

## Using NSSE in Department-Level Assessment

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## Department/Program - Level Assessment

- Most assessment on campus goes on at the department level
- Results from national surveys like NSSE are typically used at the institution-level
- Evidence of student engagement should be used for multiple levels of assessment

## Engaging Departments

Peer Review 12 (1),  
 Winter 2010  
**Engaging Departments:  
 Assessing Student  
 Learning**

Issue explores how departments are developing assessment approaches that deepen student learning. The features draw on sessions and presentations from AAC&U's 2009 Engaging Departments Institute.



www.aacu.org/peerreview/



## Why NSSE at the Department/Program Level Assessment?

- Explore "variation within"
- Measure dept/program level goals and provide feedback for improvement
- Faculty members more likely to take ownership of department level results than institutional results
- Results more likely to be actionable

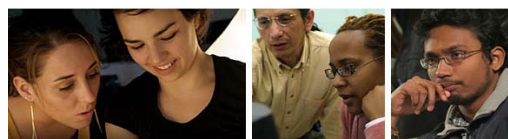
## Levels of Assessment and NSSE

- Institution Level
  - College/Department/Program-Level
    - NSSE "Major Field" reports (2009)
    - Value of NSSE "Scalelets"
    - Focused, "item level" examination
    - FSSE by discipline (collapsed 80+ disciplines into 9 categories to parallel major campus organizational units)
  - Course-Level
    - CLASSE
    - Special item use permissions
- Beyond Reports: Requires Additional Analysis

## Approach #1



Take advantage of existing NSSE reports and relate to department/program goals



## NSSE MAJOR Reports

National Survey of Student Engagement											
NSSE 2009 Benchmark Statistics <sup>®</sup>											
NSSEville State University											
BUSINESS					BUSINESS Seniors						
BUSINESS First-Year Students					BUSINESS Seniors						
Mean	SD	SEMI	DF (ones)	Diff.	Effect size*	Mean	SD	SEMI	DF (ones)	Diff.	Effect size*
<b>LEVEL OF ACADEMIC CHALLENGE (LAC)</b>											
NSSEville State	51.8	11.4	2,319	23		57.2	11.8	2,228	27		
Mid East Public	53.2	13.9	40	1,255	-1.4	632	-10				
Carnegie Class	54.0	13.2	17	6,322	-2.2	429	-17				
NSSE 2009	54.8	13.2	09	25,393	-2.9	412	-17				
<b>ACTIVE AND COLLABORATIVE LEARNING (ACL)</b>											
NSSEville State	88.6	14.6	3,05	23		85.8	15.7	3,02	27		

- Reports established in 2009
  - Individual items and benchmark scores
  - 8 Major Field Reports (comparison between)
  - Majors Within Institution comparison

## Major Field Comparisons Within Institution

National Survey of Student Engagement										
NSSE 2009 Frequency Distributions BY MAJOR										
NSSEville State University										
Seniors										
		Arts and	Biological	Business	Education	Engineering	Physical	Professional	Social	Overall
		Sciences	Sciences				Sciences	Sciences	Sciences	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean
No. asked questions in class or contributed to class	QUEST (ACL)	3.0%	4.3%	4.3%	4.1%	3.1%	3.2%	2.1%	0.0%	3.1%
	Business	8.2%	7.4%	11.4%	4.2%	4.2%	4.3%	8.2%	8.2%	11.3%
	Other	18.8%	2.1%	12.4%	10.1%	10.1%	8.5%	13.8%	13.8%	18.1%
	Very often	29.10%	11.10%	27.10%	17.10%	17.10%	12.10%	19.10%	19.10%	18.10%
No. made a class presentation	PRESENT (ACL)	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%	6.1%
	Business	3.1%	3.2%	3.1%	4.2%	4.2%	4.3%	5.2%	5.2%	3.2%
	Other	14.4%	4.3%	17.4%	2.1%	2.1%	3.2%	7.1%	7.1%	10.4%
	Very often	12.4%	4.3%	5.1%	11.6%	11.6%	4.2%	7.1%	7.1%	15.1%
No. prepared notes or outline before class or assignment	PREP (ACL)	5.1%	5.1%	4.1%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%
	Business	13.4%	3.2%	12.4%	6.1%	6.1%	6.1%	4.2%	4.2%	18.4%
	Other	6.2%	7.4%	4.1%	6.1%	6.1%	2.1%	4.2%	4.2%	18.2%
	Very often	5.1%	2.1%	7.2%	5.1%	5.1%	1.2%	4.2%	4.2%	15.1%
No. worked on a paper or project before class or assignment	WORK (ACL)	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	Business	0.1%	0.1%	2.4%	2.4%	2.4%	1.1%	1.1%	1.1%	7.1%
	Other	10.3%	1.1%	10.3%	3.2%	3.2%	4.3%	4.3%	4.3%	20.1%
	Very often	19.4%	4.3%	16.1%	11.6%	11.6%	7.2%	14.1%	14.1%	16.1%
No. included diverse perspectives (different views, religions, genders, political beliefs, etc.) in class discussions or writing	DIVER (ACL)	2.1%	0.1%	1.4%	0.1%	0.1%	0.1%	2.1%	2.1%	2.1%
	Business	5.1%	4.3%	8.2%	4.2%	4.2%	2.1%	2.1%	2.1%	10.4%
	Other	12.4%	3.4%	11.4%	3.2%	3.2%	4.3%	7.1%	7.1%	17.1%
	Very often	10.3%	2.1%	7.2%	8.4%	8.4%	4.3%	9.4%	9.4%	13.1%
No. came to class without completing readings or assignments	CLC (ACL)	3.1%	2.1%	11.4%	9.4%	9.4%	7.2%	1.1%	1.1%	2.1%
	Business	17.1%	9.4%	18.1%	7.4%	7.4%	4.3%	15.1%	15.1%	17.1%

## Using Major Field Reports

- Share reports with Colleges/Schools and Departments/Programs
- Encourage review of all Major Field Reports, but encourage attention on items that relate to department learning goals and concerns (i.e., senior writing, advising, collaborative learning)
- Showcase examples of use among departments

## Examples of Department/Program use of Major Field Reports

- **Indiana State University's College of Education** uses NSSE items related to diversity & technology to assess senior teaching candidates
- **Iowa State University's College of Business** uses NSSE items related to technology & global awareness in strategic plan

## Tailoring Major Field Reports

- Customized major groupings
- Added graphs to illustrate benchmark scores comparisons



## University of Washington-Seattle

### Benchmarks by UW Student Major Group

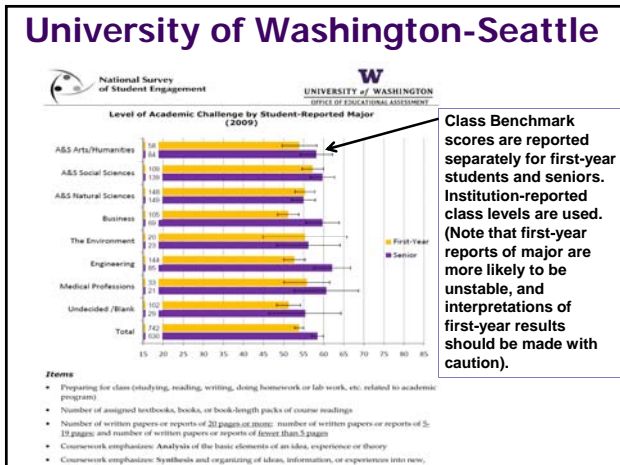
- Report presents results for 5 NSSE benchmarks by self-reported student major. In general, majors were grouped by UW-S college. Within COAS there were 3 groups: Arts/Humanities, Social Sciences, and Natural Sciences. Medical professions formed a single group.



### Detailed Statistics

#### First-Year Students

Scale		A&S Arts/	A&S	A&S	The	Engineer-	Medical	Undecided	Total
		Humanit.	Social Sc.	Natural Sc.	Environ-	ing	Professors	(Blank)	
				Business	ment				
Level of Academic Challenge	M	54.0	57.3	55.3	51.1	55.3	52.7	55.8	51.3
	SD	12.3	10.7	11.5	10.4	16.3	12.2	12.0	11.4
	n	58	109	148	105	20	144	33	102
Active and Collaborative Learning	M	37.7	40.5	37.3	38.4	40.0	37.9	45.2	39.4
	SD	13.1	15.3	14.5	13.9	14.8	14.8	13.6	15.7
	n	58	109	148	105	20	144	33	145



### FSSE Results by Discipline

Faculty perceptions of students using deep approaches to learning and sub-scales by general area of academic appointment

Area of Academic Appointment	Deep Approaches to Learning	Reflective Learning	Integrative Learning	Higher-Order Learning
Professional	2.83	2.67	2.71	3.13
Education	2.81	2.68	2.73	3.01
Arts & Humanities	2.65	2.61	2.52	2.83
Social science	2.84	2.60	2.54	2.76
Business	2.63	2.40	2.40	2.94
Other	2.62	2.39	2.37	2.80
Engineering	2.67	2.18	2.33	3.01
Biological science	2.32	2.26	2.14	2.58
Physical science	2.19	2.08	1.85	2.61
Total	2.50	2.45	2.84	2.60

## Approach #2

**Limit the agenda. Focus on a collection of items, particularly those that mean something to the department and probe deeply.**

## Using Scalelets

- Survey results most likely to be used when the results are disaggregated
  - specific to a program or unit (e.g., college or department)
  - focused on specific areas or outcomes
- NSSE scalelets provide a mechanism for disaggregating NSSE results to the college or department level without resorting to over-sampling

## NSSE Scalelets

- NSSE Scales and Scalelets
  - Smaller, more reliable measures
  - NSSE Scale properties:
    - [http://nsse.iub.edu/pdf/Norms%20and%20Scales-%202008NSSE\\_Scales\\_Scalelets.pdf](http://nsse.iub.edu/pdf/Norms%20and%20Scales-%202008NSSE_Scales_Scalelets.pdf)
    - Active learning
    - Higher order thinking
    - Course-Related Interactions with Faculty
    - Diversity experiences
    - Scales to measure perceived gains in social, practical, and academic competence

## Using Scalelets

Research in Higher Education, Vol. 47, No. 2, March 2006 (© 2006)  
DOI: 10.1007/s1162-005-8885-3

### THE DEPENDABILITY OF NSSE SCALELETS FOR COLLEGE- AND DEPARTMENT-LEVEL ASSESSMENT\*

Gary R. Pike\*\*

12 dependable metrics for assessment at College and Department Level

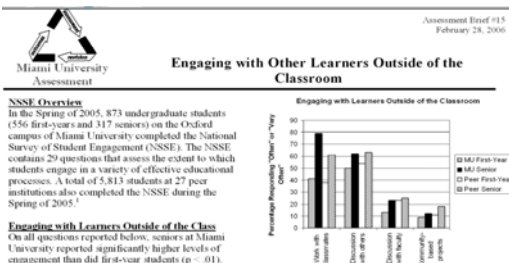
College and university administrators, as well as faculty members, are more likely to take responsibility for student learning if they believe that the assessment data represent their students and suggest specific actions for improvement. This study examined whether it is feasible to develop scalelets (i.e., focused measures, usually consisting of four or five items) that provide dependable metrics for assessing student learning at the college or department level. A generalizability analysis of 12 scalelets from the National Survey of Student Engagement (NSSE) indicated that the scalelets provided dependable measures of educational effectiveness with 25-50 respondents.

KEY WORDS: assessment; surveys; generalizability theory.

Pike, G.R., (2006). The Dependability of NSSE scalelets for college and department-level assessment. *Research in Higher Education*, Vol. 47, No. 2.

## Share Results on Limited Item Set

Assessment brief presents results on “engaging with other learners outside the classroom” (4 items) – create report for each college or department



## Probe Deeply: Add NSSE Items to Department/Course Level Surveys\*

### Oklahoma State University

- **OSU College of Education** included additional NSSE-type questions to examine diversity issues, an area of concern for that college's NCATE accreditation.
- **OSU School of Business** conducted a local version of NSSE. Then developed a faculty working group to examine college-level results from national and local NSSE surveys.
- **OSU Zoology Department** integrated NSSE survey questions into existing senior surveys to obtain larger sample sizes and more meaningful results on topics of particular concern. *\*Contact NSSE to Request Permission for Item Use*

## Approach #3



Structure assessment effort around a concrete problem of practice.



## Address Department Concern

### Writing in Arts and Science

- Faculty concerned about quality of writing in senior projects
- In general, writing at the University was on par with other institutions, but the College of Arts and Science was struck by the writing results for its seniors which trailed the institution

#### NSSE Writing Scalelet

1 rewrap	Prepared two or more drafts of a paper or assignment before turning it in
2 integrat	Worked on a paper or project that required integrating ideas or information from various sources
3 writemw	Number of written papers or reports of 20 pages or more
4 writemid	Number of written papers or reports between 5 and 19 pages
5 writeshl	Number of written papers or reports of fewer than 5 pages

## Address Department Concern cont'd

### Writing in Arts and Science

- 2 items low for seniors in A&S
  - Prepared 2+ drafts of a paper or assignment before turning it in
  - Worked on a paper/project that required integrating ideas or information from various sources
- Resulted in pedagogical intervention: intentional opportunities for drafting and integrated assignments in sophomore and junior courses in the major

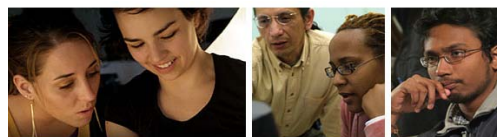


## Approach #4



Focus on outcomes distinctive to the program.

*What are the distinctive experiences for Seniors?*



## Distinctive Experiences in Business

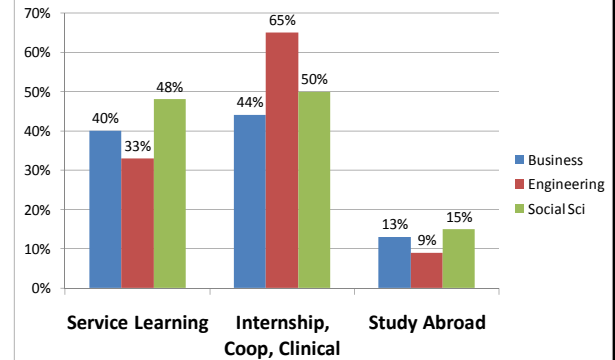
- School of Business interested in increasing student participation in High Impact Practices: **service-learning, internships, study abroad**



- Results compared to 2 other majors
- Is the B-School student experience distinct?*

## School of Business: Participation in Service Learning; Internships; Study Abroad

(% Seniors report: "done")



## Findings from NSSE and AAC&U: Some Educational Activities are Unusually Effective

Growing evidence that "high-impact practices" provide substantial educational benefits to students

[AAC&U, 2008 publication: *High-Impact Educational Practices: What They Are, Who Has Access To Them, and Why They Matter*]

## High Impact Activities



- ★ 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/Projects



## Approach #5



Provide feedback on improved performance.



## Cal Poly Pomona

[www.csupomona.edu/~irar/assessment/nsse/index.shtml](http://www.csupomona.edu/~irar/assessment/nsse/index.shtml)

Created 9 "By College" reports - comparing NSSE 2005 & 2008


- NSSE 2005 & 2008 Item Frequency Distribution
- NSSE 2005 & 2008 Summary Frequencies (combine top 2 response options)
- NSSE 2005 & 2008 Benchmark Report

NSSE 2005 and 2008 Summary Frequencies by College

Survey Item	Response Options	Freshman		Senior		
		Science 2005 n = 42	Science 2008 n = 83	Science 2005 n = 52	Science 2008 n = 115	CPP 2008 n = 988
<b>Level of Academic Challenge</b>						
1a) Worked on a paper or project that required integrating ideas or information from various sources	Very often or Often	71%	80%	71%	71%	84%
1b) Put together ideas or concepts from different courses when completing assignments or during class discussions	Frequent or Good	88%	47%	52%	48%	58%*
1c) Worked harder than you thought you could to meet an instructor's standards or expectations	Very often or Often	34%	49%	52%	49%	58%
2a) Coursework emphasized ANALYZING the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	Very much or Quite a bit	75%	67%	74%	77%	85%

Cal Poly Pomona

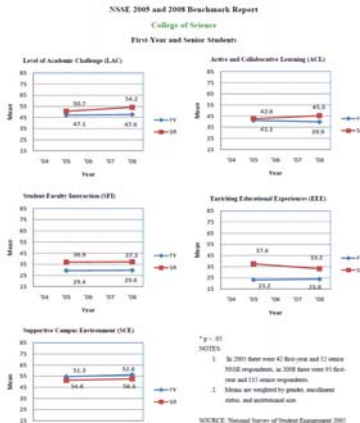
Multi-year Benchmark Comparison Reports by College



California State Polytechnic University, Pomona

[www.csupomona.edu/~irar/assessment/nsse/index.shtml](http://www.csupomona.edu/~irar/assessment/nsse/index.shtml)

NSSE 2009 and 2008 Benchmark Report  
College of Science  
First Year and Senior Students



\*p < .05  
NOTES:  
1. In 2007 there were 42 first year and 17 senior NSSE respondents. In 2008 there were 93 first year and 117 senior respondents.  
2. Means are weighted by gender, race/ethnicity, and institutional size.  
NSSE/ICE National Survey of Student Engagement 2007 and 2008. (2/07, 10/24/08)


### Last Words about Department-Level Assessment

- Involve college, department and program level representatives early in NSSE administration.
- Provide data in small doses. Share results that concern the department or program.
- What opportunities do you see for using your NSSE results in departments? What obstacles do you anticipate?

## Questions?

Website:  
[www.nsse.iub.edu](http://www.nsse.iub.edu)  
[www.nsse.iub.edu/institute](http://www.nsse.iub.edu/institute)

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**National Survey  
of Student Engagement**