Global Awareness and Student Engagement

Allison BrckaLorenz
Assistant Research Scientist

Jim Gieser
Research Project Associate

Indiana University Center for Postsecondary Research
1900 East Tenth Street
Eigenmann Hall, Suite 419
Bloomington, IN 47406-7512
nsse@indiana.edu
Phone: 812.856.5824

Introduction

The forces and effects of globalization are reshaping the contemporary world in dramatic ways. Nations and institutions of higher education are becoming increasingly interdependent through rapid technological innovations and growing transnational collaborations. Today there is a greater flow of people, knowledge, and ideas across borders than ever before; global concerns now become local concerns (Altbach & Knight, 2007; Knight, 2001; Kreber, 2009; Morey, 2000). Frequent calls have been made for institutions to equip students with the skills necessary to become interculturally competent and globally aware citizens (AAC&U, 2007; Altbach, 2002; Brustein, 2007; Engberg, 2010; Morey, 2000). The present globalized era requires students who are equipped with intercultural and international understanding and who can interrelate as responsible, knowledgeable, and informed global citizens (Bartell, 2003). It also calls for students who understand the role of the United States amidst a variety of geopolitical relations (Dolby, 2007; Tarrant, 2009) and who are able to compete in a competitive, global marketplace (Brustein, 2007; Deardorff, 2010; Labi, 2009). As asserted by Dewey and Duff (2009), "Our global era requires globally competent citizens" (p.491).

A variety of concepts have been used to denote the interrelated notions of global awareness, sensitivity to and appreciation of cultural difference, and particular competencies necessary to interact cross-culturally. Notions such as *intercultural competence*, *worldmindedness*, *global-mindedness*, and *global citizenship* have been developed to describe the desired outcomes for the development of students (Ashwill & Oanh, 2009; Deardorff, 2009, 2010; Hett, 1994; O'Leary, 2001; Parsons, 2009). For example, Deardorff (2010) notes that although the concept of intercultural competence has been discussed and variously conceptualized for five decades, there remains a wide range of definitions and a continued lack

of consensus. Despite the lack of agreement on the terms being used to describe these notions, there is general agreement on the positive outcomes associated with these various operationalizations of global awareness.

Campus Environment

Research demonstrates that the incorporation of globally-focused activities into institutional life, such as opportunities to build relationships with international students, attend culturally diverse campus events, and participate in an internationalized curriculum may have a positive effect on students' intercultural sensitivity and global-mindedness and on their openness to learning about diversity (Johnson & Lollar, 2002; Klak & Martin, 2003; Parsons, 2009). For example, Klak and Martin (2003) created a developmental model of intercultural sensitivity in order to measure the attitudes of first-year and junior students in two geography courses after intercultural exposure. Students' attitudes shifted towards greater openness to and appreciation of other cultures along several dimensions of intercultural sensitivity after attending a campus cultural celebration. Their results suggest that university-sponsored, campus-wide cultural events can help to increase students' intercultural sensitivity. Large-scale events can provide opportunities for engaging with difference and may generate a campus climate that is conducive to discussing, exploring and embracing cultural difference. Klak and Martin (2003) also suggest that the inclusion of required attendance at campus cultural events in course syllabi can provide an important link that relates course content to global and cross-cultural perspectives presented at cultural events, thereby generating further opportunities for discussion and exploration.

Gurin, Dey, Hurtado, and Gurin (2002) assert that institutions that create diverse learning environments can better prepare students to participate in an American society – and, by extension, a global community - that is heterogeneous and complex. Although this can take place

through increased structural diversity, or increased numbers of students from other cultures on campus, a diverse student population alone does not guarantee that students will interact meaningfully with diverse peers. Gurin, Dey, Hurtado, and Gurin (2002) argue that informal interactional diversity, such as in dining halls and residences, and classroom diversity, which includes learning about diverse people and perspectives through content and live classroom interactions, are necessary in order for true intercultural learning to take place.

The college campus can provide an ideal setting in which a growing appreciation of diversity and the development of global awareness can take place. Activities such as those noted above may result in students' reporting greater learning about other racial/ethnic groups, exhibiting greater understanding of other regions of the world, displaying more open and curious attitudes, and demonstrating greater cross-cultural abilities (Johnson & Lollar, 2002; Parsons, 2009). Interaction with diverse peers in and out of the classroom can encourage students to be more enthusiastic about and capable of contributing to a diverse world (Gurin, Nagda, & Lopez, 2004). Given these outcomes, it is important to explore the ways in which institutions can encourage student development along these dimensions.

Curriculum and Faculty

The curriculum plays a central role in developing globally aware, interculturally-competent graduates (Bartell, 2003; Bok, 2006; Brustein, 2007). Some argue that although efforts to internationalize the curricula have been made on various campuses, they are few in number and have met with limited success (Bok, 2006; Brustein, 2007; Van Damme, 2001). Brustein (2007) writes that even when courses that focus on global diversity and global issues are offered, they are rarely articulated with the rest of the curriculum. In addition, more globally-targeted programs, such as area studies, often fail to help students understand the importance of

context and of theory when studying a region of the world. Brustein (2007) suggests that an international component, such as a certificate or a minor, be linked to each major field of study. Bok (2006) proposes that institutions require at least two courses, one covering the role of the United States in the world and the other examining ways to understand and appreciate other world cultures. In these ways, students may be equipped with global, in addition to disciplinary, competencies.

Scholars observe, however, that such initiatives will not be successful without faculty involvement and support (Bok, 2006; Brustein, 2007; Dewey & Duff, 2009; Hoffman, 2009; Stromquist, 2007). Altbach and Peterson (1998) argue that, with few exceptions, faculty have traditionally underappreciated the opportunities afforded by internationalization. Stohl (2007) argues that successfully drawing faculty into the process of internationalization is one of the greatest challenges facing higher education today. Whereas progress has been made towards encouraging greater student mobility and a general increase in the awareness of international issues, more focused energies must be channeled towards faculty if continued progress is to be made (Brustein, 2007; Stohl, 2007).

Toward this end, a study by Dewey and Duff (2009) explored the initiatives of globally-minded faculty who were actively involved in internationalization initiatives. The authors concluded with a set of recommendations for supporting faculty involvement, such as increased institutional clarity regarding internationalization goals and the role of faculty in the internationalization process and a better incentive structure to encourage and reward their participation. Faculty must be integrated into campus internationalization strategies in order for such initiatives to be successful, especially those related to the curriculum (Dewey & Duff, 2009; Stohl, 2007).

Study Abroad

Research on study abroad, a common means to enhance students' global awareness, has yielded significant evidence regarding the impact of such experiences on various aspects of students' development within the cognitive, intrapersonal, and interpersonal domains (Biles & Lindley, 2009; Brux & Fry, 2009; Clarke, Flaherty, Wright, & McMillen, 2009; Douglas & Jones-Rikkers, 2001; Dwyer, 2004; Engberg, 2010; Immetman, & Schneider, 1998; Moline, 2009; Pires, 2000; Rexeisen & Al-Khatib, 2009; Van Hoof & Verbeeten, 2005). Brux & Fry (2009) write, "Certainly study abroad programs offer the greatest potential for experiential international education, which is relevant to the academic, cultural, personal, and career goals of all students…" (p. 1). Others observe, "Overseas study is an unparalleled method of promoting cross-cultural understanding, an appreciation of difference, and a relational sense of identity" (Biles & Lindley, 2009, p. 148). Study abroad experiences provide a set of rich learning opportunities that cannot be replicated elsewhere and make this an especially important component of increasing global awareness and intercultural understanding.

For example, participation in study abroad experiences may lead to increased intercultural knowledge and sensitivity (Biles & Lindley, 2009; Clarke, et al, 2009; Dwyer, 2004; Moline, 2009; Pires, 2000; Rexeisen & Al-Khatib, 2009; Van Hoof & Verbeeten, 2005); greater openness to multiple perspectives and a greater appreciation of difference (Clarke, et al, 2009; Douglas & Jones-Rikkers, 2001; Immetman, & Schneider, 1998; Moline, 2009); the reevaluation and growth of personal values and increased understanding of self-identity (Dwyer, 2004; Immetman, & Schneider, 1998; Moline, 2009; Pires, 2000; Van Hoof & Verbeeten, 2005); a greater openness to and proficiency in intercultural interactions (Clarke, et al, 2009; Douglas & Jones-Rikkers, 2001; Dwyer, 2004); and altered career and social aspirations (Clarke, et al, 2009;

Dwyer, 2004; Moline, 2009; Pires, 2000). In addition, the combination of foreign language study

in the study abroad setting may result in increased gains in foreign language proficiency and

reduced anxiety when speaking the language (Allen & Herron, 2003; Bacon, 2002).

Researchers at the Center for Postsecondary Research created a set of survey items to

further explore students' engagement in various globally-focused activities. The set contains

questions about the following topics: intent to study a foreign language, intent to participate in

study abroad or service learning, participation in campus activities that promoted awareness of

international cultures, courses that encouraged greater awareness of and understanding of

intercultural diversity, and the extent to which students have had conversations about different

international cultures and appropriate ways to communicate in intercultural settings. The

complete item set can be found in Table 1. This study further explores students' participation in

globally-focused activities by examining the frequency of these behaviors by various student

subpopulations such as disciplinary major. This study also investigates the relationships between

participating in globally-focused activities and other important outcomes in college such as

engagement, deep learning, and self-reported gains.

Research Questions

Two research questions guided this study:

1. What globally-focused activities are students participating in most frequently and least

   frequently? Does this frequency differ by various student subpopulations?

2. How does participation in globally-focused activities relate to student engagement, deep

   learning, and students' reports of gains in college?

Methods

Data Source and Sample

The data for this analysis comes from the 2011 administration of the National Survey of Student Engagement (NSSE). NSSE was designed to measure student behaviors and the time and energy they invest in activities that relate to student learning and development. More specifically, NSSE asks students how often they engage in various effective educational practices as well as their perceptions of their college environment and various gains while in college. The 2011 NSSE was administered to a random sample of first-year and senior college students at over 750 participating four-year colleges and universities. Students attending 53 of these institutions were given an additional set of items at the end of the survey asking about their participation in various globally-focused activities.

The preliminary sample for this study consists of over 8000 (45%) first-year students and nearly 10,000 (54%) seniors. Approximately two-thirds of this sample was female, a third was underrepresented minorities, and close to 90% were enrolled full time. Additional information about student demographics and institutional characteristics can be located in Table 2.

Variables

Several scales and collections of items were used as variables in this study as well as a variety of student-level demographic and institution-level items. Although the item set about globally-focused activities contained thirteen items, this study focuses on four of the items. Two of these items asked students how much their coursework encouraged them to understand the viewpoints, values, or customs of other world cultures or to act and speak in ways that respect other world cultures. The other two items asked students how often they had serious conversations about the viewpoints, values, or customs of cultures other than their own or about appropriate ways to communicate with people from cultures other than their own. These four items combined to make the Global Awareness Engagement (GAE) scale.

The remainder of scales and benchmarks used in this study were created using items from the core NSSE survey. Student engagement was measured with individual engagement items from the core NSSE survey as well as four of NSSE's benchmarks of effective educational practice: Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Student-Faculty Interaction (SFI), and Supportive Campus Environment (SCE).

Students' deep learning and students' self-reported gains in college were measured with various scales created from the NSSE survey. Deep learning was measured with the scales Higher Order Learning (HIO), Integrative Learning (INT), and Reflective Learning (REF). Students' self-reports of gains were measured using the scales Gains in Practical Competence (GPC), Gains in General Education (GGE), and Gains in Personal and Social Development (GPS). See Table 3 for the complete listing of component items and reliability coefficients for these scales and NSSE benchmarks.

Various student-level and institution-level characteristics were used as demographics and as controls in the regression analyses in this study. The student-level characteristics include gender, transfer status, enrollment status, fraternity or sorority membership, school-sponsored athletic team membership, on or off campus living situation, race or ethnicity, primary major field, and student-reported grades. Institution-level characteristics include private/public control and Carnegie classification. See Table 4 for a listing of demographic variables used in this study.

Analysis

For all research questions, first-year and senior data were analyzed separately in order to present separate results reflective of the first-year and senior experiences in college. To answer the first research question, frequencies of the GAE individual items were used to identify which behaviors students "frequently" observed, meaning the student responded with "often" or "very

often." These frequencies were further studied by subpopulations defined by the various demographics. Additional analyses, including t-tests and ANOVAs, were used to further explore differences by subpopulation on the GAE scale. Pearson's *r* correlations were used to answer the second research question relating the GAE scale with NSSE's benchmarks of effective educational practice and individual engagement items. Additional evidence was gathered using several multivariate OLS regressions to determine the relationship between students' reports on the GAE scale and the dependent measures of deep learning and student-reported gains. Models in this proposal include all previously mentioned student-level and institution-level characteristics. All continuous independent and dependent variables were standardized before being entered into the regression analyses so that the unstandardized coefficients can be interpreted as effect sizes.

Results

Half of both first-year and senior students reported that their coursework frequently encouraged them to understand and respect other world cultures and that they had serious conversations about cultures other than their own. Fewer students, around 40% for both classes, reported having conversations about the appropriate ways to communicate with people from other cultures. These frequencies varied by subpopulation. For example, around 10% of first-years in Social Science and Education fields reported that their coursework never encouraged them to understand other cultures compared to nearly 20% of Biological Science and 30% of Engineering students reporting the same.

Students' scores on the GAE scale differed by subpopulation as well. For first-year students, higher scores on the GAE scale were found for females, minority students, students in a fraternity/sorority, students with higher grades, and students in social science fields of study.

Significant differences were not found for first-year transfer students, enrollment status, athletic participation, and living situation. For seniors, higher scores on the GAE scale were found for females, non-transfer students, full-time students, students living on campus, minority students, students with higher grades, and students in social science fields of study. Significant differences were not found for seniors by fraternity/sorority participation or athletic participation. For both first-years and seniors, students' scores on the GAE scale differed by institution type as well. Scores were higher for students at private institutions in general, and scores were highest for students at Baccalaureate, followed by Master's then Doctoral Carnegie classified institutions.

Students' scores on the GAE scale had moderate, positive correlations with NSSE's benchmarks, particularly for first-year students. The strongest relationships were between GAE and NSSE's Level of Academic Challenge ($p < .001$, FY: $r = .428$, SR: $r = .428$). For first-year students, the strongest relationships occurred between the GAE scale and the individual NSSE items about perceived gains in developing a personal code of values and ethics ($r = .470$), gains in solving complex real-world problems ($r = .464$), and gains in contributing to the welfare of their community ($r = .456$). For senior students, the strongest relationships occurred between the GAE scale and the individual NSSE items about perceived gains in understanding people of other racial and ethnic backgrounds ($r = .562$), having classes that included diverse perspectives in class discussion or writing assignments ($r = .502$), and perceived gains in contributing to the welfare of their community ($r = .474$).

Controlling for a wide variety of student-level and institution-level characteristics, OLS regressions indicated significant, positive relationships between the GAE scale and all subscales of deep learning and student-reported gains. For both first-years and seniors, the GAE scale had

the strongest relationships with the Gains in Personal and Social Development gains scale. Even

the least strong relationships between GAE and the deep learning subscale Higher Order

Learning and Gains in General Education were still of moderate size. More details about the

sizes of these relationships can be found in Table 5.

Conclusions and Implications

Overall, these findings support the notion that colleges and universities can arrange

themselves in ways that encourage increased global awareness and intercultural understanding.

Findings are encouraging in regards to contemporary efforts to enrich the curriculum with

globally-focused content and activities. Many students are frequently doing globally-focused

coursework with very few students reporting never having done so. Although two of the items in

this study do not necessarily take place in a classroom, courses that integrate globally-focused

activities will surely include or foster serious conversations about these matters, whether they

take place in our out of the classroom. Knowing that participation in globally-focused activities

is happening so frequently is encouraging given how positively they relate to other forms of

engagement such as student-reported gains.

Subpopulation differences in exposure to globally-focused activities is disappointing but

not surprising. It is important, however, for faculty members and academic programs in general

to ensure that all of their students are exposed to such valuable activities. For example, as might

be expected, students majoring in social science fields indicated greater GAE exposure than

those in other disciplines, such as STEM fields. This suggests that these curricular domains are

in need of improvement in this area, particularly considering the need for students who are able

to communicate effectively across cultural differences in order to compete in a global

marketplace and to act appropriately as members of today's increasingly interconnected global

community (Bartell, 2003; Brustein, 2007; Deardorff, 2010; Paige & Goode, 2009; Ting-Toomey, 2009).

The strongest relationships that existed between the Global Awareness Engagement scale and NSSE's scales were related to the NSSE's Level of Academic Challenge benchmark. In addition, OLS regressions indicated significant, positive relationships between the GAE scale and NSSE's deep learning subscales. This would suggest that growth in global awareness and the sorts of experiences that students have in the classroom are linked; global awareness can be influenced by the curricular and classroom environment. Gurin, Dey, Hurtado, and Gurin (2002) offer a hypothesis that runs along similar lines. They argue that the curriculum and the classroom environment are central factors in exposing students to knowledge about diversity and to interactions with peers from diverse backgrounds, and that such an environment is most conducive to "active thinking and intellectual engagement" (p. 336).

Knowing that globally focused activities are important in cultivating various student outcomes and related to other various forms of educationally effective forms of student engagement, it is important for institutions to begin considering ways in which they can incorporate such activities into student experiences. Braskamp (2009) has developed a 3 X 3 framework to enable leaders to examine these questions in a holistic manner. The three developmental domains – cognitive, interpersonal, and intrapersonal – are matched by a concomitant focus on the sociocultural environment, consisting of the curriculum, co-curriculum, and community. Braskamp provides a number of indicators for each category. Careful evaluation of each of these aspects of the campus environment, with a focus on the three developmental dimensions mentioned above, can help institutions begin to understand how well they are doing

at encouraging global awareness and intercultural competence, and how much progress is yet to

be made.

As other research has attested, faculty involvement in this regard is essential (Dewey &

Duff, 2009; Stohl, 2007). Faculty are fundamental in encouraging students to actively engage

with world cultures different from their own and to develop greater levels of global awareness

and intercultural sensitivity. These results are in agreement with other research on the importance

of the classroom in encouraging gains such as these (Johnson & Lollar, 2002; Klak & Martin,

2003; Parsons, 2009). Faculty must be encouraged and supported in developing learning

environments that include diverse perspectives and viewpoints from other world cultures.

Faculty must also be included as central voices in conversations regarding the integration of

cross-cultural and international perspectives into the curriculum (Dewey & Duff, 2009). As

Dewey and Duff (2009) have noted, however, this requires an explicit drawing-in of faculty into

the conversation. This may entail greater clarity regarding the role intercultural perspectives in

the classroom and/or revision to the faculty tenure and promotion structure. In addition to

student-centered cognitive and developmental reasons, other incentives can be offered to

encourage faculty to become more involved.

Gurin, Dey, Hurtado, and Gurin's (2002) hypothesis is also applicable to the other focus

of the Global Awareness Engagement scale and an important component of the campus

environment: increased conversations about global issues, both in and out of the classroom,

which can lead to increased appreciation of difference. Campus activities and events designed to

provide opportunities for students to explore global diversity and new perspectives can provide

the fuel for these conversations to take place. As other research attests, regularly sponsored

multi-cultural and diversity programs can positively shape students' intercultural awareness

(Klak & Martin, 2003; Johnson & Lollar, 2009; Parsons, 2009). Creating week or month-long festivals that focus on particular global cultures, such as Latin American Week or Sub-Saharan Week, can provide some of these opportunities. Everything from dance and food to gender and class can be explored through lectures, films, and other cultural activities. Through events such as these, institutions can provide students with new perspectives of the world and challenge long-held, ethnocentric ones; help students acquire capacities for sensitive and appropriate communication across cultural differences; and help them re-figure their self-identity in light of the perspectives and experiences of diverse others.

Future paths for this study include the incorporation of the other items about the events and activities offered on campus. Researchers could look at how often students attended such events and how those experiences related to other forms of engagement or other types of globally-focused activities. Researchers could also further explore the experiences of students participating in study abroad programs. Further exploration of subpopulations could also be done, such as further investigating what types of students are doing the most globally enriching activities or what types of institutions have students that are the most "globally active."

The development of globally-aware students is by no means an easy task. Progress can be made to the extent that institutional leaders focus on infusing the curriculum with diverse worldviews and global cultural perspectives, support faculty to take ownership of and actively pursue this endeavor, and create an environment full of opportunities for students to encounter diverse others and a diversity of experiences and perspectives. The goal of these arrangements, of course, is the development of students in cognitive, interpersonal, and intrapersonal dimensions so that they become ethnorelative, perspective-taking, empathetic, and adaptable

individuals prepared to engage with the opportunities and the challenges of our 21st century

world.

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NSSE2011 Global Awareness Experimental Items
Which of the following have you done or do you plan to do before you graduate from your institution…(done, plan to do, do not plan to do, have not decided)
Study a foreign language
Participate in a student abroad program less than a full semester or term
Participate in a student abroad program for a single semester or term
Participate in a study abroad program for a full academic year
Did your study abroad program include service-learning (e.g., community service, community development)…(yes, no)
During the current school year, how much have events or activities offered through your institution emphasized perspectives from other world cultures? (very much, quite a bit, some, very little)
During the current school year, about how often have you attended events or activities that increased your understanding of the following…(very often, often, sometimes, never)
Values and customs of other world cultures
Your prior assumptions and beliefs about world cultures
Your own cultural identify
In your experience at your institution during the current school year, how much has your coursework encouraged you to do the following… (very much, quite a bit, some, very little)
Understand the viewpoints, values, or customs of other world cultures
Act and speak in ways that respect other world cultures
In your experience at your institution during the current school year, how often have you had serious conversations about the following… (very often, often, sometimes, never)
The viewpoints, values, or customs of cultures other than your own
Appropriate ways to communicate with people from cultures other than your own

Table 2 Student and Institution Characteristics

		First-Years (%)	Seniors (%)
Female		66	64
Transfer student		8	37
Full-time enrollment		96	88
Fraternity or Sorority member		10	14
Student-athlete		15	9
Living on campus		65	24
Race or ethnicity	African American/Black	10	6
	Asian/Pacific Islander	5	5
	Caucasian/White	67	69
	Hispanic/Latino	7	8
	Other	6	5
Primary major field	Arts & Humanities	14	17
	Biological Sciences	10	8
	Business	13	20
	Education	8	8
	Engineering	4	4
	Physical Science	4	4
	Professional	11	7
	Social Science	16	18
Grades	Mostly A's	46	51
	Mostly B's	45	45
	Mostly C's	9	5
Control	Private	56	
Carnegie	Doctoral	24	
	Masters	36	
	Baccalaureate	38	

Table 3 Component Items and Reliability Coefficients for Scales and Benchmarks

Global Awareness Engagement (Cronbach's α=.89 for first-year students and α=.90 for seniors)
In your experience at your institution during the current school year, how much has your coursework encouraged you to do the following… (very much, quite a bit, some, very little)
Understand the viewpoints, values, or customs of other world cultures
Act and speak in ways that respect other world cultures
In your experience at your institution during the current school year, how often have you had serious conversations about the following… (very often, often, sometimes, never)
The viewpoints, values, or customs of cultures other than your own
Appropriate ways to communicate with people from cultures other than your own
Higher Order Learning (Cronbach's α=.82 for first-year students and α=.84 for seniors)
During the current school year, how much has your coursework emphasized… (very much, quite a bit, some, very little)
Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components
Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships
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
Applying theories or concepts to practical problems or in new situations
Integrative Learning (Cronbach's α=.70 for first-year students and α=.71 for seniors)
During the current school year, how much has your coursework emphasized… (very much, quite a bit, some, very little)
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.)
Reflective Learning (Cronbach's α=.80 for first-year students and α=.81 for seniors)
During the current school year, how much has your coursework emphasized… (very much, quite a bit, some, very little)
Examined the strengths and weaknesses of your own views on a topic or issue
Tried to better understand someone else's views by imagining how an issue looks from his or her perspective
Learned something that changed the way you understand an issue or concept
Gains in Practical Competence (Cronbach's α=.83 for first-year students and α=.82 for seniors)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in… (very much, quite a bit, some, very little)
Acquiring job or work-related knowledge and skills
Working effectively with others
Using computing and information technology
Analyzing quantitative problems
Solving complex real-world problems

Table 3 (continued) Component Items and Reliability Coefficients for Scales and Benchmarks

Gains in General Education (Cronbach's α=.84 for first-year students and α=.84 for seniors)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in… (very much, quite a bit, some, very little)
Writing clearly and effectively
Speaking clearly and effectively
Acquiring a broad general education
Thinking critically and analytically
Gains in Personal and Social Development (Cronbach's α=.87 for first-year students and α=.88 for seniors)
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in… (very much, quite a bit, some, very little)
Developing a personal code of values and ethics
Understanding yourself
Understanding people of other racial and ethnic backgrounds
Voting in local, state, or national elections
Learning effectively on your own
Contributing to the welfare of your community
Developing a deepened sense of spirituality
Level of Academic Challenge (Cronbach's α=.73 for first-year students and α=.77 for seniors)
During the current school year, about how much reading and writing have you done (None, 1-4, 5-10, 11-20, more than 20)
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 of fewer than 5 pages
During the current school year, how much has your coursework emphasized… (very much, quite a bit, some, very little)
Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components
Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships
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
Applying theories or concepts to practical problems or in new situations
In your experience at your institution during the current school year, about how often have you done… (very often, often, sometimes, never)
Worked harder than you thought you could to meet an instructor's standards or expectations
About how many hours do you spend in a typical 7-day week doing…(0, 1-5, 6-10, 11-15, 16-20, 21-25, 26-30, more than 30)
Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)
To what extent does your institution emphasize… (very much, quite a bit, some, very little)
Spending significant amounts of time studying and on academic work

Table 3 (continued) Component Items and Reliability Coefficients for Scales and Benchmarks

Active and Collaborative Learning (Cronbach's α=.67 for first-year students and α=.67 for seniors)
In your experience at your institution during the current school year, about how often have you done… (very often, often, sometimes, never)
Asked questions in class or contributed to class discussions
Made a class presentation
Worked with other students on projects during class
Worked with classmates outside of class to prepare class ass
Tutored or taught other students (paid or voluntary)
Participated in a community-based project (e.g., service learning) 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 (Cronbach's α=.71 for first-year students and α=.74 for seniors)
In your experience at your institution during the current school year, about how often have you done… (very often, often, sometimes, never)
Discussed grades or assignments with an instructor
Discussed ideas from your readings or classes with faculty members outside of class
Talked about career plans with a faculty member or advisor
Received prompt written or oral feedback from faculty on your academic performance
Worked harder than you thought you could to meet an instructor's standards or expectations
Which…have you done or do you plan to do before you graduate from your institution (done, plan to do, do not plan to do, have not decided)
Work on a research project with a faculty member outside of course or program requirements
Supportive Campus Environment (Cronbach's α=.79 for first-year students and α=.80 for seniors)
To what extent does your institution emphasize… (very much, quite a bit, some, very little)
Providing the support you need to thrive socially
Providing the support you need to help you succeed academically
Helping you cope with your non-academic responsibilities (work, family, etc.)
Mark the box that best represents the quality of your relationships with people at your institution
Relationships with other students (*unfriendly, unsupportive, sense of alienation…friendly, supportive, sense of belonging*)
Relationships with faculty members (*unavailable, unhelpful, unsympathetic…available, helpful, sympathetic*)
Relationships with administrative personnel and offices (*unhelpful, inconsiderate, rigid…helpful, considerate, flexible*)

Table 4 Student-Level and Institution-Level Characteristics

Student-Level Characteristics	
Gender	Male=0, Female=1
Transfer status	Started college at the current institution=0, Started college elsewhere=1
Enrollment Status	Part-time=0, Full-time=1
Fraternity or sorority membership	Fraternity or sorority member=1, not a member=0
Student-athlete	Student-athlete=1, not a student-athlete=0
Living situation	Lives in a dormitory, fraternity or sorority house, or other campus housing=1; Does not live and a form of campus housing=0
Race or ethnicity	African American/Black, Asian/Pacific Islander, Hispanic/Latino, Caucasian/White, Other; dummy coded 0 = not in group, 1 = in group with Caucasian/White left out as reference group
Primary major field	Arts and Humanities, Biological Sciences, Business, Education, Engineering, Physical Science, Professional, Social Science, Other; dummy coded 0 = not in group, 1 = in group with Other left out as reference group
Grades	Mostly A's, Mostly B's, Mostly C's; dummy coded 0 = not in group, 1 = in group with Mostly A's left out as reference group
Institution-Level Characteristics	
Private/public control	Public = 0, Private = 1
Carnegie classification	Doctoral granting, Masters granting, Baccalaureate granting; dummy coded 0 = not in group, 1 = in group with doctoral granting left out as reference group

Table 5 Relationship between Global Awareness Engagement and Deep Learning and Gains[1]

	Integrative Learning	Higher Order Thinking	Reflective Learning	Gains in Practical Competence	Gains in Personal and Social Development	Gains in General Education
First-Years	++	+	++	++	+++	++
Seniors	++	+	++	++	+++	++

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[1] Models controlled for gender, transfer status, enrollment status, fraternity or sorority membership, athletic participation, living situation, race or ethnicity, primary major field, grades, institutional control, and Carnegie classification. All variables standardized before entered into models. Key: $p < .001$; + unstandardized B > .3, ++ unstandardized B > .4, +++ unstandardized B > .5.