



PNLC
Pacific Northwest
Learning Consortium



"Taking a Look Under the Hood"

Research Findings on General Education Learning

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Parkland, WA

What are Employers Looking For?



General Education Learning

How well do students in higher education
develop General Education....

Skills

Attitudes

Habits of Mind

A Great
Deal

Somewhat

A little

None



Critical Thinking

CAAP Critical Thinking Test measures students' skills in clarifying, analyzing, evaluating, and extending arguments.

A Great
Deal

Somewhat

A little

None



Psychological Well Being

Ryff Scales of Psychological Well-Being: Self-acceptance, environmental mastery, positive relations with others, personal growth, purpose in life, and autonomy

A Great
Deal

Somewhat

A little

None

Diversity Awareness

Miville-Guzman Universality-Diversity Scale: Assesses student awareness and acceptance of both similarities and differences among people.



A Great
Deal

Somewhat

A little

None

Positive Attitude Towards Literacy

*Measures students' enjoyment of reading and
writing*



A Great
Deal

Somewhat

A little

None

Academic Motivation

Measures students' interest in working hard, getting good grades, and engaging challenging intellectual material



A Great
Deal

Somewhat

A little

None



Political & Social Involvement

Measures the importance students place on volunteering, promoting racial understanding, and influencing political structures

A Great
Deal

Somewhat

A little

None

Arts & Science Interest

Measures the importance students place on making a contribution to the arts, humanities and science



A Great
Deal

Somewhat

A little

None

Radical Change

“...although there is considerable number of virtuous and studious youth in the College, yet there has been a practice of several immoralities; particularly stealing, lying, swearing, idleness, picking of locks, and too frequent use of strong drink....”

Report by the Visitation Committee of Harvard College.

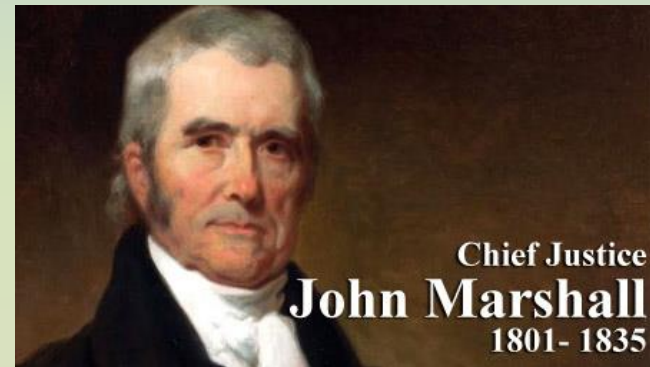
October 9, 1723

Higher Education & Change

United States Higher Education has always been
“Market Driven”



Failed effort to found the
University of the United States



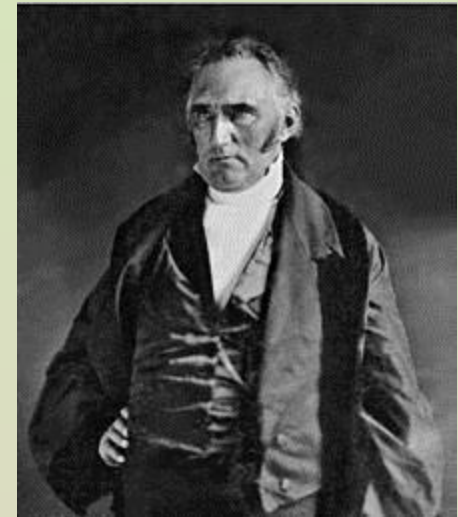
Ruled in favor of Dartmouth
(1819) to prevent state
interference in operations of
the college – led to the
American corporation and the
free enterprise system

Change

- Religious doctrine
- Moral character
- Education for white male elite only
- Modern disciplines – Social and Natural Sciences
- Practical disciplines – Agriculture and the Mechanic Arts
- Research
- Racial and gender equality
- Mass education
- Convenient education

“Many new subjects have been added but the length of college remains the same. Colleges must choose contraction in the number of subjects or, extend college education over a longer period of time – which the American public is unwilling to accept.”

Francis Wayland – President Brown University 1827 - 1856



General Education

“Present college programs are not contributing adequately to the quality of students’ adult lives either as workers or as citizens. This is true in large part because the unity of liberal education has been splintered by overspecialization.”

Report of the President’s Commission on Higher Education, 1947

A TEST OF LEADERSHIP

Charting the Future of U.S. Higher Education

A Report of the Commission Appointed by
Secretary of Education Margaret Spellings

*“At a time when we need to be increasing the quality of **learning outcomes** and the economic value of a college education, there are disturbing signs that suggest we are moving in the opposite direction.”*

Educational Goals

Find a Life Worth Living

Survive

Prosper

“Fit between character of student and institution”

Can we put authentic objective outcome criteria on such subjective outcomes with vastly unique institutions AND variables well out of our control?

Christopher Nelson President, St. John's College in Annapolis

Learning is Iterative & Variable

College Control of Student Experience

Before College

College

After College

Parent
Involvement

Classes
Co-Curricular
Studying



NSPE

National Standardized Parent Exam



Rankings

- Peer Reputation
- Tuition & Fees
- Graduation Rate
- Alumni Giving

LEARNING?

- Yield %
- Pell %
- Endowment Size
- Student Loan Default
- Industry Income
- Jobs & Income of Graduates

Can dogs talk?



WABASH NATIONAL STUDY OF **Liberal Arts** Education

Longitudinal Study of 49 institutions & 17,000 students
Evaluating Liberal Arts Outcomes

Outcome Measures

CAAP Critical Thinking Test

Need for Cognition Scale

Miville-Guzman Universality-Diversity
Scale (M-GUDS)

Socially Responsible Leadership Scale
(SRLS-R2)

Defining Issues Test (DIT-2)

Ryff Scales of Psychological Well-Being

Contribution to the Arts

Contribution to the Sciences

Political and Social Involvement

Professional Success

Openness to Diversity and Challenge

Academic Motivation

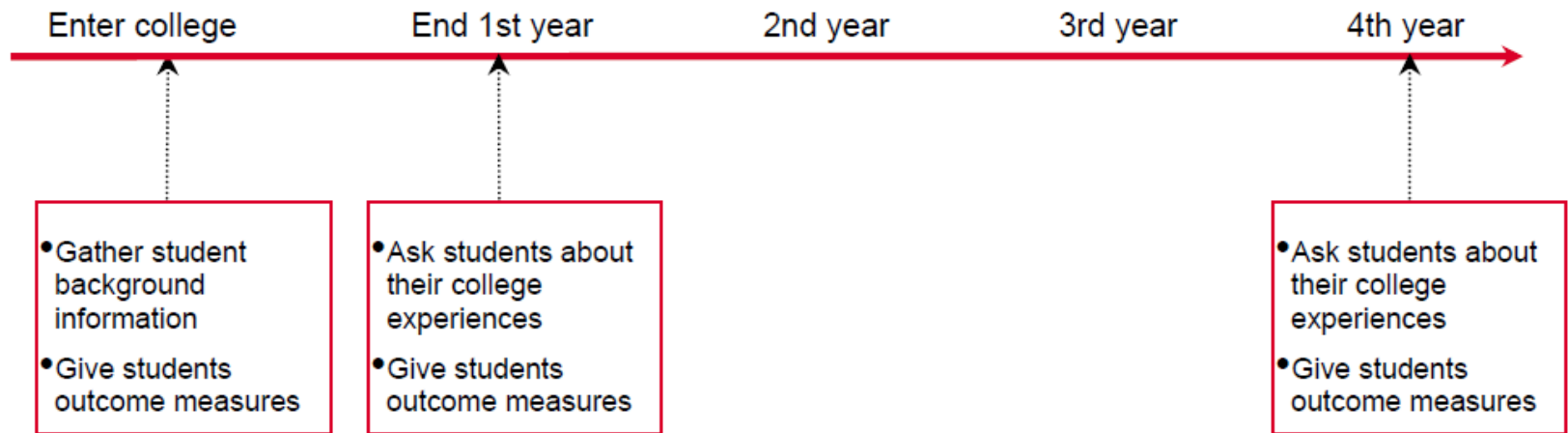
Positive Attitude toward Literacy

Experience Surveys

NSSE

Student Experiences Survey

Timeline



Are Student Self Report Data Valid?

Pedagogies

Supportive Practices



Assignments

WABASH NATIONAL STUDY OF
Liberal Arts Education

Student Self Report?

Longitudinal sample of over 3,000 first-year college students:

“Across several cognitive and non-cognitive outcomes, the correlations between self-reported and longitudinal gains are small or virtually zero”

WABASH NATIONAL STUDY OF
Liberal Arts Education



Liberal Arts Outcomes?

Figure 4. Proportion of students who showed moderate to high growth, small growth, or no growth/decline on Wabash National Study outcome measures over four years of college.

research

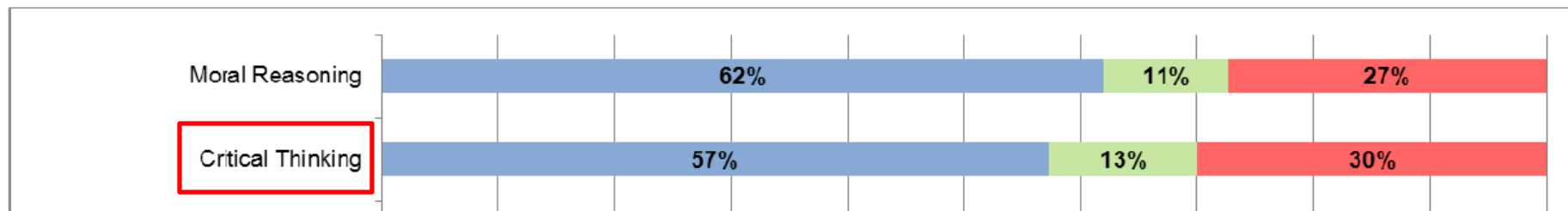


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research

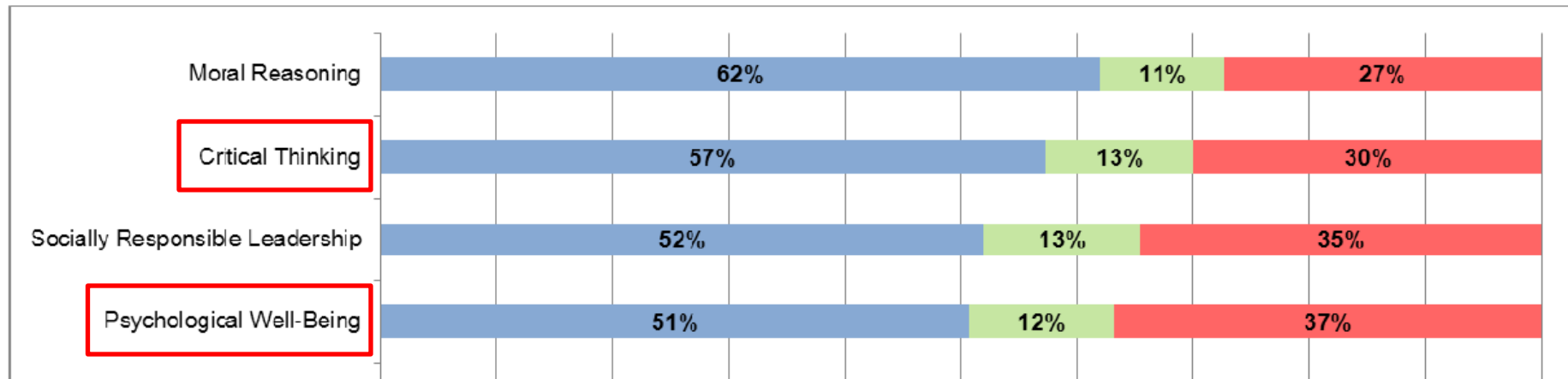


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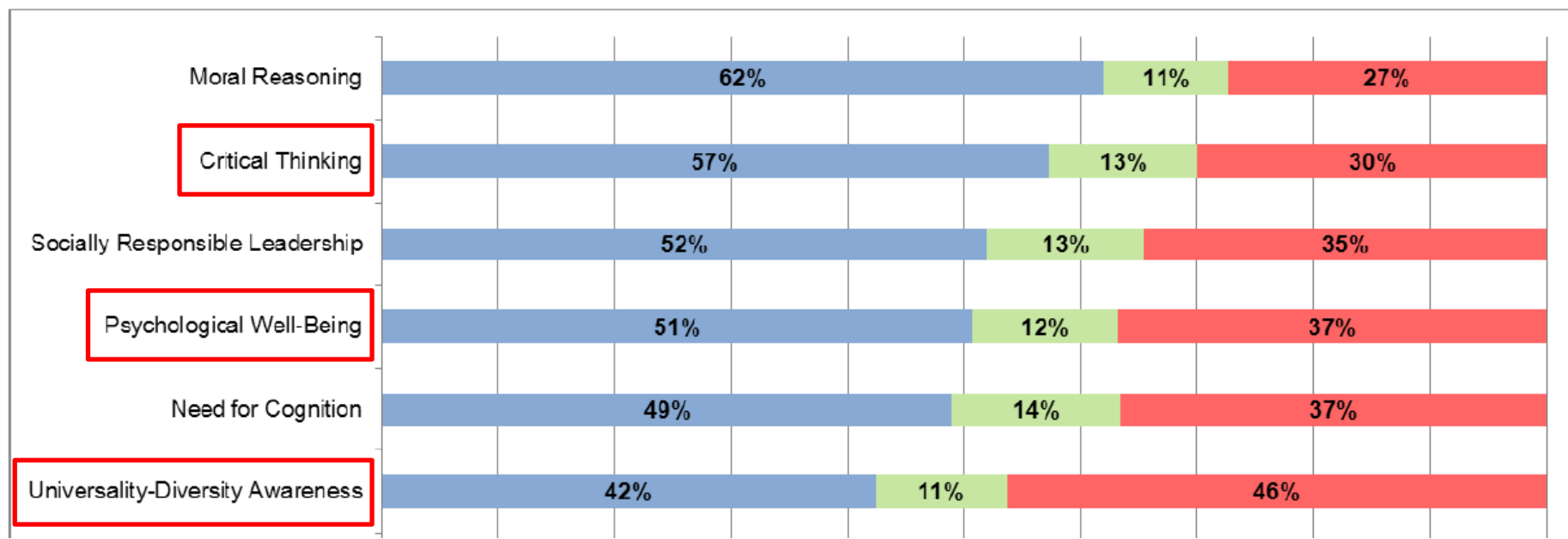


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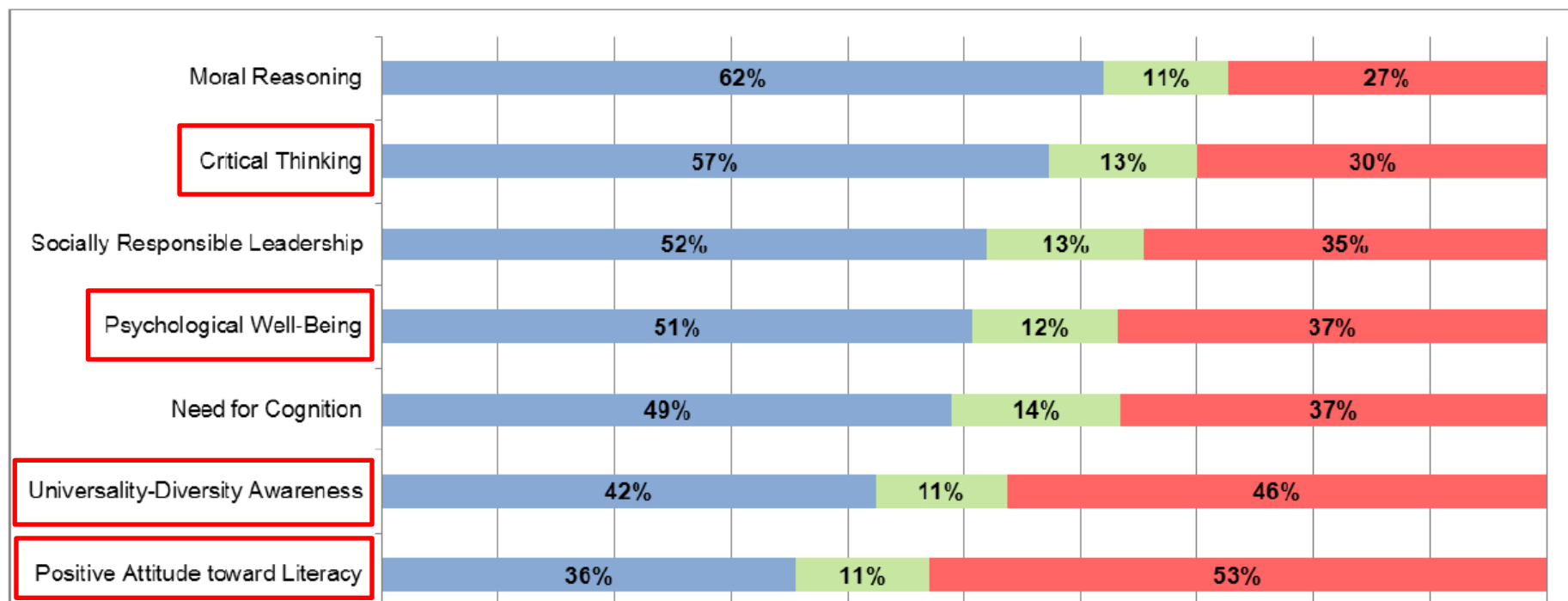


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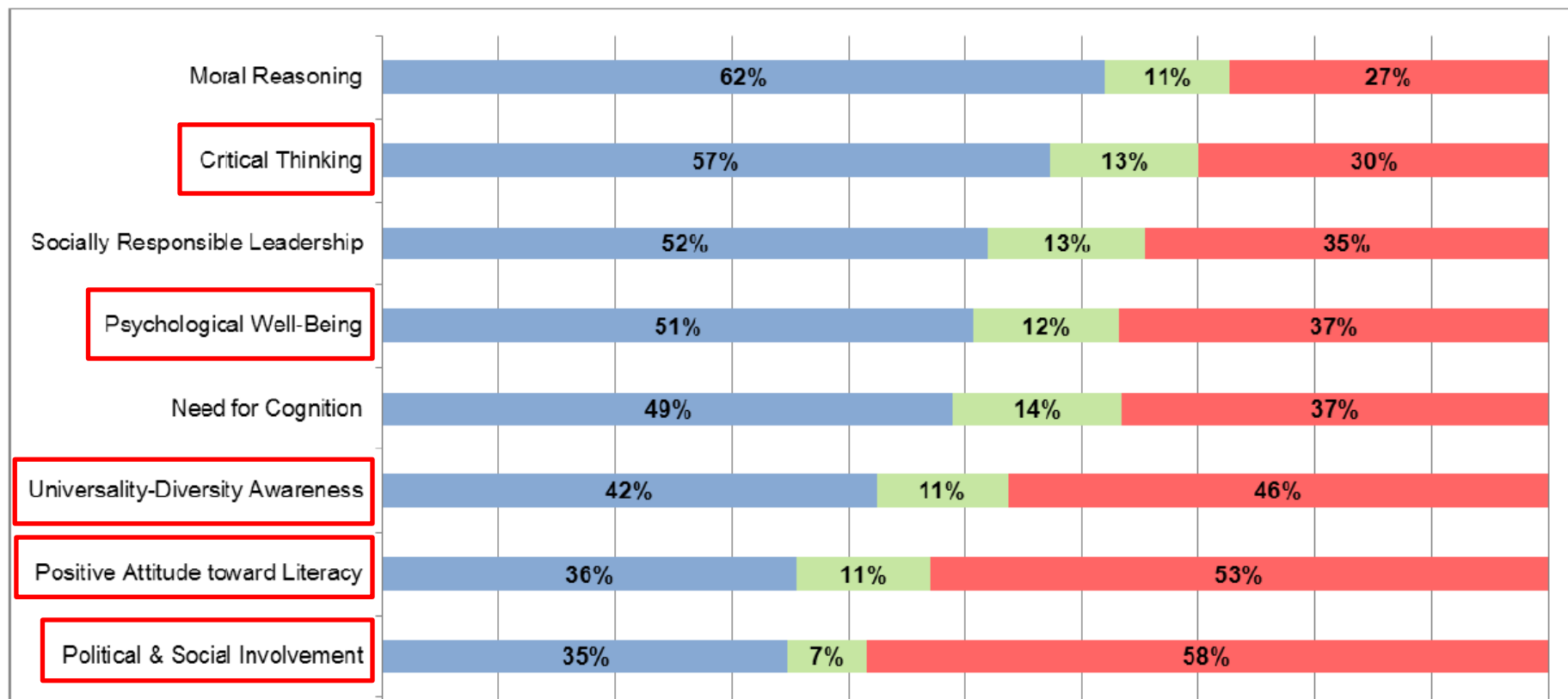


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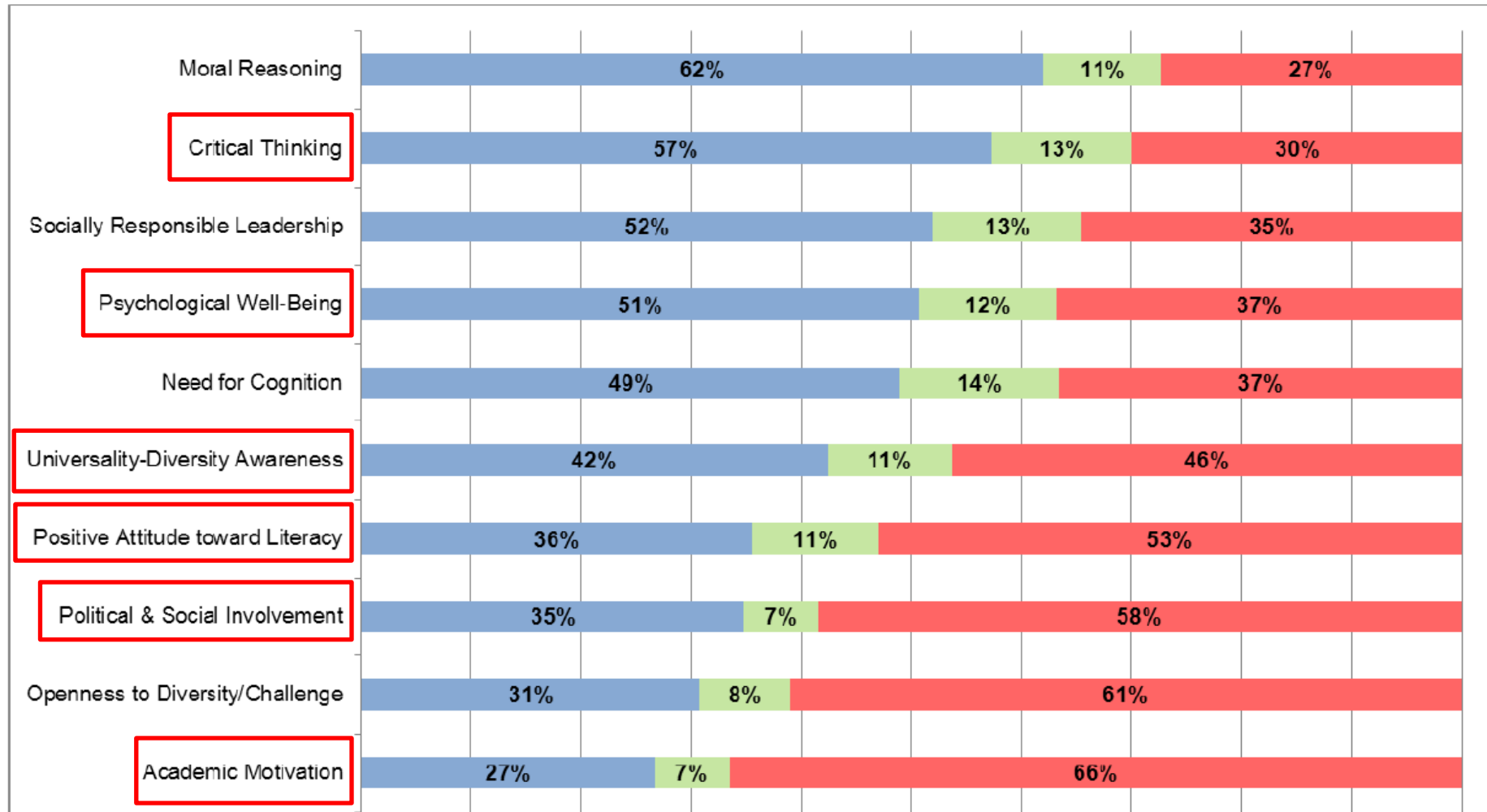


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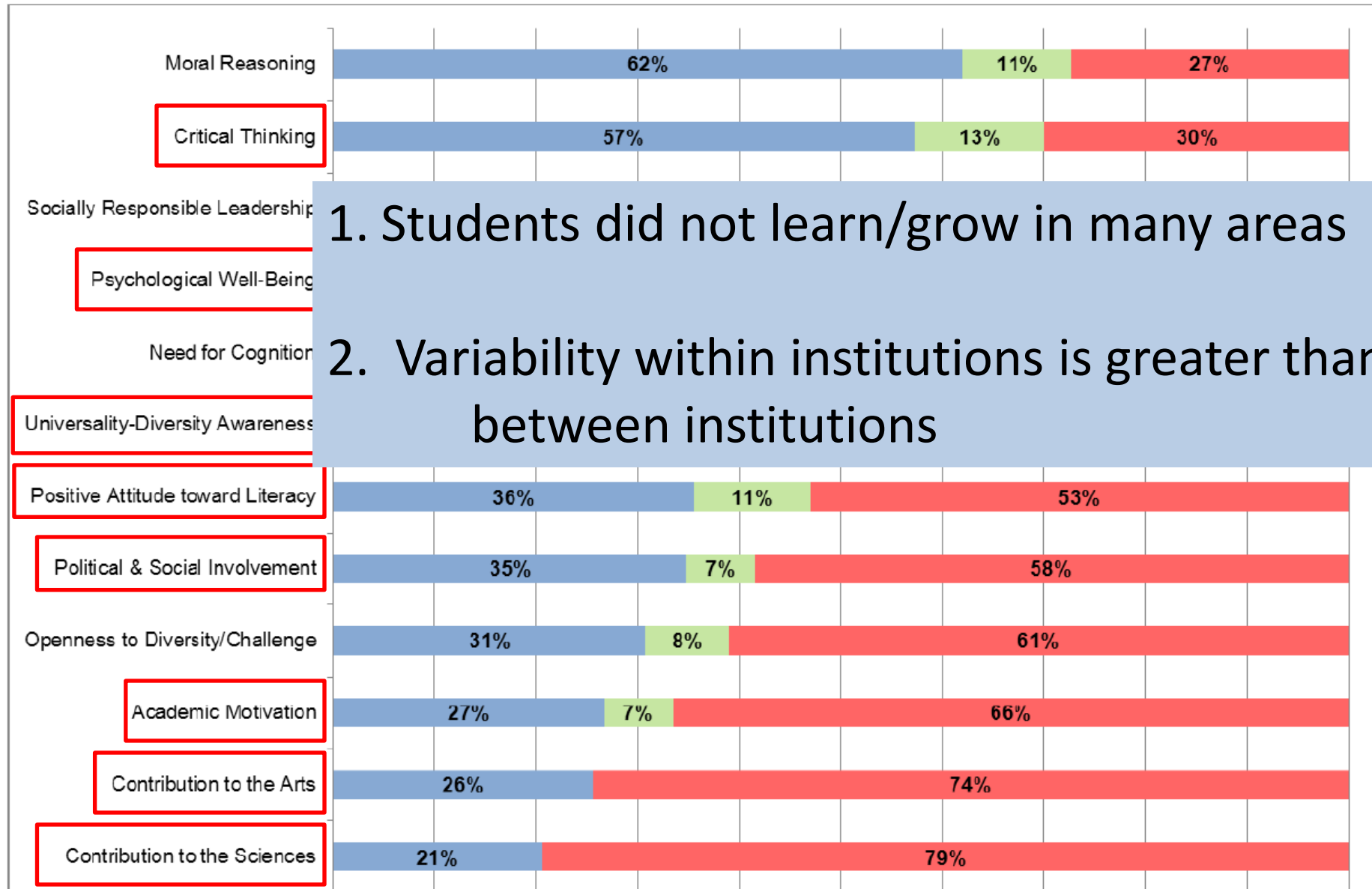


Figure 5. Box plots of the within-institution variation for small colleges (S) and large universities (L) in four-year student change (in standard deviations) in **academic motivation**.

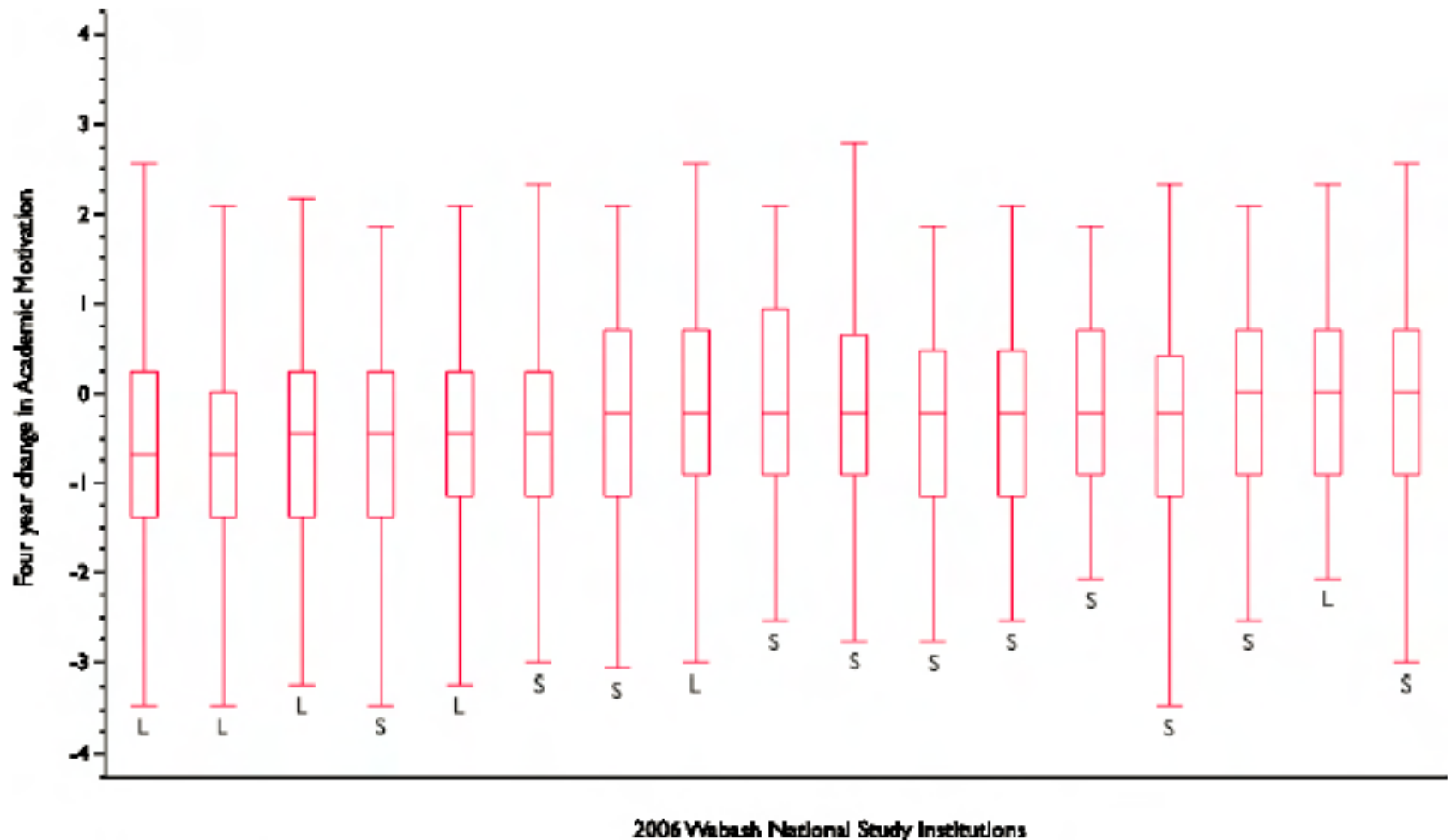
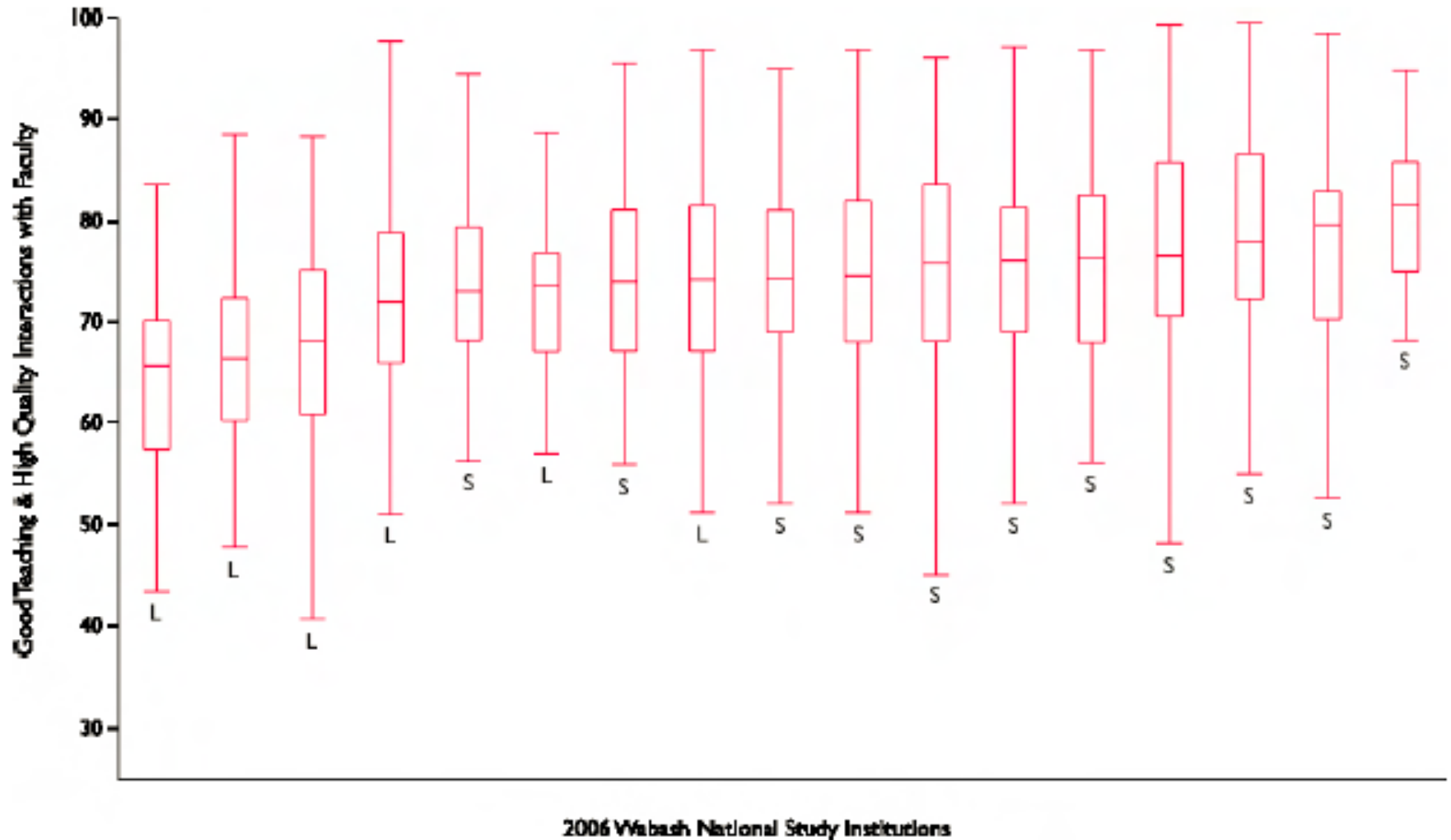


Figure 6. Box plots of the within-institution variation for small colleges (S) and large universities (L) in the level of *good teaching and high-quality interactions with faculty* (scores from 0-100).



What Works?

Good practices from the Wabash Study

- Students who report higher levels of the following are more likely to grow on most of the 12 learning outcomes in the Wabash Study
 - Good Teaching and High-Quality Interactions with “Faculty”
 - ▶ *Faculty/staff interest in teaching and student development*
 - ▶ *Out-of-class student/staff & student/faculty interactions*
 - ▶ *Organization, preparation, clarity, prompt feedback*
 - Academic Challenge and High Expectations
 - ▶ *Hard work, challenging assignments and interactions*
 - ▶ *Synthesis, judgment, integration, and reflection*
 - Interactional Diversity
 - ▶ *Meaningful interactions*
 - Deep Learning
 - ▶ *Higher-order, integrative, and reflective learning*

Chickering & Gamson (1987)

Good Teaching Practice

- 1. Interaction between students and faculty.**
- 2. Interaction and collaboration between students.**
- 3. Active learning techniques.**
- 4. Prompt feedback.**
- 5. Emphasizes time on task.**
- 6. Communicates high expectations.**
- 7. Respects diversity --- talents, experience, and ways of learning.**

*“Learning begins with student engagement, which in turn leads to knowledge and understanding. Once someone understands, he or she becomes capable of performance or action. Critical reflection on one’s practice and understanding leads to **higher-order thinking** in the form of a capacity to **exercise judgment in the face of uncertainty** and to create **designs in the presence of constraints and unpredictability**. Ultimately, the exercise of judgment makes possible the **development of commitment**. In commitment, we become capable of **professing our understandings** and our **values, our faith and our love**, our skepticism and our doubts, **internalizing those attributes and making them integral to our identities.**”*

Schulman, 2002

Academic Reach?

Higher Education may need to be honest about what it REALLY provides to the majority of students

Mission,
Educational Values,
Espoused Outcomes
Are High Ideals....

Not something we can
control or even measure
in most cases



Academic Reach?

Internally agree upon these outcomes and
define standards

Avoid excessive standardization

But

Have Standards



Academic Reach?

Develop a means to constructively communicate these outcomes to the public in order to change the national conversation



If outcomes are often WORSE at the end for students in residential 4 year institutions....

What does this say about outcomes for students that swirl in and out of multiple institutions and transfer credit based on words in a syllabus?

Well Established Institutions Have Inertia Difficult to Change

Tax System



Health Care Delivery



Well Established Institutions Have Inertia Difficult to Change

Inequality

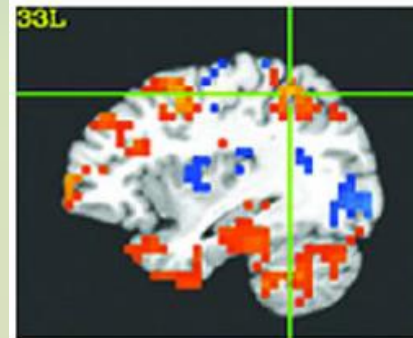
Figure I.1. Income inequality in the United States, 1910-2010



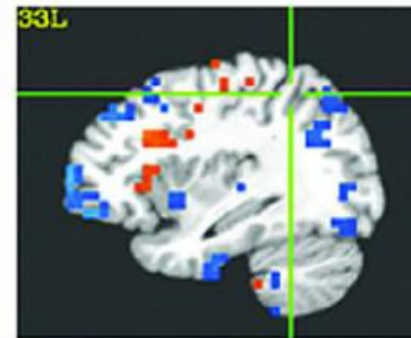
The top decile share in U.S. national income dropped from 45-50% in the 1910s-1920s to less than 35% in the 1950s (this is the fall documented by Kuznets); it then rose from less than 35% in the 1970s to 45-50% in the 2000s-2010s. Sources and series: see piketty.pse.ens.fr/capital21c.

American Football

Pre-Season



In-Season



Higher Education

Is learning and competency used in applying credit to student transfers?

Do students gain the skills, attitudes and habits of mind they need to succeed?

Educational Attainment in the U.S.*	1910	2012
25 or older with a High School Diploma	13%	87.6%
25 or older with a Bachelor's Degree	2.7%	31%
College Enrollment	350,000	21,000,000

*National Center for Education Statistics



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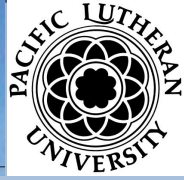


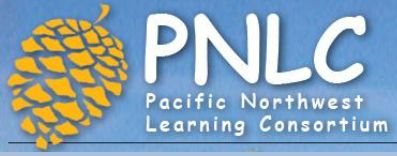
Thank You !

One Day Student Learning Workshops in October:

October 22 – Spokane, WA	Developing and Implementing Assessment Plans
October 24 – Portland, OR	Understanding Student Learning in General Education

www.plu.edu/pnlc





Tips

1. Be COMMITTED to improvement – Incremental, Long-Term, Sustainable
 2. Education goals & process MUST stem from mission & culture
 3. Value the notion of openly QUESTIONING long standing institutional practices
 4. EMBRACE the fuzzy world of program level learning – it is not research !
 5. The first “understanding student learning experience” NEEDS to be a good one
 6. Pilot, pilot again, AND again
 - a. Be willing to EXPERIMENT before data is “conclusive”
 - b. Develop rubrics/methods of evaluation – get close enough – observable,
 - c. Create 4 levels ONLY in the rubric (2 above, 2 below)
 - d. Develop the rubric and analyze student evidence TOGETHER with those that teach the courses
 - e. Use student evidence to support and drive faculty development, curricular/pedagogical change
 - f. Return to a.
- QUALITY TEACHING IS WHAT MATTERS !

COMPREHENSION

ANALYSIS

EVALUATION

KNOWLEDGE

APPLICATION

SYNTHESIS

	Associate				
Cite	Classify		Analyze	Arrange	Appraise
Count	Compare	Apply	Appraise	Assemble	Assess
Define	Compute	Calculate	Calculate	Collect	Choose
Draw	Contrast	Classify		Compose	Compare
Identify	Differentiate	Demonstrate	Categorize	Construct	Criticize
List	Discuss	Determine	Classify	Create	Determine
Name	Distinguish	Dramatize	Compare	Design	Estimate
Point	Estimate	Employ	Debate	Formulate	Evaluate
Quote	Explain	Examine	Diagram	Integrate	Grade
Read	Express	Illustrate	Differentiate	Manage	Judge
Recite	Extrapolate	Interpret	Distinguish	Organize	Measure
Record	Interpolate	Locate	Examine	Plan	Rank
Repeat	Locate	Operate	Experiment	Prepare	Rate
Select	Predict	Order	Inspect	Prescribe	Recommend
State	Report	Practice	Inventory	Produce	Revise
Tabulate	Restate	Report	Question	Propose	Score
Tell	Review	Schedule	Separate	Specify	Select
Trace	Tell	Solve	Size	Synthesize	Standardize
Underline	Translate	Translate	Test	Write	Test
		Use			Validate
		Write			

COMPREHENSION

ANALYSIS

EVALUATION

KNOWLEDGE

APPLICATION

SYNTHESIS

Associate				Appraise
Classify			Analyze	Assess
Compare	Apply		Assemble	Choose
Compute	Calculate		Collect	Compare
Contrast	Classify		Compose	Criticize
Differentiate	Demonstrate		Construct	Determine
Discuss	Determine		Create	Estimate
Distinguish	Dramatize		Design	Evaluate
Estimate	Employ		Formulate	Grade
Explain	Examine		Integrate	Judge
Express	Illustrate		Manage	Measure
Extrapolate	Interpret		Organize	Rank
Interpolate	Locate		Plan	Rate
Locate	Operate		Prepare	Recommend
Predict	Order		Prescribe	Revise
Report	Practice		Produce	Score
Restate	Report		Propose	Select
Review	Restructure		Specify	Standardize
Tell	Schedule		Synthesize	Test
Translate	Sketch		Write	Validate
	Solve			
	Translate			
	Use			
	Write			
		Test		

“Assessment practices, and data-gathering, vary widely across different disciplines. How can administrators aggregate data from different departments and programs to arrive at meaningful comparisons with regard to student learning outcomes?”

- Understanding student learning is ***engaged community action***, not research. Enforcing standardized reporting methods may or may not be the most helpful course of action.
- Don't let methodological imperfection deter incremental improvement.
- Think about these questions:

What is most useful ?

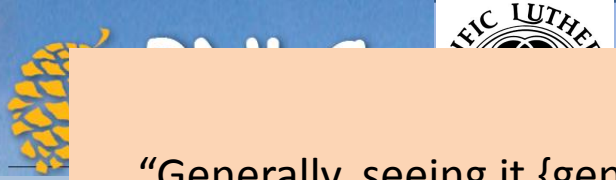
What is politically viable ?

What “comparisons” would aid our understanding of student learning ?

“What are the best practices for integrating assessment without it becoming burdensome for faculty?”

Most faculty already make efforts to understand student learning – however, changes based on what faculty ***already know*** are sometimes supported by anecdote and made in an ad-hoc manner...if changes are made at all.

- Find out what area of learning people are interested in
- If you have a senior experience/capstone, often faculty will describe the deficiencies students bring to this culminating experience – START THERE.
- Keep it simple and focused:
 - Pick one outcome, and one only as a start – let people’s interests guide the focus
 - Pick one assignment/project in a course to use as evidence as a start
 - Spend one day agreeing upon a rubric and evaluating student work
 - Write a few paragraphs about what you learned and what you will do next
 - You are done until next time !



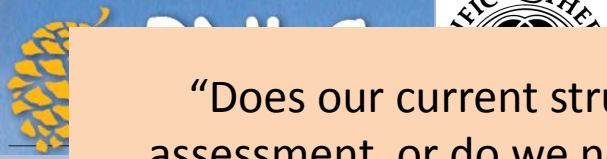
“Generally, seeing it {general education} as more than just hoops to jump through (both the student and faculty perspective). Why exactly are students required to take these classes? It would be good to better explicate that.”

Be authentic and transparent about reality:

“The current state of affairs in our departments, curricular structures, and programs is usually a compromise carefully negotiated among numerous parties over the course of years. Unless the findings are truly devastating, assessment data has little impact on this tightly constrained arrangement.”

Blaich & Wise, NILOA 2011

Politically – What is the motivation for change?



“Does our current structure of General Education requirements lend itself to assessment, or do we need to better articulate our learning objectives? How can learning objectives be more consistent without imposing undue restraints on faculty regarding course content?”

Start with mission & core educational values where faculty share a passion:


Consider these questions:

Is our current general education system serving students optimally?

How would we know or find out?

What would student behavior/performance look like if the goal is met?

Are we being realistic about what our students learn?



“We don’t have a good way of assessing learning outcomes except in a VERY general way through the CLA. What is the solution to these curricular and assessment issues?”

Realize CLA is for accountability – not understanding student learning

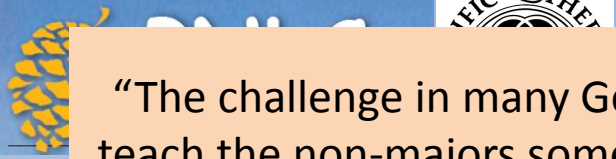
CLA: Critical Thinking, Analytic Reasoning, Problem Solving

Problems:

81% of the variance in institution scores is due to students’ prior learning

“Value Added”, while appealing, is not a valid means to measure changes in student learning (it can work in a laboratory with random sampling and controlling of variables). Reliability score is 0.1 for student learning.

Not tied to what faculty do in the classroom and curriculum



“The challenge in many Gen Ed classes that have mixed populations of students is to teach the non-majors something without boring the majors. In some cases the majors don’t even bother to buy the book since they have already covered much of the material in HS. Kind of sad, in my opinion.”

Down the road – as faculty embrace the idea of change....

Leave Fiefdom Gen Ed and embrace Core Learning tied to mission:

Requires collaborative discussions across departments/units in which faculty wrestle with what general education means at the institution.

Communication

Information Literacy

Critical Thinking

Global and Civic Leadership

Ethical Reasoning

Quantitative and Scientific Reasoning

Creative Expression