

*Center for Gifted Education
College of William and Mary*

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 1

**Keynote Address presented at the Advanced Placement Institute
co-sponsored by the College Board and the Center for Gifted Education
College of William and Mary, August 7, 2000**

Your role as a teacher of Advanced Placement (AP) is critical to promoting the academic talent development process in gifted adolescents and other students electing for such course work. AP represents coursework calibrated to selective college curriculum and is assessed by teams of secondary and university faculty. As such, it represents the best gauge we have in American education of successful curricular collaboration across K-12 and higher education. It also represents the hallmark program for judging the quality of student learning at secondary level through the use of recommended course syllabi and standardized exams.

AP is also an important part of state education policy in 23 states, providing support for training of teachers, test fees for students, and support for school district participation. The program has gained such favor among policy makers because of its proven effectiveness in enhancing the quality of educational experiences for college-bound populations over the past 40 years. More recently in the current reform climate, it is seen as a model for implementing high standards at all levels of the school curriculum.

It has grown from offering a few courses to now providing 33; from serving a few thousand students to serving over 700,000 per year; from being offered in selected states to now being offered in all states and internationally (College Board, 1999). The success of AP, however, cannot be measured only in numbers. It also can be measured in the benefits it has produced to gifted students over the years. Dr. Julian Stanley once remarked that AP was the best friend gifted students will ever have in their K-12 educational years. He may well be right, for it offers an array of benefits not found in many other educational options.

Thus its role in the talent development process is central as can be seen from situating it as an example of differentiated curriculum. Origins of differentiated curriculum for gifted learners have come from our understanding of the characteristics and needs of students who have the capacity for higher functioning in all areas of learning, as well as those who exhibit some specific aptitude in related academic areas such as the verbal arts and humanities or mathematics and science or the arts. This framework for defining giftedness has 80 years of psychometric research behind it and still today is used as the primary backdrop for identification as well as programming although newer conceptions of giftedness vie for attention. Advanced Placement course work is exemplary of a tailored curriculum response that recognizes advanced cognitive capacities such as abstract reasoning, higher level thinking, and rapid learning rate in such students and provides a rich and complex set of learning experiences. The program is comprehensive by specific subject area, and although offered only at high school level, has promise for earlier articulation of major skills and processes.

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 2

Benefits of Advanced Placement for Academically Talented Learners

In the late 1970's gifted students reported AP to be the most beneficial program taken during their high school years. This perception has not changed appreciably over the intervening decades (Kolitch & Brody, 1992). One such benefit to these students is accelerated learning. Research on the benefits of acceleration includes the following:

- improved motivation, scholarship and confidence of gifted and talented students over time
- prevention of habits of mental laziness
- earlier access to and completion of more advanced opportunities
- reduction of the total cost of university education and time towards a degree and professional preparation (Swiatek, 1993)

Effect sizes for subject acceleration including AP course work, early admission to college and credit by exam range from mild to moderate, signaling not only a statistical difference favoring these approaches but also one that is educationally important (Rogers, 1998). Advanced coursework offered on a past-paced model also results in greater learning for gifted learners in mathematics (Mills, Ablard, & Lynch, 1992), and the sciences (Lynch, 1992), suggesting that accelerated learning programs also need to be fast-paced to optimize student performance.

A second benefit is the emphasis on higher order thinking skills. Current research suggests that teaching critical thinking requires domain-specific tactics and the development of a strong knowledge base in students (Sternberg & Bhana, 1989). Moreover, it suggests that interactive inquiry also enhances critical thinking. AP, through the rigor of its course structure, provides a major emphasis on thinking critically. Much of the AP material in most subjects is performance-based, requiring students to exhibit analytical, interpretative, synthetic and evaluative skills to perform the task demands at high levels.

A third benefit of the AP program for bright students is the emphasis on advanced concepts. Current learning research suggests that focusing student learning on major ideas in a discipline can both help retention and provide a mental schema on which students can build their understanding as new applications to that schema are made (Nuttall & Alton-Lee, 1993; Schank, 1990). One example would be the concept of change where students come to appreciate certain generalizations about it, such as being related to time, being applicable to all areas of life, random or planful, created by people or external forces. These students can then begin to study change in specific subject areas like English where it coheres well with literature study, writing, and language features. Then it can be applied to literary elements such as character, plot, theme, motivation, etc, to frame central aspects of the discipline for students. Such an organization of AP material enhances and enriches the learning for gifted students.

Teaching the structure and tools of a discipline also affords gifted students an important avenue for meaningful learning. Because AP is content-rich, approach to coverage has to be well-

***Center for Gifted Education
College of William and Mary***

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 3

focused on what really matters in an area of learning which strips teaching of nonessential material. Students acquire core knowledge used by professionals and the tools to inquire about how knowledge is generated in a given field. Such an approach fosters in gifted learners a deep level of understanding about "how the world works" and provides a starting place for creative original work. One Latin academy student in Virginia from last year developed his own web page as a study guide to AP Latin for other students after receiving a "5" on the exam. He is also currently translating a Plautus play because he felt the need for a new and up-to-date translation. Once provided with the tools of a professional, many gifted students can use them to engage in highly creative and original applications.

The Advanced Placement program also sets high level expectations for learners. Course expectations are clearly stated and require persistent work over time to do well. Grading is guided by the rubric used for the final test which keeps the focus sharp. It is my contention that all gifted and talented students should take at least three AP courses during high school so as to potentially qualify as AP scholars.

Lastly, the Advanced Placement program provides powerful incentives to able learners. The program allows for the possibility of receiving college credits earned for high school course work as well as exempting students from introductory college courses. Moreover, in individual cases, flexible use of AP can spread out difficult course work across the secondary years, such that students could take some AP course work as early as freshman year and then take two courses each subsequent year. The program is also available at Talent Search universities in the summer to access through 75 hours of instruction over three weeks; it is available on-line; and to do independently. All of these modes of delivery encourage students to try for advanced standing at many universities around the country. The AP Scholars designations are also useful for students in presenting their resumes and portfolios, providing evidence of real effort in several different subjects.

Moreover, use of AP credit to accelerate does not necessarily reflect continued acceleration. Recent research at the College of William and Mary suggests that students who amass large amounts of AP credit do not graduate early in commensurate numbers, rather choosing to stay and take other courses of interest (Fithian, 1999).

What Matters in Talent Development

The relationship between intelligence and effort as they impact on performance remains an open question. Does ability prevail regardless of effort? Does effort compensate for lack of ability? Does effort create ability over time? Or as those of us in gifted education might suggest, does the interaction of high ability with persistent effort produce "best performance"? Gagne's model of talent development (1985) is an important conceptual backdrop to understanding the talent development process as one where nascent abilities are catalyzed by intrapersonal and

Center for Gifted Education
College of William and Mary

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 4

environmental factors to produce highly developed talents in various fields. Such a process requires several variables working together to bring about high level performance in any field. One such variable, as Gagne suggests, is ability itself, whether in a general intellectual sense or in a specific area well-matched by educational opportunity. Research on talent development has suggested that early aptitudes can be discerned and addressed even in early childhood (Bloom, 1985). Moreover, student interests and values also contribute to our understanding of adolescent talent and how it develops, suggesting that adolescent identification of these variables can be used to help steer students into fields most consistent with their profiles (Achter, Benbow, & Lubinski, 1998).

Ericsson & Linder's work (1997) on chess players and runners is also instructive on the role of effort in talent development. He contends that experience in an area coupled with expert instruction and large amounts of deliberate practice accounts best for peak performance. Moreover, he maintains that practice alone enhances performance and separates masters from amateurs in the fields he has studied. Very instructive in Ericsson's work is his insight on how to move individuals beyond plateau levels of performance. He suggests imitation of achievement, feedback from real life, preparation for specific events, and a retro-analysis of past events and performances.

Passion and commitment as interpersonal catalysts contribute to talent development, where learning is beyond one's grasp but within reach if zeal is applied to the enterprise. Csikszentmihalyi, Rathunde, & Whalen (1993) found, for example, that gifted adolescents liked teachers who were supportive but also passionate about their field - a good description of Advanced Placement teachers.

The role of quality instruction and master teaching is also central to talent development as suggested by several studies (Bloom, 1985; Ericsson & Linder, 1997; Wang & Walberg, 1991). Instruction must be sensitive to a student's level of functioning, provide direct teaching to raise that level, be accompanied by specific timely feedback and reinforcement, tailored practice, and evidence of attainment. Such an instructional regime appears to advance talent the most in all areas of human endeavor. Teachers must be able to provide such quality instruction and thus require subject-specific expertise and pedagogically relevant expertise. The teacher then must be someone who knows a field well enough to suggest ways for talented learners to reach new levels of attainment.

Finally, models and mentors play an important role in the talent development process. Research on the effects of mentorships for gifted students have yielded moderate to high effect sizes across studies in the areas of cognitive development, self-esteem, and social understanding (Rogers, 2000). Pleiss and Feldhusen (1995) found that mentors were critical for aspiring scientists, while emulators or models, even from afar, were helpful to aspiring artists. Teachers and librarians many times provided important modeling for talented students. Robert Root Bernstein, a

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 5

MacArthur Fellow, credited his hometown librarian as very influential in turning him on to science at the age of 10 through judicious selection of books. He later won a Westinghouse scholarship.

All of these factors affect how talented students will become in given areas of life pursuit. As teachers of AP, you are in a unique position to foster students' internal motivation to succeed as well as to provide the personal and instructional support so vital to the process.

How schools contribute to student achievement also has been studied in respect to dimensions of school capacity (King & Newmann, 2000). Three areas of interest emerge from that research: teacher knowledge, skills and dispositions; professional community (schools as a collective enterprise); and program coherence (clear learning goals sustained over time). Clearly, the development of talent in school-based settings must consider the importance of these contextual variables as well.

Issues of Gifted Adolescents

While Advanced Placement programs have the potential to provide an optimal match for gifted learners in respect to differentiated curriculum and assessment protocols and key aspects of talent development, such programs can fall short of being ideal for many gifted learners if there is not a clear understanding of important gifted adolescent issues that call for flexibility and attention to individual differences.

One issue that Advanced Placement teachers need to be aware of is the different levels of aptitude for a particular AP course. The range of ability in AP classes is typically very great. Even if all students were identified as gifted, the range would be as broad as in heterogeneous classes. Such differences in aptitude level require more attention to addressing individual needs. Because AP course work probes depth of understanding, it tends to reveal greater disparity in student learning. Level of aptitude may predict how much material students can handle well, how capable they are to work independently, and how strong they are conceptually with the material. Use of various forms of flexible grouping for in-class work may be an antidote to this problem. Organizing sections of AP by ability levels may also be useful in subjects where enrollments are sufficiently high.

Uneven development and performance is another problem of gifted adolescents.

Many gifted students are stronger in oral work than in written work, causing uneven classroom performance. Moreover, gifted students in adolescence have strong preferences for subject matter and tend to devote more time and energy to those they like; consequently, if they take AP in other subjects, while qualified, they often do not perform at their intellectual level. The depth of the work also tends to "reveal" this unevenness in student profiles. Working with students on areas of relative weakness, once these areas have been identified, constitutes one ameliorative

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 6

approach to this problem. Suggesting outside tutoring to shore up critical weaknesses in areas like writing may be another approach.

The culture of academic preparation for selective colleges suggests the need to demonstrate well-roundedness which leads to the problem of overscheduling and lack of sleep for many talented teens. Multiple interests also are a culprit here. For instance, music, sports, and drama are all highly time-consuming activities yet important for many students because of broad interests. Stress can result more from an overload of these co-curricular activities than from the academic challenge of Advanced Placement per se. Counseling students to balance their time and commitments in ways they can manage is an important service that AP teachers can provide these adolescents.

Unproductive study habits also frequently interfere with the optimal performance of many students in Advanced Placement courses. Moreover, students may not know how to study certain subjects, especially mathematics. They need clear guidelines to assist them with this (i.e., how long assignments should take, what is appropriate to study, etc.) They also many times are not used to sustained homework expectations that require nightly preparation. AP forces students to come to terms with their lack of discipline in independent learning situations and can be a perceived problem. Constant support, encouragement, and specific ideas to assist students will be appreciated.

More difficult content such as students encounter in Advanced Placement can reveal underlying learning difficulties such as learning disabilities (LD0) and attention deficit disorder (ADD) in adolescents. Thus teachers in Advanced Placement classes should be cognizant of this possibility in students and be ready to provide appropriate accommodations. These would include:

- 1) Frequent contact with parents via websites and e-mail to explain current and upcoming assignments as parents need to monitor daily work progress and be kept aware of medication effects.
- 2) Instructional accommodations such as tape recording of class lectures for later review, more time on tests, more time on assignments, structuring of tasks, and seating arrangements that allow such students to be up front and center.

These special issues and others of a social-emotional nature that affect gifted adolescents can impact strongly on their ability to have a successful experience in Advanced Placement courses. Recognizing the presence of these issues and how to ameliorate their effects is also a part of being a successful AP teacher.

Issues in teaching Advanced Placement

While this week will provide you with many course-specific ideas and strategies for teaching Advanced Placement courses, there are some core approaches that apply across all AP subjects that have been successful in working with gifted learners. These approaches include:

***Center for Gifted Education
College of William and Mary***

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 7

- 1) Preassessment and diagnostic followup - The use of old tests at the beginning of the year, especially in subjects that are most clearly sequential in learning such as English or history can be useful in ascertaining the level of functioning of each student in the class so that more tailored instruction might follow.
- 2) In-class power tasks - Use of timed performance-based tasks to stimulate interest and check on readiness for novel task demands under power conditions is an important instructional approach to employ. Immediate feedback through oral discussion along with individual assessment of performance heightens the opportunity for authentic learning to occur.
- 3) Specific feedback for improvement - Students need advice, counsel and tutoring on how to move up and improve their assessment scores (i.e., from a 1-2 to a 3 or a 3 to a 4 or a 4 to a 5). Coaching may be required in order to encourage such progress.
- 4) Targeted homework - The maxim that may apply here is "less is more". The tendency of teachers, because of the need to cover extensive material, may be to pile on homework to an extent beyond what students' would typically receive in a college class. A better strategy is well-selected homework within the reach of the students' ability to do it in a reasonable amount of time. Hard problems and analyses should be done in class with easier applications and analysis out of class.
- 5) Tutorial review and test practice - Providing review sessions six weeks and onward before exams is a strong incentive to student high performance. Old tests should be distributed and used liberally in preparation. Research has consistently shown the highest effect sizes (2.00) for tutorial approaches (Bloom, 1984).
- 6) Taking the AP exam - In general, students should be encouraged to take the AP exam if they have taken the class and are passing it. The exam itself constitutes a learning experience. Score results should always be viewed in light of preassessment data, with a clear eye to evidencing improvement.

The employment of these generic approaches should lead to stronger student performance on the AP exams but also to greater teacher satisfaction in the instruction of the course work as the teaching-learning dynamic becomes more palpable in the classroom.

Persistent problems

Despite all of the successes and benefits cited in this paper, unresolved problems pervade the implementation of Advanced Placement programs in schools. One of these is coherence. Research on schools has suggested the need for learning goals sustained over time. Thus AP is a necessary but insufficient response to the call for higher levels of achievement. There is a clear need to develop articulation and alignment of AP standards at all levels of the curriculum. A second issue is that of grouping. Current research suggests the need to engage in flexible grouping within AP classes as well as to group multiple sections for maximum effect. Grouping with differentiated curriculum produces six months to a year value-added gains for gifted

*Center for Gifted Education
College of William and Mary*

The Role of Advanced Placement in Talent Development

Joyce VanTassel-Baska, Ed.D.
College Of William and Mary

Page 8

students (Kulik & Kulik, 1992). There is also a concern for deep implementation of AP course syllabi by trained teachers. Schools must ensure that instruction is producing real learning as judged by student performance. Where this is not occurring, improvements are clearly called for. Finally, we need to be concerned about access to Advanced Placement. There is a need to ensure that all students who could profit from AP are enrolled. Special outreach efforts to economically disadvantaged and minority students is critical in ensuring appropriate representation in such programs.

Conclusion

While Advanced Placement coursework may not be for every college-bound student, the program puts those students who choose it on a deliberate path toward the accrual of educational advantage in key areas of learning that can only over time enhance individual and societal educational progress. The following quote from John Gardner's wonderful little book *Excellence* (1961) captures this sentiment well: The tone and fiber of our society depends upon a pervasive and almost universal striving for good performance. And the society is bettered not only by those who achieve it but by those who are trying.