

Look What I Can Do: General Education and Assessment that Is Useful

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Colleges and Universities
Colorado Mesa University
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A degree should...

...provide a broad, well-rounded education that enables discovery of interests and abilities to help students realize their full potential in life

“I’m thinking that if I realize my full potential, and discover that here, and have a broad range of appreciating who people are and cultures outside my own, then I will be okay. [The] second will come from the first.”

Student, California State University System

...provide students with specific career knowledge and skills to help them realize their full potential in the workforce

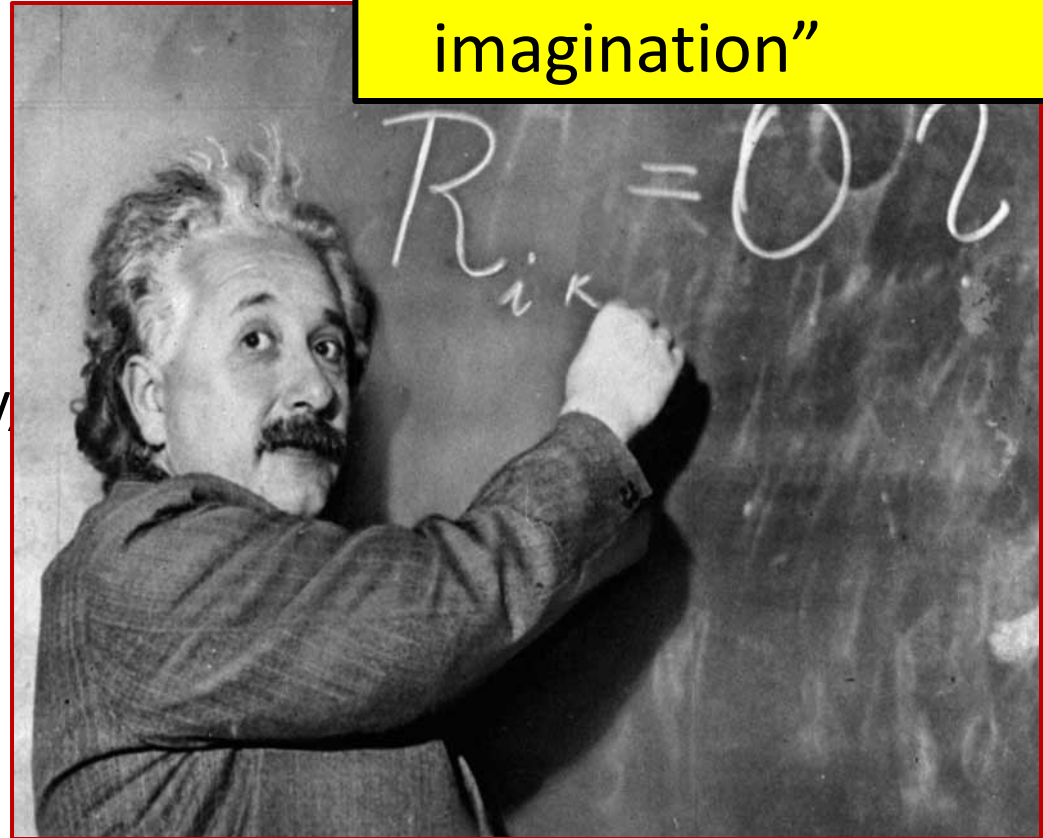
“I worry that if I go through this great diverse education, but I can’t go out and find a decent paying wage at the end of it, then, while I may be a better person for it, I’m still basically [out of luck].”

Student, Oregon University System

What is a Liberal Education?

- **Liberal Education** = A philosophy of learning that empowers & prepares individuals to deal with complexity, diversity, & change.
- Broad knowledge combined w/ in-depth study
- To help students develop a sense of social responsibility strong & transferable intellectual and practical skills & a demonstrated ability to apply knowledge.

“Knowledge is nothing without imagination”

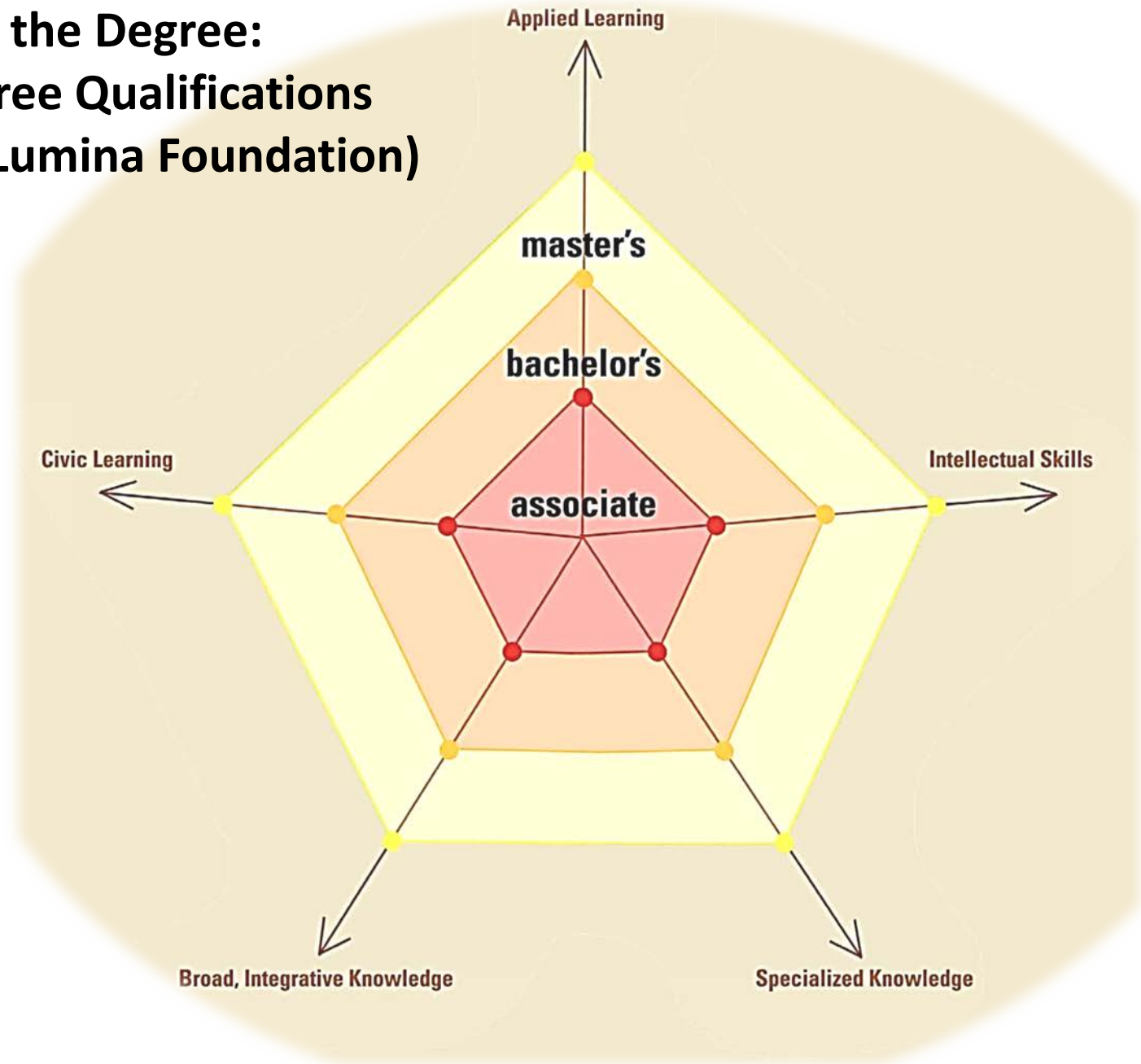


What is Happening Nationally?

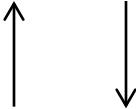



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Defining the Degree: The Degree Qualifications Profile (Lumina Foundation)



Putting it Together: The DQP as a Prompt for Integrative Learning

<i>Intellectual Skills</i> 	Specialized Knowledge	Broad/Integrative Knowledge	<i>Applied and Collaborative Learning</i> 		Civic and Global Inquiry
			Research and/or Creative Projects	Field-Based Learning	
Analytic Inquiry	→	→		→	
Information Literacy					
Quantitative Fluency		Intellectual skills should be practiced <u>across</u> the educational experience and demonstrated in the context of both broad and specialized studies; in civic and global inquiry; and also in the two expected areas of Applied and Collaborative Learning.			
Engaging Diverse Perspectives					
Communication Fluency					
Ethical Reasoning					
Program-Specific Intellectual Skills	→	→		→	

What are the necessary skills for the 21st Century?

“My company lives and dies on our ability to innovate and to create the new products and processes that give us an edge in this very competitive global economy. ESCO needs people who have both a command of certain specific skills and robust problem-solving and communication skills.”

*Steven Pratt, CEO, ESCO Corp. and
Chair of the Oregon Business Council*



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“The complexity that we’re dealing with today requires us to be re-skilling and re-tooling all the time.”

(Julie Anding, Senior Director of Employee Learning at Harley-Davidson Motor Company, WI)

- Every year, more than 30 million Americans are working in jobs that did not exist in the previous quarter.
- Every year, more than 1/3 of the entire US labor force changes jobs.
- Today's students will have 10-14 jobs by the time they are 38.
- By 2018, 22 million new and replacement jobs will require some college.



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

Key Findings

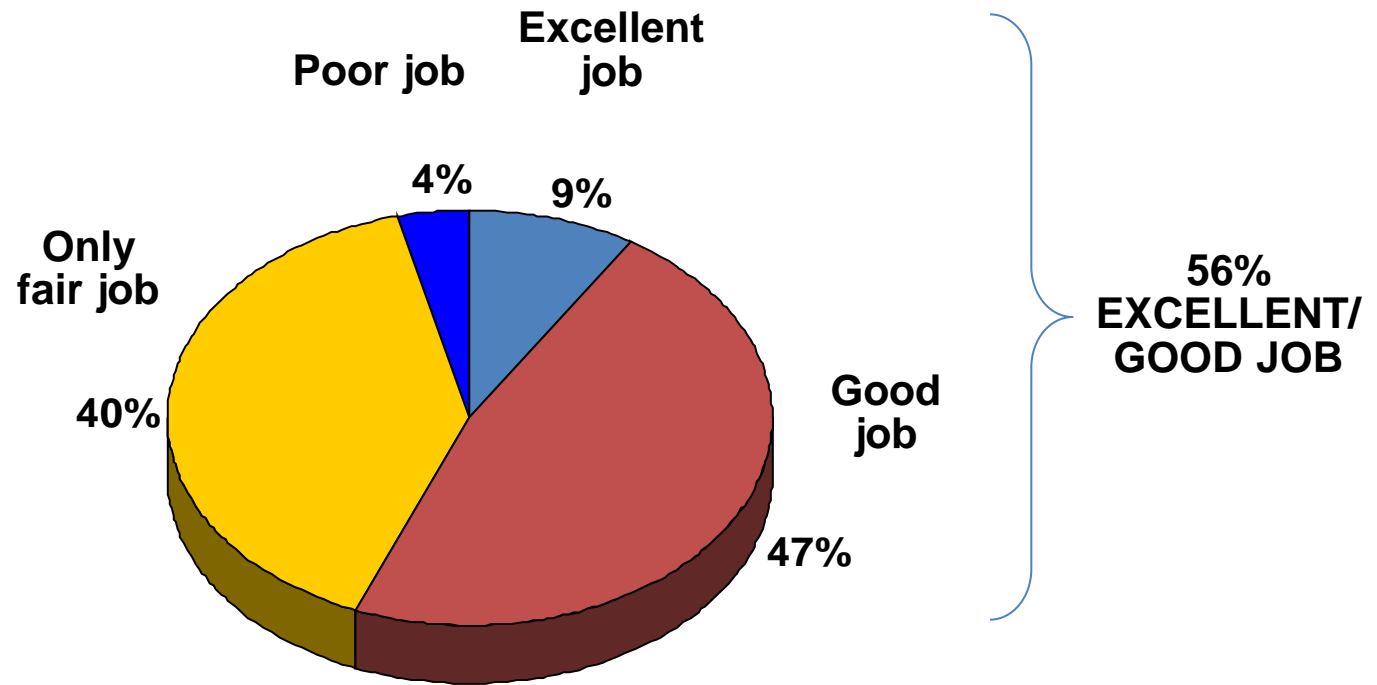
- ◆ **Innovation is a priority** for employers, and they report that the challenges their employees face today are more complex and require a broader skill set than in the past.
- ◆ Employers recognize **capacities that cut across majors** as critical to a candidate's potential for career success, and they view these skills as **more important than a student's choice of undergraduate major**.
- ◆ Employers recognize the **importance of a liberal education** and the liberal arts. The majority agree that having both field-specific knowledge and skills and a broad range of skills and knowledge is most important for long-term career success.
- ◆ Employers endorse education practices that involve students in active, effortful work and the **application of skills**.
- ◆ Employers express **interest in e-portfolios** and **partnerships** with colleges to ensure college graduates' successful transition to the workplace.



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The majority of employers think that higher education is doing at least a good job in preparing students for success.

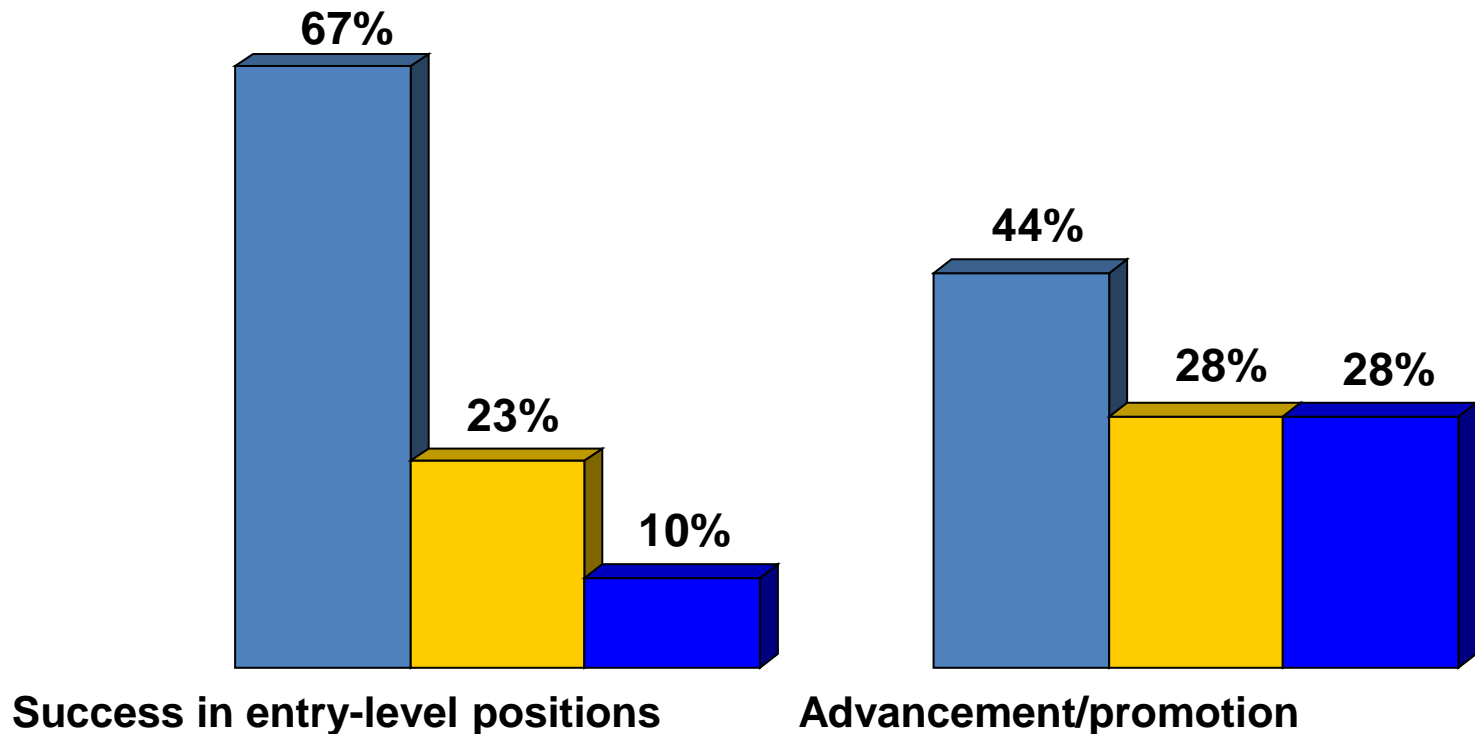
Thinking about the economy overall, and not just about your own company or organization, how good a job do you think higher education is doing in preparing graduates to succeed and contribute in this economy?



Two in three employers believe most college graduates have the skills/knowledge to succeed in entry-level positions; they feel fewer graduates have what it takes to advance.

What proportion of applicants for positions at your company in the past few years possess the full set of skills and knowledge needed for this?

■ All/most college grads ■ About half of college grads ■ Only some/very few college grads



Employers value cross-cutting skills and qualities when hiring.

■ Very important that our employees have this quality/skill ■ Fairly important

Ethical judgment and integrity



Comfortable working with colleagues, customers, and/or clients from diverse cultural backgrounds



Demonstrated capacity for professional development and continued new learning



Interest in giving back to the communities in which our company is located or those that it serves



Knowledge of global cultures, histories, values, religions, and social systems



Employers believe a variety of emerging educational practices have the potential to help graduates succeed.

■ Will help a lot to prepare college students for success after graduation ■ Will help a fair amount

Expecting students to develop the skills to research questions in their field and develop evidence-based analyses



Students complete significant project before graduation, demonstrating knowledge in major & analytical, problem-solving, communication skills



Students complete internship or community-based field project to connect classroom learning with real-world experiences



Expecting students to develop the skills to conduct research collaboratively with their peers



Students acquire hands-on experience with the methods of science to understand how scientific knowledge is developed

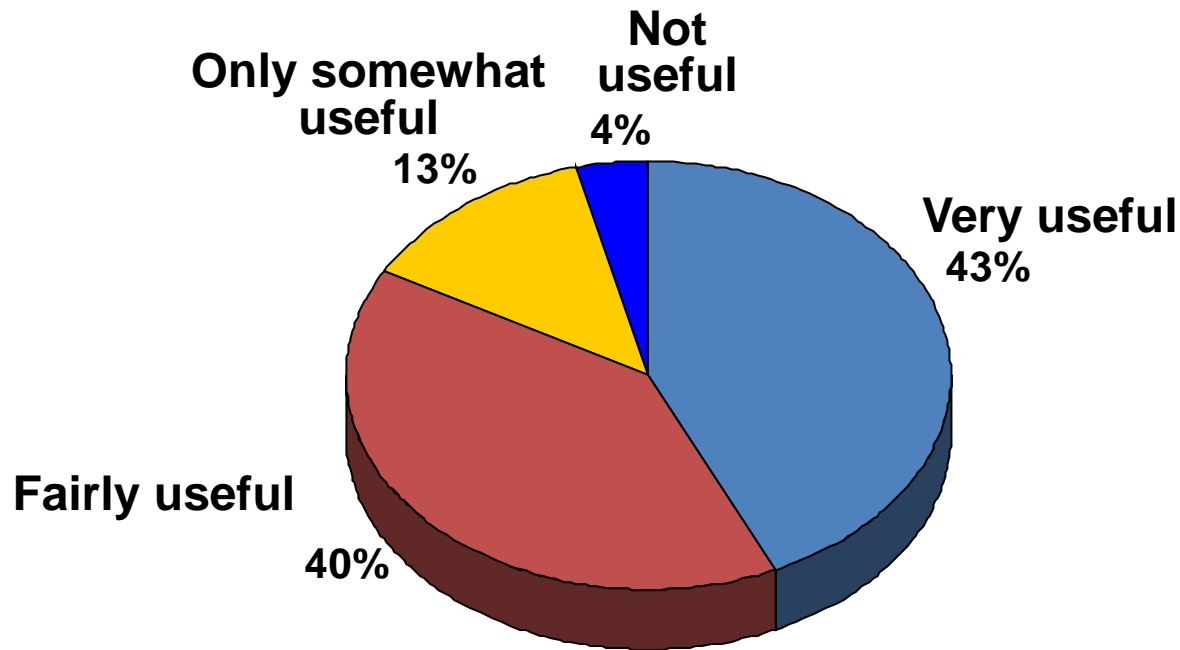


Expecting students to work through ethical issues and debates to form their own judgments about the issues at stake



Employers say that an electronic portfolio of students' work and knowledge areas would be useful in evaluating candidates for hire.

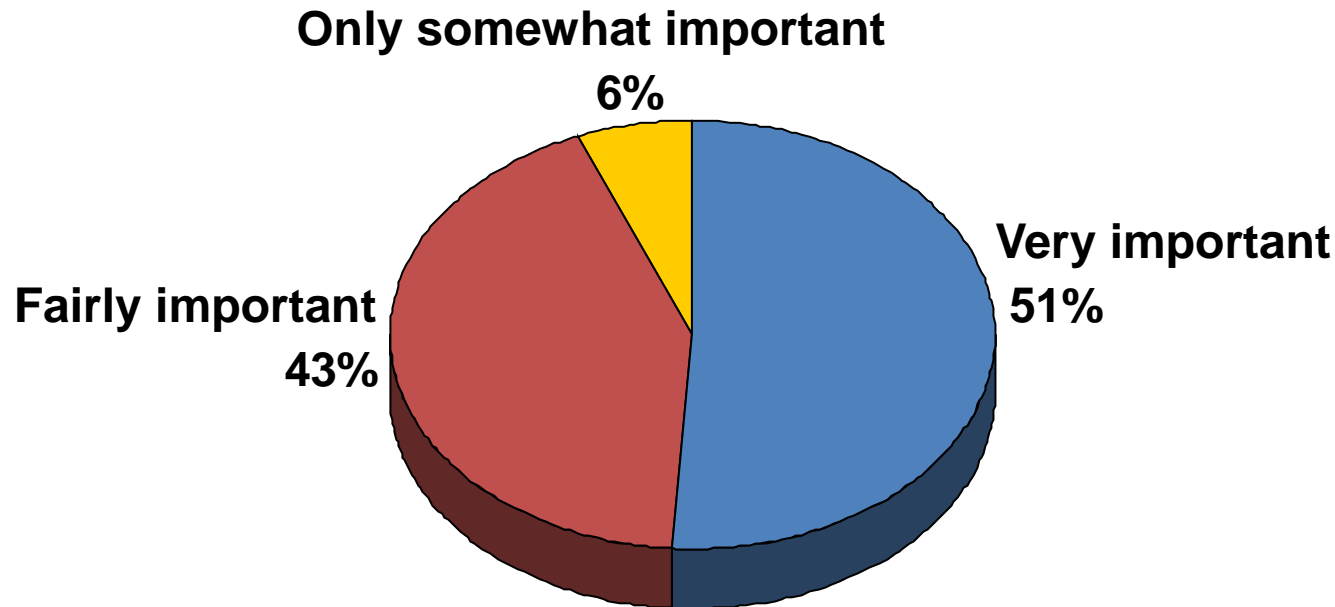
In addition to a recent college graduate's résumé and college transcript . . . how useful would it be to see an electronic portfolio of student work that demonstrates accomplishment in key skill and knowledge areas (effective communication, knowledge in their field, evidence-based reasoning, ethical decision-making)?



Employers endorse the concept of a liberal education.

How important is it for today's colleges to provide this type of education?

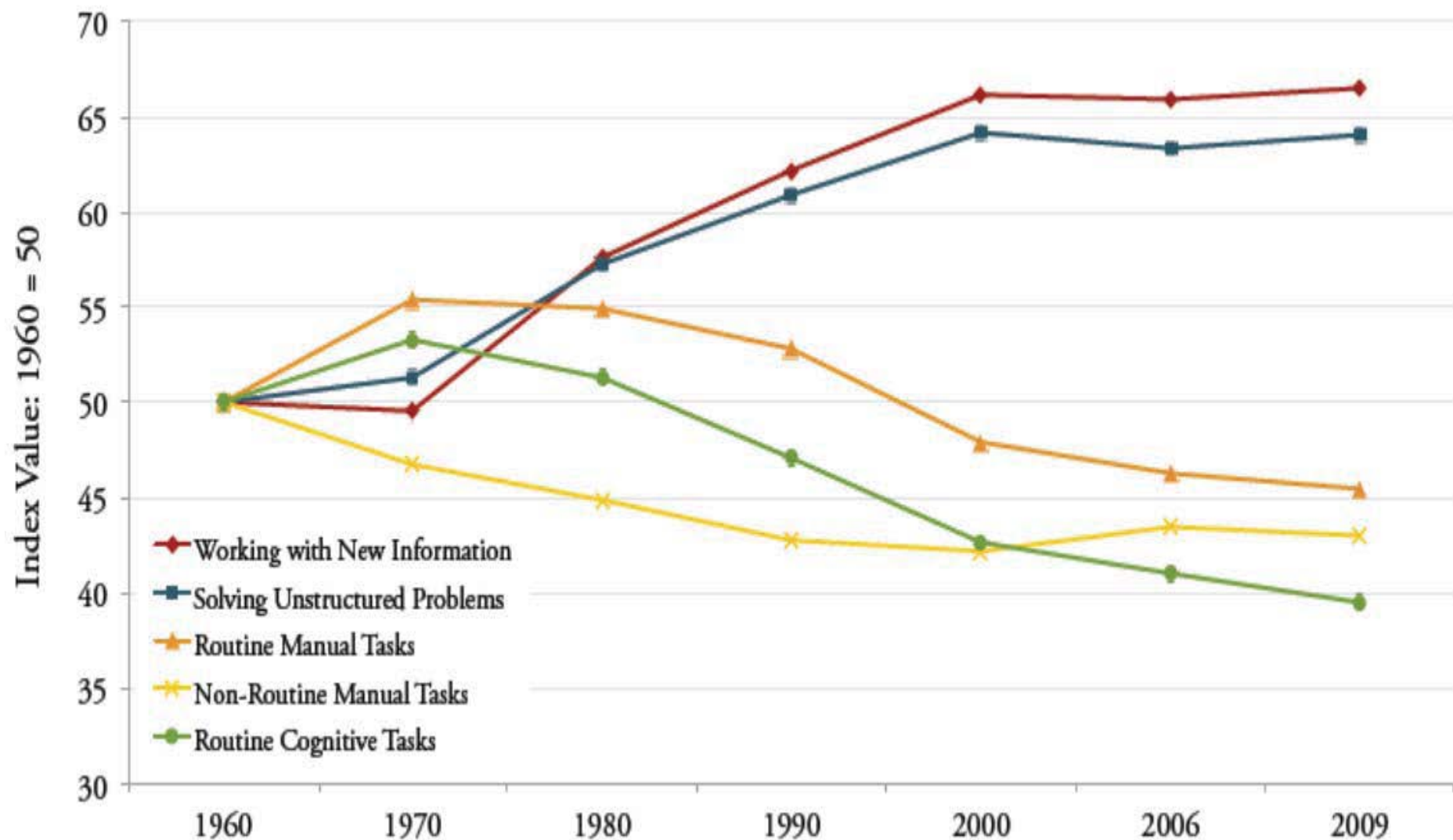
"This approach to a college education provides both broad knowledge in a variety of areas of study and knowledge in a specific major or field of interest. It also helps students develop a sense of social responsibility, as well as intellectual and practical skills that span all areas of study, such as communication, analytical, and problem-solving skills, and a demonstrated ability to apply knowledge and skills in real-world settings."



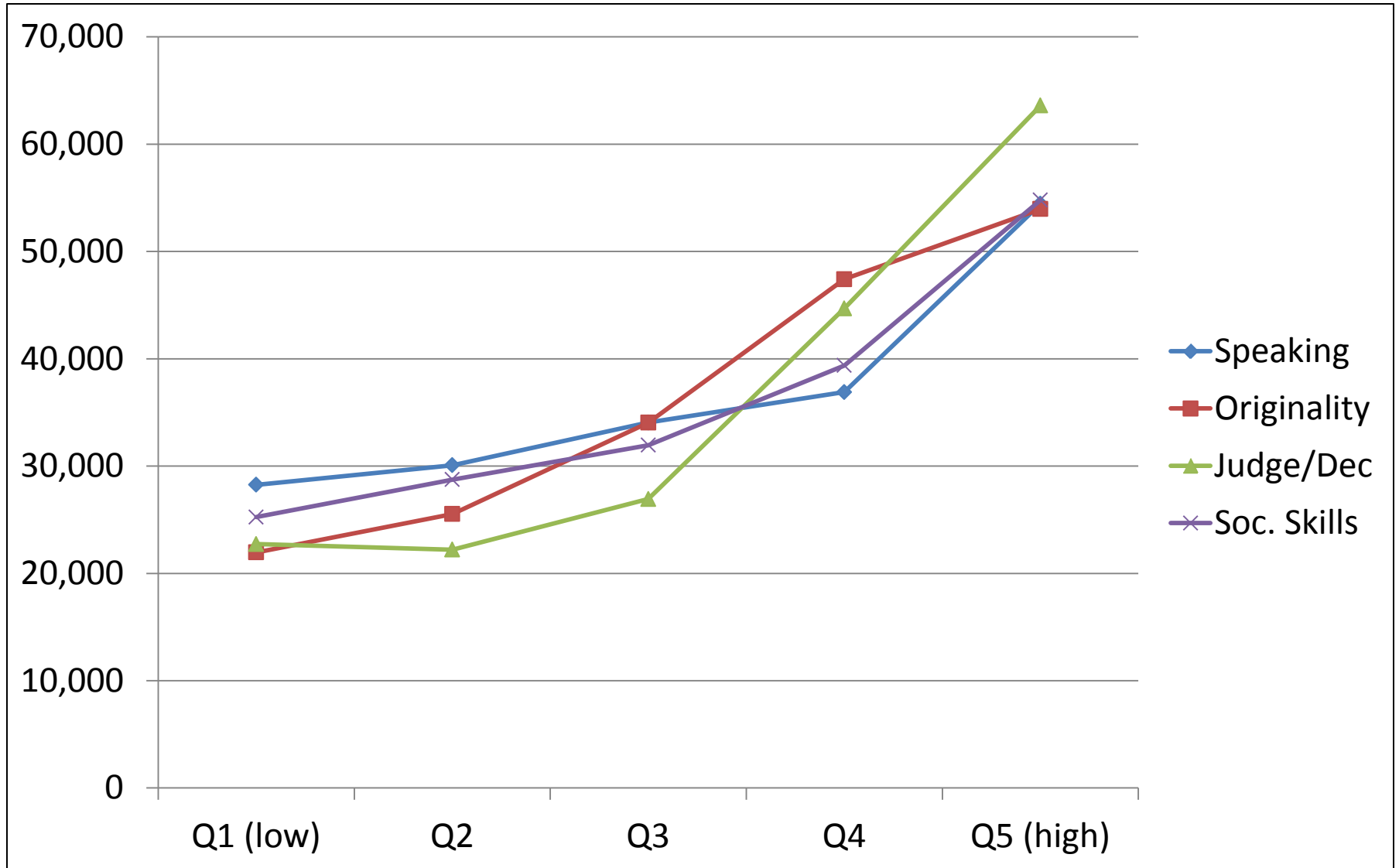
	Rules Based Logic	Pattern Recognition	Problem Solving
Variety	Computer Processing Using Deductive Rules	Computer Processing Using Inductive Rules	Problem is Unscripted and Rules for Solution Cannot be Routinized
Examples	Calculate Basic Income Taxes Issuing a Boarding Pass	Speech Recognition Predicting a Mortgage Default	Writing a Convincing Legal Brief Adapting or Developing a New Product or Service
Computer Role	Execute Tasks, Except in Non-Routine Cases	Support Human Problem Solving	Assist Human Problem Solving

Adapted from Dancing with Robots: Human Skills for Computerized Work, Frank Levy and Richard J. Murnane, available at http://content.thirdway.org/publications/714/Dancing_With_Robots.pdf.

Figure 3: Index of Changing Work Tasks in the U.S. Economy 1960-2009²¹



What does a Liberal Education Pay?: Salary by Skill Demand (Quintiles)



Source: Georgetown Center for Education and the Workforce (Anthony Carnevale)

“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

“I don’t know too many jobs that the job is being well-rounded. You know, it’s not like you’re going to work at ‘Well-Rounded, Inc.’ or something.”

Student, University of
Wisconsin System



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It's More than the First Job



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How do we help students “see” Learning?



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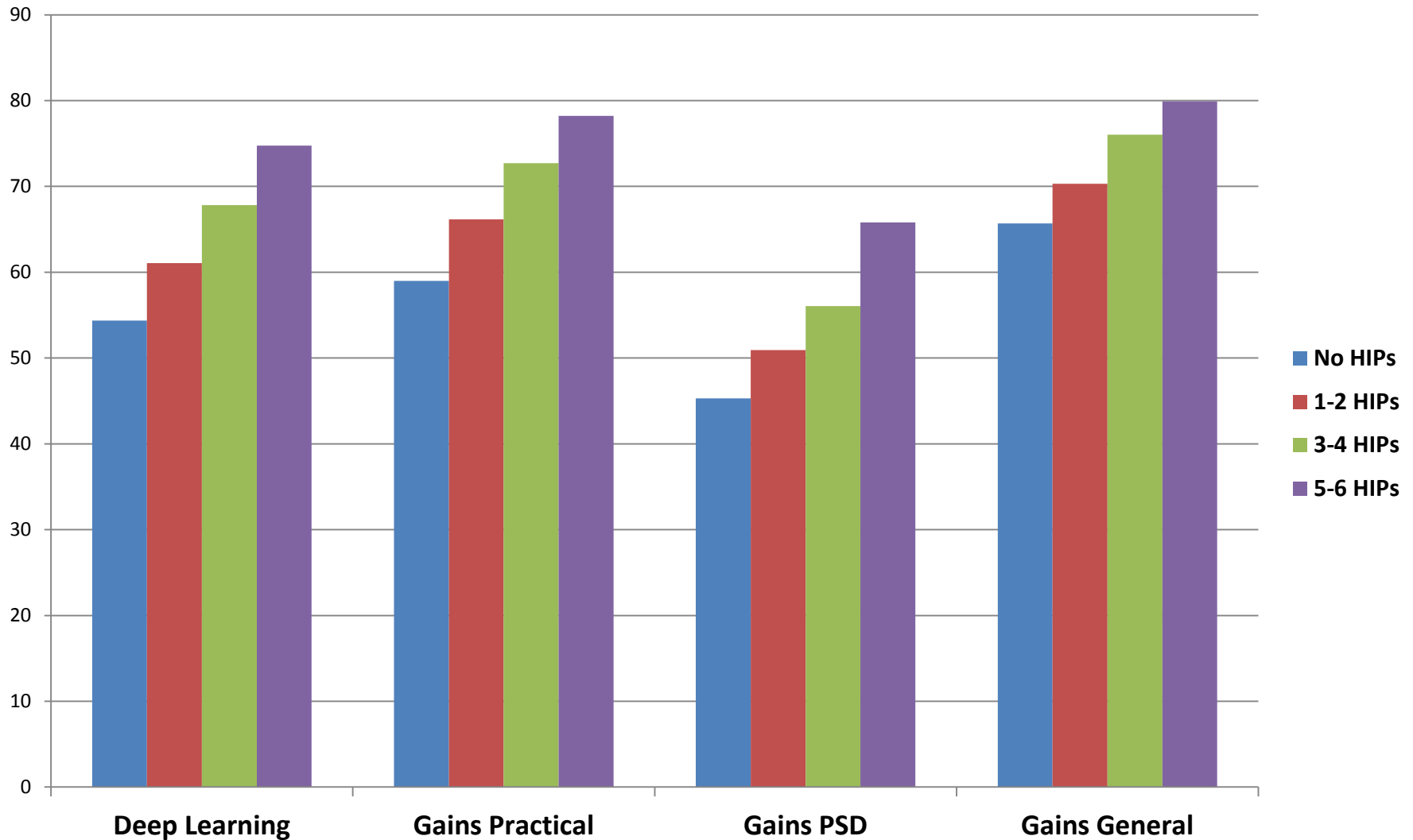
High-Impact Practices

- ★ 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**

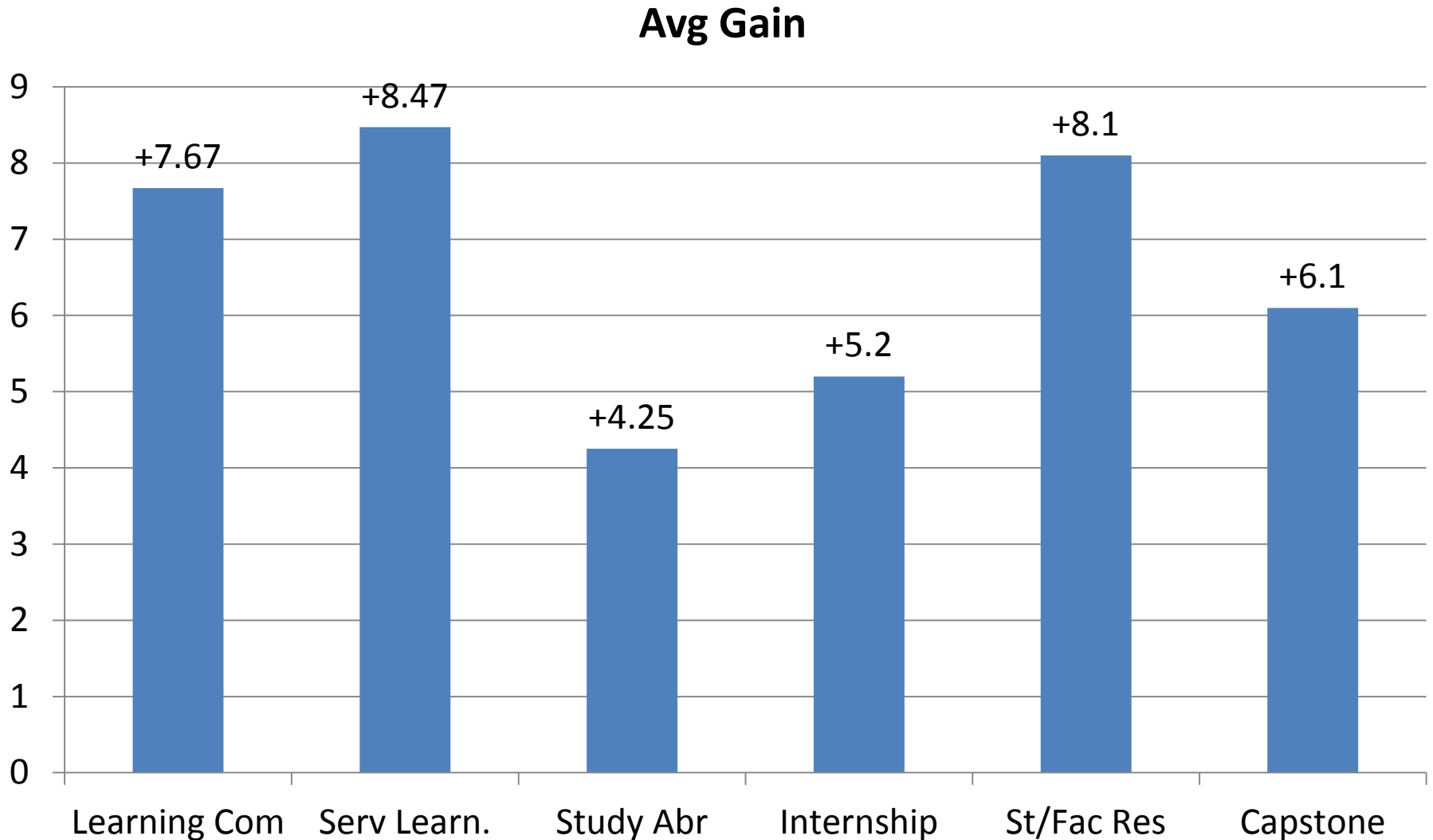
Why Are They Called “High-Impact” Practices?

- **Analyses by NSSE** (Source: Kuh, 2008. “High Impact Practices: What are They, Who has access to them, & Why They Matter.” AAC&U)
 - Connect participation in high impact experiences with positive gains in:
 - Deep Learning
 - Practical Competence
 - Personal and Social Development
 - General Education
- **Literature Review** (Source: Brownell & Swaner. 2010. “Five High Impact Practices.” AAC&U)
 - Higher GPA/grades
 - Gains in writing, critical thinking, reading, integrative thinking, research skills,
 - Higher rate of civic engagement, gains in commitment to social justice, multicultural awareness
 - **In addition to...**
 - Increased retention and persistence
 - Ease of college transition
 - Higher rate of graduate school enrollment
- **High impact for whom?**

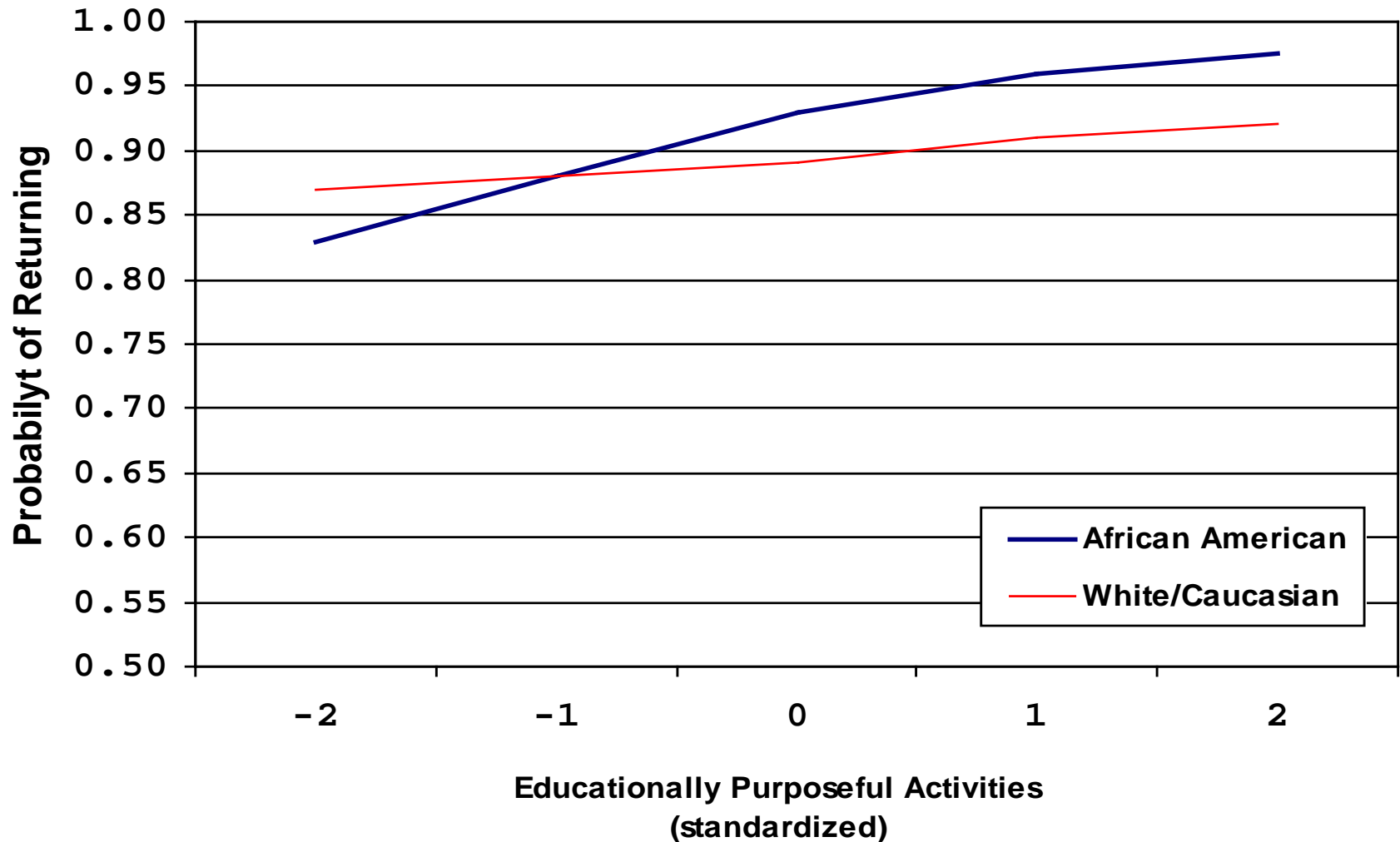
What is the cumulative impact of participation in HIPs experiences on learning outcomes?



Average Difference in Learning Outcomes from Participating in HIPs vs Non-participation

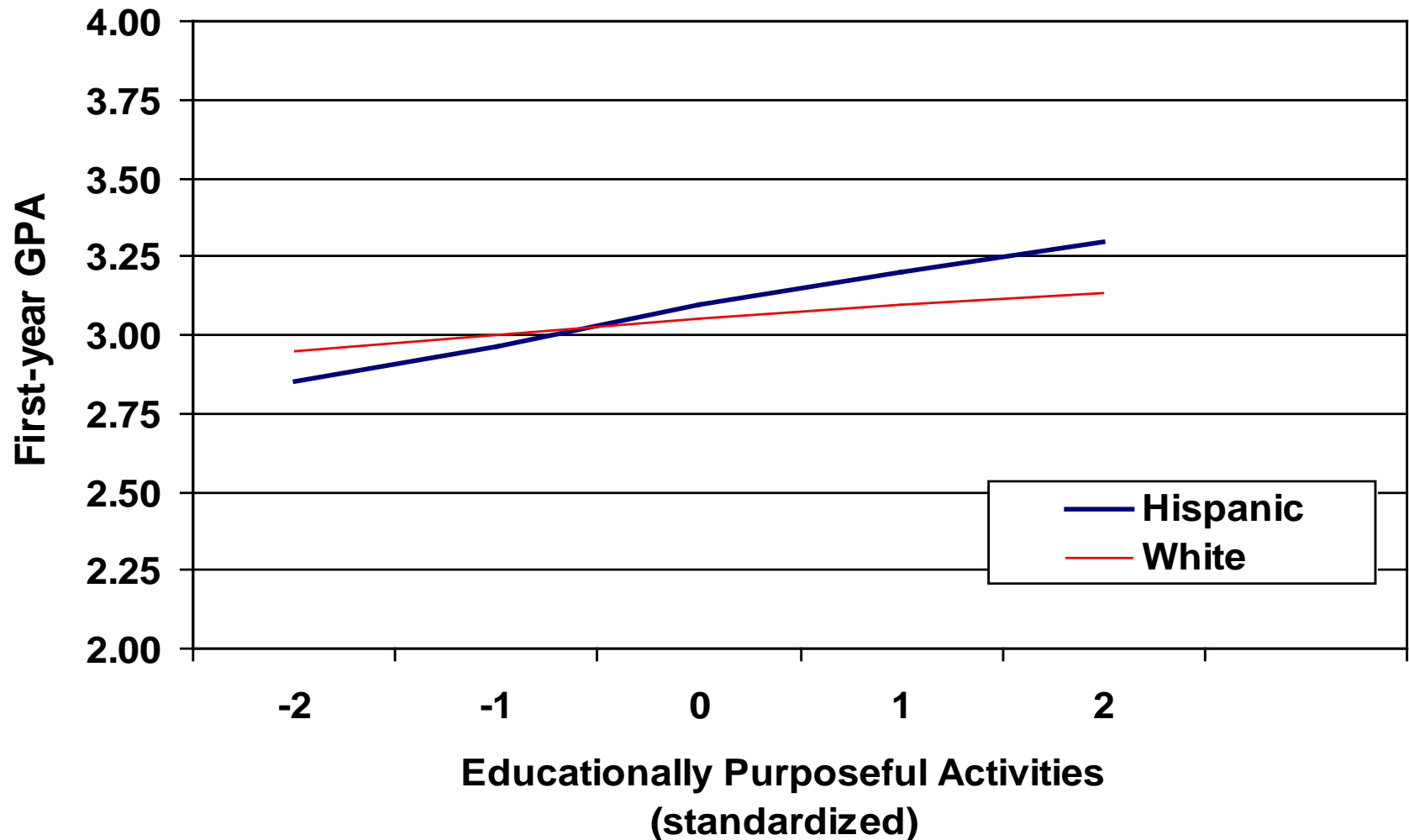


Impact of Educationally Purposeful Practices on the PROBABILITY OF RETURNING for Second Year of College by Race



Source: Kuh, *High Impact Practices: What They Are, Who Has Access to Them, and Why They Matter* (AAC&U, 2008)

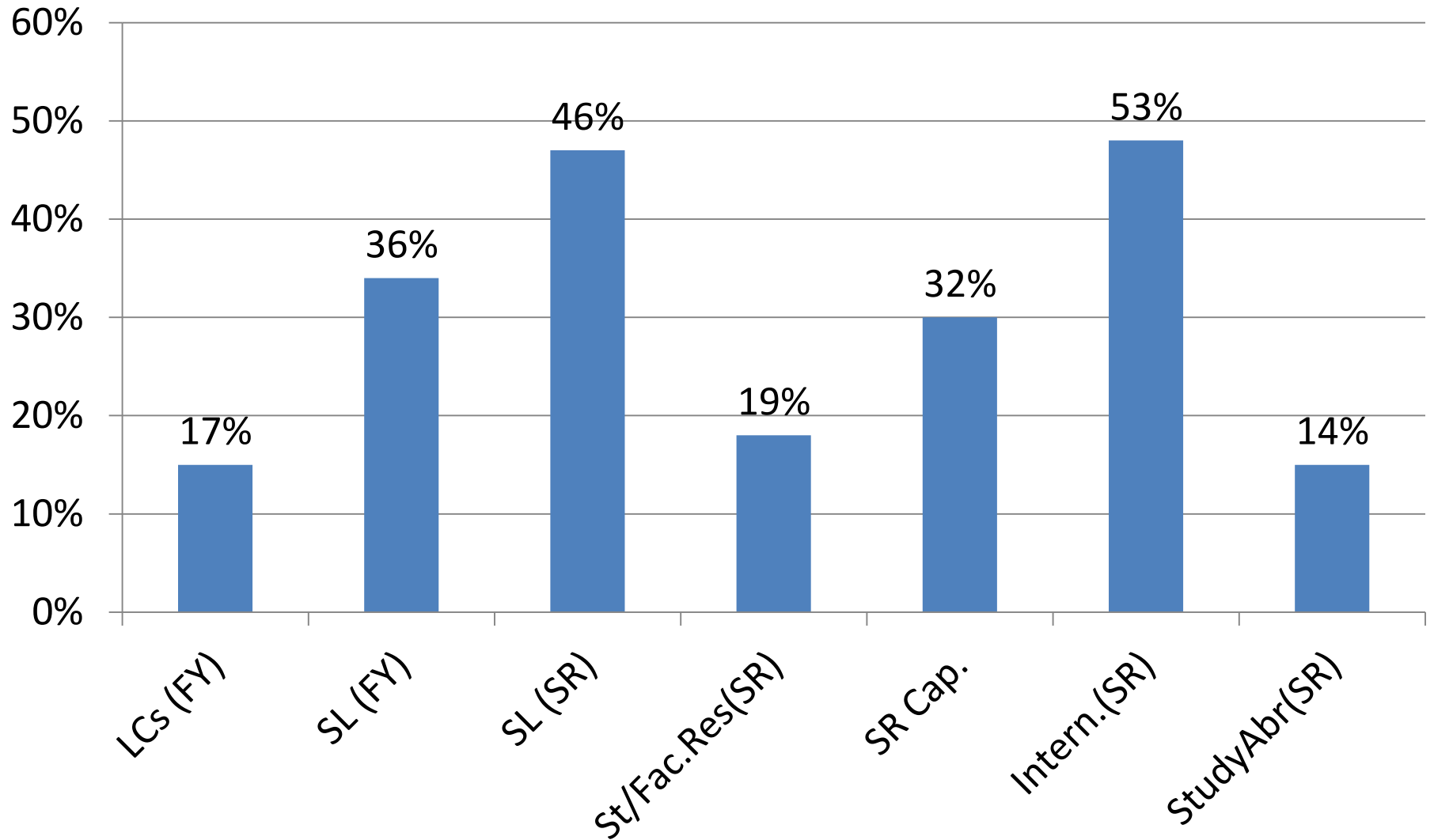
Impact of Educationally Purposeful Practices on First Academic Year GPA by Race/Ethnicity



Source: Kuh, *High Impact Practices: What They Are, Who Has Access to Them, and Why They Matter* (AAC&U, 2008)

TWO ISSUES WITH HIPs: ACCESS AND QUALITY

% of All Students in High Impact Practices



High Impact Practices & The Quality Control Issue

“...there is growing evidence that – **when done well** – some programs and activities appear to engage participants at levels that elevate their performance across multiple engagement and desired outcomes measures...” – George Kuh

Significant amount of time on task

Significant engagement with peers, faculty, educational professionals

Frequent feedback

Engagement with difference

Engage higher order thinking skills (analysis, synthesis, evaluation, application)

Source: Alex McCormick, NSSE Director, Center for Postsecondary Research, Indiana University

What do students care about when it comes to high impact practices and learning outcomes?

“Tell me why this is important or at least tell me what your end goal is. ‘When you learn this, you’re going to become [a] better adult because blah-blah-blah.’ Tell me why this matters.”

*Student, University
of Wisconsin System*



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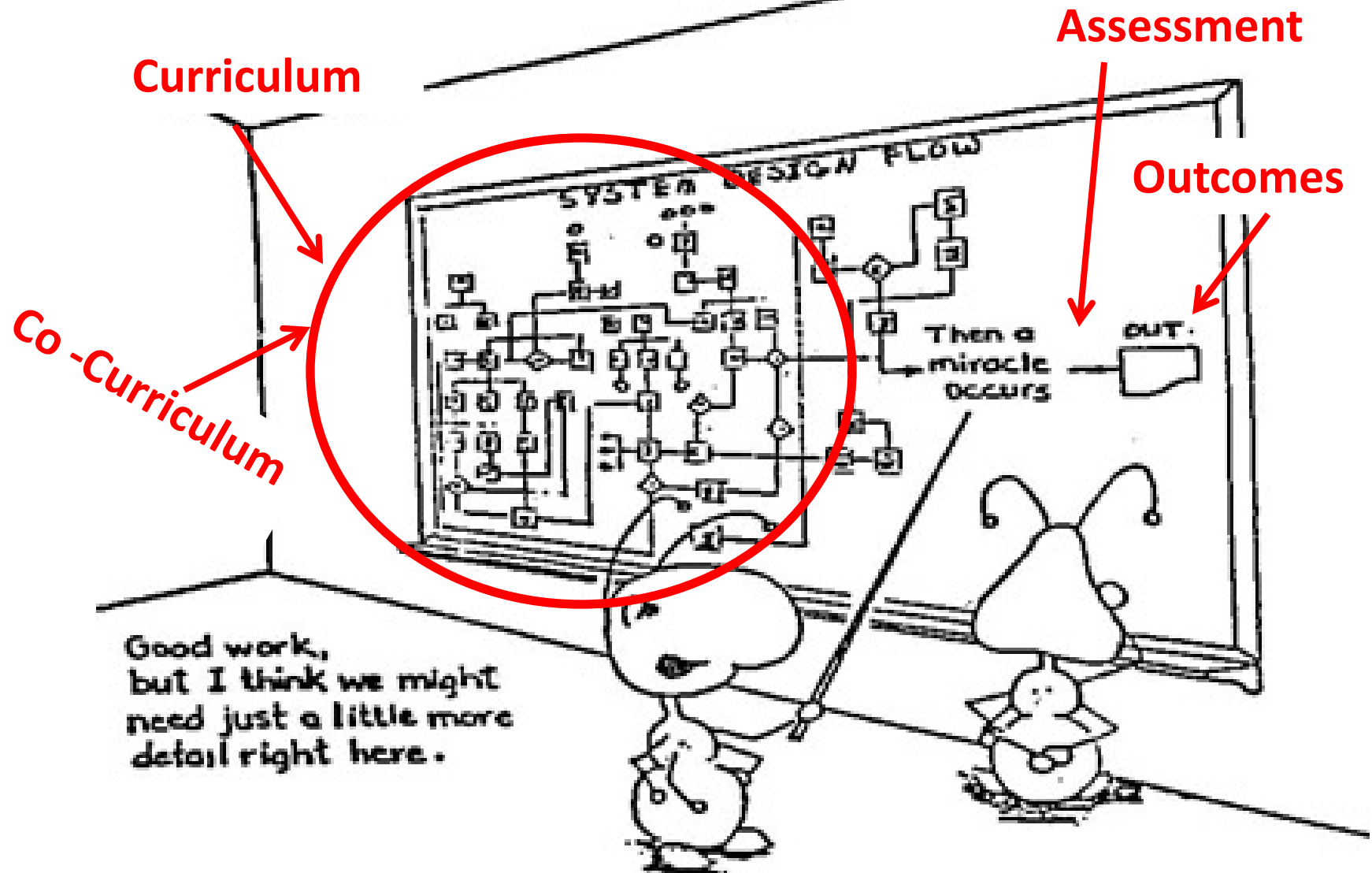
ORGANIZING THE VISION:

Using Logic and
Evidence to Connect
the Pieces & Create a
Meaningful Whole



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The problem with high impact learning and learning outcomes assessment...



Resources needed to start or keep going:

Actions needed to produce outputs:

INPUTS

- GE/CUR Cmtes
- Depts.
- Faculty
- Advising
- Stud. Affairs
- Alumni Center
- Career Services
- Inst. Res.
- Multi-cultural programs

ACTIVITIES

- High-impact practices
- Co-curricular opportunities
- Internships
- Serv-Learning
- Undergrad. Res.
- Engage in big questions
- Engagement w/ difference
- Interaction
- Feedback
- Engagement of higher order thinking skills

OUTPUTS

- Signature assignments
- Reflection papers
- Group projects
- Community-based projects
- Multimedia
- Art

Products to assess outcomes, "countables":

OUTCOMES

Learning Outcomes

- Knowledge
- Critical Capacities and Skills
- Quantitative Analysis
- Communications
- Integrate Learning

Expected Changes: short, intermediate, long-term:

Why Integrative Learning?

Why a Milestone?

- Many social problems cannot be resolved by a single disciplinary approach
- Frequent demand from students and faculty against the artificial segmentation of knowledge
- Employer expectation that employees can integrate what learned in variety of contexts

Why? – cont.

- Desire to make more efficient use of resources and equipment by sharing them across disciplines
- Dynamic changes in knowledge construction, blurring disciplinary boundaries
- Electronic technology/internet are transforming the way we organize and seek knowledge, replacing linear with hypertext

Integrative Learning Resources

- Integrative Learning Project – Carnegie Institute for Teaching and Learning
<http://www.carnegiefoundation.org/elibrary/integrativelearning>
- CASTL – Carnegie Academy for the Scholarship of Teaching and Learning



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Help Students Understand What They Are Expected to Accomplish



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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



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What universities are mandated to make or help to make is human beings in the fullest sense of those words—not just trained workers or knowledgeable citizens but responsible heirs and members of human culture...Underlying the ideas of a university—the bringing together, the combining into one, of all the disciplines—is the idea that good work and good citizenship are the inevitable by-products of the making of a good—that is, a fully developed—human being” (1987, p. 77, cited in Parker and Zajonc, 2010, p.1).

Wendell Berry in *The Heart of Higher Education*, Parker Palmer and Arthur Zajonc, 2010



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“Lessons that are too complex to grasp in a single occurrence spiral past again and again, small examples gradually revealing greater and greater implications.”...this means a willingness to return again and again to examine the opportunities their institutions offer students for making connections as they progress through college.

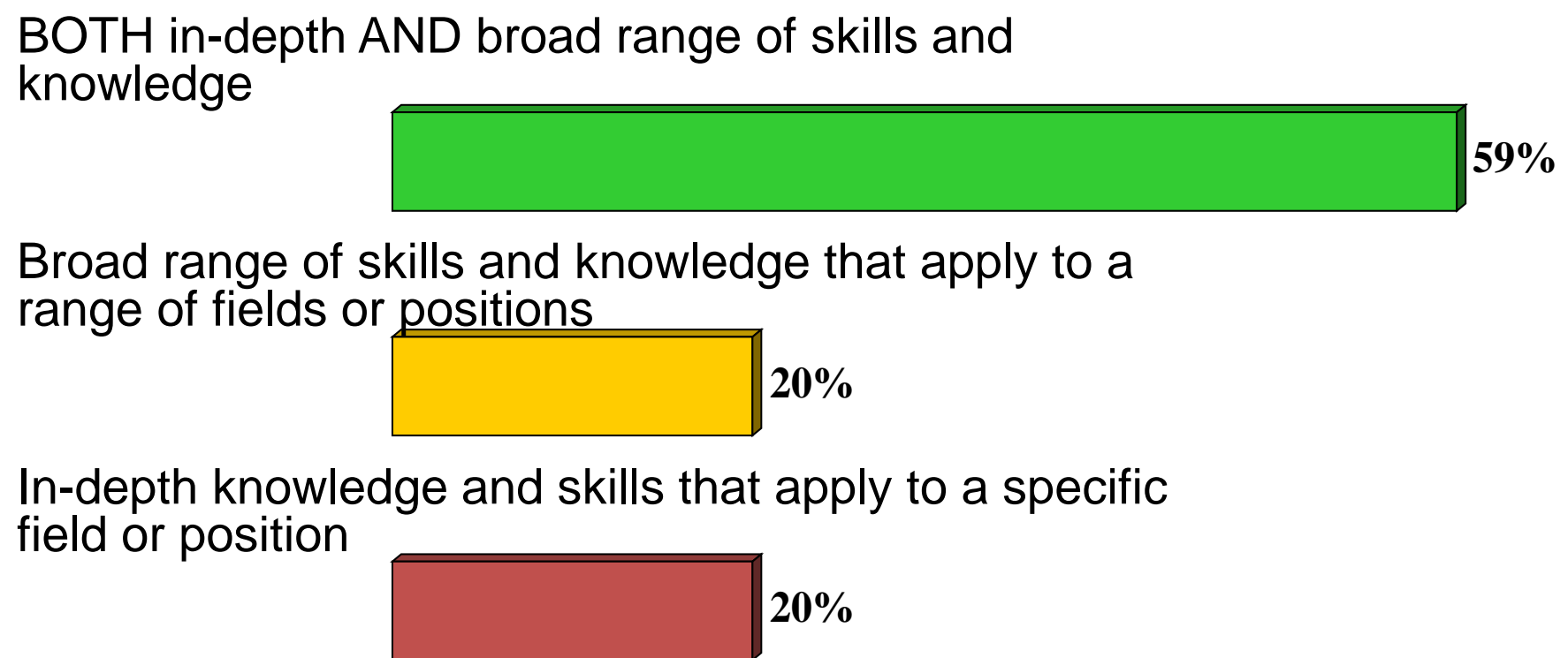
Mary Catherine Bateson, 1994, p. 30



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Broad Skills/Knowledge AND Specific Skills/ Knowledge Are Needed for Career Success

Which is more important for recent college graduates who want to pursue advancement and long-term career success at your company?



Taking Stock of Capstones and Integrative Learning

- ...Seniors who reported a culminating experience were more engaged in educationally purposeful activities than their nonparticipating peers. [Kuh 2008, NSSE 2009]
- Capstones that involve very focused questions in the discipline may not contribute to desired outcomes including integration across disciplines and ideas, use of multiple perspectives, or synthesizing and applying learning to a wider context. [Kinzie 2013]



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Positioning Integration in the Student's Experience

One of the great challenges in higher education is to foster students' abilities to integrate their learning across contexts and over time. Learning that helps develop integrative capacities is important because it builds habits of mind that prepare students to make informed judgments in the conduct of personal, professional, and civic life; such learning is, we believe, at the very heart of liberal education.

~Mary Taylor Huber and Pat Hutchings

Integrative Learning: Mapping the Terrain



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Integrative learning is... (The VALUE of a Rubric Definition)

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.



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The Power of Rubrics as Tools for Both Assessment and High-Impact Learning

- Rubrics to help **guide** students and faculty
- Places individual **faculty judgment** within national shared experience; national benchmarks
- Encourages **students' best work**, encourages **self-assessment**, and allows for mining of samples for **assessment** purposes
- Allows learning to be seen as **portable**, for **cumulative learning** and assessment, to complement other high-impact practices
- Can **build up** from course level to institutional reporting needs AND down from general to specific program/course context

Hallmarks of Integrative Learning (Rubric Framing Language)

Connects previous learning to new learning

Occurs as learners address real-world problems, unscripted and sufficiently broad, to require multiple areas of knowledge and multiple modes of inquiry, offering multiple solutions from multiple perspectives

Creates confident, life-long learners

Provides learners with the ability to adapt

Helps learners make connections

- **...this learning may not be as evident...unless the student...is prompted to draw implications for practice**
- **Connections often surface...in reflective work, self assessment, or creative endeavors of all kinds**
- **Artificial barriers between formal study and informal or tacit learning becomes permeable.**
- **Connects theory & practice towards a greater understanding**

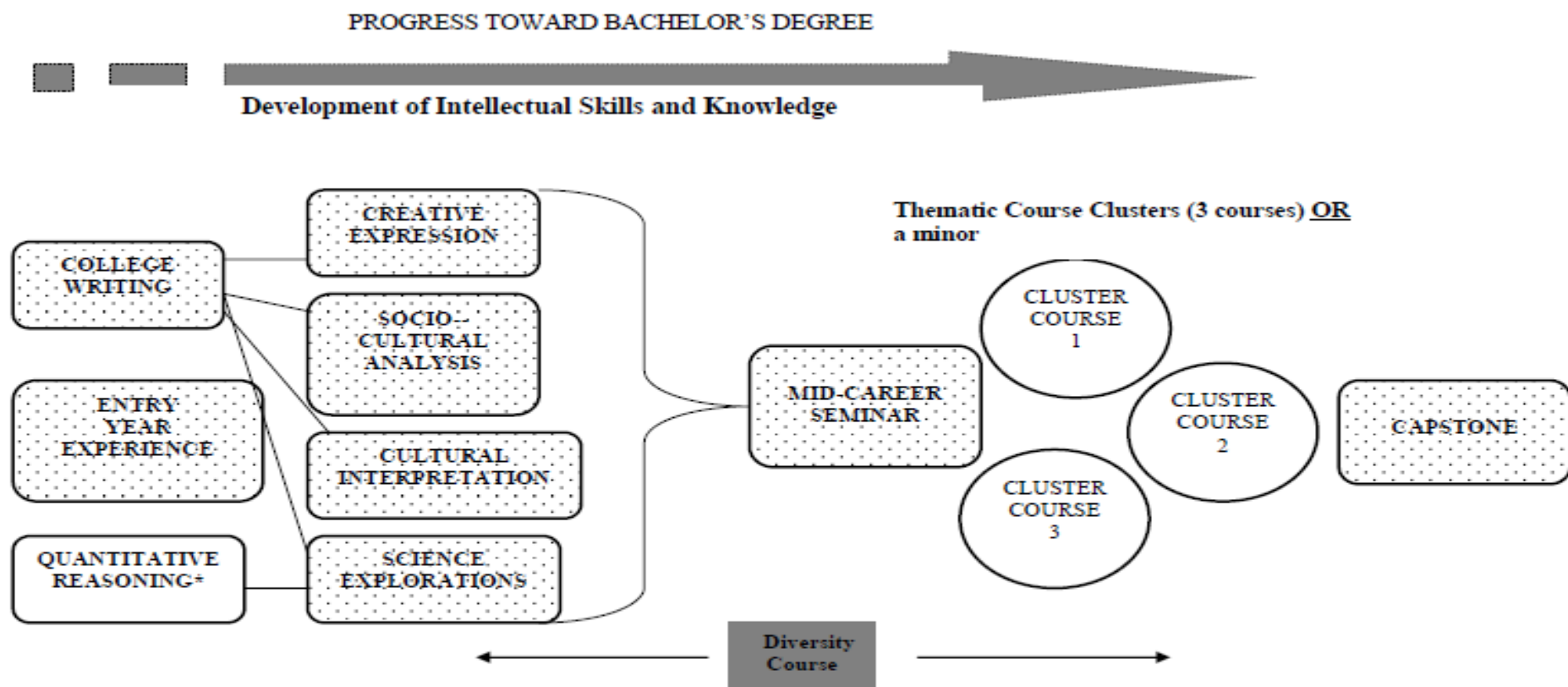
Curricular and Pedagogical Innovations – Led by Faculty – Already Are Creating a 21st Century Vision and Practice for Liberal Education

Directly Connected to the Needs and
Experiences of Today's Diverse Students,
our Diverse Democracy, and an
Interdependent Global Community




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The USM Core Curriculum at the University of Southern Maine



Total Credit Hours: min. of 37; 39 if students complete 4-credit College Writing and Quantitative Reasoning courses.

 Writing intensive

*Quantitative Reasoning must be completed before taking Science Explorations

College Writing must be completed before Creative Expression, Socio-cultural Analysis, Cultural Interpretation and Science Explorations.

Students must complete 3 of the 4 second-tier courses before taking the Mid-Career Seminar

Worcester Polytechnic Institute

the Interactive Qualifying Project

...intentionally broad and integrative experience; student teams are drawn from all disciplines, and the project topic is typically not related to the students' major field.

Sophomore year – design; Junior year - engage

- **Demonstrate** an understanding of the project's technical, social and humanistic context. (1, 7, 8)
- Define clear, achievable goals and objectives for the project. (6)
- **Critically identify**, utilize, and properly cite information sources, and integrate information from multiple sources to identify appropriate approaches to addressing the project goals (7, 10)
- **Select and implement** a sound approach to solving an interdisciplinary problem. (7, 10)
- **Analyze and synthesize** results from social, ethical, humanistic, technical or other perspectives, as appropriate. (8, 9)
- Maintain **effective working relationships** within the project team and with the project advisor(s), recognizing and resolving problems that may arise. (5)
- **Demonstrate** the ability to write clearly, critically and persuasively. (4)
- Demonstrate strong oral communication skills, using appropriate, effective visual aids. (4)
- Demonstrate an awareness of the ethical dimensions of their project work. (9)

AN ASSESSMENT PLANNING MATRIX FOR GENERAL EDUCATION

LEARNING OUTCOMES ACROSS THE CURRICULUM IN THE SPIRIT OF *GREATER EXPECTATIONS*

Guiding questions for a campus:

- Which learning outcomes should be assessed at which critical points? How do they interrelate to form a comprehensive program that can demonstrate cumulative learning over time and across courses?
- What do we already have in place that could serve assessment purposes?
- What might we need to add?
- Which elements should be part of the general education program? Which demonstrate competency building in the major?

Note: A campus should substitute its own outcomes for the examples in the first and second columns.

Outcome area of the intentional learner	Learning outcomes	First-year general education experience (introductory or novice level)	Introduction to the major (introductory or novice level)	Intermediate courses in the major or general education (intermediate level)	Senior capstone or culminating experience in the major or general education (advanced/expert level)
Empowering intellectual and practical skills	<ul style="list-style-type: none"> ■ written communication ■ oral communication ■ second-language proficiency ■ critical thinking ■ creative thinking ■ information literacy ■ quantitative literacy ■ intercultural skills and teamwork 				
Informing knowledge from multiple disciplines	<ul style="list-style-type: none"> ■ experience with various inquiry modes ■ knowledge of cultural artifacts ■ knowledge of the world and its problems ■ comfort with science and technology ■ experience with the arts ■ familiarity with the diversity of the U.S. 				
The examined values of responsible life and citizenship	<ul style="list-style-type: none"> ■ ethical perspectives ■ acceptance of difference ■ civic participation 				
Integration	<ul style="list-style-type: none"> ■ awareness of the learning process ■ ability to draw on different perspectives ■ ability to connect across disciplines ■ ability to apply theory to practice ■ ability to conduct research 				

Outcome Area of the Intentional Learner

EDUCATION

form a comprehensive

competency building in the major?

Note: A case

Outcome area of the intentional learner		First-year general education experience (introductory or novice level)	Introduction to the major (introductory or novice level)	Intermediate courses in the major or general education (intermediate level)	Senior capstone or culminating experience in the major or general education (advanced/expert level)
Empowering intellectual and practical skills	<ul style="list-style-type: none"> written communication oral communication second-language proficiency critical thinking 				
Integration	<ul style="list-style-type: none"> awareness of the learning process ability to draw on different perspectives ability to connect across disciplines ability to apply theory to practice ability to conduct research 				

Integration



AN ASSESSMENT LEARNING OUTCOMES ACROSS

Guiding questions for a campus

- Which learning outcomes program that can demonstrate
- What do we already have
- What might we need to add
- Which elements should be

Note: A campus should substitute its own

Learning Outcome

Ability to draw on different perspectives
Ability to connect across disciplines

Outcome area of the intentional learner	Learning outcomes	First-year general education experience (introductory or novice level)	Introduction to the major (introductory or novice level)	Intermediate courses in the major or general education (intermediate level)	Senior capstone or culminating experience in the major or general education (advanced/expert level)
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The examined values of responsible life and citizenship	<ul style="list-style-type: none"> ■ ethical perspective ■ acceptance of ■ civic participation 				
Integration	<ul style="list-style-type: none"> ■ awareness of the learning process ■ ability to draw on different perspectives ■ ability to connect across disciplines ■ ability to apply theory to practice ■ ability to conduct research 				

AN ASSESSMENT PLANNING MATRIX LEARNING OUTCOMES ACROSS THE CURRICULUM IN THE MAJOR

Guiding questions for a campus:

- Which learning outcomes should be assessed at which program that can demonstrate cumulative learning over time?
- What do we already have in place that could serve as a model?
- What might we need to add?
- Which elements should be part of the general education program?

Note: A campus should substitute its own outcomes for the examples in the table.

First year GE experiences

Intermediate

Outcome area of the intentional learner	Learning outcomes	First-year general education experience (introductory or novice level)	Introduction to the major (introductory or novice level)	Intermediate courses in the major or general education (intermediate level)	Senior capstone or culminating experience in the major or general education (advanced or expert level)
Empowering intellectual and practical skills	<ul style="list-style-type: none"> ■ written communication ■ oral communication ■ second-language proficiency ■ critical thinking ■ creative thinking ■ information literacy ■ quantitative literacy ■ intercultural skills and teamwork 				
Informing knowledge from multiple disciplines	<ul style="list-style-type: none"> ■ experience with various inquiry modes ■ knowledge of cultural artifacts ■ knowledge of the world and its problems ■ comfort with science and technology ■ experience with the arts ■ familiarity with the diversity of the U.S. 				
The examined values of responsible life and citizenship	<ul style="list-style-type: none"> ■ ethical perspectives ■ acceptance of difference ■ civic participation 				
Integration	<ul style="list-style-type: none"> ■ awareness of the learning process ■ ability to draw on different perspectives ■ ability to connect across disciplines ■ ability to apply theory to practice ■ ability to conduct research 				

Introductory or Novice

Capstone, Culminating experience

The Assignment



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Assignment #2: Creative Thinking Value Rubric

You have been invited to prepare the introduction to our special speaker who will be here in less than 48 hours. The individual originally assigned to prepare the introduction has been called away on a family emergency. Your introduction is to be interesting, entertaining and concise. To help you prepare you have decided to make two ten minute calls to individuals who know the special speaker.

NOTE:

- You are to identify the speaker for the event and why you selected this speaker.
- You are given the option of delivering the Speaker Introduction or if you do not give the address you can select someone who you will coach and prepare through the process to make the presentation engaging and personable.

Assignment Products:

- An abstract - This is the interesting, entertaining, and concise introduction
- Chronicle - A chronicle of your performance including:
 - Who you selected as the speaker,
 - Which two individuals you call, why and process for engaging and contacting them,
 - A reflection on your problem-solving,
 - Are you delivering the Speaker Introduction or coaching another, and
 - Evaluation of the process

(Idea: another assignment option would be to do a Public Service Announcement)

Until recently, however, campuses have simply assumed that bright students would “get it” and “pull the pieces of their education together as they moved through their studies,” (Huber and Hutchings, 2004, p. 5).

Today, that no longer seems sufficient. What’s new is the conviction that colleges and universities should make integrative learning an explicit goal, and do what they can through the curriculum, pedagogy, and assessment to help all students—not just the top ones; not just the ones in honors programs, and not just the ones studying the liberal arts and sciences--realize its importance, gain the needed skills, and have opportunities to practice and develop it as a formal part of their college experience. (Huber, *Integrative Learning*, Routledge, 2013)

Campuses Use VALUE Rubrics



*Association
of American
Colleges and
Universities*

Assessment that Matters: Articulating Outcomes to Gauge Improvement

- **VALUE Project** (Valid Assessment of Learning in Undergraduate Education) (www.aacu.org/value)
 - 16 national rubrics
 - Created to:
 - Develop shared understanding of common learning outcomes
 - Improve direct assessment of student learning (in text and non-text formats)
 - Encourage transparency and student self-evaluation of learning
- **Rubric Development & Use**
 - Inter-disc/Inter-institutional teams of faculty/scholars
 - Reviewed existing rubrics to develop broad agreement on dimensions of outcomes (<http://openedpractices.org/resources>)
 - To date accessed by over 4000 institutions/organizations, 24,000 individuals
 - Domestic & international, K-12, state systems
 - National and campus reliability studies

List of VALUE Rubrics

○ Knowledge of Human Cultures & the Physical & Natural Worlds

- Content Areas → No Rubrics

○ Intellectual and Practical Skills

- Inquiry & Analysis
- Critical Thinking
- Creative Thinking
- Written Communication
- Oral Communication
- Reading
- Quantitative Literacy
- Information Literacy
- Teamwork
- Problem-solving

○ Personal & Social Responsibility

- Civic Knowledge & Engagement
- Intercultural Knowledge & Competence
- Ethical Reasoning
- Foundations & Skills for Lifelong Learning
- Global learning

○ Integrative & Applied Learning

- Integrative & Applied Learning

INTEGRATIVE LEARNING VALUE RUBRIC

for more information, please contact valuel@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.

- ① Academic knowledge: Disciplinary learning; learning from academic study; texts, etc.
- ① Content: The information conveyed in the work samples or collections of work.
- ① 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.
- ① 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.).
- ① Experience: Learning that takes place in a setting outside of the formal classroom, such as workplace, service learning site, internship site or another.
- ① 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 portfolio.
- ① 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.
- ① Reflection: A meta-cognitive act of examining a performance in order to explore its significance and consequences.
- ① Self Assessment: Describing, interpreting, and judging a performance based on stated or implied expectations followed by planning for further learning.

The Anatomy of a VALUE Rubric

Criteria

INTEGRATIVE LEARNING VALUE RUBRIC

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Definition

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

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

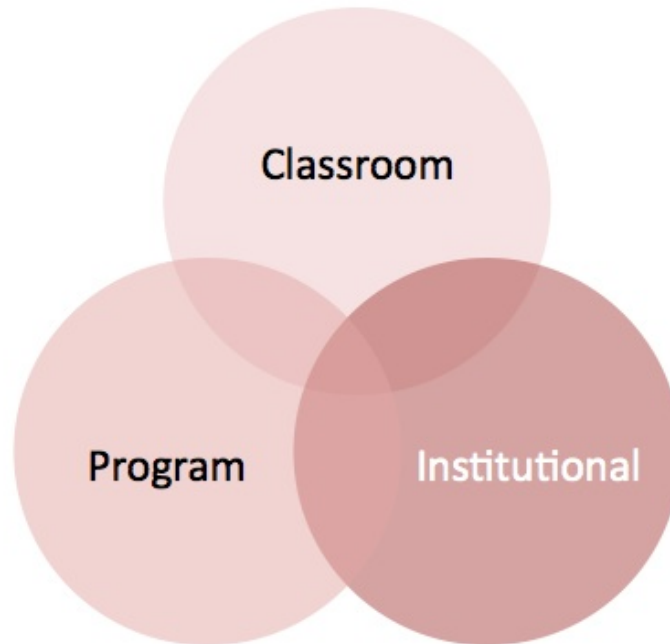
	Capstone 4	Milestones 3	2	Benchmark 1
Connections to Experience <i>Connects relevant experience and academic knowledge</i>	Meaningfully synthesizes connections among experiences outside of the formal classroom (including life experiences and academic experiences such as internships and travel abroad) 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 complex 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 conveys meaning , making clear the interdependence of language and meaning, thought, and action.	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 and possibly makes plans based on past experiences that have occurred across multiple 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.

Levels

Performance
Descriptors

VALUE Rubrics & Assessment

- Types of Assessment



Selected LEAP Publications and Resources on Assessment



*Assessing Outcomes and Improving
Achievement: Tips and Tools for Using
Rubrics*, edited by Terrel L. Rhodes



*Electronic Portfolios and Student Success:
Effectiveness, Efficiency, and Learning*, by
Helen L. Chen and Tracy Penny Light



*Using VALUE Rubrics for Improvement of
Learning and Authentic Assessment*, by Terrel
Rhodes and Ashley Finley

Rubrics online at: www.aacu.org/value/rubrics



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We have had our ***why's***, ***how's***, and ***what's*** upside-down,
focusing too much on ***what*** should be learned, than on
how, and
often forgetting the ***why*** altogether.

In a world of nearly infinite information, we must first
address ***why***, facilitate ***how***, and let the ***what*** generate
naturally from there.

Michael Wesch, “From Knowledgeable to Knowledge-able,” Academic
Commons, January 2009 (academiccommons.org)

Questions?

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