

NSSE Scores among Learning Community Participants

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Highlights:

- ❖ Learning community participation is associated with higher NSSE scores for first-year students.
- ❖ Scores on the *Enriching Educational Experiences* and *Active and Collaborative Learning* constructs are most influenced by participation in a learning community.
- ❖ Not all learning communities have the same influence. There is variation among the different communities.

Learning Communities at Colorado State University are cohorts of students intentionally brought together around a common purpose with structured integration of curricular and co-curricular elements in order to promote student learning, retention, transition, and success. Due to the substantial effort required to administer learning communities on campus, it is important to understand if they make a positive difference for students. One way of assessing this is to explore our response data from the National Survey of Student Engagement (NSSE). The NSSE is an online survey that helps us to better understand our campus environment and student behavior.

The purpose of this research brief is to explore differences in student engagement constructs (measured by the NSSE composite scores) between Learning Community students (LC) and the first-year students who did not participate in these communities (Non-LC). Appendix A lists the survey questions that are used to obtain the composite score for each construct.

Table 1 displays the average score for each NSSE construct for LC students surveyed in the 2009 NSSE administration compared to the Non-LC first year students surveyed that same year.

Table 1.
Mean Comparison of NSSE Constructs between Learning Community and Non Learning Community First Year Students in the 2009 NSSE Sample

	Mean Scores		Effect Size*
	LC (n=92)	Non-LC (n=246)	
Academic Challenge	53.80	51.64	0.68
Active and Collaborative Learning	45.22	34.47	
Student Faculty Interaction	32.18	29.15	
Supportive Campus Environment	62.63	60.03	0.73
Enriching Educational Experiences	32.42	23.19	
Deep Learning	52.98	50.68	0.24
Overall Satisfaction	79.65	76.70	
Gains in Personal and Social Development	59.60	53.94	
Active Learning Experiences	38.30	30.08	0.46
Collaborative Learning Experiences	49.03	37.59	0.63
Course Related Interactions with Faculty	41.95	38.44	0.31
Out-of-Class Interactions with Faculty	22.09	19.44	
Emphasis on Diversity	58.79	52.30	
Support for Student Success	54.92	53.37	

*Effect size is reported for mean differences that are statistically significant. Effect sizes for NSSE benchmarks can be interpreted by these reference values: .1 to .29 is a small effect, .3 to .49 is a medium effect, .5 to .69 is a large effect, and greater than .7 is very large.

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Results indicate that LC students are more engaged as measured by all fourteen composite scores. For those composite scores where the difference was statistically significant, the effect sizes were medium to large indicating that practical significance exists between the groups.

Variation among various LC students was explored next. The Key Community served nearly 400 first-year students and was designed to assist students with their transition to and through the university. Based on active and experiential learning through interdisciplinary seminar classes, service-learning, academic and career exploration, undergraduate research and leadership development, Key aims to increase retention and academic performance of students, encourage campus and community involvement and engagement and promote diversity awareness. Table 2 displays the average score for each NSSE construct among Key LC students, the remaining LC students, and the Non-LC sample.

Table 2.

Mean Comparison of NSSE Constructs (Key Students, Other Learning Community Students, and Non Learning Community) in the 2009 NSSE Sample

	Mean Score			Effect Size *		
	Key LC (N=34)	Remaining LC (N=58)	Non-LC (N=246)	Key LC v. Remaining LC	Key LC v. Non-LC	Remaining LC v. Non- LC
Academic Challenge	56.23	52.36	51.64		0.35	
Active and Collaborative Learning	50.75	41.98	34.47	0.56	1.09	0.47
Student Faculty Interaction	35.02	30.52	29.15		0.27	
Supportive Campus Environment	64.06	61.78	60.03			
Enriching Educational Experiences	39.99	27.88	23.19	1.03	1.36	0.41
Deep Learning	55.02	51.79	50.68			
Overall Satisfaction	83.85	77.16	76.70		0.37	
Gains in Personal and Social Development	64.41	56.69	53.94		0.44	
Active Learning Experiences	49.82	31.69	30.08	1.07	1.18	
Collaborative Learning Experiences	50.50	48.16	37.59		0.72	0.57
Course Related Interactions with Faculty	43.43	41.07	38.44			
Out-of-Class Interactions with Faculty	26.60	19.39	19.44	0.43	0.42	
Emphasis on Diversity	68.40	53.09	52.30	0.62	0.64	
Support for Student Success	55.22	54.73	53.37			

Results indicate that Key LC students are more engaged (as measured by NSSE constructs) compared to other LC students and also compared to Non-LC students. There are very large differences between the mean scores of Key LC students and the other two groups for both the *Enriching Educational Experiences* and *Active Learning Experiences* constructs. Key LC students also score substantially higher than the Non-LC and remaining LC students for *Emphasis on Diversity* and moderately higher than the other two groups for *Out-of-Class Interactions with Faculty*.

Next, LC students who co-enrolled in common courses as part of the structure of their Community were compared to LC students who did not have common courses. LC with set course requirements at the time of the 2009 NSSE administration included Key LC and also the Honor's LC. Co-enrollment in courses is a common and integral feature of

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Learning Communities; therefore, it is important to see how LC scores differ between communities with a common course and those without. Table 3 displays the average for each NSSE construct among LC students with common courses, the remaining LC students, and the Non-LC students

Table 3.

Mean Comparison of NSSE Constructs (Learning Community with Courses Students, Other Learning Community, and Non Learning Community) in the 2009 NSSE Sample

	Mean Score			Effect Size *		
	LC w/ Courses (N=49)	Remaining LC (N=43)	Non-LC (N=246)	LC Courses v. Remaining LC	LC with Courses v. Non-LC	Remaining LC v. Non- LC
Academic Challenge	55.96	51.38	51.64		0.33	
Active and Collaborative Learning	48.50	41.47	34.47	0.44	0.87	0.46
Student Faculty Interaction	32.51	31.82	29.15			
Supportive Campus Environment	63.00	62.21	60.03			
Enriching Educational Experiences	38.01	26.00	23.19	1.06	1.19	
Deep Learning	55.22	50.48	50.68			
Overall Satisfaction	81.48	77.64	76.70			
Gains in Personal and Social Development	61.99	56.91	53.94		0.33	
Active Learning Experiences	44.95	31.16	30.08	0.78	0.83	
Collaborative Learning Experiences	49.65	48.35	37.59		0.66	0.59
Course Related Interactions with Faculty	41.13	42.86	38.44			
Out-of-Class Interactions with Faculty	23.88	20.05	19.44		0.27	
Emphasis on Diversity	62.32	54.72	52.30		0.40	
Support for Student Success	54.37	55.56	53.37			

Results indicate that including the Honor's LC students diminishes the difference between the LC students. There is still a large practical effect between the LC groups for *Enriching Educational Experiences* and *Active Learning Experiences*; however, there are no longer statistically significant differences for *Out- of -Class Interactions with Faculty* and *Emphasis on Diversity*. The inclusion of Honor's LC students creates a moderate difference in *Academic Challenge* between the LC students with courses and the remaining LC students.

Academic Challenge	Time spent preparing for class (studying, reading, writing, rehearsing, and other activities related to your academic program)
	Worked harder than you thought you could to meet an instructor's standards or expectations
	Number of assigned textbooks, books, or book-length packs of course readings
	Number of written papers or reports of 20 pages or more
	Number of written papers or reports between 5 and 19 pages
	Number of written papers or reports fewer than 5 pages
	Coursework emphasizes: Analyzing the basic elements of an idea, experiences, or theory; Synthesizing and organizing ideas, information, or experiences; Making judgments about the value of information, arguments, or methods; Applying theories or concepts to practical problems or in new situations
	Campus environment emphasizes spending significant amounts of time studying and on academic work
Active and Collaborative Learning	Asked questions in class or contributed to a class discussions
	Made a class presentation
	Worked with other students on projects during class
	Worked with classmates outside of class to prepare class assignments
	Tutored or taught other students
	Participated in community-based project as part of a regular course
	Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)
Student Faculty Interaction	Discussed grades or assignments with an instructor
	Talked about career plans with a faculty member or advisor
	Discussed ideas from your readings or classes with faculty members outside of class
	Worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)
	Received prompt written or oral feedback from faculty on your academic performance
	Worked with a faculty member on a research project

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Supportive Campus Environment	Campus environment provides support you need to help you succeed academically
	Campus environment helps you cope with your non-academic responsibilities (work, family, etc.)
	Campus environment provides the support you need to thrive socially
	Quality of relationships with other students
	Quality of relationships with faculty members
	Quality of relationships with administrative personnel and offices
Enriching Educational Experiences	Talking with students with different religious beliefs, political opinions, or values
	Talking with students of a different race or ethnicity
	An institutional climate that encourages contact among students from different economic, social, and racial or ethnic backgrounds
	Using electronic technology to discuss or complete assignments
	Participating in: Internships or field experiences, Community service or volunteer work, Foreign language coursework, Study abroad, Independent study or self-assigned major, Culminating senior experience, Co-curricular activities, Learning communities
Deep Learning	Worked on a paper or project that required integrating ideas or information from various sources
	Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments
	Put together ideas or concepts from different courses when completing assignments or during class discussions
	Discussed ideas from your readings or classes with faculty members outside of class
	Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)
Satisfaction	How would you evaluate your entire educational experience at this institution?
	If you could start over again, would you go to the SAME INSTITUTION you are now attending?

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Gains in Personal and Social Development	Institutional contribution: Developing a personal code of values and ethics
	Institutional contribution: Understanding yourself
	Institutional contribution: Understanding people of other racial and ethnic backgrounds
	Institutional contribution: Voting in local, state (provincial), or national (federal) elections
	Institutional contribution: Learning effectively on your own
	Institutional contribution: Contributing to the welfare of your community
	Institutional contribution: Developing a deepened sense of spirituality
Active Learning Experiences	Asked questions in class or contributed to class discussions
	Made a class presentation
	Participated in a community-based project (e.g., service learning) as part of a regular course
Collaborative Learning Experiences	Worked with other students on projects DURING CLASS
	Worked with classmates OUTSIDE OF CLASS to prepare class assignments
	Tutored or taught other students (paid or voluntary)
	Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)
Course Related Interactions with Faculty	Discussed grades or assignments with an instructor
	Discussed ideas from your readings or classes with faculty members outside of class
	Received prompt written or oral feedback from faculty on your academic performance
Out-of-Class Interactions with Faculty	Talked about career plans with a faculty member or advisor
	Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)
	Work on a research project with a faculty member outside of course or program requirements

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Emphasis on Diversity	Had serious conversations with students of a different race or ethnicity than your own
	Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values
	Institutional emphasis: Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
Support for Student Success	Institutional emphasis: Providing the support you need to help you succeed academically
	Institutional emphasis: Helping you cope with your non-academic responsibilities (work, family, etc.)
	Institutional emphasis: Providing the support you need to thrive socially