

AP 101

A Survey of the Advanced Placement Program, its Criticism and Praise, and AP at Corbett Schools

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Most school districts do their best to offer a comprehensive array of disciplines in an effort to ensure maximum opportunity for students. Whether it's dance, theatre, choral and instrumental music, visual art, photography, foreign languages or sociology, this variety of programming has long been considered integral to providing a well-rounded education for high school students. Like their public cousins, private schools also seek to offer a comprehensive curriculum, utilizing tuition and foundation funds to ensure that their smaller student body populations have access to as many course offerings as possible. This is the nature of funding education; if you wish to expand offerings and be truly comprehensive, you must be able to financially and physically (e.g., facilities) support these efforts. Unfortunately, even when faced with dwindling resources, most schools still end up matching the old adage, "Jack of all trades, master of none."

In the book, *Fallacies in Education: Why Schools Are Mired in Mediocrity*, author Randy Trani, Superintendent of Corbett Schools in Corbett, Oregon, points out that while the notion of the comprehensive school is intoxicating for students and families alike, for most small public school districts it's simply not attainable. Even with the rock bottom administrative burden at Corbett School District, there simply aren't sufficient funds to enable a wide array of course offerings as was often the case in past traditional American school models.

Mr. Trani recommends that schools need to accept this fact and make a bold decision to focus their efforts – and funding - on fewer offerings. He recommends schools consider choosing one thing in which they will excel, instead of attempting to offer a broad array of under-supported programs that may prove to be ineffective.

A decade ago, faced with a small budget and a desire to prioritize their resources, Corbett School District decided that it's focus would be to dramatically raise the academic rigor of the schools. At Corbett Schools today, program variety has taken a back seat to academic rigor, while teachers work diligently to be masters of their craft. With course offerings refined, the schools are able to focus on core essentials that enable student success at the next level, whether it is college, trades, military or something altogether different.

To further enhance the academic rigor of the schools, Corbett School District implemented one of the nation's most respected and effective standardized academic programs: Advanced Placement.

The Roots of AP

The Advanced Placement Program® (AP) was originally developed in 1951 by elite prep schools and Ivy League colleges as a means to connect high schools with colleges by challenging the brightest students. In addition to aligning with professional opinion about the need for more rigorous teaching methodologies, AP directly addressed the concern that the post-war United States was failing to challenge our best and brightest kids. With nothing like it available at the time, AP quickly provided an advantage to the nation's top students as they faced an increasingly competitive college admissions process.

The AP program came under the control of the College Board in the mid-1950s. Founded in 1900, the College Board was created with the goal of expanding access to higher education. The College Board is comprised of more than 5,900 educational institutions, which contribute to the development of the SAT® testing program as well as the AP program.

According to the College Board's description of AP:

- The AP Program offers more than 30 courses and exams.
- Nearly 18,000 schools worldwide participate in the AP Program.
- 28.3 percent of U.S. public high school students in the class of 2010 took an AP Exam at some point in high school. In 2010, more than 1.8 million students worldwide took more than 3.2 million AP Exams.
- More than 90 percent of the nation's four-year colleges and universities have an AP policy that grants incoming students credit, placement or both for qualifying AP Exam scores. Universities in more than 60 countries recognize AP scores in the admission process and/or award credit and placement for qualifying scores. In 2010, more than 3,800 colleges and universities accepted qualifying AP Exam scores for credit and/or placement.
- Each AP Exam, with the exception of AP Studio Art, consists of dozens of multiple-choice questions that are scored by machine, as well as free-response questions (essays, translations, problems, oral responses) that are scored at the annual AP Reading by more than 10,000 college faculty and AP teachers using scoring standards and rubrics developed by college and university faculty who teach the corresponding college courses.
- The composite score for each AP Exam is converted to a score of 5, 4, 3, 2 or 1. An AP Exam score of 5 is equivalent to an A in the corresponding college course; a score of 4 is equivalent to grades of A-, B+ and B; and a score of 3 is equivalent to grades of B-, C+ and C.

AP courses provide an opportunity for all students to experience the challenge of heavy college reading lists and long, analytical college examinations. Studies by U.S. Department of Education senior researcher Clifford Adelman in 1999 and 2005 showed that the best predictors of college graduation were not good high-school grades or test scores but whether or not a student had an intense academic experience in high school. Subsequently, AP course adoption has mushroomed, winning praise for providing an early chance at more challenging work to those students who can handle the rigor.

Why AP? Criticism and Praise

As with anything that promises to help redefine our concepts of education, AP receives its fair share of criticism. In reviewing the array of information available on the program, criticism typically boils down to these four primary arguments:

- AP focuses on subject breadth, at the price of depth
- AP focuses more on skills testing than critical thinking
- The cost of the exams presents an unnecessary expenditure for cash-strapped schools
- The program is simply not applicable to every student

Breadth vs. Depth

Some parents and teachers have long decried that AP coursework is a mile wide and an inch deep, focusing on skills in memorization over critical thinking and analysis, while restricting curriculum to the type of survey courses most college students encounter during the first year on a college campus.

This criticism has elicited response by AP proponents, based on what some call a troublesome premise: that non-AP courses offer an opportunity for more depth of study. This premise assumes that the non-AP courses being taught today are actually exploiting the leisure they are presumed to have to explore topics in greater depth. Certainly, courses that *do* explore topics in greater depth are equally valuable and should not be set aside lightly, but this is independent of what defines AP courses, which are college-freshman-level introductory courses. Proponents argue that like the college survey courses after which they are modeled, AP courses are not intended to be culminating educational events, but rather an exploration of core subject matter concepts without the limits of targeted depth.

As proponents articulate, many AP courses are intentionally broad (e.g., Physics B, Psychology, World History, Environmental Science), and will remain so in order to reflect what colleges and universities across the country provide for their introductory students. But, like colleges and universities, this isn't the rule. The AP program also presents a wide array of courses (e.g., Physics C Mechanics, Physics C Electromagnetism, BC Calculus) that allow much greater depth of study.

Taken within its greater context, if an individual isn't seeking advanced placement (literally) in college, then the criticism against AP's breadth is indeed fair. But as it stands, this is a criticism of colleges and universities as much as it is the AP Program.

Proponents of AP are quick to point out that the dichotomy of "breadth vs. depth" is misleading on many levels. No one would admit to not valuing both, but it's far easier to level criticism for emphasizing one over the other. Depth without breadth can be premature over-specialization without adequate context, whereas breadth enables a student to explore a wide variety of questions in a tentative, introductory fashion.

Corbett School District's former Superintendent and current Charter School Director, Bob Dunton, adds, "Depth, of course, is *deep*, which, rhetorically wins the day every time. We all love deep thoughts. But we also love the idea of being *well read, well informed, curious about a lot of things* ...none of which has the poetic power of *depth*, but they are (depth and breadth), in my mind, legitimate competing values."

Standardization vs. Critical Thinking

The most structured of the critical analysis of the system can be found in the book, *AP: A Critical Examination of the Advanced Placement Program*. The book represents the culmination of studies discussed at a conference at Harvard University in 2007, whereby leading education researchers evaluated the current evidence about AP. The book argues that despite the popularity of the AP program, the research evidence on its value is only now coming to light, with much previous support coming from educators who valued it mostly for its rigorous, standardized approach and universal applicability.

According to the research presented in the book, for most well prepared students, AP tends to offer rigorous courses that advance their knowledge of the subject matter in meaningful ways. Again, this is due to the survey nature of the courses.

Proponents of AP have claimed a wide variety of benefits from implementing a more standardized system in their schools. As with any quality program that is well executed, it is fair to say that each unique implementation could render an entirely different set of primary, secondary and tertiary net effects due to high attention to detail in managing the implementation. Whatever the case, standardization in exams does not necessarily lead to coursework that is weak in analytical demands.

The AP exams themselves all have free-response sections that require students to respond to essay prompts or produce full solutions to complex problems. Additionally, many of the more focused courses (e.g., AP Physics C) rely heavily on a student's problem solving skills, integrating multiple concepts across the discipline.

Criticism aside, researchers at ACT Inc. (the folks behind the ACT test) issued a report titled, "Rigor at Risk" (2007), which added weight to what many college professors have long argued --high school courses, even those labeled "honors" or "college prep," often fail to demand critical thinking or analysis, resulting in high school transcripts filled with excellent grades, achieved with very little work.

Comparatively, AP, International Baccalaureate (IB) and Cambridge courses, are not simply college prep, but actual college survey courses. Students can earn college credit if they score high enough on the AP exams that conclude each course. AP exams are written and graded by outside experts to match college standards. Subsequently, there just isn't any way to "dumb down" the teaching of coursework to meet minimum test requirements without being caught, as long as every student takes the AP exam.

The Cost of AP

While implementing advanced placement coursework is relatively inexpensive at the classroom level, the official AP exams do incur costs (\$87 per exam, per student). These fees are sometimes passed on to families directly. For students who qualify for financial assistance, the College Board offers reductions that can reduce the final cost per exam to \$57. In addition, most states offer exam subsidies to cover all or part of the remaining cost for eligible students. In California, \$2.8 million in federal funds are used to subsidize AP exam costs for students. In Corbett, the school district incurs the *total* cost of all exam fees. The total cost of AP testing to Corbett School District in 2009-2010 was approximately \$58,000, with one third of the cost paid by the Corbett Charter School.

As a parent, it's challenging to consider whether your son or daughter would elect to avoid AP courses if given the opportunity, and subsequently whether you support the notion of your school district providing equal access to AP testing to all students. Whatever the cost to the district, the *potential* for reward is equal for all students at Corbett School District, where all students have an opportunity to take AP exams and subsequently earn college credit.

Corbett School District has shown that if a student performs well in the AP program and then passes an AP exam, they can in fact save money for the student's family in the form of pre-paid tuition due to college credit earned by passing the exam. This can certainly act as an excellent motivator for college-minded students. In the case of Corbett Charter School, the total number of credit/dollar equivalent earned by students who passed the AP exam amounted to more than \$6,000 per graduating senior in 2010. For Corbett School District as a whole, each high school senior earned approximately \$6.95 in college credit for every dollar the district spent on AP exams.

Is AP for Everyone?

With the expansion in the variety of AP courses available from the College Board, combined with an increasing number of students taking the AP exams (the number of students taking the AP biology test has more than doubled since 1997) the mean score nationwide has dropped to 2.63, from 3.18. On the May 2010 exam, slightly fewer than half of AP test-takers scored a 3, which equates to a C in a college course. And while 19 percent of students earned 5's, almost twice that many got 1's, which could be a failing grade in college.

Recent research suggests that many of the efforts to push the program into schools may result in poorly prepared students failing courses they might not be well suited for. This argument has surfaced in Corbett as well, as all high school students are required to take no fewer than six AP courses during their high school career (the average Corbett student takes 11 AP courses). Because of this requirement that students participate in AP –regardless of academic aptitude—there are a much higher percentage of Corbett students taking AP courses than in any other school in the state of Oregon. Subsequently, this leads to many students failing their AP exams while still performing well in the coursework.

With a 25 percent exam passing rate for Corbett High School students in 2009, some community members have voiced criticism that the school may not be preparing these students well enough to meet the rigors of the exam. While this criticism is certainly understandable due to the “sticker shock” of the numbers alone, the details provide a different picture.

First, Corbett High School students take *and pass* more AP courses than any other high school in the state (5 to 50 times the rate of their peers around the state). In fact, the average Corbett high school student passes more AP exams than the average high school student in the state even attempts. These courses are rigorous, designed to challenge even the most academically well-prepared students. For those students who have typically held a C average in the coursework, AP courses will prove to be extremely challenging. Once the course is completed, students have the opportunity to take the AP exam, which registers their ability to test on a particular course within the confines of the course subject survey. To use Superintendent Trani's analogy, the AP exam truly is the icing on the cake, as it does not define the coursework, but rather provides an opportunity to showcase survey course test-taking abilities on a particular subject.

AP proponents also note that while AP exam scores are certainly indicative of a student's ability to grasp a subject, it's only one piece in the puzzle, as the student's *grade* in the course should be weighed more as an indicator of knowledge. The grade the student receives in the class is one of the best indicators of a student's willingness to work.

The argument that some students may not be well suited to AP and become frustrated and give up simply does not manifest itself at Corbett Schools. If there was a widespread problem with students becoming frustrated and giving up in AP classes, it is fair to say the school would see a steep decline in grades –or a steep increase in the number of incompletions. This is not the case at Corbett Schools, where the number of incompletions has declined since the district implemented the AP program.

Proponents will note that high school isn't meant to be a cakewalk. Students need to be pushed beyond their comfort zones to truly come to know their capabilities. At Corbett Schools, the focus is on rising to the challenge. Where some schools fail with AP is in their lack of support for those who are most challenged by the subject matter. Instead of removing academic challenges, students need ready access to assistance when challenges arise. This is no different for AP or non-AP courses. Students need universal access to study halls, after school help and coaching.

The real challenge in determining the value of AP for students who aren't seeking a college education comes in tracking these students once their high school career has finished. While there is anecdotal evidence of rigorous course exposure leading to better-prepared citizens, the data to support these references has yet to be culled. Part of the problem is the challenge in quantifying the post-school success of students who took AP courses and exams but didn't go to college. For example, there are many factors that make someone a successful homebuilder, but there simply aren't methods to track and test homebuilders who took AP courses versus those who didn't, and just what constitutes their level of professional success. Because of these challenges in quantifying non-academic success post school, we currently have to rely on anecdotal evidence from parents and educators.

It would be difficult to argue that a rigorous course in high school hurts students. It's fair to say that people likely never complain later in life that they learned *too much* in high school. Research from the College Board suggests that a rigorous course delivered by a well-prepared, passionate teacher is more likely to impact a student post-school than any other factor (including test scores).

Even with its rigor, AP courses do not present a roadblock to a student's post-high school endeavors, regardless of the student's intent to pursue (or not pursue) college. However, if a student ever changes his or her mind and elects to enroll in post-secondary education, having *not* taken AP courses will in fact be a roadblock to not only entering college, but also having success at the college level.

As Superintendent Trani is quick to point out, if the AP courses students take at Corbett represent their final exposure to a formal, classroom education, then it's more important than ever that the courses be the absolute best the school district can deliver, as it will help shape the students' perception of the world for the remainder of their lives.

So why does Corbett currently have a 25 percent pass rate among its high school students? The answer may be simpler than it seems. First and foremost, there are far more students across all age ranges taking AP courses at Corbett High School. In most school districts that offer AP programs, AP courses are only offered to juniors and seniors. At Corbett, AP courses start much earlier. It is natural that as you increase the total number of students taking the exam, you increase the likelihood that you are garnering the results of a far wider body of student abilities. This will inherently bring your overall passing rate down, as the tests do not alter their rigor based on the age or aptitude of the student taking the exam.

For additional comparison, most school districts that have some sort of AP programming have a limited set of courses that are entirely voluntary. The students who enroll in these programs do so of their own will, so they represent those students who are most likely to already be performing at a level that is higher than their fellow students. Additionally, many school districts allow students to elect to take the AP exam as an option, and in some cases a school will hand-select specific students to take the exam, so as to increase their pass rates.

What's on the Menu?

It's worth reviewing the AP exams tackled by Corbett High School students. Listed here are the exams that Corbett High School students took in 2010 (these categories account for over 90 percent of AP exams taken at the school. A handful of exams were also taken in Art, Spanish and Computer Science):

- Math (Calculus and Statistics)*
- Science (Biology, Chemistry, Physics, Environmental Science)**
- English (Language and Literature, Language and Composition)***
- Social Studies (U.S., World, Psychology, Government, Economics, Human Geography)****

* AP Math has prerequisites, so students are judged based on their ability to take on each new level.

** Science is virtually universal, with participation beginning in grade 10. According to the Director of the Corbett Charter School, Bob Dunton, "...the (science) exams are extremely challenging, and the content of the exams is less predictable (than other courses)." New to Corbett Schools in 2010, all 9th graders are taking AP Environmental Science.

*** English courses are universal in grades 11 and 12. Social studies are equally universal, with instruction beginning in 9th grade.

**** Social studies courses have the greatest number of course options. New to Corbett Schools in 2010, all 9th graders are taking AP Human Geography.

A Proven Foundation for Post-High School Academic Success

Significant studies looking at hundreds of thousands of students in Texas and California completed over the last five years indicate that good grades on AP tests increase the likelihood of students earning college degrees. These studies found that if students earned passing scores on AP exams they were more likely to do well academically in college. In one of the more significant Texas studies, even historically low-performing, low-income students who garnered only a 2 on an AP exam did significantly better in college than similar students who did not take AP in high school.

These findings were reiterated in a study published in December 2009, titled, *The Relationship Between AP Exam Performance and College Outcomes* (Mattern; Shaw; Xiong). This study focused on the relationship between students' performance in AP English Language, Biology, Calculus, and U.S. History, and their subsequent college success. For each AP Exam studied, students were divided into three groups according to their AP Exam performance (no AP Exam taken, score of 1 or 2, and a score of 3 or higher). Subsequent college success was measured by students' first-year college grade point average (FYGPA), retention to the second year of college, and institutional selectivity.

The four AP Exams selected were chosen specifically because they represent the highest-volume AP Exams. Furthermore, their content covers several important subject areas emphasized in K-12 education, such as English, science, math, and social studies. Finally, by analyzing data from nearly 100,000 students across 99 institutions, this study represented the largest sample in AP validity research to date.

Results of the study indicated that, even after controlling for students' SAT scores and high school grade point average (HSGPA) as measures of prior academic performance, students with an AP score of 3 or higher outperformed students that didn't take an AP exam, as well as students who did take an AP exam but scored a 1 or 2. The results also found that students with an AP score of 1 or 2 tended to outperform students who didn't take an AP exam.

The researchers responsible for this report noted one very interesting finding: after controlling for both SAT performance and HSGPA, students who scored either a 1 or 2 on an AP exam (a failing score) did not earn higher FYGPAs in college than students who did not take any AP Exams. While this certainly led to immediate cries of foul by AP opponents, there are at least two explanations for this finding.

Similar to the conclusions reached by different researchers in 2004, perhaps it's not merely participation in the AP Program but rather *high performance* that results in better college outcomes. This aside, while FYGPA was equal among those who didn't take the exam and those who took the exam and failed, the results showed significant differences for the other two outcomes (retention and institutional selectivity). Researchers inferred that students who didn't take the AP exam might have enrolled in less rigorous courses in college, but their course selections were not accounted for. As shown in a 1975 study by Fishbein & Ajzen, the best predictor of future behavior is past behavior, so it seems likely that students who did not take rigorous courses in high school may also be likely to avoid rigorous courses in college. If that is the case, controlling for course difficulty may lead to different conclusions than those in this study. If this assumption proves true, the students' less difficult course load may have artificially inflated the FYGPA of the students who didn't take the AP exam.

The Challenge Index

While AP exam scores are an excellent indicator of success with the coursework, these same exam scores aren't considered in the Challenge Index, the school rating system invented nearly 15 years ago by Jay Mathews, education columnist with the *Washington Post* and author of *Class Struggle: What's Wrong (and Right) with America's Best Public High Schools*. The Challenge Index is what *Newsweek* magazine uses to rank high schools in their annual report of America's best school. Mathews' Challenge Index ranks public high schools based on students' level of participation in AP, IB and Cambridge tests. Mathews asserts that performance in these programs represent, "the best quantitative measure of a school's commitment to challenging every student."

In developing the Challenge Index, Mathews found that, "...most American high schools kept those rates (AP exam pass rates) artificially high by allowing only top students to take the courses." He concludes, "I don't think such schools should be rewarded because they have artificially high AP or IB passing rates achieved by making certain just their best students take the tests." Combine this methodology with students who self-select the courses and you can see that Corbett is taking the more challenging road by exposing all students to AP.

This helps highlight the unique situation at Corbett Schools, where all students take AP. For most schools the student body for the courses is far from a random sampling of the total student body. Though many more schools now offer AP courses, AP is still much more widely available in high schools that serve wealthier, typically better-prepared students. And, as stated above, self-selection draws in the more academically minded as the students themselves opt to take or not take the courses (and exams).

Whatever your opinion towards the AP program, critical analysis of AP coursework from a wide array of schools suggests that students enrolled in AP courses reap a positive experience in high schools that feature well-deployed resources and high levels of student preparation. This is due in part to the characteristics of the courses themselves, as well as the environment in which they are delivered, and the teachers that make it all a reality.

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