PART 2

High-Impact Educational Practices

Who Has Access to Them And Why They Matter for All Students

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> More than anything else, being an educated person means being able to see connections that allow one to make sense of the world and act within it in creative ways. Every one of the qualities I have described here—listening, reading, talking, writing, puzzle solving, truth seeking, seeing through other people's eyes, leading, working in a community—is finally about connecting.
> [William Cronon, "Only Connect: The Goals of a Liberal Education," *Liberal Education* 85, no. 1 (1999): 12]

I'VE VISITED DOZENS OF CAMPUSES OVER THE PAST DECADE TO MEET WITH FACULTY, ADMINISTRATORS, STUDENT AFFAIRS STAFF, TRUSTEES, and—on fewer occasions than I would like—students. Across all of these groups, the most-asked question is, what is the one thing we should do to increase student engagement and success on our campus?

Until recently, I avoided answering this question for two reasons. First, we hadn't yet learned enough from the National Survey of Student Engagement (NSSE) and other sources to be confident about whether some educational programs and activities were more important to student success than others. Just about all the behaviors and institutional conditions represented on the NSSE survey are positively linked to desired outcomes of college, so calling attention to one set of activities seemed counterproductive. A second reason for hedging on an answer was that decades of research showed that student development is a cumulative process shaped by many events and experiences, inside and outside the classroom. Recent research on the relationships among student characteristics, engagement, and outcomes adds an additional layer of complexity to our understanding. Many of the effects of college are conditional[11] in that some students appear to benefit more than others from the same educational programs or practices, all things considered.[12]

At the same time, there is growing evidence that—when done well—some programs and activities appear to engage participants at levels that elevate their performance across multiple engagement and desired-outcomes measures such as persistence. The Association of American Colleges and Universities listed ten of the more promising "high-impact" activities in its 2007 report, *College Learning for a New Global Century.* These activities are described here on pages 9-11. They include first-year seminars, common intellectual experiences, learning communities, service learning, undergraduate research, study abroad, and other experiences with diversity, internships, and capstone courses and projects.

Table 1 summarizes the strong positive effects associated with participation in six of these high-impact activities in terms of first-year and senior student self-reported gains in three clusters of learning and personal development outcomes, and in engaging in deep approaches to learning (see appendix A for details on deep/integrative learning). In contrast to surface-level learning, deep-level processing emphasizes both acquiring information and understanding the underlying meaning of the information. Deep approaches to learning are important because students who use these approaches tend to earn higher grades and retain, integrate, and transfer information at higher rates.[13] Students who have these experiences are also more engaged overall in the clusters of effective educational practices represented by the NSSE (see table 2).

Why Some Educational Activities Are Unusually Effective

What is it about these high-impact activities that appear to be so effective with students?

First, these practices typically demand that students devote considerable time and effort to purposeful tasks; most require daily decisions that deepen students' investment in the activity as well as their commitment to their academic program and the college. Consider, for example, a writing-intensive first-year seminar with twenty-five or fewer students that is team-taught by a faculty member (who also is the adviser for the students in the seminar) and an upper-division peer mentor or instructor. The composition of the instructional team coupled with the size of the course ensures that every student will get to know at least one faculty member well in the first year of college, in addition to the other students in the class. Advising is no longer a once-a-semester meeting with a person the student hardly knows, but an ongoing set of conversations about issues students are facing in real time. Because the seminar is writing-intensive, students must also put forth more effort. They benefit more, especially when they get frequent feedback from the faculty member, peer mentor, and other students in the course. Similar patterns of benefits are reported by students who study abroad, in that they engage more frequently in educationally purposeful activities upon returning to their home campuses and report gaining more from college compared with their peers who do not study abroad.

Second, the nature of these high-impact activities puts students in circumstances that essentially demand they interact with faculty and peers about substantive matters, typically over extended periods of time. A human-scale first-year seminar makes anonymity impossible, fosters face-to-face interaction, and fuels feedback. Students who do research with a faculty member spend a fair amount of time with that faculty member; as a result, students learn firsthand how a faculty member thinks and deals with the inevitable challenges that crop up in the course of an investigation. Students who do research with faculty also are more likely to persist, gain more intellectually and personally, and choose a research-related field as a career.[14] Collaborative problem-based assignments in the context of a course set the stage for developing a meaningful relationship

Table 1

Relationships between Selected High-Impact Activities, Deep Learning, and Self-Reported Gains

	Deep Learning	Gains General	Gains Personal	Gains Practical
First-Year				
Learning Communities	+++	++	++	++
Service Learning	+++	++	+++	++
Senior				
Study Abroad	++	+	++	
Student-Faculty Research	+++	++	++	++
Service Learning	++	+++	+++	++
Senior Culminating Experience	++	++	+++	++

+ p < .001, ++ p < .001 & Unstd B > .10, +++ p < .001 & Unstd B > .30

Table 2

Relationships between Selected High-Impact Activities and Clusters of Effective Educational Practices

	Level of Academic Challenge	Active and Collaborative Learning	Student-Faculty Interaction	Supportive Campus Environment
First-Year				
Learning Communities	++	+++	+++	++
Service Learning	++	+++	+++	++
Senior				
Study Abroad	++	++	++	+
Student-Faculty Research	+++	+++	+++	++
Service Learning	++	+++	+++	++
Senior Culminating Experience	++	++	+++	++

+ p < .001, ++ p < .001 & Unstd B > .10, +++ p < .001 & Unstd B > .30

with another person on campus—a faculty or staff member, student, coworker, or supervisor. These and other high-impact practices put students in the company of mentors and advisers as well as peers who share intellectual interests and are committed to seeing that students succeed.

Third, participating in one or more of these activities increases the likelihood that students will experience diversity through contact with people who are different from themselves. Study abroad or other cross-cultural experiences are natural venues for this. But so are learning communities, courses that feature service learning, and internships and other field placements such as student teaching. These experiences often challenge students to develop new ways of thinking about and responding immediately to novel circumstances as they work side by side with peers on intellectual and practical tasks, inside and outside the classroom, on and off campus.

Table 3

Percent Participation in High-Impact Activities by Institutional and Student Characteristics

	First-Year Students		Senior Students				
	Learning Community	Service Learning	Research with Faculty	Study Abroad	Service Learning	Internship	Senior Experience
2005 Basic Carnegie							
Doc RU-VH	20	33	23	18	40	57	29
Doc RU-H	18	37	19	14	44	51	33
Doc DRU	18	39	17	13	52	51	33
Masters-L	16	35	16	10	47	48	30
Masters-M	16	39	17	11	51	52	30
Masters-S	14	44	18	14	53	51	36
Bac-AS	13	43	29	33	53	66	55
Bac-Diverse	13	41	18	11	55	60	37
Other	13	29	15	8	38	49	29
Sector							
Public	17	34	18	12	44	50	29
Private	16	44	22	21	53	61	42
Barron's Selectivity							
Less Selective	16	36	16	10	47	48	30
More Selective	18	37	23	21	45	59	35
Ethnicity							
African American/Black	18	40	17	9	51	45	27
Asian/Pacific Islander	17	37	22	14	49	50	28
Caucasian/ White	17	36	19	15	45	56	34
Hispanic	20	36	17	11	47	45	26
Other	15	38	19	18	46	46	31
Enrollment							
Part-time	10	26	12	7	37	38	22
Full-time	17	37	21	16	48	56	35
Transfer Status							
No	18	37	22	19	46	57	36
Yes	15	35	16	9	46	48	29
Transfer Status							
Started Here	17	37	23	19	49	61	38
Started Elsewhere	13	32	14	9	43	43	25
Age							
Under 24 Years	17	37	23	18	49	61	37
24 Years & Older	10	24	13	7	41	40	24
Overall Participation	17	36	19	14	46	53	32

Fourth, even though the structures and settings of high-impact activities differ, students typically get frequent feedback about their performance in every one. Working with a faculty member on research, having a paper checked by a peer writing tutor prior to turning it in, and having one's performance evaluated by the internship supervisor are all rich with opportunities for immediate formal and informal feedback. Indeed, because students perform in close proximity to supervisors or peers, feedback is almost continuous. In addition, NSSE 2007 results show that students who receive feedback during or after working on a research project with a faculty member are more likely to report that their relationships with faculty are friendly or supportive.

Fifth, participation in these activities provides opportunities for students to see how what they are learning works in different settings, on and off campus. These opportunities to integrate, synthesize, and apply knowledge are essential to deep, meaningful learning experiences. While internships and field placements are obvious venues, service learning and study abroad require students to work with their peers beyond the classroom and test what they are learning in unfamiliar situations. Similarly, working with a faculty member on research shows students firsthand how experts deal with the messy, unscripted problems that come up when experiments do not turn out as expected. A well-designed culminating experience such as a performance or portfolio of best work can also be a springboard for connecting learning to the world beyond the campus. NSSE results show a net positive relationship for students who have had some form of culminating experience after controlling for a host of student and institutional variables (see tables 1 and 2; also appendix B).

Finally, it can be life changing to study abroad, participate in service learning, conduct research with a faculty member, or complete an internship. That is why doing one or more of these activities in the context of a coherent, academically challenging curriculum that appropriately infuses opportunities for active, collaborative learning increases the odds that students will be prepared to—in the words of William Cronon—"just connect." Such an undergraduate experience deepens learning and brings one's values and beliefs into awareness; it helps students develop the ability to take the measure of events and actions and put them in perspective. As a result, students better understand themselves in relation to others and the larger world, and they acquire the intellectual tools and ethical grounding to act with confidence for the betterment of the human condition.

THE COMPENSATORY EFFECTS OF ENGAGEMENT

The effects of participating in high-impact practices are positive for all types of students (see appendix B). But, historically underserved students tend to benefit *more* from engaging in educational purposeful activities than majority students.[15] Sadly, as table 3 shows, some groups of historically underserved students are less likely to participate in high-impact activities—those first in their family to attend college and African American students in particular.

Figures 1, 2, and 3 illustrate the boost underserved students receive from engagement relative to other students. The vertical axis in figure 1 represents first-year grade point average, and the horizontal axis represents engagement based on nineteen items from the NSSE survey (appendix C). The colored lines represent students with different average ACT scores, a measure of precollege achievement. The gradual left-to-right rise in the lines correlated with engagement indicates that students who devote more effort to educationally purposeful activities earn higher grades in the first college year. However, the slope of the line for students with the lowest average ACT score level is somewhat greater, suggesting that as they become more engaged they make up ground in terms of their grades in the first college year. In this sense, engagement has a conditional,

Figure 1

Impact of Educationally Purposeful Activities on First Academic Year GPA by Precollege Achievement Level

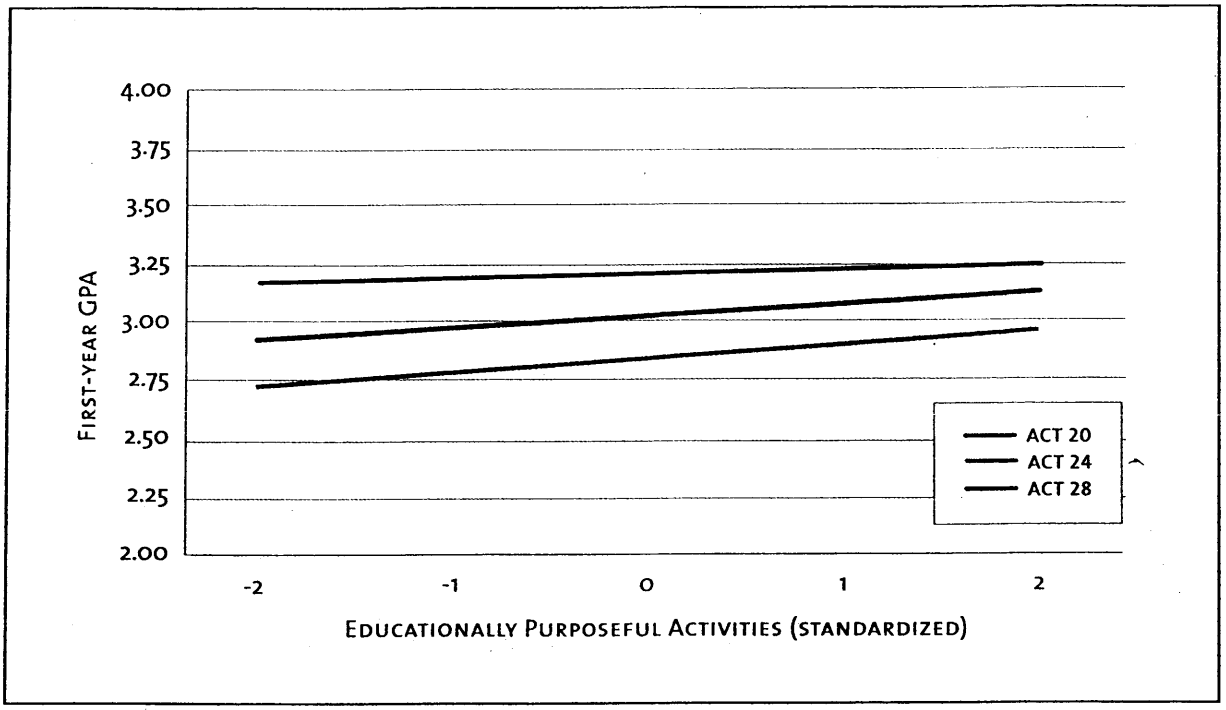


Figure 2

Impact of Educationally Purposeful Activities on First Academic Year GPA by Race/Ethnicity

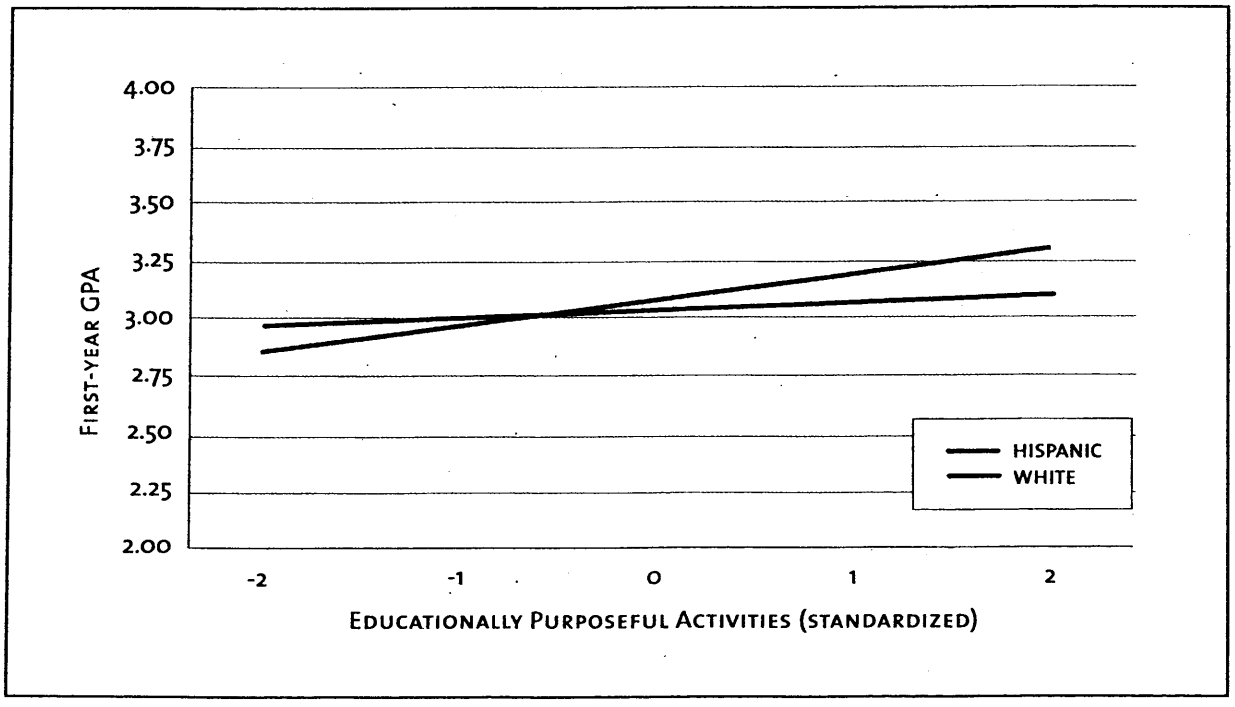
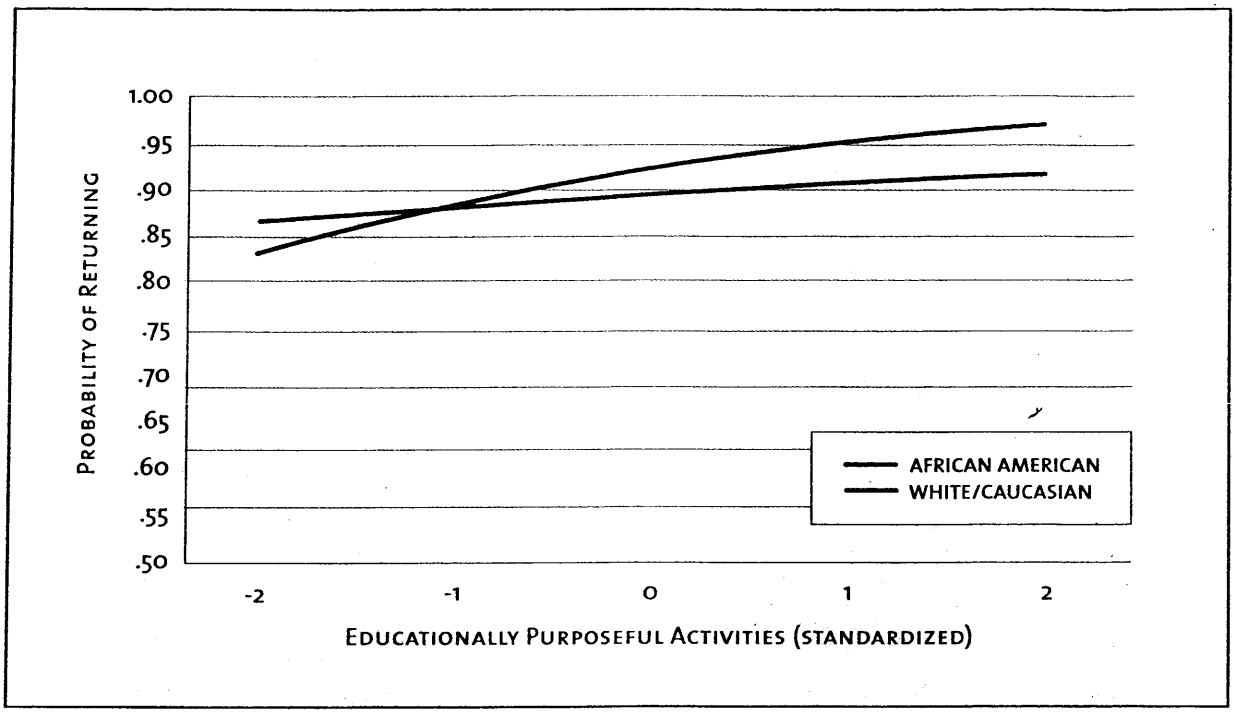


Figure 3

Impact of Educationally Purposeful Activities on the Probablility of Returning for the Second Year of College by Race



compensatory effect on their first-year grades. Figure 2 shows a similar compensatory effect for the grades of Hispanic students compared with their white counterparts.

A similar effect exists between engagement and the odds that a student will return to the same institution for the second year of college (figure 3). That is, while engagement and persistence are positively correlated for all students, engagement has a compensatory effect for African American students relative to white students in that as the African American students become more engaged, they also become more likely to surpass white students in the likelihood they will persist.

Thus, while participation in effective educational activities generally benefits all students, the salutary effects are even greater for students who begin college at lower achievement levels, as well as students of color, compared with white students.

How Do We Raise Achievement?

So, today when I am asked, what one thing can we do to enhance student engagement and increase student success? I now have an answer: make it possible for every student to participate in *at least two high-impact activities* during his or her undergraduate program, one in the first year, and one taken later in relation to the major field. The obvious choices for incoming students are first-year seminars, learning communities, and service learning. Common intellectual content should be a nonnegotiable organizing principle for these early college experiences; when students have read and discussed some of the same material in one or more classes, they are more likely to talk with their

peers about these ideas outside of class, which infuses a measure of intellectual vitality into the campus culture. In the later years of college, study abroad, internships and other field experiences, and culminating experiences are all possible.

Ideally, institutions would structure the curriculum and other learning opportunities so that *one high-impact activity is available to every student every year.* This is a goal worth striving for, but only after a school has scaled up the number of students—especially those from historically underserved groups—who have such experiences in the first year and later in their studies. In the short term, making high-impact activities more widely experienced should have a demonstrable impact in terms of student persistence and satisfaction as well as desired learning outcomes.

Certainly students can do other things during college that confer benefits similar to those of high-impact activities—writing for the student newspaper, working in an office or program on campus, participating in an honors program, being a leader for a student organization or campus committee, and playing intercollegiate athletics, to name a few. But these opportunities—with the exception of working on campus—too often are limited to small numbers of students, especially on large campuses.

If faculty and staff made these and other effective educational activities commonly available to every student, perhaps colleges and universities could do a better job in helping students compensate for shortcomings in academic preparation and create a culture that fosters student success. But left to their own devices, many students and faculty members may not do these things. Educationally effective institutions recognize this and create incentives to induce purposeful behavior toward these ends. Depending on the circumstances, some institutions, for example, assign all students to a learning community; require two or more writing-intensive courses in all majors; and expect students to participate in some form of culminating senior experience, such as a field placement, internship, or capstone project or paper. My coauthors and I provided examples of what these look like in different institutional settings in *Student Success in College: Creating Conditions That Matter.*[16] AAC&U has provided many other examples in *Peer Review* and on the LEAP Web site (www.aacu.org/advocacy/leap/index.cfm).

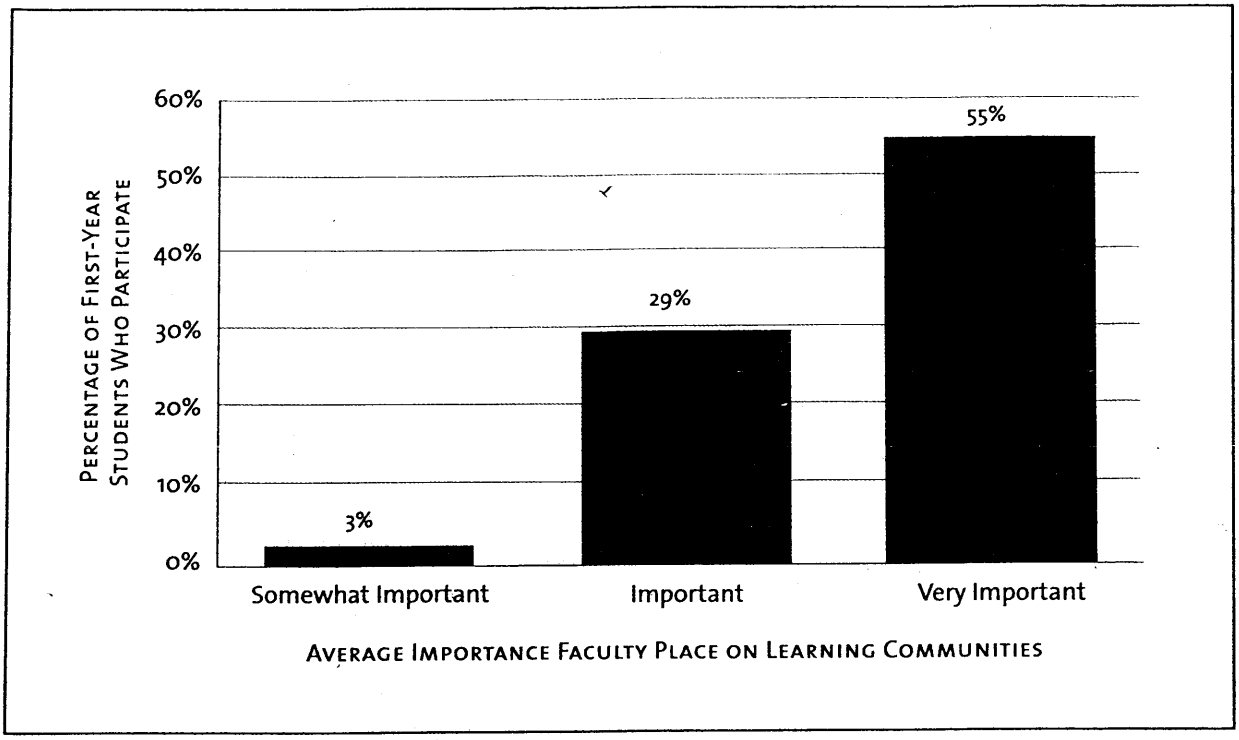
While high-impact activities are appealing for the reasons just outlined, to engage students at high levels, these practices *must be done well.* In addition, institutions must scale them up so that enough opportunities are available in each activity area and every student has a real chance to participate.

Although these and other high-impact activities are promising, more information is needed about their structural features, and whether certain types of students are more likely to take advantage of them and how they benefit from the experience. For example, in *Experiences That Matter: Enhancing Student Learning and Success*, NSSE[17] reported that

- students who do a capstone seminar that requires a final product or performance gain more in desired areas compared with their peers whose capstones do not require a final product or performance
- students who devote more time to an inquiry activity benefit more
- faculty guidance and feedback in the course of an independent or collaborative research project enriches learning as represented by student self-reported gains

Figure 4

Learning Community Participation

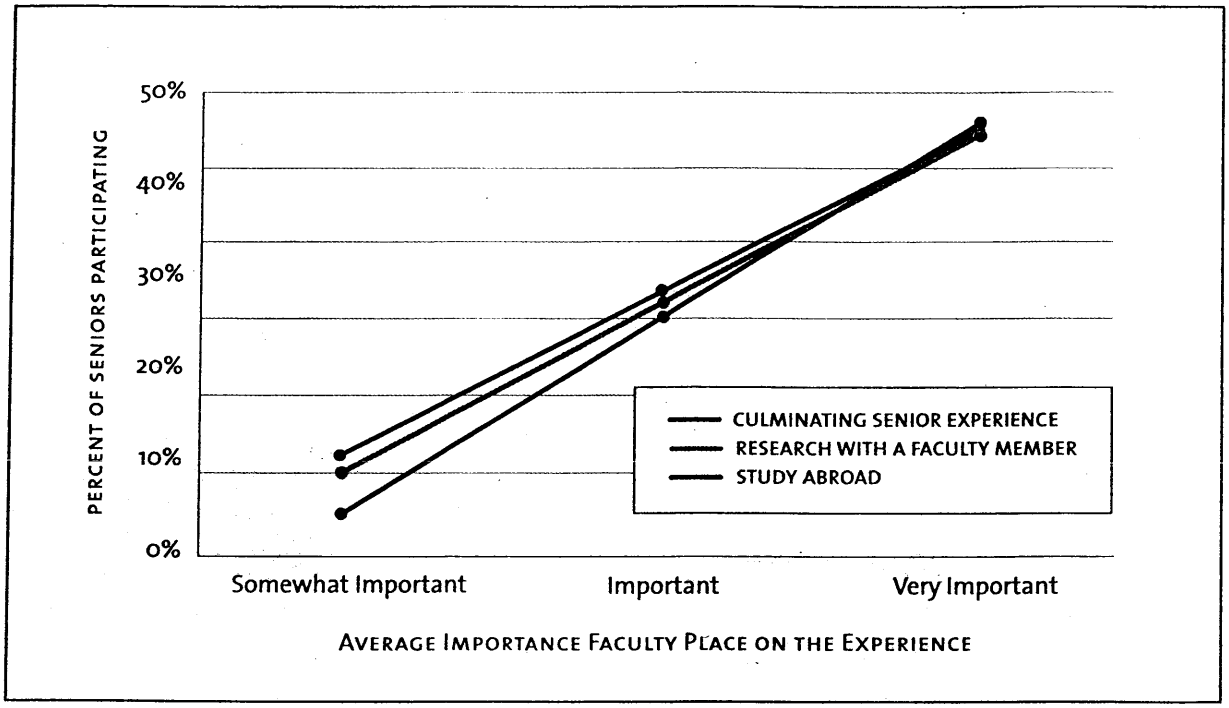


The last bullet is a reminder of the important role faculty members play in creating a climate conducive to engagement and learning. Other research has demonstrated the positive relationships between faculty teaching practices and student engagement, learning, and persistence.[18] We know from NSSE data and results from the Faculty Survey of Student Engagement (FSSE) that at institutions with better-than-expected graduation rates, faculty members are more likely to use engaging classroom pedagogical practices.[19]

What faculty *think* and *value* also makes a difference, especially as to whether students will participate in high-impact practices. Figure 5 illustrates this by showing that the more faculty members at a given school *value* an activity and think it is important that students at their institution participate in it, the more likely it is that students will participate. For example, an analysis of 2007 NSSE and FSSE results indicate that on a campus where the average faculty member believes undergraduate participation in learning communities is only *somewhat* important, only 3 percent of first-year students become involved in this activity (figure 4). In contrast, at institutions where the typical faculty member agrees that learning communities are *very* important, 55 percent of first-year students participate. This also holds for student participation and the importance faculty place on culminating senior experiences, research with a faculty member, and study abroad (figure 5). For each activity, an increase of one category in the average importance faculty place on the activity—from somewhat important to important or from important to very important—corresponds to about a 20 percent increase in student participation.

Figure 5

Senior Participation in High-Impact Activities



Of course, what faculty think and value does not necessarily impel students to take part in high-impact activities or engage in other educationally purposeful practices. Rather, when large numbers of faculty and staff at an institution endorse the worth of an activity, members of the campus community are more likely to agree to devote their own time and energy to it, as well as provide other resources to support it—all of which increases the likelihood that the activities will be available to large numbers of students and that the campus culture will encourage student participation in the activities.

Final Words

Student engagement is not a silver bullet, and there are limits to what colleges and universities can realistically do to help students overcome years of educational disadvantages. At the same time, engaging in educationally purposeful activities helps level the playing field, especially for students from low-income family backgrounds and others who have been historically underserved. Moreover, engagement increases the odds that any student—educational and social background notwithstanding—will attain his or her educational and personal objectives, acquire the skills and competencies demanded by the challenges of the twenty-first century, and enjoy the intellectual and monetary gains associated with the completion of the baccalaureate degree.

Most institutions can increase student engagement and success by more consistently using what the research shows are promising policies and effective educational activities and practices. Almost every college or university offers some form of every high-impact practice described here. But at too many institutions, only small numbers of students are involved. The time has come for colleges and universities to make participating in high-impact activities a reality—and a priority—for every student.