Accelerated Learning for What?

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In every state legislature and every state department of education, and on many two- and four-year college campuses, you will hear conversations about accelerated learning for high school students. The particulars will vary from place to place and time to time and will take different forms, e.g., middle and early college, tech prep, dual enrollment, college access programs, Advanced Placement (AP), and International Baccalaureate (IB) programs. The mantra is to provide high school students with the opportunities to advance their education more rapidly by completing parts of a college-level curriculum while still in high school.

At a national level, student performance on a variety of tests indicates that students in the U.S. are falling behind students in other countries on performance measures of proficiency in math, science, geography, basic literacy, etc. At state and local levels, concerns arise around not only performance, but also budgets and economics. These primary rationales for the increased emphasis on accelerating student educational progress seem to fall into three broad categories: (1) students will be better prepared for college (i.e., students will be college-ready and thus require less remediation); (2) less time will have to be spent in college, thus reducing costs; and (3) students, and thus the region, state, and country, will be more competitive in a global economy and world. The article by Jennifer Brown Lerner and Betsy Brand catalogs these same factors and reports on the mixed findings of an examination of programs across the country (see p. 27).

What Does It Mean To Be College-Ready?

There is a lack of consensus on what “college-ready” means. Often the meaning relates to creating environments in which students do not have to take remedial courses when they arrive at college. But is avoidance of the need to take remedial courses the same as having the knowledge and skills that college faculty believe are necessary to be successful? Does readiness include the higher-order “habits of the mind” or simply refer to content knowledge? Given that the 4,200 postsecondary institutions in the U.S. have very different missions and broad variation in their purposes and students, “college-ready” takes on many meanings that complicate strategies for formulating policy on a national or even statewide basis. Indeed, Lerner and Brand found significant data limitations when seeking program evaluations of the impact of accelerated high school options. In addition, most measures of impact do not focus on the student learning necessary for college success beyond grades and content knowledge in specific areas.

The most prevalent approach to preparing students for college has focused on enhancing the curriculum. The claim is that by providing students with a rigorous and challenging curriculum, performance on tests will be enhanced and the competitiveness of the country will be strengthened. Hence, we have the American Diploma Project Network and the National Governors Association Honor States program, which seeks to “help more young people graduate from high school prepared for college and work success” (NGA 2005, 1).

Typically, states that have adopted either of these programs have acted to increase the number of hours in English, math, and science courses. Although there is an acknowledgment that all students need certain knowledge and skills, the emphasis tends to be on content coverage.
rather than higher-order abilities for liberal learning (e.g., critical thinking, collaborative learning, or analytic reasoning). Even a recent front-page Time magazine article, "How to Bring Our Schools Out of the 20th Century" (Wallace and Steptoe 2006), argued that twenty-first-century students need to be able to know more than one world, think outside the box, become smarter about new sources of information, and develop good “people skills”— in essence, they need a liberal education.

At the same time, schools are confronting the No Child Left Behind accountability requirements that all students achieve proficiency by 2014 in core subjects through work based on the standards from the National Assessment of Educational Progress. But as Rothstein, Jacobsen, and Wilder (2006, 1) observe, “no goal can be both challenging to and achievable by all students across the achievement distribution. Standards can either be minimal and present little challenge to typical students, or challenging and unattainable by below-average students. No standard can simultaneously do both.” In addition, as David Koretz at Harvard points out, typical variation in performance between those with lower and higher achievement is not primarily racial or ethnic. Performance gaps in Japan and Korea, where students score well above U.S. students in math and science, exhibit the same range in scores (Rothstein, Jacobsen, and Wilder 2006, 1).

Recognizing the limitations in making comparisons of performance on different exams, but also recognizing the gross similarities in knowledge and skills being asked, Rothstein, Jacobsen, and Wilder (2006, 2) further draw attention to the need for clearly delineating what is meant by proficient and college-ready:

The highest-performing countries can’t come close to meeting the No Child Left Behind Act’s standard of proficiency for all . . . .

On a 1991 international math exam, Taiwan scored the highest. But if Taiwanese students had taken the NAEP math exam, 60 percent would have scored below proficient, and 22 percent below basic. On the 2003 Trends in International Mathematics and Science Study (TIMSS), 25 percent of students in top-scoring Singapore were below NAEP proficiency in math, and 49 percent were below proficiency in science. On a 2001 international reading test, Sweden was tops, but two-thirds of Swedish students were not proficient in reading, as NAEP defines it.

The emphasis across the country currently is to enhance the curriculum and its rigor as the most direct, and perhaps simplest, way to begin to close the performance gap between U.S. students and students in other countries around the world. Most often this translates into requiring more credit hours or courses in specified subject areas with performance change to be judged by some type of external standardized test from state, national, or international agencies.

The Preferred Choices

In the United States, two programs in secondary school—Advanced Placement (AP) and the International Baccalaureate (IB)—have been used increasingly during the last ten years, becoming the most pervasive options for students in high school who wish to take college-level courses and have the chance to earn college credit. The courses have an off-the-shelf curriculum that forms the basis of tests taken upon completion of the courses, which are graded and awarded a score representing the level of student performance—both advertise that students are “college-ready” as a result of their AP/IB work. The common curriculum and externally validated assessment of student performance provide appealing arguments for the rigor and value of these programs.

Advanced Placement Program

According to the nonprofit College Board that administers the AP program, AP provides thirty-seven courses and exams across twenty-two subject areas. Each exam is graded on a scale of 1 to 5. The AP Web page lists a number of “reasons to sign up” for the AP program:

- Gain the edge in college preparation
- Get a head start on college-level work.
- Improve your writing skills and sharpen your problem-solving techniques.
- Develop the study habits necessary for tackling rigorous course work.
- Stand out in the college admissions process
- Demonstrate your maturity and readiness for college.
- Show your willingness to push yourself to the limit.
- Emphasize your commitment to academic excellence.
- Broaden your intellectual horizons
- Explore the world from a variety of perspectives, most importantly your own.
Study subjects in greater depth and detail.
Assume the responsibility of reasoning, analyzing, and understanding for yourself.

What college-bound student or family would not be motivated by all of these benefits? Further, since individuals do not have to take courses in order to sit for the exams, students can repeat exams (although test dates are infrequent). And since the exams are multiple-choice, it is to students’ advantage to guess if they can narrow their choices. Each test requires a fee. Both the national AP and many states offer fee reductions to students who can demonstrate need.

The International Baccalaureate Diploma Programme
IB is more popular abroad than in the U.S. and is not nearly as pervasive as AP, but it is available in many American school districts. The diploma program curriculum requires students to complete six courses from six different subject areas, write an Extended Essay (EE) of up to four thousand words, take part in the Theory of Knowledge (TOK) class, and fulfill a requirement of fifty hours in each of the Creative, Active, and Service (CAS) pursuits. Grades are awarded from one to seven in each subject, and up to three “bonus” points may be awarded depending on the grade results of the EE and TOK. Thus, a total of forty-five points may be obtained by the candidate for the final diploma. In order to receive an IB diploma one must earn a minimum of twenty-four points. Since the curriculum is offered in countries around the world, U.S. students can be compared in an international context.

Pros and Cons of AP/IB
The arguments that underlie the popularity and appeal of AP/IB include the rigorous or challenging content and the external scoring of the tests based upon national (AP) and international (IB) standards, which allows for comparability regardless of where the test was administered. The tests also include some skill/ability demonstration beyond knowledge of a content area, e.g., analytic reasoning.

Critics of the IB examination point to the cost of the tests that, if not subsidized in some way, advantage those with higher incomes. Even though the IB has a standard curriculum worldwide, the actual courses available in specific schools can vary substantially. There has also been criticism related to the segregation that often occurs between IB and non-IB students within a school. Since actual responsibility for IB rests with the local schools, there can also be broad variation in implementation, especially in the number of hours associated with the CAS activities. In general, the complaint raised is about the extraordinary time commitment required for IB program participants.

Critics of the AP program, including many AP teachers, argue that content coverage trumps time spent on developing other valuable outcomes (e.g., improved writing skills). Or equally important, the types of supports that have been associated with academic success for first-generation and underrepresented students (e.g., learning strategies, tutoring) are not available for such students in AP courses.

Rigor in the various AP programs varies. Given the popularity of the two exams, there is surprisingly little data on the impact of either AP or IB on future learning and success. At a summit sponsored by the Lumina and the Bill and Melinda Gates foundations in Atlanta in 2006, the report of the proceedings concluded that evidence of a positive impact from accelerated learning options is weak at best. Lerner and Brand (2006) of the American Youth Policy Forum underscored and illustrated this point, citing conclusions from a two-year research project that evaluated twenty-two postsecondary transition initiatives. “While the project was able to identify some signs of positive performance, it also concluded that the initiatives collected insufficient data for a thorough analysis of outcomes (due to lack of longitudinal data and an inability to disaggregate)” (Reindl 2006, 3).

ACT, Inc., producer of one of two major college-admissions tests, defines college readiness as having a 75 percent chance of earning a C or better, and a 50 percent chance of earning a B or better, in four common first-year courses. A 2004 study of the relationship between high school course taking, ACT scores, and students’ college grades found that “only 13 percent of students who had competed high school math through algebra 2, and only 37 percent who had completed math through trigonometry, achieved the score that the ACT identified as ready for college-level work” (Olson 2006, 2). A study of Chicago public school students found that grades in core academic courses were more important predictors of college enrollment and graduation than scores on admissions exams. Trevor Packer, executive director of
the College Board, has indicated that research suggests the AP label may be given to high school courses that do not actually use college-level curricula (Viadero 2006).

Klopfenstein and Thomas (2006) found no evidence that the average student derives a positive benefit from AP experience beyond that provided by a non-AP curriculum strong in math and science. Studies finding positive AP effects do so because they fail to control for the student’s non-AP curriculum. Using students who entered Texas public universities directly after graduating from high school in May 1999, we find that, for the average student, regardless of race or income, AP experience does not increase the likelihood of early college success beyond that predicted by the non-AP curriculum. We demonstrate that studies which find positive effects of AP enrollment on college outcomes are unreliable when they fail to control for the body of the student’s non-AP curricular experience.

Sadler and Tai found that while students who had taken AP courses in those subjects [physics, chemistry, and biology] in high school received better college science grades than peers who had not, the differences were minimal. The AP advantage shrank by half when controlled for differences among students in prior achievement, other high school coursework, and parents’ income and educational levels. (Quoted in Viadero 2006, 1)

As these and other studies are finding, much of the AP effect disappears when other core courses are added. Rigorous curriculum becomes the key. However, most recently, and not yet released at this writing, two new studies reported in the Washington Post and Inside Higher Education that were commissioned by the College Board using data on Texas students find that AP courses and exams do have a positive impact on students on a variety of standard measures of college performance. The superintendent of the Redmond, Washington, schools argues that all courses should be AP courses, i.e., they should involve rigorous coursework in academic core areas that could allow for more curriculum-wide attention to liberal learning goals and to the pedagogical approaches that have been demonstrated to enhance student success for all students, including first-generation and underrepresented students—a point that Lerner and Brand also raise in their article. As the Atlanta summit participants pointed out, “acceleration is not just going faster but structuring the learning experience and teaching in a more effective way. Acceleration motivates students by challenging them rather than remediating them” (Reindl 2006, 2).

**Conclusion**

AP/IB are likely to continue as leading options for students to gain college credit while still in high school, as demanding courses that typically exceed standard high school courses, and as college admissions markers for many campuses that give AP/IB students a boost when considered for admissions. The evidence that AP/IB programs correlate with college success remains limited and conflicted, especially related to essential liberal learning outcomes. The evidence that AP/IB programs correlate with college success remains limited. Just as some colleges are eliminating SAT and ACT exams as part of admissions, a handful of high schools (typically very selective ones) have either never adopted AP/IB or have dropped them in favor of rigor in their standard curriculum (Hammond 2005).

However, few high schools are willing to incur the ire of parents and students who view AP/IB as essential for college entry and to ignore the fact that the programs can enhance learning, especially when the standard curriculum is not providing challenging learning experiences for all students. The real challenge is designing accountability and stimulating challenge for all with realistic goals that reflect human variation.

**References**


**Klopfenstein, K., and M. K. Thomas. 2006. The link between Advanced Placement experience and early college success. personal.tcu.edu/~kklopfenstein/**


**Viadero, D. 2006. Scholars warn of overstating gains from AP classes alone. Education Week (February 15): 1-4.**