

Organizing Assessment to Foster Students' Best Work

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*Association
of American
Colleges and
Universities*

The LEAP Essential Learning Outcomes

Beginning in school and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

Knowledge of Human Cultures and the Physical and Natural World

- Through study in sciences and mathematics, social sciences, humanities, histories, languages, the arts

Intellectual and Practical Skills, including

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving

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

Integrative Learning, including

- Synthesis and advanced accomplishment across general and specialized studies

Source: *College Learning for the New Global Century* (AAC&U: 2007). For more information, see www.aacu.org/leap

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 United States in the world | 60% |
| • 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% |

Personal and Social Responsibility

- | | |
|---|------|
| • Intercultural competence (teamwork in diverse groups) | 76%* |
| • Intercultural knowledge (global issues) | 72%* |
| • Ethics and values | 56% |
| • Cultural values/traditions—U.S./global | 53%* |

Integrative Learning

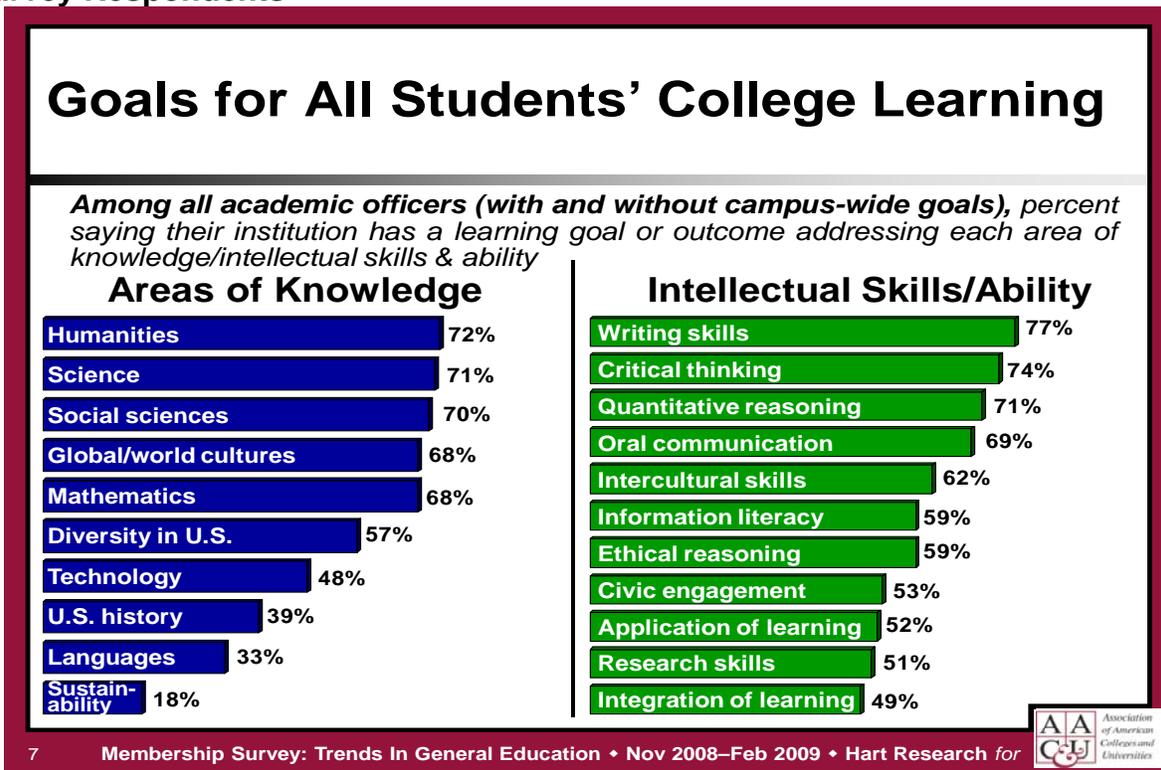
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|--|-----|
| • Applied knowledge in real-world settings | 73% |
|--|-----|

Note: These findings are taken from a survey of employers commissioned by the Association of American Colleges and Universities and conducted by Peter D. Hart Associates in November and December 2006. For a full report on the survey and its complete findings, see www.aacu.org/leap.

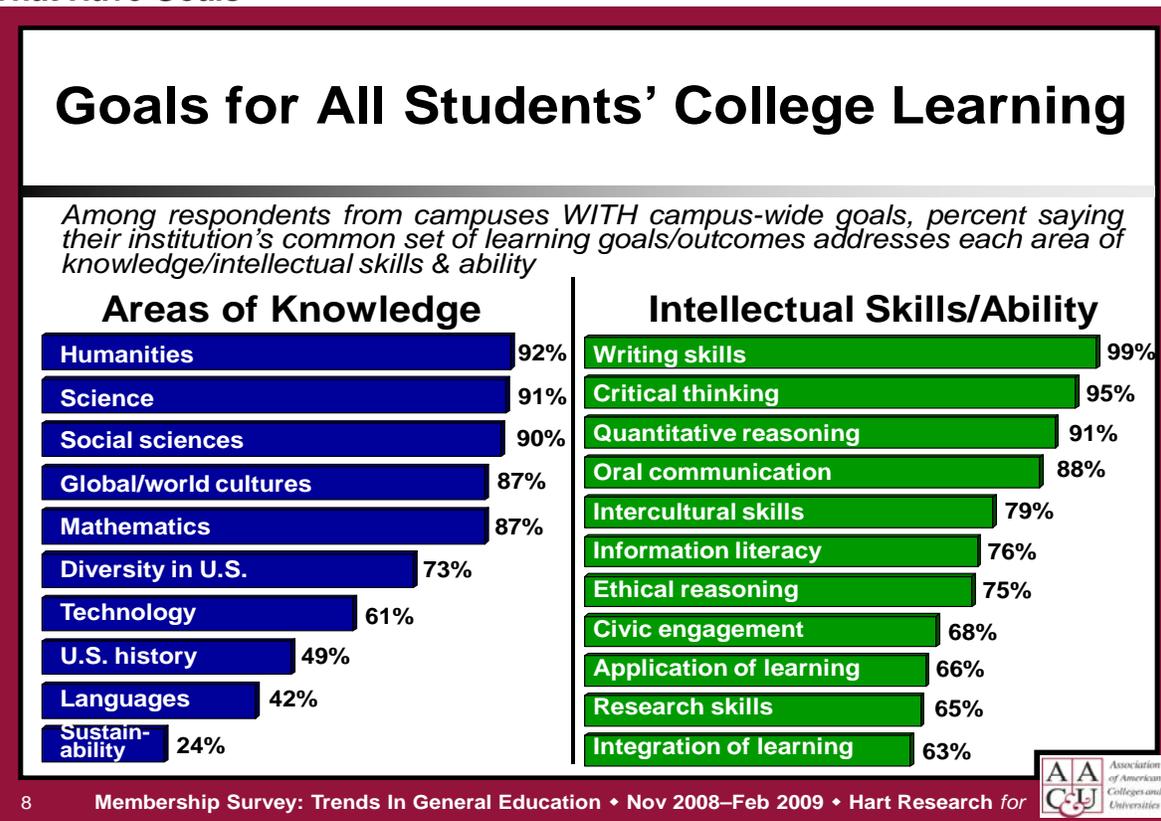
*Three starred items are shown in two learning outcome categories because they apply to both.

2009 Survey of Chief Academic Officers at AAC&U Member Institutions (www.aacu.org/membership/membersurvey)

All Survey Respondents



78% That Have Goals



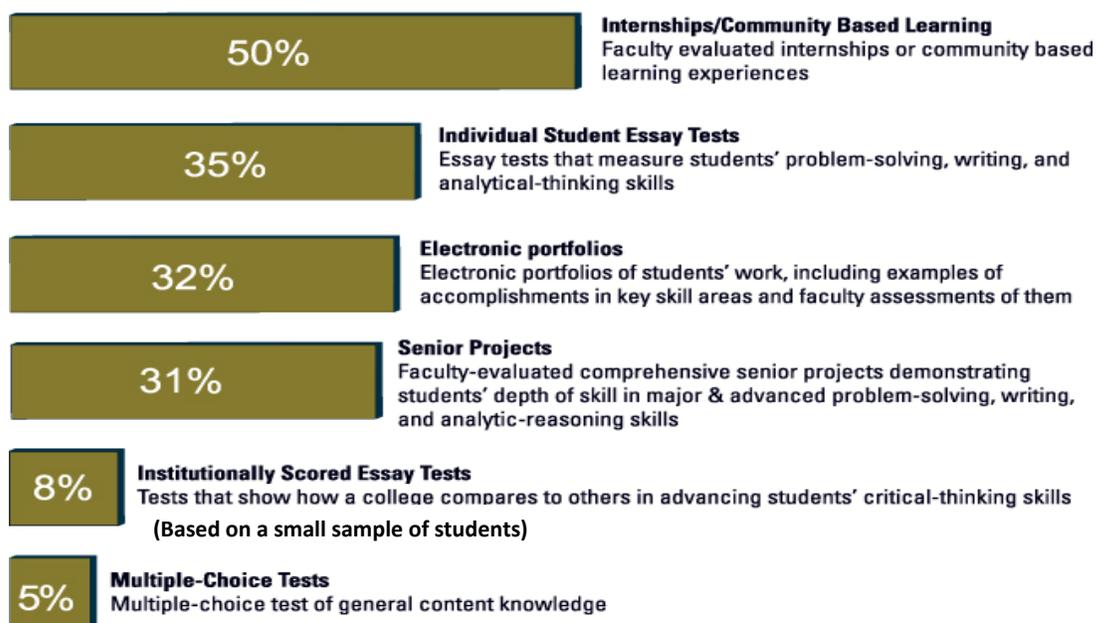
2008 Employer Survey Findings¹

Employers Grade Student Learning in College

	Very well prepared (8-10 ratings)*	Not well prepared (1-5 ratings)*	Mean Rating*
Global knowledge	18%	46%	5.7
Self-direction	23%	42%	5.9
Writing	26%	37%	6.1
Critical thinking	22%	31%	6.3
Adaptability	24%	30%	6.3
Self-knowledge	28%	26%	6.5
Oral communication	30%	23%	6.6
Quantitative reasoning	32%	23%	6.7
Social responsibility	35%	21%	6.7
Intercultural Skills	38%	19%	6.9
Ethical Judgement	38%	19%	6.9
Teamwork	39%	17%	7.0

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

Employers Advise on Where to Focus Assessment Resources



¹ Note: these findings are taken from a survey of employers commissioned by the Association of American Colleges and Universities and conducted by Peter A. Hart Associates in November and December 2007. For a full report on the survey and its complete findings, see www.aacu.org/leap.

INTEGRATIVE LEARNING VALUE RUBRIC

for more information, please contact value@aacu.org



The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can be shared nationally through a common dialog and understanding of student success.

Definition

Integrative learning is an understanding and a disposition that a student builds across the curriculum and co-curriculum, from making simple connections among ideas and experiences to synthesizing and transferring learning to new, complex situations within and beyond the campus.

Framing Language

Fostering students' abilities to integrate learning—across courses, over time, and between campus and community life—is one of the most important goals and challenges for higher education. Initially, students connect previous learning to new classroom learning. Later, significant knowledge within individual disciplines serves as the foundation, but integrative learning goes beyond academic boundaries. Indeed, integrative experiences often occur as learners address real-world problems, unscripted and sufficiently broad, to require multiple areas of knowledge and multiple modes of inquiry, offering multiple solutions and benefiting from multiple perspectives. Integrative learning also involves internal changes in the learner. These internal changes, which indicate growth as a confident, lifelong learner, include the ability to adapt one's intellectual skills, to contribute in a wide variety of situations, and to understand and develop individual purpose, values and ethics. Developing students' capacities for integrative learning is central to personal success, social responsibility, and civic engagement in today's global society. Students face a rapidly changing and increasingly connected world where integrative learning becomes not just a benefit...but a necessity.

Because integrative learning is about making connections, this learning may not be as evident in traditional academic artifacts such as research papers and academic projects unless the student, for example, is prompted to draw implications for practice. These connections often surface, however, in reflective work, self assessment, or creative endeavors of all kinds. Integrative assignments foster learning between courses or by connecting courses to experientially-based work. Work samples or collections of work that include such artifacts give evidence of integrative learning. Faculty are encouraged to look for evidence that the student connects the learning gained in classroom study to learning gained in real life situations that are related to other learning experiences, extra-curricular activities, or work. Through integrative learning, students pull together their entire experience inside and outside of the formal classroom; thus, artificial barriers between formal study and informal or tacit learning become permeable. Integrative learning, whatever the context or source, builds upon connecting both theory and practice toward a deepened understanding.

Assignments to foster such connections and understanding could include, for example, composition papers that focus on topics from biology, economics, or history; mathematics assignments that apply mathematical tools to important issues and require written analysis to explain the implications and limitations of the mathematical treatment, or art history presentations that demonstrate aesthetic connections between selected paintings and novels. In this regard, some majors (e.g., interdisciplinary majors or problem-based field studies) seem to inherently evoke characteristics of integrative learning and result in work samples or collections of work that significantly demonstrate this outcome. However, fields of study that require accumulation of extensive and high-consensus content knowledge (such as accounting, engineering, or chemistry) also involve the kinds of complex and integrative constructions (e.g., ethical dilemmas and social consciousness) that seem to be highlighted so extensively in self reflection in arts and humanities, but they may be embedded in individual performances and less evident. The key in the development of such work samples or collections of work will be in designing structures that include artifacts and reflective writing or feedback that support students' examination of their learning and give evidence that, as graduates, they will extend their integrative abilities into the challenges of personal, professional, and civic life.

Glossary

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- Academic knowledge: Disciplinary learning; learning from academic study, texts, etc.
- Content: The information conveyed in the work samples or collections of work.
- Contexts: Actual or simulated situations in which a student demonstrates learning outcomes. New and challenging contexts encourage students to stretch beyond their current frames of reference.
- Co-curriculum: A parallel component of the academic curriculum that is in addition to formal classroom (student government, community service, residence hall activities, student organizations, etc.).
- Experience: Learning that takes place in a setting outside of the formal classroom, such as workplace, service learning site, internship site or another.
- Form: The external frameworks in which information and evidence are presented, ranging from choices for particular work sample or collection of works (such as a research paper, PowerPoint, video recording, etc.) to choices in make-up of the eportfolio.
- Performance: A dynamic and sustained act that brings together knowing and doing (creating a painting, solving an experimental design problem, developing a public relations strategy for a business, etc.); performance makes learning observable.
- Reflection: A meta-cognitive act of examining a performance in order to explore its significance and consequences.
- Self Assessment: Describing, interpreting, and judging a performance based on stated or implied expectations followed by planning for further learning.

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Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones		Benchmark 1
		3	2	
Connections to experience <i>Connects relevant experience and academic knowledge</i>	Meaningfully synthesizes connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) to deepen understanding of fields of study and to broaden own points of view.	Effectively selects and develops examples of life experiences, drawn from a variety of contexts (e.g. family life, artistic participation, civic involvement, work experience), to illuminate concepts/theories/frameworks of fields of study.	Compares life experiences and academic knowledge to infer differences, as well as similarities, and acknowledge perspectives other than own.	Identifies connections between life experiences and those academic texts and ideas perceived as similar and related to own interests.
Connections to discipline <i>Sees (makes) connections across disciplines, perspectives</i>	Independently creates wholes out of multiple parts (synthesizes) or draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.	Independently connects examples, facts, or theories from more than one field of study or perspective.	When prompted, connects examples, facts, or theories from more than one field of study or perspective.	When prompted, presents examples, facts, or theories from more than one field of study or perspective.
Transfer <i>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations</i>	Adapts and applies, independently, skills, abilities, theories, or methodologies gained in one situation to new situations to solve difficult problems or explore complex issues in original ways.	Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations to solve problems or explore issues.	Uses skills, abilities, theories, or methodologies gained in one situation in a new situation to contribute to understanding of problems or issues.	Uses, in a basic way, skills, abilities, theories, or methodologies gained in one situation in a new situation.
Integrated Communication	Fulfills the assignment(s) by choosing a format, language or graph (or other visual representation) in ways that enhance meaning , making clear the interdependence of language and meaning, thought and expression.	Fulfills the assignment(s) by choosing a format, language or graph (or other visual representation) to explicitly connect content and form , demonstrating awareness of purpose and audience.	Fulfills the assignment(s) by choosing a format, language or graph (or other visual representation) that connects in a basic way what is being communicated (content) with how it is said (form).	Fulfills the assignment(s) (i.e. to produce an essay, a poster, a video, a powerpoint presentation, etc.) in an appropriate form.
Reflection and Self Assessment <i>Demonstrates a developing sense of self as a learner, building on prior experiences to respond to new and challenging contexts (may be evident in self assessment, reflective, or creative work)</i>	Envisions a future self (and possibly makes plans that build on past experiences) that have occurred across multiple and diverse contexts.	Evaluates changes in own learning over time, recognizing complex contextual factors (e.g, works with ambiguity and risk, deals with frustration, considers ethical frameworks).	Articulates strengths and challenges (within specific performances or events) to increase effectiveness in different contexts (through increased self awareness).	Describes own performances with general descriptors of success and failure.