

Research in BRIEF

A Newsletter of the Institutional Research Office



CHAPMAN UNIVERSITY

March 2014
Vol. 11, No. 31

HIGH IMPACT PRACTICES AT CHAPMAN UNIVERSITY: EVIDENCE FROM THE 2013 NSSE (Administered Spring 2013)

Introduction

High impact practices (HIPs) are educational practices with several common characteristics such as demanding significant time and efforts from students, learning opportunities outside of the classroom, frequent faculty/peer interaction, and interaction with a diverse set of individuals.¹ The specific practice which embodies these traits can take any form but typical HIPs include service-learning practicums, study abroad, faculty-student research, learning communities, or capstone courses. All of these activities provide students with a sense of connection with their instructor and peers and allows students to engage in active learning through real-world practice. The Indiana University's Center for Postsecondary Research recommends that every student participate in at least two high impact activities during their college career.¹

HIPs in the classroom aim to provide students with deep learning which emphasizes not only acquiring basic factual understanding but also the ability to synthesize ideas and apply them in novel ways. In addition, HIPs help students practice team building skills and develop their own personal code of ethics and values.¹ This *Research in BRIEF* reports findings from the 2013 National Survey of Student Engagement (NSSE) with a focus on understanding the extent of HIPs usage on campus and their association with several key learning outcomes.

The NSSE is uniquely equipped to measure the usage of HIPs on campus as it contains a battery of questions about student engagement. In 2013, Indiana University's Center for Postsecondary Research revamped the NSSE instrument in order to develop new measures of effective teaching and learning, refine existing measures, and revise the survey's language to improve its clarity.

Administered biennially at Chapman University, all freshman (FY) and seniors (SR) were invited to complete the NSSE in the Spring of 2013.

Response Rate and Demographics

The NSSE instrument was administered online to 2,438 freshman and seniors. A total of 567 respondents completed the survey resulting in a response rate of 23.3 percent. A comparison of the sample and population demographics shows that female respondents are slightly overrepresented in the freshmen and seniors samples. The racial/ethnic demographics show that the sample characteristics reasonably match the population characteristics for freshmen and seniors. Each of the racial/ethnic categories in the samples are within a few percent of the population.

CU Population and Sample Demographics

	Population		Sample	
	FY (N=1,305)	SR (N=1,133)	FY (N=227)	SR (N=340)
Gender				
Male	38.9	44.0	31.7	36.2
Female	61.1	56.0	68.3	63.8
Race/Ethnicity				
Am Indian/Alaskan	.3	.4	0	.6
Asian	10.2	8.6	12.3	6.5
Native Hawaiian/ Other Pacific Islander	.5	.2	.4	.3
Black/African American	1.0	1.7	.9	2.6
Hispanic/Latino	12.6	12.0	11.0	13.2
White (non- Hispanic)	61.7	57.9	58.6	54.7
Non-Resident Alien	3.8	2.8	6.6	3.5
Multi-Racial	7.2	2.6	8.4	3.2
Unknown	2.8	13.9	1.8	15.3

FINDINGS

HIPs by Class Level

The NSSE asks students if they participated in six HIPs activities using a “done or in progress” option and several not done options such as “plan to do” or “have not decided.” Since service learning is measured differently, it will be discussed separately. The table displays the percentage of students who reported participation in each of the activities by class level. As expected, the results show that a much higher percentage of seniors reported participating in each of the activities.

HIPs Participation: Freshman and Seniors

	FY	SR
Internship/Other Work Placement	10.1%	73.7%
Formal Leadership Role	14.0%	55.0%
Learning Community	11.9%	N/A
Study Abroad	2.8%	36.3%
Research with Faculty Member	3.4%	42.5%
Senior Capstone Project	N/A	86.4%

Among freshmen, about 10 to 14 percent of students reported participating in an internship, leadership role, or a learning community. Less than 5 percent of freshmen reported participated in a study abroad program or a research project with a faculty member. Among seniors, capstone course and an internship were the most popular reported activities at 86.4% and 73.7% respectively. Learning community participation was not reported for seniors since learning communities at Chapman are primarily limited to freshmen living in dormitories.

Number of HIPs Completed

The number of HIPs completed was calculated for seniors. The count reflects the sum total of participation in the following activities: internship, formal leadership role, learning community, study abroad, research with a faculty members, and a culminating senior capstone course. The results show that only 2.8% of seniors reported never participating in a HIP. About 54% of seniors reported participating in three and four HIPs. Only 19% of seniors reported participating in five and six HIPs at Chapman University.

Seniors: Number of HIPs Completed (N=284)*

	Percent	N
None	2.8%	8
One	7.4%	21
Two	17.3%	49
Three	29.6%	84
Four	23.9%	68
Five	15.1%	43
Six	3.9%	11

* The N size is smaller than the senior sample size because of missing data.

Growth by Number of HIPs Completed

The next set of results focus on self-reported growth in several key learning outcomes among seniors who indicated participating in zero to three HIPs versus four to six HIPs. Given the sample size, the gap between the two categories should be at least ten percent in order to be reasonably confident that a difference could exist in the actual population. Seniors who participated in four to six HIPs reported ten percent or higher self-reported growth for all of the items except the following items about analyzing numerical/statistical information, critical thinking, and speaking skills.

CU Seniors: Growth by Number of HIPs Completed

	0 to 3 HIPs	4 to 6 HIPs
<i>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?*</i>		
Writing clearly and effectively	68.0%	80.4%
Speaking clearly and effectively	72.0%	78.5%
Thinking critically and analytically	88.3%	91.7%
Analyzing numerical/statistical info	53.1%	48.6%
Acquiring job-related knowledge/skills	62.6%	75.9%
Working effectively with others	75.4%	91.0%
Developing a personal code of values	61.9%	72.9%
Understanding people of other backgrounds	55.8%	67.9%
Solving complex real-world problems	59.5%	70.5%
Being an informed and active citizen	56.7%	76.5%

* Percent reporting “quite a bit” or “very much.”

In the next sections, data are presented which compares the self-reported growth of seniors in a variety of key learning outcomes between participants and non-participants in a specific high impact practice. It should be noted that the self-reported growth comparison is partially affected by a self-selection effect among certain HIPs. While most seniors are required to take a capstone course, study abroad is entirely up to student choice. Background characteristics of students who select such activities might predispose them to report better self-growth. Also, the comparison was limited to seniors for two reasons. First, only a small number of freshmen participated in each of the HIPs which compromised the comparison between HIPs participants versus non-participants. A small sample makes it difficult to determine if the results are applicable to the entire freshmen population. And second, freshmen were not included in the HIPs participation group because it is difficult to determine if their reported growth is due to the high impact practice or the natural process of maturation when compared to non-HIPs participants.

Internships and Other Work Placements

Data show that 73.7% of seniors reported participating in an internship or other type of work placement project. The results by internship participation show little

difference between the two groups for most items. The “acquiring job related knowledge and skills” item showed the greatest difference as 72.1% of participants reported “quite a bit” or “very much” growth versus 58.2% among non-participants. And the level of reported growth was about 10% higher among participants for the “writing clearly and effectively” item. For the rest of the items, the differences in reported self-growth between participants and non-participants were about 5% or less.

CU Seniors: Internships and Other Work Placements

	Not Done	Done
<i>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?*</i>		
Writing clearly and effectively	65.7%	75.8%
Speaking clearly and effectively	75.8%	74.2%
Thinking critically and analytically	87.9%	90.4%
Analyzing numerical/statistical info	52.3%	50.8%
Acquiring job-related knowledge/skills	58.2%	72.1%
Working effectively with others	78.8%	83.0%
Developing a personal code of values	64.2%	67.2%
Understanding people of other backgrounds	62.7%	60.0%
Solving complex real-world problems	60.6%	65.2%
Being an informed and active citizen	65.6%	64.9%

* Percent reporting “quite a bit” or “very much.”

Research with Faculty

Findings show that 42.5% of seniors reported participating in a research project with a faculty member. The results broken by faculty-student research participation show participants reported more growth in all the surveyed outcomes except for the “thinking critically and effectively” item where the difference was less than 3%. In particular, the “working effectively with others” and “being an informed and active citizen” items showed differences of about 15%.

CU Seniors: Research with Faculty

	Not Done	Done
<i>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?*</i>		
Writing clearly and effectively	69.9%	77.2%
Speaking clearly and effectively	73.8%	75.4%
Thinking critically and analytically	90.9%	88.1%
Analyzing numerical/statistical info	50.0%	52.3%
Acquiring job-related knowledge/skills	65.7%	71.8%
Working effectively with others	75.9%	90.0%
Developing a personal code of values	64.4%	69.7%
Understanding people of other backgrounds	55.5%	67.3%
Solving complex real-world problems	61.3%	67.3%
Being an informed and active citizen	58.4%	73.4%

* Percent reporting “quite a bit” or “very much.”

Senior Capstone Course

Results show that 86.4% of seniors reported participating in a capstone course. Unlike the previous

HIPs, the results show several items where participants reported less growth, although the reported percentage differences were small. Only one item, “writing clearly and effectively,” showed a strong difference as the percentage of reported growth was about 11% higher among participants. It should be noted that only 33 respondents did not participate in a capstone course, thus the percentages associated with this group are small and prone to change drastically given small changes to the sample size.

CU Seniors: Senior Capstone Course

	Not Done	Done
<i>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?*</i>		
Writing clearly and effectively	63.6%	74.5%
Speaking clearly and effectively	75.0%	74.9%
Thinking critically and analytically	94.0%	89.0%
Analyzing numerical/statistical info	57.6%	50.4%
Acquiring job-related knowledge/skills	72.7%	67.7%
Working effectively with others	81.8%	81.9%
Developing a personal code of values	69.7%	65.8%
Understanding people of other backgrounds	60.6%	60.9%
Solving complex real-world problems	57.6%	65.3%
Being an informed and active citizen	65.6%	65.2%

* Percent reporting “quite a bit” or “very much.”

Study Abroad

Results show that 36.3% of seniors reported studying abroad. When data are disaggregated by study abroad participation, similar findings for most of the outcomes are revealed. Only two items revealed a difference greater than five percent--“working effectively with others” and “analyzing numerical and statistical information.” However, the self-reported growth was greater for seniors that did not participate in study abroad. For example, for “analyzing numerical and statistical information,” 57.8% of the non-participants reported “quite a bit” or “very much” growth compared to 38.7% of the study abroad participants.

CU Seniors: Study Abroad

	Not Done	Done
<i>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?*</i>		
Writing clearly and effectively	74.7%	71.0%
Speaking clearly and effectively	74.7%	75.0%
Thinking critically and analytically	90.0%	90.1%
Analyzing numerical/statistical info	57.8%	38.7%
Acquiring job-related knowledge/skills	67.9%	68.8%
Working effectively with others	84.5%	77.2%
Developing a personal code of values	67.3%	66.3%
Understanding people of other backgrounds	60.4%	62.4%
Solving complex real-world problems	64.0%	65.6%
Being an informed and active citizen	66.1%	66.0%

* Percent reporting “quite a bit” or “very much.”

Service Learning

The NSSE asked about service learning participation using the following question: “About how many of your courses at this institution have included a community-based project (service learning)?” Results show that 66.7% of seniors reported participating in a service learning project as part of their coursework. Less than ten percent of seniors reported participating in a service learning project “most” or “all” of the time.

Servicing Learning Participation

About how many of your courses at this institution have included a community-based project (service-learning)?

	SR
None	33.3%
Some	58.4%
Most	7.2%
All	1.1%

Findings show that seniors who participated in a service learning activity reported more growth in all of the selected learning outcome areas except for analyzing numerical/statistical information. The item focused on developing a personal code of values showed a 20.6% difference between participants and non-participants. Except for critical thinking and analyzing numerical/statistical information, service learning participants reported about 10% or more growth for all of the items.

CU Seniors: Benefits to Intellectual and Personal Development by Service Learning Participation

	None	All, Most, Some
<i>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?*</i>		
Writing clearly and effectively	66.3%	77.2%
Speaking clearly and effectively	67.4%	78.1%
Thinking critically and analytically	86.8%	91.2%
Analyzing numerical/statistical info	56.6%	48.9%
Acquiring job-related knowledge/skills	57.8%	73.7%
Working effectively with others	73.5%	86.1%
Developing a personal code of values	53.0%	73.6%
Understanding people of other backgrounds	50.6%	65.8%
Solving complex real-world problems	57.9%	67.8%
Being an informed and active citizen	57.8%	69.4%

* Percent reporting “quite a bit” or “very much.”

Freshman Plans for Engaging in HIPs

Freshmen were asked, “Which of the following have you done or do you plan to do before you graduate?” The table displays the percentage of freshmen who answered “plan to do.” The results show that about three-fourth of freshmen plan on participating in an internship or senior capstone course. The percentage of freshmen who plan on participating in a study abroad program or a formal leadership role was slightly lower at 60.1% and 45.3% respectively. About a third of freshmen expressed

interest in participating in a faculty-student research project and only a quarter of freshmen plan on participating in a learning community.

Freshman: HIPs Planned

Activity	“Plan to Do”
Internship	79.3%
Senior Capstone Project	73.0%
Study Abroad	60.1%
Formal Leadership Role	45.3%
Research with Faculty Member	33.9%
Learning Community	24.9%

SUMMARY

This *Research in BRIEF* describes HIPs participation at Chapman University and examines the potential beneficial effects of participation among seniors. The results show that about 10% to 14% of freshmen had participated in an internship, formal leadership role or a learning community. Among seniors, almost all students participated in at least one HIPs (97.2%) and a very high percentage participated in two or more HIPs (89.8%).

While causation was not investigated in this report, the results by HIPs participants are encouraging and do show that many of these activities are associated with higher self-reported growth in various learning outcomes. In particular, faculty-student research was associated with strong self-reported growth in multiple areas such as their ability to work effectively with others and “being an informed and active citizen.” Seniors who participated in an internship or other work placement reported higher levels of growth in acquiring job-related knowledge and skills.

While the senior capstone course and study abroad were associated with little self-reported growth, no clear conclusions can be made at this point. It is also important to reiterate that only a small number of seniors in the sample did not participate in a senior capstone course making it difficult to create a reliable comparison group.

It is clear that more research is needed in this area to explore the relationship between HIPs and self-reported gains in these key learning outcomes. Since data show that there is strong interest among freshmen to participate in most of these HIPs, it is important to clarify this association and to determine what elements of these programs and practices are particularly effective to learning and success at Chapman University.

1 NSSE Research in Brief #1. “Promoting High-Impact Practices: Maximizing Educational Gains.” May 2013.

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<http://www.chapman.edu/chancellor/ciro/>