is taught... [leading to] deep learning...the ability to defend positions...”
- to “write well and think clearly...”
- to develop “rational and reflective minds, open to continuous learning...” (pp. 8-9)

Fulfilling the Promise of Greater Expectations

Deep Learning and Institutional Practice

Assertions:
- Students have more potential than traditional pedagogical methods often tap
- Colleges and Universities are redesigning teaching and learning environments to realize the goals of liberal education
- Increase in learning-centered activities that foster deeper levels of understanding and application for global work and citizenship

Measuring Deep Approaches to Learning on NSSE & FSSE

Deep Learning Sub-Scale
Reflective Learning

- Examined the strengths and weaknesses of your own views on a topic or issue
- Tried to better understand someone else’s views by imagining how an issue looks from his or her perspective
- Learned something that changed the way you understand an issue or concept
Deep Learning Sub-Scale
Integrative Learning

- Worked on a paper or project that required integrating ideas or information from various sources
- Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments
- Put together ideas or concepts from different courses when completing assignments or during class discussions
- Discussed ideas from your readings or classes with faculty members outside of class
- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

Deep Learning Sub-Scale
Higher-Order Learning

- Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components
- Synthesizing and organized ideas, information, or experiences into new, more complex interpretations and relationships
- Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
- Applying theories or concepts to practical problems or in new situations

Deep Learning Results from Students & Faculty

What Do We Know So Far?

- Students engage in and faculty encourage deep approaches to learning at relatively high levels across disciplines and institutional types
- Seniors, full-time students, and students at liberal arts institutions engage in deep approaches to learning more than their counterparts
- Increased participation in deep approaches to learning is associated with elevated levels of engagement in other areas, including enriching educational experiences as well as time spent preparing for class and time spent on co-curricular activities

Deep Learning & Student Outcomes

- Strong relationship between deep approaches to learning and self-reported gains in intellectual and social development
- Moderate relationship between satisfaction and deep learning
- Relatively weak relationship between grades and deep learning
- These relationships are stable across disciplinary areas

Differences in Deep Approaches to Learning by Disciplinary Area
Disciplinary Comparisons

Deep Learning

Reflective Learning

Integrative Learning

Higher-Order Learning

DEEP lessons for Deep Learning

Project DEEP
To discover, document, and describe what 20 strong performing* institutions do to achieve their notable level of effectiveness.

*better-than-predicted graduation rates and student engagement scores
### Project DEEP Schools

**Doctoral Extensives**
- University of Kansas
- University of Michigan

**Doctoral Intensives**
- George Mason University
- Miami University (Ohio)
- University of Texas El Paso

**Master’s Granting**
- California State, Monterey Bay
- Macalester College
- Sweet Briar College
- The Evergreen State College
- Sewanee: University of the South
- Ursinus College
- Wabash College
- Wheaton College (MA)
- Wofford College

**Liberal Arts**
- California State, Monterey Bay
- Macalester College
- Sweet Briar College
- The Evergreen State College
- Sewanee: University of the South
- Ursinus College
- Wabash College
- Wheaton College (MA)
- Wofford College

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### Six Shared Conditions

1. “Living” Mission and “Lived” Educational Philosophy
2. Unshakeable Focus on Student Learning
3. Environments Adapted for Educational Enrichment
4. Clearly Marked Pathways to Student Success
5. Improvement-Oriented Ethos
6. Shared Responsibility for Educational Quality

### DEEP Lessons: Reflective Learning

**Cross-cultural experiences**

Alverno and George Mason intentionally craft shorter study abroad experiences that meet the needs of their large non-traditional population. Similarly, Kansas and UMF arrange class-based trips that are more accessible to their first generation students.

### DEEP Lessons: Integrative Learning

**Structure opportunities for integration**

The Miami Plan comprises three sets of learning experiences: (1) foundation courses in humanities, fine arts, social and natural sciences, and “formal reasoning,” including a first-year seminar, (2) a thematic sequence of in-depth study outside the majors (a series of typically three related courses, each of which builds on the knowledge and experiences provided in the former), and (3) a senior capstone experience that requires students to integrate liberal learning with specialized knowledge.

### DEEP Lessons: Reflective Learning

**Ample applied learning opportunities**

CSUMB requires all students to complete a lower and upper-level service learning experience. The capstone experience requires students to connect their project to community needs and reflect on “how will you act on what you know?”

### DEEP Lessons: Integrative Learning

**Linked Curriculum & Co-curriculum**

Longwood University’s mission — “Preparing Citizen Leaders for the Common Good” — links the curriculum & co-curriculum. No classes are held on Tues afternoons so student organizations & campus committees can meet. Seniors take a writing course that addresses issues in developing citizen leadership. The Longwood Seminar (1 cr) orients new students. Taught by academic and student affairs. Seminar “peer mentors,” receive formal training for their role (which involves tutoring students on academic subjects). Students in the same Seminar live on campus in close proximity, and take an introductory course in their chosen major.
DEEP Lessons: Integrative Learning

- Insuring student-faculty interaction outside the classroom and increasing student investment in institution

All University of Kansas committees are required to have 20% student representation, including search and screen committees. Therefore, new faculty recruits interact with students from the start.

DEEP Lessons: Higher-Order Learning

- Intentional socialization to academic expectations

Wheaton new students read a common book and essays by faculty that respond to the reading. Assigned readings, faculty responses, and the website combine to introduce incoming students to preferred ways to grapple with intellectual issues.

DEEP Lessons: Higher-Order Learning

- Common Intellectual Experiences

Wabash College creates common academic and intellectual experiences for students that increase the level of academic challenge over the program of study:
  - Freshman Tutorial
  - Cultures and Traditions
  - Senior Comprehensive Examinations

Discussion and Questions

- For more information visit the NSSE website:
  http://www.iub.edu/~nsse

Copies of presentation slides as well as other papers and presentations are available through the website.