

High-Impact Educational Practices

Excerpt from High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter

By George D. Kuh

A Brief Overview

The following teaching and learning practices have been widely tested and have been shown to be beneficial for college students from many backgrounds.¹⁰ These practices take many different forms, depending on learner characteristics and on institutional priorities and contexts.

On many campuses, assessment of student involvement in active learning practices such as these has made it possible to assess the practices' contribution to students' cumulative learning. However, on almost all campuses, utilization of active learning practices is unsystematic, to the detriment of student learning. Presented below are brief descriptions of high-impact practices that educational research suggests increase rates of student retention and student engagement. The rest of this publication will explore in more detail why these types of practices are effective, which students have access to them, and, finally, what effect they might have on different cohorts of students.

First-Year Seminars and Experiences

Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members' own research.

Common Intellectual Experiences

The older idea of a "core" curriculum has evolved into a variety of modern forms such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community (see below). These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and cocurricular options for students.

Learning Communities

The key goals for learning communities are to encourage integration of learning across courses and to involve students with "big questions" that matter beyond the classroom. Students take two or more linked courses as a group and work closely with one another and with their professors. Many learning communities explore a common topic and/or common readings through the lenses of different disciplines. Some deliberately link "liberal arts" and "professional courses"; others feature service learning (see below).

Writing-Intensive Courses

These courses emphasize writing at all levels of instruction and across the curriculum, including final-year projects. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines. The effectiveness of this repeated practice "across the curriculum" has

led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry.

Collaborative Assignments and Projects

Collaborative learning combines two key goals: learning to work and solve problems in the company of others, and sharpening one's own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a course, to team-based assignments and writing, to cooperative projects and research.

Undergraduate Research

Many colleges and universities are now providing research experiences for students in all disciplines. Undergraduate research, however, has been most prominently used in science disciplines. With strong support from the National Science Foundation and the research community, scientists are reshaping their courses to connect key concepts and questions with students' early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

Diversity/Global Learning

Many colleges and universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address U.S. diversity, world cultures, or both—often explore “difficult differences” such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by experiential learning in the community and/or by study abroad.

Service Learning, Community-Based Learning

In these programs, field-based “experiential learning” with community partners is an instructional strategy—and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both apply what they are learning in real-world settings and reflect in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life.

Internships

Internships are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for “course credit,” students complete a project or paper that is approved by a faculty member.

Capstone Courses and Projects

Whether they're called “senior capstones” or some other name, these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance, a portfolio of “best work,” or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in

general education as well.

**Liberal Education for Everyone –
Transforming Professional and
Liberal Arts Programs**

Inside Higher Ed Audio Conference

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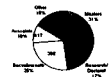
Carol Geary Schneider
Association of American Colleges and Universities (AAC&U)



What is AAC&U?

Founded in 1915, AAC&U is dedicated to making the sum of liberal learning a vigorous and constant influence on institutional planning and educational practice in college. It is a meeting ground for all sectors of higher education and brings together faculty, academic and student affairs leaders and presidents across sectors, divisions, and disciplines to explore the aims of education, the future of the academy, and strategies for institutional change and higher student achievement.

**AAC&U Membership Chart:
2006 Carnegie Type**
1,169 Members



Conference Overview

- ★ A New Direction for Liberal Education
- ★ Setting the Context: The World is Demanding More
- ★ How Well Are We Meeting These Higher Expectations?
- ★ Raising Student Achievement – Across Liberal Arts and Professional Programs
- ★ Colleges and Universities ARE Responding
- ★ LEAP is a Movement—How to Get Involved



**A New Direction for
Liberal Education**



Frequently Confused Terms

- **Liberal Education:** An approach to college learning that empowers individuals and prepares them to deal with complexity, diversity and change. It emphasizes broad knowledge of the wider world (e.g. science, culture and society) as well as in-depth achievement in a specific field of interest. It helps students develop a sense of social responsibility as well as strong intellectual and practical skills that open all areas of study, such as communication, analytical and problem-solving skills, and include a demonstrated ability to apply knowledge and skills in real-world settings.
- **Liberal Arts:** Specific disciplines (e.g., the humanities, sciences, and social sciences)
- **Liberal Arts College:** A particular institutional type – often small, often residential – that facilitates close interaction between faculty and students, while grounding its curriculum in the liberal arts disciplines.
- **Artes Liberales:** Historically, the basis for the modern liberal arts: the quadrivium (arithmetic, geometry, astronomy, and music) and the trivium (grammar, logic and rhetoric).
- **General Education:** The part of a liberal education curriculum shared by all students. It provides broad exposure to multiple disciplines and forms the base for developing appropriate intellectual and civic capacities. General education can take many forms.

**Liberal Education:
The Essential Aims and Outcomes**

- ★ Knowledge of Human Cultures and the Physical and Natural World
- ★ Intellectual and Practical Skills
- ★ Personal and Social Responsibility
- ★ Integrative Learning

Narrow Learning Is Not Enough!



**How Do We Prepare
Students for Twenty-First Century
Realities?**

2000-2005 – Greater Expectations –

A National Dialogue About Goals and Effective Practices in College Learning

2005-2015 – Liberal Education and America's Promise (LEAP)

A Ten-Year Effort to Make Excellence Inclusive



**College Learning for the
New Global Century**

(Signature report from Liberal Education and America's Promise, www.aacu.org/leap)



**Setting the Context:
The World is Demanding
More**



The World is Demanding More...

- Global economy in which innovation is key to growth and prosperity
- Rapid scientific and technological innovations changing workplace and society
- Global interdependence and increasingly complex cross-cultural interactions
- Changes in the balance of economic and political power
- Fragility of democratic institutions and decline in civic engagement



**Educators' Views:
The Essential Learning Outcomes**

- Knowledge of Human Cultures and the Physical and Natural World
 - Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts
 - Focused by engagement with big questions, both contemporary and enduring*
 - Intellectual and Practical Skills, including
 - Inquiry and analysis
 - Critical and creative thinking
 - Written and oral communication
 - Quantitative literacy
 - Information literacy
 - Teamwork and problem solving
- Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance*

**Educators' Views:
The Essential Learning Outcomes**

- Personal and Social Responsibility, including
 - Civic knowledge and engagement—local and global
 - Intercultural knowledge and competence
 - Ethical reasoning and action
 - Foundations and skills for lifelong learning
 - Anchorad through active involvement with diverse communities and real world challenges*
- Integrative Learning, including
 - Synthesis and advanced accomplishment across general and specialized
 - Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems*

**Employers Also Endorse the
Essential Learning Outcomes...**

"Liberal Education has always been valued for its role in preparing students for democratic participation and personal fulfillment. But in today's knowledge economy, it has also become the 'must-have' for economic opportunity and professional success."

Carol Geary Schneider
President, AAC&U



**Employers' Views:
Percentage of Employers Who Want
Colleges to "Place more Emphasis" on
Essential Learning Outcomes**

- Knowledge of Human Cultures and the Physical and Natural World
 - Science and Technology 82%
 - Global issues 72%
 - The role of the US in the world 69%
 - Cultural values and traditions (U.S./global) 53%
- Intellectual and Practical Skills
 - Teamwork skills in diverse groups 76%
 - Critical thinking and analytic reasoning 73%
 - Written and oral communication 73%
 - Information literacy 70%
 - Creativity and innovation 70%
 - Complex problem solving 64%
 - Quantitative reasoning 60%

**Employers' Views:
Percentage of Employers Who Want
Colleges to "Place more Emphasis" on
Essential Learning Outcomes**

- Personal and Social Responsibility
 - Intercultural competence (teamwork in diverse groups) 76%
 - Intercultural knowledge 72%
 - Ethics and values 56%
 - Cultural values and traditions (U.S./global) 53%
- Integrative Learning
 - Applied knowledge in real-world settings 73%

Note: These findings are taken from a survey of employers commissioned by AAC&U and conducted by Peter D. Shor Associates in November and December 2006. For a full report on the survey and its complete findings, see www.aacu.org/lep



**In Brief:
The Changes We Need**

"More big-picture thinking in the professions and more real-world application in the liberal arts and sciences."

Stephen H. Weiss (1935-2008)
Former Managing Director,
Neuberger Berman LLC



**So, How Well Are
Graduates Meeting These
Expectations?**

**Employers Evaluate College
Graduates' Preparedness In Key
Areas**

	Not well prepared (1-5 ratings)*	Very well prepared (6-10 ratings)*	Mean rating*
Teamwork	17%	39%	7.0
Ethical judgment	19%	38%	6.9
Intercultural skills	19%	38%	6.9
Social responsibility	21%	35%	6.7
Quantitative reasoning	23%	32%	6.7
Oral communication	23%	30%	6.6
Self-knowledge	26%	28%	6.5
Adaptability	30%	24%	6.3
Critical thinking	31%	22%	6.3
Writing	37%	26%	6.1
Self-direction	42%	23%	5.9
Global knowledge	46%	18%	5.7

*ratings on 10-point scale; 10 = most college graduates are extremely well prepared on each quality to succeed in entry level positions or be promoted/advance within the company



Global Knowledge and Skills

- Less than 13% of college students achieve basic competence in a language other than English
- Less than 34% of college students earn credit for an international studies class, of those who do, only 13% take more than four classes
- Less than 10% of college students participate in study abroad programs
- **Between 5 and 10% of college students meet all criteria for global competence**

Cited Address: "Global Preparedness" of the 2011 College Orientation: What the US Longitudinal Student Say," *Tertiary Education and Management* 10 (2004): 24



Raising Student Achievement Across the Liberal Arts and Professional Programs



Aims/Outcomes Addressed Across the Curriculum

- ★ First to Final Year
- ★ Integrating Liberal and Professional Learning
- ★ Co-Curriculum as Well
- ★ Assessments that Deepen Learning
- ★ Sustained Focus on Underserved Students



The Crucial Role of High-Impact Educational Practices

- ★ First-Year Seminars and Experiences
- ★ Common Intellectual Experiences
- ★ Learning Communities
- ★ Writing-Intensive Courses
- ★ Collaborative Assignments and Projects
- ★ "Science as Science is Done"/Undergraduate Research
- ★ Diversity/Global Learning
- ★ Service Learning, Community-Based Learning
- ★ Internships
- ★ Capstone Courses and Projects



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(forthcoming LEAP report, October 2008, www.aacu.org)



Colleges and Universities ARE Responding



Wagner College (Staten Island, NY)

"The Practical Liberal Arts"

- Issue-centered integrative learning communities in first year, intermediate years, and capstone projects
- Organized around big questions or contemporary problems (e.g. environmental sustainability, justice)
- All include academic and experiential, field-based learning
- All include reflective tutorial with emphasis on writing and integration
- Senior year capstone project linked to student's major; includes field experience



Portland State University

University Studies

- Four-year general education program with 4 broad goals: inquiry and critical thinking, communication, diversity of human experience, and ethics and social responsibility
- Culminating senior capstone involving community-based learning and interdisciplinary teams
- Capstone assessed for cross-cutting skills



University of Wisconsin-Milwaukee

Joint Liberal Arts and Pre-Professional Degree in Global Studies

- Developed as a partnership between School of Letters and Sciences and the School of Business
- Students choose among tracks or field concentrations:
 - Global Management
 - Global Cities
 - Global Classrooms
 - Global Security
 - Global Communications
- Interdisciplinary core curriculum
- Semester abroad and international internships
- Capstone projects
- Leads to joint BA degree from pre-professional school and School of Letters and Sciences



**Worcester Polytechnic
Institute**

- Project-Based Curricula Connecting Technical and Liberal Arts and Sciences Fields**
- Technical education, but with a curriculum anchored in the liberal arts
 - Project-based curricula structure for undergraduate programs in engineering, science, and management
 - Includes a thematic course of study in a specific humanities/arts area
 - Major Qualifying Project—professional level application in team-based learning environment
 - Interactive Qualifying Project connects technical studies to work in humanities/social sciences
 - Study-abroad opportunities to fulfill these project requirements



**LaGuardia Community
College**

Electronic Portfolios

- Electronic collections of academic work products and student reflections on their learning
- Implemented in 2003, now includes more than 8,000 degree seeking students
- Designed to help students connect classroom, career, and personal goals and experiences
- Used to assess cross cutting skills
- Rubrics for assessment developed to far in: Critical Literacy, Oral Communication, and Information Literacy
- Selected schools building e-portfolios into their requirements—Fine Arts, Human Services, Accounting and Managerial Studies
- Research shows that e-portfolios help students deepen engagement with critical thinking, writing, and integration



**Three State Systems
Join "LEAP"**

- ★ California State University System
- ★ Oregon University System
- ★ University of Wisconsin System



**LEAP is a Movement:
To Learn More –**

Visit www.aacu.org/leap
And join the Campus Action Network



We can—and should—
provide all students with
the decisive advantage of
a liberal education—not
just some of them.

