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The Journal of General Education, Volume 58, Number 4, 2009, pp. 241-258 (Article)

Published by Penn State University Press

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## General Education Requirements: A Comparative Analysis

Darrell B. Warner and Katie Koeppel

While "general education" is a phrase heavily used in higher education, Leskes and Wright (2005) note that it has multiple meanings: it can refer to those courses that a college or university requires all of its students must pass as a condition for graduation, a common curriculum, a distribution requirement, or even core texts. This analysis of general education requirements will focus on a blending of these definitions. General education will refer to courses within a distribution schema that all students must pass as a requirement for graduation.

Additionally, Leskes and Miller (2005) define three "anchoring concepts" related to general education:
I. Clear programmatic purpose for general education
2. Resonance with the institution's distinctive mission
3. Transparent, powerful goals and outcomes of learning

These anchors relate to more than a curriculum or set of core texts. Leskes and Miller further suggest that general education may be "the most important manifestation of an institution's educational mission" (p. 2). The general education curriculum, shared by all students, demonstrates the institution's mission, philosophy, values, and culture.

Every institution of higher education is required by its accrediting body to offer some form of general education. The different regional accreditation organizations express this differently. For example, the Southern Association of Schools and Colleges comprehensive requirement for general education, Comprehensive Requirement 2.7.3, states in part that a school "requires in each undergraduate program the successful completion of a general education component at a collegiate level that ( I ) is a substantial component of each undergraduate degree, (2) ensures breadth of knowledge, and (3) is based on a coherent rationale. . . . These credits are to be drawn from and include at least one course from each of the following areas: humanities/fine arts; social/behavioral sciences; and natural science/mathematics" (2002). The Northwest Commission on Colleges and Universities identifies similar requirements as a part of its accreditation process:
2.C.I The institution requires of all its degree and pre-baccalaureate programs a component of general education and/or related instruction that is published in its general catalog in clear and complete terms.
2.C. 2 The general education component of the institution's degree programs is based on a rationale that is clearly articulated and is published in clear and complete terms in the catalog. It provides the criteria by which the relevance of each course to the general education component is evaluated.
2.C. 3 The general education program offerings include the humanities and fine arts, the natural sciences, mathematics, and the social sciences. The program may also include courses that focus on the interrelationships between these major fields of study. (2007)

What is consistent about the regional accreditation requirements is that there is no explicit statement about what the general education curriculum should consist of. While they may refer to foundational concepts of the liberal arts or sets of skills, none of the accreditation organizations states what materials should be required of all students or which definition of general education an institution must use. They indicate that the college or university must offer a general education program that makes sense for its student body and mission.

In a classic text on general education, Gaff (1983) notes that the content of general education, while varied by institution, consists of courses from a number of content areas: the liberal arts and sciences, courses that emphasize skills such as writing or critical thinking, global perspectives, women's and minority perspectives, and values. Additionally, numerous institutions require some form of an intentional first-year experience for students and additional courses in integrating knowledge.

Another examination of the general education curriculum found that general education at most colleges and universities was based almost entirely on loose distribution systems. These systems led to a number of problems, including ( I ) the curricula lacked a unifying philosophy that students could grasp, (2) the curricula were fragmented and best described as a "smorgasbord," and (3) students generally did not see the utility of studying general education materials and thus lacked motivation or interest in mastering the traditional liberal arts subject matter (American Association of Colleges and Universities, 1994).

While not focusing solely on general education requirements, Zemsky (1989) has noted that there are two ways to examine a curriculum. One way is to identify the supply of courses a college or university provides to its students. These offerings are usually defined by departments or academic programs, may have well-defined links to other courses (such as prerequisites), or may be largely self-contained and rather autonomous. A second way of considering the curriculum would be to examine what courses students actually take en route to a degree: some courses satisfy distribution requirements, some satisfy major or minor requirements, some are electives, and some are taken to reach the number of hours needed to graduate. If an institution offers a defined set of courses that are required of all students, these two definitions mirror each other. When course options exist for students, there then exists an intersection of supply and use. Where supply and use are closely related, the causal effect of the courses on learning outcomes is probably easier to support and evaluate.

An additional factor in the delivery of general education is the recent controversy over institutional rankings. There has existed for many years the idea that not all schools deliver the same type of educational experience; for example, the Carnegie classifications make clear distinctions among various types of institutions. With the advent of publications identifying various types of excellence among schools, such as the U.S. News and World Report annual rankings of colleges and universities, a new dimension is added to the examination of a student's educational experience. The rankings imply that students will receive a different (richer, better?) education from higher-ranked institutions than from those that are ranked in the lower tiers. The rankings do not, however, examine what courses or content students are actually taking across the various tiers.

Hutchings, Marchese, and Wright (1991) identify seven issues encountered when working on general education and assessment. These are institutional apathy, departmental and faculty politics, difficulty in setting goals, student experience of the curriculum, coherence of the curriculum, learning that matters, and continuous improvement. Once institutions get past the apathy and the turf wars of general education distribution requirements, the remaining issues raise
more serious concerns. Assessment implies that the learning goals are clearly stated and can be linked to the students' course work. This would seem to work quite well in a curriculum that has a few clearly stated goals and primarily a common student experience, but when multiple faculty are teaching the same content in their own unique styles, when students have options to fulfill requirements, and when students may not be clear about why they are taking certain courses beyond the fact that they are required to do so, numerous challenges to assessment will arise. These assessment challenges will come full circle when the institution strives to use them to address the issue of continuous improvement. This has led to three basic questions this research is trying to address: (I) Do the general education requirements vary in relation to the U.S. News and World Report tier in which a school is ranked? (2) Do the general education requirements vary in relation to the type of school? and (3) If differences exist, what are the implications of these differences?

## Method

The 2007 U.S. News and World Report ranking of colleges and universities was used as a sampling frame. From this, seventy-two schools were randomly selected to be included in the study. Schools were selected from each tier in three categories: national research universities, master's comprehensive schools, and liberal arts schools. Using tier and type of school as the main categories, a $4 \times 3$ matrix was created, and six schools were randomly selected for each cell.

Information about each school was obtained through two avenues. Demographic information about each institution was retrieved through the 2006 U.S. News and World Report, online version. Information regarding general education requirements for each school was obtained through each school's public Web site, most typically through reading an online catalog. No attempt was made to differentiate the credit hours course requirements carried. A three-hour literature requirement was counted as one course requirement, and a one-hour physical education course was also counted as one course requirement.

## Sample

The seventy-two schools were distributed among thirty-five states, with New York having six schools in the sample; Texas, five; Ohio, four; and no other state with more than three schools included. The mean full-time enrollment ranged from 528 to 37,4 II. The twenty-four national research universities had a mean fulltime enrollment of 13,720, the twenty-four master's comprehensive schools had
a mean full-time enrollment of 4,479, and the twenty-four liberal arts schools had a mean full-time enrollment of 1,725 . Thirty-one of the schools in the sample were public institutions, and forty-one were private. Table I indicates the distribution of public and private schools by school type.
table I Distribution of Public and Private Schools by School Type

|  | Type |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| School | National <br> Research | Master's <br> Comprehensive | Liberal Arts |  |
| Public | 16 | 11 | 4 | 31 |
| Private | 8 | 13 | 20 | 41 |
| Total | 24 | 24 | 24 | 72 |

For the U.S. News and World Report rankings, schools reported the twenty-fifth-seventy-fifth percentile of either SAT or ACT scores of entering first-year students. All act scores were converted to SAT scores for this study, and the midpoint of the reported range was then recorded. The average entering first-year student Sat score was III2, with national research universities reporting an average of iI44, master's comprehensive schools reporting an average of ior6, and liberal arts schools reporting an average of ir8o. The mean student to full-time faculty ratio for the sample was 14.19; national research schools had a mean student to full-time faculty ratio of 14.95 , master's comprehensive schools had a mean of 15.52 , and liberal arts schools reported a mean of iI. 78 .

The retention rates of first-year students and graduation rates also varied by institution type. Liberal arts schools had the highest retention rate of first-year students, 82.3 percent, and graduation rate, 64.6 percent. National research schools reported retaining an average of 8 I .8 percent of first-year students and had a mean graduation rate of 53.3 percent. Master's comprehensive schools had the lowest rates for both, reporting a mean first-year retention rate of 72.7 percent and a graduation rate of 48.3 percent.

Examining the sample based on the U.S. News and World Report rankings found some marked differences between the tiers of rankings. Schools ranked in Tier I had a mean full-time enrollment of 6,988; Tier 2, 7,214; Tier 3, 6,796; and Tier 4, 5,295 . The largest enrollment, 37,41I, was found in a Tier I institution, and the smallest full-time enrollment, 528 , was found in a Tier 4 institution.

The midpoint of the sat range for first-year students was 1258 for Tier I schools, 1123 for Tier 2, Io8o for Tier 3, and 945 for Tier 4. Student to full-time
faculty ratios ranged from in. 9 for Tier I schools, to 14.8 for both Tier 2 and Tier 3 schools, to 16.3 for Tier 4 .

The retention rates for first-year students and graduation rates reflected this same pattern for school rankings. Tier i schools had a mean retention rate of first-year students of 89.8 percent; Tier 2, 81.5 percent; Tier 3, 76.7 percent; and Tier 4, 65.7 percent. Tier i schools had a mean graduation rate of 72.6 percent; Tier 2, 60.4 percent; Tier 3, 54.I percent; and Tier 4, 35.I percent. It seems clear from these descriptive data that there was significant variability among the schools depending upon which type of school was being examined and which U.S. News and World Report tier a school occupied.

## Results

To address the question of whether the U.S. News and World Report rankings were associated with differing general education requirements, a review of the sample schools' online catalogs and other online information about their general education requirements was conducted. Specific general education requirements, whether specific courses needed to be taken to fulfill those requirements, and the number of options available to students to meet specific content area requirements were recorded. As data were being collected, it became apparent that many schools supplemented specific content area requirements by requiring students to take additional courses from a more broadly defined area, such as the humanities (usually consisting of literature, history, the arts, and philosophy). To address this issue, additional requirements to the content areas were also recorded. Table 2 presents a summary of the mean number of courses required by subject area for each of the four tiers.
table 2 Mean Number of Required General Education Courses by Content Area and Tier Ranking

| Subject | Tier 1 | Tier 2 | Tier 3 | Tier 4 |
| :--- | :---: | :---: | :---: | :---: |
| Writing/Composition | 1.06 | 1.76 | 1.50 | 2.33 |
| Communication/ <br> Speech | 0.11 | 0.47 | 0.22 | 0.50 |
| Literature | 0.89 | 0.35 | 0.50 | 0.39 |
| Foreign Language | 1.11 | 1.12 | 1.11 | 0.39 |
| History/Civilization | 0.89 | 1.06 | 1.33 | 1.11 |


| Subject | Tier 1 | Tier 2 | Tier 3 | Tier 4 |
| :--- | :---: | :---: | :---: | :---: |
| Religion | 0.44 | 0.41 | 0.44 | 0.28 |
| Philosophy | 0.39 | 0.65 | 0.56 | 0.17 |
| Global Studies | 0.50 | 0.47 | 0.44 | 0.44 |
| Math | 1.28 | 1.06 | 1.33 | 1.11 |
| Technology/Computers | 0.11 | 0.18 | 0.11 | 0.50 |
| Natural Science | 1.83 | 1.41 | 1.78 | 1.61 |
| Natural Science-Lab | 0.72 | 0.65 | 1.50 | 0.50 |
| Social Science | 1.28 | 1.71 | 2.00 | 2.17 |
| Fine and Performing Arts | 0.67 | 0.65 | 0.83 | 0.67 |
| Health and Physical <br> Education | 0.44 | 1.06 | 0.83 | 0.50 |
| Humanities | 2.50 | 1.75 | 2.33 | 1.80 |
| Total Required Courses | $\mathbf{1 4 . 2 2}$ | $\mathbf{1 4 . 7 6}$ | $\mathbf{1 6 . 8 1}$ | $\mathbf{1 4 . 4 7}$ |

As Table 2 indicates, the total number of general education courses required by the four tiers was similar, ranging from 14.22 courses to 16.8I courses. There is variety, however, in how the schools in the four tiers reach these totals. As noted in the table, the number of courses required in math, natural science, history, fine and performing arts, and global studies is fairly consistent across the tiers, while the requirements in other content areas, such as writing, foreign language, philosophy, social science, health and physical education, and literature, are quite varied. For example, Tiers I through 3 require slightly over one course in foreign language, while Tier 4 schools averaged only o. 39 courses required in that area. Just comparing Tier 1 and Tier 4 requirements, it appears that Tier 4 schools require more course work in specific skill areas, such as writing, speech, and technology, while requiring less course work in literature, foreign language, and the humanities. This may reflect the differences between students at these institutions, as reflected in the differences in sat scores.

A similar analysis was done considering whether there were differences in general education requirements based on what type of institution a student was attending. Table 3 indicates the mean number of general education courses required of students at each of the three types of institutions studied: national research universities, comprehensive master's universities, and liberal arts colleges and universities.
table 3 Mean Number of Required General Education Courses by Content Area and Institution Type

| Subject | National Research <br> Universities | Master's <br> Comprehensive <br> Universities | Liberal Arts <br> Colleges |
| :--- | :---: | :---: | :---: |
| Writing/Composition | 1.91 | 1.63 | 1.46 |
| Communication/ <br> Speech | 0.26 | 0.54 | 0.17 |
| Literature | 0.65 | 0.58 | 0.38 |
| Foreign Language | 0.65 | 0.83 | 1.29 |
| History/Civilization | 1.35 | 1.04 | 0.92 |
| Religion | 0.17 | 0.71 | 0.29 |
| Philosophy | 0.26 | 0.71 | 0.33 |
| Global Studies | 0.52 | 0.63 | 0.25 |
| Math | 0.91 | 1.13 | 1.54 |
| Technology/ <br> Computers | 1.96 | 0.46 | 0.08 |
| Natural Science | 1.26 | 1.46 | 1.58 |
| Natural Science-Lab | 2.04 | 0.75 | 0.54 |
| Social Science | 0.48 | 0.88 | 1.29 |
| Fine and Performing <br> Arts | 0.30 | 0.79 | 0.75 |
| Health and Physical <br> Education | 1.57 | 2.10 | 1.00 |
| Humanities | $\mathbf{1 4 . 4 2}$ | $\mathbf{1 6 . 2 8}$ | $\mathbf{1 4 . 5 4}$ |
| Total Required <br> Courses |  | 2.67 |  |

Table 3 indicates noticeable differences in requirements between the types of institutions. National research universities tend to require more writing/ composition courses, more history courses, and more natural science and science lab courses but require little in the areas of religion, philosophy, the arts, and health/physical education. Master's comprehensive schools require the greatest number of courses among the three types, with the highest requirements in religion and philosophy. Liberal arts schools have the highest requirements of the three types in foreign language, math, and the humanities but require the least of the three in the skills areas of communication and technology.

The general education requirements can also be viewed in terms of how prescriptive a school is in assigning specific courses to meet the requirements.

As indicated in Table 4, most schools prescribed specific courses to meet writing or composition requirements. There does not appear to be a pattern that suggests higher-tier schools specify more courses to meet requirements than lower-tier schools. Table 4 also indicates that, in general, higher-tier schools provide more choices when there are options rather than specific courses to meet general education requirements. For example, three out of sixteen Tier I and Tier 4 schools required specific courses to meet a general education requirement in history/ civilization, but when students could choose from a variety of courses to meet such a requirement students at Tier I schools had an average of 62.1 courses to choose from, while students at Tier 4 schools only had 5.4 courses to choose from.

Table 5 presents similar information when the data are evaluated according to type of institution. In this table, differences among the number of schools requiring specific courses to meet general education requirements show more disparity by type of institutions. For example, only one national research university had a specific course requirement to meet a health/physical education requirement, compared to eight master's comprehensive and four liberal arts colleges. Similarly, there is not as consistent a pattern regarding the number of course options students have to meet requirements when a specific course is not required. For example, to meet a literature requirement, students at national research universities had an average of 47.9 courses from which to choose, compared to ii. 7 courses at master's comprehensive schools and 27 courses at liberal arts colleges.

While there are areas of exception, these tables tend to suggest that national research universities provide more options for students in meeting their general education requirements than do the other two types of institutions. This may be a reflection partly of size: the research universities were larger than the other types and would potentially have more diverse resources to bring to the academic table. Of course, the large size would not preclude a school from requiring a similar course for all students.

## Discussion

It is to be expected that there are marked differences in general education requirements from school to school. Each school is required to provide a general education that meets its specific mission and goals. General education should be individualized for each institution to accomplish its educational purposes.

Within that broad caveat, there do appear to be significant trends that will influence what students either learn or are exposed to within general education programs. These trends fall into two categories: prescription and choice and skills and process.
table 4 Number of Schools by Tier with Specific Course Requirements and Average Number of Course Options to Meet General Education Requirements by Content Area

| Subject Area | Tier 1 |  | Tier 2 |  | Tier 3 |  | Tier 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Specific Course Requirements ( $n / 16$ ) | Options to Meet Nonspecific Requirements | Specific Course Requirements ( $n / 16$ ) | Options <br> to Meet <br> Nonspecific <br> Requirements | Specific Course Requirements ( $n / 16$ ) | Options <br> to Meet <br> Nonspecific <br> Requirements | Specific <br> Course <br> Requirements $(n / 16)$ | Options <br> to Meet <br> Nonspecific <br> Requirements |
| Writing/ Composition | 11 | 26.7 | 10 | 8.2 | 10 | 7.3 | 15 | 5.4 |
| Communication/ Speech | 0 | 3 | 4 | 2.7 | 1 | 5 | 5 | 2.5 |
| Literature | 2 | 49.8 | 1 | 27.8 | 3 | 20.7 | 1 | 5.8 |
| Foreign <br> Language | 1 | 18 | 0 | 8.8 | 2 | NA | 1 | 12 |
| History/ Civilization | 3 | 62.1 | 6 | 73.9 | 2 | 44.3 | 3 | 5.4 |
| Religion | 2 | 10 | 1 | 19.8 | 2 | 12 | 1 | 5.5 |
| Philosophy | 2 | 105.7 | 1 | 23 | 4 | 27.7 | 1 | 4 |
| Global Studies | 3 | 92.2 | 0 | 49 | 1 | 62.5 | 1 | 25 |
| Mathematics | 2 | 20.9 | 0 | 15.5 | 1 | 19.6 | 2 | 8.7 |


| Technology/ <br> Computers | 2 | 0 | 0 | 8.5 | 1 | NA | 2 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Natural <br> Science | 2 | 80.2 | 1 | 47.1 | 3 | 27.3 | 3 |  |
| Natural <br> Science-Lab | 2 | 36.8 | 0 | 15.3 | 0 | 14.4 |  |  |
| Social <br> Science | 2 | 111.9 | 1 | 75.9 | 1 | 2 | 16 |  |
| Fine and <br> Performing <br> Arts | 1 | 74.7 | 0 | 41.3 | 1 | 39.3 | 6 | 10.7 |
| Health and <br> Physical <br> Education | 4 | 15 | 1 | 17 | 5 | 32.7 | 13 |  |

table 5 Number of Schools by Institutional Type with Specific Course Requirements and Average Number of Course Options to Meet General Education Requirements by Content Area

| Subject Area | Research Universities |  | Master's Comprehensive |  | Liberal Arts |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Specific Course <br> Requirements ( $n / 24$ ) | Options to Meet Nonspecific Requirements | Specific Course Requirements ( $n / 24$ ) | Options to Meet Nonspecific Requirements | Specific Course Requirements ( $n / 24$ ) | Options to Meet Nonspecific Requirements |
| Writing/Composition | 14 | 12.6 | 19 | 5.8 | 13 | 3.5 |
| Communication/ Speech | 1 | 3 | 6 | 2.8 | 3 | NA |
| Literature | 1 | 47.9 | 4 | 11.7 | 2 | 27 |
| Foreign Language | 0 | NA | 2 | 10 | 2 | 8.5 |
| History/ Civilization | 4 | 78.5 | 6 | 3.7 | 4 | 8.7 |
| Religion | 1 | 13 | 3 | 16.3 | 2 | 3.3 |
| Philosophy | 1 | 85.3 | 5 | 19.7 | 2 | 27.3 |
| Global Studies | 0 | 70.8 | 5 | 57.5 | 0 | 30.8 |
| Mathematics | 0 | 16.2 | 3 | 14.7 | 2 | 16.2 |
| Technology/ Computers | 1 | 4 | 3 | 8.5 | 1 | NA |


| Natural Science | 1 | 65.1 | 3 | 24.4 | 5 | 28.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Natural <br> Science-Lab | 0 | 21.2 | 1 | 19 | 3 | 25.8 |
| Social Science | 3 | 82.1 | 5 | 31.6 | 2 | 42.8 |
| Fine and <br> Performing Arts | 0 | 29.1 | 3 | 40.3 | 0 | 37.4 |
| Health and Physical Education | 1 | 11 | 8 | 13.5 | 4 | 16.2 |

It appears from the data that students in schools that are ranked higher in the U.S. News and World Report evaluations have more choices within their general educational program than do students from lower-ranked schools. The disparity between the choices of courses to meet requirements at Tier I schools and at Tier 4 schools is striking. Students at Tier I schools had an average of 49.8 literature courses to choose from to meet their general education requirement in literature, while those at Tier 4 schools had an average of 5.8 courses to choose from. Similar differences were found for almost every general education content area, with the most striking being that students at Tier I schools had an average of i05.7 philosophy courses to choose from, while their counterparts at Tier 4 schools had an average of but four courses from which to choose.

Having choices to meet requirements within a general education curriculum presents both potentially positive and negative outcomes. One potentially positive outcome might be that the more choices a student has, the more likely it would be that the student selects something of interest to him or her to study. As noted earlier, there is a strong correlation between the tier rankings and the average entering student sat score; Tier i schools had an average entering student SAT score of 1258 , while Tier 4 schools had an average of 945 . Having bright, talented students selecting courses that are of interest to them may result in greater engagement with the material and a higher investment in their own learning. A more prescriptive approach with fewer choices may have more negative consequences on their engagement with the material.

A second positive outcome relates to a school's ability to attract a diverse student body. A curriculum that affords students more choice might be viewed as more desirable to students coming from diverse cultures and perspectives, allowing them to find courses that resonate with their backgrounds and interests. For example, fulfilling a literature requirement might seem more attractive to students if they can study the literature of their own cultural or ethnic group rather than that of Western Europe or the United States. This sensitivity to culture might be an important factor when students make their college selections.

A third positive outcome is closely related to the second. Schools that provide options for students in meeting general education requirements are providing ready avenues for students to expand their perspectives and understanding of the world. By providing options and encouraging students to take advantage of them, colleges and universities create opportunities for students to explore topics or perspectives that might otherwise be unavailable to them. General
education requirements can be used to challenge students' ethnocentrism, broaden their worldview, and expose them to materials they might otherwise never consider.

Providing options to meet general education requirements also has some potentially negative consequences. For example, assuming that students would use course choices to enhance their engagement of course content might be problematic. Many students have some idea of what topics they are interested in studying even before entering college. With a wide variety of courses available to meet requirements, being able to study only that which one has predetermined to be of interest might simply lead to a myopic view. Giving students a choice of five hundred social science courses to select from to meet a general education requirement, as one school does, or 220 options to meet a literature requirement, or 259 choices to meet a history requirement, might either open up whole new worlds of ideas and information to students or allow them to stay comfortably within their existing sense of the world.

A second potentially negative effect of course options to meet general education requirements relates to the cohesiveness of a student's educational experience. A prescriptive general education experience may allow a school to more easily articulate to students how the various requirements combine to make them into more educated people. With more options, it may be more difficult to provide students an academic "road map" that helps them to connect the course content across the various disciplines in meaningful ways. With more choices, the road map becomes more abstract; with greater prescription, the map can be more concrete. The differences in the amount of choices to meet requirements among the tiers may reflect students' abilities to handle abstraction.

Another way to conceptualize these data is to consider what is being required of students. The data indicate that there are differences between the ranked tiers in terms of what is being required. Students attending schools in lower tiers are being required to take more courses that address specific skills, such as composition, communication, and technological competence. Students attending higher-ranked schools are required to take more courses that focus on ideas and world cultures. While there is much overlap among all the tiers, these differences may lead to substantially different outcomes in students and substantially different types of uses of education as students pursue careers. The link between sat scores and the tier rankings may indicate that this is both an appropriate and an acceptable difference or may indicate an approach to teaching and learning that is based on unwarranted assumptions of skills, talents, and abilities.

## Implications for Assessment

The most challenging aspect of these findings relates to the growing pressure to assess educational accomplishments. Regional accreditation bodies are requiring that general education programs, like other academic programs, undergo rigorous assessment to determine if they accomplish their stated goals and objectives. To do this successfully, a school must articulate what a student is to gain or learn through the general education program, how the courses in the general education curriculum address those goals, and how students' learning is assessed.

Assessing a content-driven general education curriculum seems fairly straightforward; a certain amount of information is presented, and a student either knows or can remember it or not. Field tests or general knowledge tests would seem appropriate for this type of learning. Such instruments can be purchased and standardized nationally or can be constructed by an individual school, depending upon its needs.

Assessing the gains students make in broadening perspectives and ideas will be more challenging and difficult. Often such assessments ask students to reflect on their experiences and predict future behavior based on what they have gained. Such predictions may have little to do with actual behavior. Also, depending on the goals of the general education program, assessment done at the end of the college experience will not demonstrate what a student has gained by the experience. A far more extensive and comprehensive assessment schema will be required to demonstrate how a student has grown in thinking over the course of his or her college career.

The implications of choice for either approach magnify the complexities of the assessment process. If assessing for content, the broader the choices, the less likely any given instrument will cover sufficiently what the student body has learned across the disciplines. For example, if a school requires all first-year students to take a literature course that examines ten texts, it would be fairly easy to create a measure that evaluates whether the students learned the content found in those pieces of writing. But if students have forty or fifty courses from which to choose to meet a literature requirement, and each of those uses ten texts, a content assessment will need to be either conducted on a course-bycourse basis, which seems to miss the point of the general educational goals, or so broad that most cannot do well due to the amount of content they have never studied.

The task is not easier for assessing perspectives or ideas. Having multiple courses meet any general education requirement implies that all of the course
choices will accomplish the same learning outcomes, even if they take very different routes to get there. Ensuring that faculty members will have these goals in mind and strive to reach them will be a challenging administrative task. Another finding from the 1994 American Association of Colleges and Universities Strong Foundations report is that faculty often had little interest in teaching in their field to nonmajors or in connecting their field with other disciplines, resulting in questions about the strength of teaching in general education courses. Finding ways to assess how these varied approaches to both teaching and learning reach the same desired outcome will also be challenging.

A third approach to assessing general education focuses on ensuring that the institution articulates its learning goals in ways that clearly identify what students should know and be able to do as a result of a college education (Leskes \& Wright, 2005). This requires an institution to specify learning outcomes in ways that can be assessed, typically through performance indicators. Ensuring that students gain the knowledge or skills to meet these outcomes and indicators may become increasingly complicated as student choices to meet requirements expand without close administrative oversight of course learning objectives.

## Conclusion

This research has found that colleges and universities approach general education requirements from different perspectives and contexts. It is not the goal of this research to identify any particular approach as the "ideal" or preferred curriculum. Each school must tailor its general education to its particular educational goals, resources, and students. The implications for assessing a general education curriculum vary depending upon both the approach to general education and the approach to assessment one takes. It is recognized that the more options a student has to fulfill general education requirements, the more assessment must focus on skills and broader knowledge rather than specific content.

Several questions have developed during this study. The relationship between the amount of student choice in meeting general education requirements and the amount of engagement students have with the material needs further exploration. Researching the ability of students to identify or explain the institution's academic "road map" for their general education experience and whether this differs across the tiers would also expand our understanding of how general education is perceived by students.

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