

# EVIDENCE

PROGRAM ASSESSMENT FOR CONTINUOUS IMPROVEMENT

OCTOBER 2004

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### **Highlighting the Differences between Program and Coursework Assessment** Sonia V. Gonsalves

There are several similarities between the course and program assessment. They can both cover a variety of cognitive, affective, and performance outcomes and they can both be formative or summative. They differ however in their level of specificity, accountability for the process, the actions that follow the assessment, and in the generalizability of the findings. They also differ in another important respect; program assessment gives us cross-course data about the performance of our students on specific aspects of the discipline. Some results of our assessment of students' understanding of statistics show one of the differences between program and course assessment.

The table on page 4 shows the performance of students on a test of understanding statistics in published research. The test was administered in several courses as part of the psychology program assessment. The students in the sample have all passed statistical methods in the previous semester or earlier. The data show that although they satisfied the course requirements and did very well in some cases, there

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### **The 2004 National Survey of Student Engagement (NSSE)**

Sonia V. Gonsalves

#### **The sample.**

Last academic year, 196 freshmen (6.2% of the freshman class) and 269 seniors (5.3% of the senior class) responded to the National Survey of Student Engagement (NSSE). All of the Stockton respondents completed the web version of the survey. The respondents were primarily female (74%), Caucasian (81%), and enrolled full time (92%). Most of the freshmen lived on campus (67%) and most seniors off-campus (82%). Ninety-nine percent of the freshmen and 68% of seniors were under 24 years old, and 54% of the seniors transferred credits from another institution.

#### **The report.**

The report gives both a relative and an absolute perspective on the students' responses. In the norm-referenced portion of the report, our students are compared to three other groups. Students at institutions that participate in the American Democracy Project (ADP) constitute one comparison group. Stockton is one of thirty-two ADP institutions that used the NSSE. All of these colleges and university are engaging students in activities that are designed to increase their civic engagement. You can read more about the ADP at <http://www.aascu.org/programs/adp/about/>. Another comparison group is the group classified by Carnegie as liberal arts baccalaureate colleges (*Bac-LA*, N = 78); these are listed at [http://www.indiana.edu/~nsse/html/2004\\_inst\\_report.htm](http://www.indiana.edu/~nsse/html/2004_inst_report.htm). The third group is comprised of all the colleges and universities that completed the NSSE in 2004. The report also supplies the responses of Stockton students to each question by the percentage of student choosing each option; this section gives us a criterion-referenced look at what our students say about their college experience.

#### **Relative NSSE 2004**

##### **Enriching Educational Experiences**

As in 2003, we were most different from all comparison groups in the area of *Enriching Educational Experiences*. This category of questions relate to students' planned or

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*NSSE**(Continued from page 1)*

actual participation in community service, volunteer work, practicum, internship, field experience, learning communities, culminating senior experiences, research projects with faculty members, foreign language coursework, and study abroad.

On the positive side Stockton freshmen reported much more activity in community service or volunteer work, and Stockton's seniors report much more independent study than the ADP comparison group.

In foreign language course work and study abroad, both freshmen and seniors are well below the reported level of participation in ALL comparison groups. Seniors are below ALL comparison groups in community service and learning community participation and below the Bac-LA group and the total NSSE in field experience/practicum/internship and culminating senior experiences. Freshmen are below ALL comparison groups in field experience/practicum/internship.

**Academic and Intellectual Experiences**

This section of the survey has twenty-two items about frequency of class participation and presentations, preparation for class, working with other students on projects, participation in community-based projects as part of a regular course, use of e-mail to communicate with faculty, receipt of prompt feedback from faculty and serious conversations with students of a different race or ethnicity.

Stockton freshmen reported more frequent participation in community-based projects as part of a regular course than ALL comparison groups, but seniors reported less frequent participation than ALL comparison groups. Our seniors used electronic media to complete assignments more frequently than the Bac-LA group, and they were more likely than the ADP group to have had serious conversations with students of a different race or ethnicity, and less likely to come to class without completing readings or assignments.

Stockton students and freshmen were less frequent than the Bac-LA group in almost all the remaining items and less than the ADP group and the national sample in several. Specifically, seniors reported lower rates of working with classmates outside of class to prepare class assignments, receipt of prompt feedback from faculty, and working with faculty members on activities other than coursework than both the Bac-LA group and the national sample. They talked less with advisors about career plans, discussed ideas from reading with faculty members outside of class less, and put together ideas or concepts from different courses less often than the national sample group.

**Additional Collegiate Experiences**

Stockton was also different from the various groups in the three questions that constituted the category of *Additional Collegiate Experiences*. These questions are about frequency of participation in art and theatre, physical fitness, and spiritual activities. With respect to both physical and spiritual activities, freshmen and seniors reported less participation than all the comparison groups. Our freshmen did less in terms of art and theatre than all comparison groups, and our seniors did less than the Bac-LA and the total NSSE sample but were no different from the ADP comparison groups.

**Relationships**

Freshmen at Stockton rated our faculty significantly higher on availability and helpfulness than the ADP and the national sample; seniors rated our faculty as less helpful than the Bac-LA comparison group and rated their peers as being less friendly and supportive than those in ALL comparison groups. Both freshmen and seniors rated our administrators as less helpful than ALL comparison groups.

**Time Usage**

Both freshmen and seniors at Stockton work more hours for pay off-campus than students in ALL comparison groups. Our seniors spend less time preparing for class than ALL the groups, and our freshmen spend less time than the Bac-LA group and the national sample. Seniors participate less in co-curricular activities than all groups and spend more time commuting to class than the Bac-LA group.

**Institutional Environment**

On these seven questions, the students rate the extent that the institution emphasizes study time, the use of computers, attending cultural and athletic events, providing support for academic success, coping with non-academic responsibilities, and encouraging contact among students of different backgrounds. Neither Stockton seniors nor freshmen were different from ANY group in their rating of the emphasis that the institution places on encouraging contact among students from different backgrounds, and seniors were lower than the Bac-LA group on the use of computers question. Stockton freshmen assessed us as placing less emphasis on spending time on academic work than ALL other groups and seniors than the national sample and the Bac-LA. Stockton seniors rated us lower than the Bac-LA and the national sample on our emphasis on coping with non-academic problems, providing social support and attending campus events and activities.

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NSSE

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### Mental Activities

In this sections students are asked to say how much their coursework emphasized memorizing, analyzing, synthesizing, making judgments and applying theories or concepts to practical problems. Unlike the 2003 NSSE report, in 2004 the freshmen reported less emphasis on memorizing than the ADP group and no difference from any other group. Seniors were not different from the ADP group but reported more memorizing than the other two groups. Both freshmen and seniors reported less analysis and synthesis than the Bac-LA group and seniors less application than both the Bac-LA and the national sample.

### Examinations

In response to the question about the extent to which their examinations have challenged them to do their best work, our seniors were no different from any of the comparison groups; freshmen were less challenged than all three groups.

### Reading and Writing

Both freshmen and seniors read and wrote less than the Bac-LA group, seniors also read and wrote less than the national sample.

Stockton freshmen and seniors experience college in ways that are most different from the students enrolled in the institutions that are classified by Carnegie as Liberal Arts Baccalaureate Colleges and their experiences are most similar to those of students in the American Democracy Project institutions.

## Absolute NSSE 2004

I looked again at the category of questions that deal with mental activities—this time not for comparison with others, but to see what our students say about their coursework. When the question was about memorizing, 23% of freshmen and 30% of seniors said very much of their class work emphasized memorizing; 43% of freshmen and 35% of seniors said quite a bit; 26% of both freshmen and seniors said “some,” and 8% of freshmen and 9% of seniors said “very little.” The breakdown of the responses is very similar for both groups, with about 35% saying there is some memorizing but not a lot, and 65% saying quite a lot of emphasis is placed on memorizing. The summary of responses from the other four mental activities is set out below.

	Freshmen	Seniors		Freshmen	Seniors
<b>Analyzing</b>	%	%	<b>Synthesizing</b>	%	%
Very little	2	1	Very little	3	5
Some	20	13	Some	35	20
Quite a bit	46	48	Quite a bit	38	45
Very Much	32	38	Very much	24	33
	Freshmen	Seniors		Freshmen	Senior
<b>Evaluating</b>	%		<b>Applying</b>	%	%
Very little	6	6	Very little	4	4
Some	30	26	Some	26	18
Quite a bit	36	38	Quite a bit	38	38
Very Much	29	30	Very Much	33	40

There is very little difference between the experiences of freshmen and seniors in their assessment of the emphasis that is placed on different types of intellectual experiences in their course work. The report shows that both freshmen and seniors say that much emphasis is placed on the entire cognitive domain of intellectual activities: analysis, synthesis, evaluation, application and memorization.

There is much more detail in the 2004 NSSE report; each divisional dean has a copy of the complete report as does the associate provost, Bonnie Buzza. Because we now have five years of data, it is even more interesting to look at changes within Stockton from year to year. Data from each year are not as useful for decision making as data from several years. Trends that persist are less likely to be due to sampling or other errors. In another issue of evidence, I will look at trends over time. I am sure faculty and administrators have many ideas about how they can use the information in the 2004 NSSE report to inform what they do. We will only get more generalizable results with greater participation from students. If you teach freshmen or seniors, please encourage them to participate if they are in the 2005 NSSE sample.

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are still gaps in their knowledge of statistical reasoning when they try to interpret statistical findings in published research. These results do not mean that these students should not have passed the courses. They do show, however, that if we believe that our majors should be able to understand and interpret the statistical concepts listed below, we have not yet met our goal fully, and we are doing a better job with some concepts than with others. We can use this information to help our students meet important program objectives.

## Psychology Majors in Experimental Psychology

Performance of students who have passed statistical methods in a previous semester (N = 151)

Statistical concept	% correct	% incorrect
1. skew	49	51
2. central tendency	73	27
3. variability	80	20
4. differences between means	84	16
5. correlation	48	52
6. explained variance	3	97
7. interpreting correlation	21	78
8. sampling	66	34
9. type of hypothesis	59	41
10. significance of correlation	66	34
11. interpret correlation	73	27
12. interpret probability	51	49
13. null decision	39	61
14. read df (ANOVA)	39	61
15. null decision (ANOVA)	51	49
16. interpret ANOVA	44	56
17. interpret null decision	50	50
18. post hoc decision	39	61
19. t-test type	36	64
20. interpret t-test	78	22
21. null decision t-test	58	42
22. understand critical value	49	51
23. type of data	50	50
24. recognize $\chi^2$	23	77
25. null decision $\chi^2$	57	43

**New Faculty Workshops 2004**  
All Workshops at 4:30 PM in F215

**November**

Inclusive Pedagogy: Teaching Techniques that Include and Exclude Students  
Tuesday, November 9th

**December**

Organizing for Learning - The Course Outline as a Contract  
Tuesday, December 14th

**Upcoming Assessment Conferences**

**American Association of Colleges and Universities**

GENERAL EDUCATION AND ASSESSMENT:  
Creating Shared Responsibility for Learning Across  
the Curriculum  
February 17-19, 2005  
Grand Hyatt Buckhead, Atlanta, Georgia

**American Association of Higher Education  
2005 Assessment Conference:  
Charting New Territory**

June 12-14, Sheraton Centre, Toronto, Ontario