Analysis of FHSU Enrollment Type for the 2007 National Survey of Student Engagement

A Study of the Differences Between Seniors Taking On-Campus or Virtual College Classes

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1. Analytic Parameters

These analyses are predicated on the following parameters, unless otherwise indicated:

Dependent measures: NSSE indexes and questions
Independent variable: Enrollment type (On-Campus or Virtual College)
Sample\Population: Students with class rank of senior
Change Indicators: Red cells indicate significant* negative change from 2006 to 2007
Green cells indicate significant* positive change from 2006 to 2007
** Significance is based on change larger than .10*

2. Results

The sampling (n = 440) is randomly drawn from the larger senior population (N = 1806) submitted for analysis. The sample included 287 female students and 153 male students. Seniors were split into two groups for analysis of the distance education variable: Virtual Students (n = 142) and On-Campus/Combination Students (n = 248). The racial composition of this sample is included below and is predominantly white.

Native American	Asian	African American	White	Hispanic	Other/Not Identified
1	13	9	376	15	26

Analysis 2.1: Level of Academic Challenge This analysis explored the difference between senior students taking only distance education classes and those taking on-campus classes or a mix on their perception of academic challenge. The findings confirm that **students taking classes at a distance feel that the programs are significantly more academically challenging** (F = 15.77, p = .001).

	NSSE Seniors		FHSU Seniors			
Item	**Overall Mean**	**Peer Mean**	**Senior Mean**	**On-Campus Student Mean**	**Virtual Only Student Mean**	**Difference (OC ≠ VC)**
Worked harder than you thought you could to meet an instructor's standards or expectations.	2.69	2.68	2.74	2.63	2.94	F = 15.10 P = .001
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.	3.23	3.15	3.14	3.08	3.23	

Coursework emphasized: Synthesizing and organizing ideas, information, or experiences into new, more complex, interpretations and relationships.	3.03	2.95	2.94	2.85	3.11	F = 10.22 p = .002
Coursework emphasized: Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions.	2.96	2.92	2.94	2.83	3.13	F = 10.91 p = .001
Coursework emphasized: Applying theories or concepts to practical problems or in new situations.	3.18	3.14	3.14	3.09	3.23	
Number of assigned textbooks, books, or book-length packs of course readings.	3.13	3.02	2.98	2.90	3.12	F = 5.43 p = .02
Number of written papers or reports of 20 pages or more.	1.62	1.52	1.54	1.53	1.55	
Number of written papers or reports between 5 and 19 pages.	2.55	2.48	2.39	2.34	2.47	
Number of written papers or reports fewer than 5 pages.	2.96	3.15	3.08	3.16	2.94	
Hours per 7-day week spent preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities.	4.09	4.06	4.02	3.99	4.06	
Institutional emphasis: Spending significant amounts of time studying and on academic work.	3.08	2.99	3.08	3.00	3.23	F = 8.96 p = .003

Analysis 2.2: Active and Collaborative Learning This analysis explored the difference between senior students taking only distance education classes and those taking on-campus classes or a mix on their level of active and collaborative learning. The findings confirm that **students taking classes at a distance feel that their educational experiences produced significantly less active and collaborative learning** (F = 37.57, p = .001).

	NSSE Seniors		**FHSU Seniors**			
Item	**Overall Mean**	**Peer Mean**	**Senior Mean**	**On-Campus Student Mean**	**Virtual Only Student Mean**	**Difference (OC ≠ VC)**
Asked questions in class or contributed to class discussions.	3.03	3.08	3.11	3.06	3.18	

Made a class presentation.	2.77	2.80	2.41	2.65	1.98	F =48.98 p = .001
Worked with other students on projects during class.	2.52	2.69	2.41	2.68	1.94	F = 63.51 p = .001
Worked with classmates outside of class to prepare class assignments.	2.75	2.70	2.44	2.73	1.94	F = 67.22 p = .001
Tutored or taught other students (paid or voluntary).	1.89	1.91	1.70	1.87	1.42	F = 22.95 p = .001
Participated in a community-based project (e.g., service learning) as part of a regular course.	1.68	1.75	1.80	1.87	1.69	
Discussed ideas from your readings or classes with faculty members outside of class.	2.08	2.10	1.97	2.10	1.74	F = 14.07 p = .001

Analysis 2.3: Student-Faculty Interaction This analysis explored the difference between senior students taking only distance education classes and those taking a mix of on- and off-campus classes on their level of student-faculty interaction. Not surprisingly, findings confirm that **students taking classes at a distance feel that their courses have less student-faculty interaction** (F = 14.67, p = .001).

	NSSE Seniors		**FHSU Seniors**			
Item	**Overall Mean**	**Peer Mean**	**Senior Mean**	**On-Campus Student Mean**	**Virtual Only Student Mean**	**Difference (OC ≠ VC)**
Discussed grades or assignments with an instructor.	2.79	2.85	2.87	2.85	2.92	
Talked about career plans with a faculty member or advisor.	2.39	2.50	2.28	2.46	1.96	F = 28.08 p = .001
Discussed ideas from your readings or classes with faculty members outside of class.	2.08	2.76	1.97	2.10	1.74	F = 14.07 p = .001
Received prompt written or oral feedback from faculty on your academic performance.	2.75	2.79	2.78	2.67	2.97	F = 14.49 p = .001
Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.).	1.81	1.87	1.80	2.07	1.33	F = 65.10 p = .001
Work on a research project with a faculty member outside of course or program requirements.			2.14	2.28	1.89	F = 18.97 p = .001

Analysis 2.4: Enriching Educational Experiences This analysis explored the difference between senior students taking only distance education classes and those taking on-campus classes or a mix on their level of enriching educational experiences. The findings show no statistical difference in enriching educational experience for students on- and off-campus.

	NSSE Seniors		FHSU Seniors			
Item	**Overall Mean**	**Peer Mean**	**Senior Mean**	**On-Campus Student Mean**	**Virtual Only Student Mean**	**Difference (OC ≠ VC)**
Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment.	2.83	2.84	3.11	2.84	3.57	F = 55.44 P = .001
Had serious conversations with students of a different race or ethnicity than your own.	2.66	2.48	2.21	2.14	2.32	
Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values.	2.71	2.67	2.42	2.38	2.51	
Practicum, Internship, field experience, co-op experience, or clinical assignment.			2.99	3.17	2.68	F = 21.97 P = .001
Community Service or volunteer work.			3.19	3.34	2.93	F = 13.25 P = .001
Foreign (additional) language coursework.			2.59	2.65	2.50	
Study abroad.			2.06	2.13	1.96	F = 6.23 P = .013
Independent study or self-designed major.			2.38	2.39	2.38	
Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.).			2.45	2.61	2.17	F = 19.42 P = .001
Hours per 7-day week spent participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.).	2.07	2.07	1.83	2.17	1.24	F = 54.82 P = .001
Institutional emphasis: Encouraging contact among students from different economic, social, and racial or ethnic backgrounds.	2.44	2.38	2.47	2.25	2.85	F = 37.36 P = .001

Analysis 2.5: Supportive Campus Environment This analysis explored the difference between senior students taking all distance education classes and those taking on-campus classes or a mix on their level of supportive campus environment. The findings show no statistical difference in the perception of a supportive campus environment for students on- and off-campus.

	NSSE Seniors		FHSU Seniors			
Item	**Overall Mean**	**Peer Mean**	**Senior Mean**	**On-Campus Student Mean**	**Virtual Only Student Mean**	**Difference (OC ≠ VC)**
Quality: Your relationships with other students.	5.63	5.70	5.45	5.75	4.92	F = 36.71 p = .001
Quality: Your relationships with faculty members.	5.41	5.55	5.51	5.49	5.55	
Quality: Your relationships with administrative personnel and offices.	4.54	4.63	4.83	4.60	5.23	F = 14.17 p = .001
Institutional Emphasis: Providing the support you need to help you succeed academically.	2.87	2.89	2.96	2.90	3.07	F = 4.55 p = .034
Institutional Emphasis: Helping you cope with your non-academic responsibilities (work, family, etc.).	1.91	1.89	1.89	1.89	1.89	
Institutional Emphasis: Providing the support you need to thrive socially.	2.17	2.15	2.10	2.14	2.02	

Analysis 2.6: Satisfaction and Institutional Contribution. This analysis explored the difference in perception between distance learners and on-campus students on additional satisfaction and institutional contribution questions included in NSSE.

	NSSE Seniors		FHSU Seniors			
Item	**Overall Mean**	**Peer Mean**	**Senior Mean**	**On-Campus Student Mean**	**Virtual Only Student Mean**	**Difference (OC ≠ VC)**
Overall, how would you evaluate the quality of academic advising you have received at your institution? (12)	2.84***	2.83***	3.14			
How would you evaluate your entire educational experience at this institution? (13)	3.20*	3.15***	3.28			
If you could start over again, would you go to the same institution you are now attending? (14)	3.19**	3.13***	3.32			
Institutional contribution: Acquiring a broad general	3.24	3.23	3.23			

education (11a)						
Institutional contribution: Acquiring job or work-related knowledge or skills (11b)	3.02	3.04	3.04			
Institutional contribution: Writing clearly and effectively (11c)	3.06	3.08	3.02			
Institutional contribution: Speaking clearly and effectively (11d)	2.95	2.99	2.85			
Institutional contribution: Thinking critically and analytically (11e)	3.33	3.31	3.27			
Institutional contribution: Analyzing quantitative problems (11f)	3.04	3.01	2.97			
Institutional contribution: Using computing and information technology (11g)	3.20	3.19	3.34			
Institutional contribution: Working effectively with others (11h)	3.12	3.14	3.08			
Institutional contribution: Voting in local, state, or national elections (11i)	2.06	2.06	2.04			
Institutional contribution: Learning effectively on your own (11j)	3.00	2.98	3.07			
Institutional contribution: Understanding yourself (11k)	2.78	2.77	2.78			
Institutional contribution: Understanding people of other racial and ethnic backgrounds (11l)	2.59	2.64	2.54			
Institutional contribution: Solving complex real-world problems (11m)	2.74	2.72	2.64			
Institutional contribution: Developing a personal code of values and ethics (11n)	2.66	2.66	2.63			
Institutional contribution: Contributing to the welfare of your community (11o)	2.43	2.40	2.47			
Institutional contribution: Developing a deeper sense of spirituality (11p)	1.92	1.91	1.91			

* indicates significant difference between FHSU and NSSE/Carnegie peer at p = .05 level.
** indicates significant difference between FHSU and NSSE/Carnegie peer at p = .01 level.
*** indicates significant difference between FHSU and NSSE/Carnegie peer at p = .001 level.

Analysis 2.7: Enrollment Type (FT/PT). This analysis explored the difference in full-time and part-time students. This analysis did not separate distance education. The findings revealed that **full-time students had higher ratings of active and collaborative learning** (F = 28.66, p = .001) **and student-**

faculty interaction (F = 7.68, p = .006) **and enriching education experiences** (F = 11.43, p = .001) **than did part-time students**.

3. Conclusions

Finding 3.1 Distance education only seniors perceive higher levels of academic challenge as Analysis 2.1 identifies. This may be due to at least three reasons. First, it is possible that the courses they take at a distance require significantly more work. Second, it may be the case that the courses are actually comparable and challenging, but due to instructor distance the course is more challenging to complete. Finally, it is possible that students taking courses at a distance may have different abilities they bring to the class, and they may feel challenged because they may not have had the same uniform level of coursework prior to enrolling in the program (which likely could be a degree completion program if they are distance learners).

Finding 3.2 Seniors in distance education classes feel they get less instructor support than their on-campus peers. Analysis 2.2 and 2.3 reveals this obvious conclusion. The highly significant findings show that students have less active and collaborative learning (both are higher-order instructional techniques that require more instructor involvement and interaction). Distance education seniors also report significantly less interaction with faculty members. This finding may also partially explain the perception of high academic challenge.

Finding 3.3 Seniors have about the same enriching experience and supportive environment in both the on- and off-campus setting. This is surprising given that one would likely expect students with easier access to campus resources would have a richer experience and would be more satisfied with the campus support network. Additional study needs to be conducted in this area. A final, and perhaps very serious, factor to consider is the actual wording of several of the NSSE questions supporting these indexes. Many of the questions are asked specifically from the perspective of the on-campus student (i.e. Attending campus events and activities, working for pay on-campus, commuting to class, made a class presentation, tutored or taught other students) and would be impossible for a distance education student to answer with validity. These questions were asked of all students, thus making the results for distance students suspect. Additional analysis on these questionable items must be conducted to assess their validity.

Finding 3.4 Finally, there was some effect from a student's load of classes. The enrollment status of the student influenced their perception of active and collaborative learning, student-faculty interaction, and enriching educational experienced with full-time students reporting significantly higher levels on each index. Additional analysis of engagement patterns of part-time and full-time students should be conducted to understand unique learning expectations of these student segments.

Finding 3.5 FHSU seniors reported greater occurrence of written papers of fewer than 5 pages, asking more questions/contributing in class, and using an electronic medium to discuss and assignment. However, seniors also report poorer relationships with other students and administrative personnel

offices. These findings must be conditioned with the fact that they are based on two year trends which have no predictive reliability.