

Parents' Guide to Requesting Credit and/or Placement for Your Child's Course Work

This guide is for students and parents pursuing, or considering pursuing, school placement and/or credit for course work at the Center for Talented Youth. To help determine whether you should pursue placement and/or credit, please review the section "Educational Planning" (below) and the enclosed article "Acceleration: Evaluating the Controversy over Higher-Speed Education" from *Imagine*.

This guide assumes your school is unfamiliar with our summer programs. If your school is already acquainted with CTY, a procedure for requesting credit and/or placement is probably already in place.

Because we are not a credit-granting institution, you must work with your school if you wish to receive credit and/or placement.

Educational Planning

Determining Goals for CTY Course Work

All CTY courses permit students to work at a challenging pace and provide access to subjects and skills most students would not otherwise have the opportunity to study at their age. In this regard, all CTY courses enhance and broaden students' overall education experiences and sharpen their academic skills.

It is not necessary to pursue placement or credit if the course your child takes at CTY is different from courses offered at school, and you simply want recognition of the extra effort put into academics. In such a case, the school may agree to note participation in our summer programs on your child's transcript as extra course work. Your child's participation in the program is then available to college admissions staff and others through your child's school transcripts. Please note, however, that the same information is available through us. For a nominal fee, our Registrar will furnish a record of attendance and, if desired, copies of evaluations to school and college admissions offices.

Placement (and sometimes credit) is an issue if your child plans to take a course that covers the same material that is covered in a course at his or her school. If your child is considering such a course, he or she should be placed in the next higher course when returning to school so that he or she will not have to repeat material already learned. Taking a higher-level course in an earlier grade than usual is known as acceleration. Acceleration can be of great benefit to academically talented students, giving them the opportunity not only to work at a pace appropriate to their abilities but also to take more advanced courses before college than would otherwise be possible.

Advice for Students in Grades 2-6

Few of CTY's courses for 2nd through 6th graders are designed for the purpose of acceleration. The courses are taught at a high level, but are quite unlike courses your child would take at school. The one exception is the Individually Paced Mathematics Sequence, in which your child would learn material that is included in nearly all school math programs. To ensure that your child does not repeat in school material he or she covered in Math Sequence, it is essential that

you work with your school both before and after the program to arrange appropriate *placement* in the school curriculum.

Advice for Students in 7th Grade and Above

A number of courses in CTY's Intensive Studies can help accelerate your child's course of study by substituting for courses in the school curriculum. They include the Individually Paced Mathematics Sequence, the Fast-Paced High School science courses, and the classical language courses. Integrating these courses with your child's work at school can help him or her get the most from his or her pre-college education. For instance, successfully completing one or more of CTY's Fast-Paced High School science courses could provide enough time during the regular school year to take several Honors or Advanced Placement science courses by the senior year.

As with younger students, a student in 7th grade and higher who takes CTY courses that cover the same material as courses offered at school should receive appropriate *placement* when he or she returns to school. Appropriate placement ensures that your child will not repeat material he or she has already learned. In addition, your child, having taken courses not available at his or her school (for example, Advanced Biology), may wish to receive *credit* on his or her secondary school transcripts for course work at CTY.

Courses in CTY's Academic Explorations are generally intended for academic enrichment. However, depending on your home school's curriculum, credit and/or placement may be something you wish to pursue for Academic Explorations courses as well.

Steps for Negotiating Placement and/or Credit

Negotiating placement and/or credit with your child's school can take time and energy. However, parents can influence their schools by providing information and requesting change.

Before the Summer Program

Working with your school *before* the summer program begins is important. Make an appointment to meet with school officials as soon as possible after receiving the catalog. Identify a school official who can help and is sympathetic to the needs of academically talented children. In the elementary or middle school, this may be the person who distributes information about the Johns Hopkins Talent Search. In the high school, this may be a guidance counselor, a coordinator of Gifted and Talented programs, or the principal. Local parents of other talented students are often a valuable information resource. If you are interested in pursuing credit and/or placement, you may need to talk to high school personnel even if your child is still in middle school.

We recommend four steps to a successful arrangement with your school: 1) gather data about your child's academic strengths, 2) understand your child's educational options, 3) gather information about our courses, and 4) meet with the appropriate school official(s).

- 1) *Gather data about your child's academic strengths.*** PLUS, SCAT, or SAT I results testify to a youngster's exceptional ability. A PLUS, SCAT, or SAT I score that qualifies your child for our summer programs shows that his or her ability is at least 2-3 years above grade level. An SAT I score that qualifies your child for the CTY Summer Program for 7th grade and above is at least equal to the score of an average college-

bound high school senior. The Johns Hopkins Talent Search Score Report provides information on what your child's test scores mean. Other types of data about your child's strengths are anecdotal comments from teachers, consistently high grades in related classes, and the results of on-grade-level standardized tests.

- 2) ***Understand your child's educational options.*** As you begin exploring options for your child's education, it is important to understand the distinction between credit and placement.

Credit means that your school acknowledges that a CTY course is equivalent to a course in its own curriculum and counts the CTY course toward its requirements for successful completion of a particular grade level and/or graduation. Receiving credit for a CTY class is not always crucial, since academically talented students usually accumulate more than the minimum number of credits required for high school graduation.

Placement means that your school recognizes that your child has learned the material covered in a particular course and agrees to place him or her in the next most appropriate course following successful work at CTY. For instance, if your child has successfully completed Geometry at CTY, your school agrees to place him or her in the next course in its mathematics sequence. It is very important that your child receives appropriate placement after his or her CTY courses in order to avoid repeating material already learned.

Be prepared to suggest placement options to your school. Some states have legal mandates regarding gifted education, and you should be familiar with those mandates. The state coordinator for gifted education in your state's Department of Education should be able to provide this information. Placement options need to be within reason, but they need not be options already familiar to your school.

Placement options you could suggest include advanced placement in one subject while on-grade in others (this approach is often a good response to concerns about whether the student is mature enough to skip a grade); release-time in school for guided independent or tutored study; and taking a course at the community college, through educational TV, or through other distance education services. Skipping a grade may be appropriate, but this option deserves especially careful consideration.

The options you and your child choose should be compatible with his or her interests, abilities, and potential. They should be constructive, reasonable, and possible. Do not underestimate the value of your child's input. Talented youngsters can articulate their needs.

In-school testing to demonstrate competence gained at the program is required by many schools as the basis for awarding credit and placement. In general, we believe this is a reasonable requirement. Such a test should be of the sort usually given to students in your school (e.g., the final examination given the previous June). Your child should take the examination as soon as possible after completing the course, while the material is fresh in mind. Students in the Individually Paced Mathematics Sequence are asked to bring course syllabi and representative exams from their home schools to the site in order to ensure that material required by the schools is covered. Your child should prepare for the

exams by reviewing his or her notes and text, and by working review problems (where appropriate).

- 3) ***Gather information about our courses.*** In addition to having some placement options in mind, you need to bring documents to your meeting that can help your school staff member evaluate the experience your child will have at the program. The CTY Summer Programs catalog and the attached *Guidelines for Credit and Placement* are often sufficient. Sample syllabi for all courses are available at <http://cty.jhu.edu/summer/summer-programs.html>, and more detailed information about the Math Sequence course is also available. Call us at (410) 735-6185 if your school requests further information.

Schools may wish to know that the residential courses meet for three weeks, seven hours per day, five days per week, for between 100 and 110.5 supervised hours of study. (Hours for the Young Students program are shorter.) Teachers for our summer programs are chosen for knowledge of their disciplines and teaching experience. They include outstanding secondary school teachers, graduate students, exceptional undergraduate students, professional writers, and some college professors. They resemble the faculty of a college or independent school.

At the end of a course, we will provide your child with a detailed, written evaluation of performance, and, depending on the course, a standardized test score. This evaluation, along with a course description and the standardized test score (when applicable), will be mailed to your child a few weeks after the course's end. It is your responsibility to provide the school with copies of these documents. We do not routinely issue letter grades, but we will do so if your school insists. Requests go to our Registrar (not to the site or instructor) and need to be in writing. Call (410) 735-6108 for further information.

- 4) ***Meet with the school official.*** A well-planned strategy is important. Success demands tact and patience. For example, focus on sharing information, suggestions, options, and asking for help, rather than on what the school has *not* done. Praise the school and individual faculty who have helped your child develop as a student; let the official know that you appreciate the school's role in your child's academic success.

Often, schools tell parents they cannot make an exception for one child for fear of setting a precedent (e.g., "everyone will want to skip Algebra I"). You may respond by suggesting that the school set reasonable entrance standards for the course. Then, if others meet the criteria and want to skip a particular course, they may do so. If a concern is that too many will be eligible for special treatment, point out that this is grounds for offering something special to all who are eligible. If you have an agreement with the school to place your child based on in-school testing, be sure the school will be able to arrange an appropriate schedule before the school year starts, and preferably, close to the end of the session.

Practice persistence: you may not succeed immediately. Do not allow initial frustrations to discourage you. If one school official cannot help, ask to see someone who can.

After the Summer Program

When your child returns from the program, phone the school to reconfirm the date of any placement examination. Remind the school to arrange your child's schedule before class begin. When our documentation of your child's performance arrives, make sure it gets to the school (keeping copies for yourself).

Don't forget to acknowledge the efforts of the school officials who assisted you. Take the extra time to send thank you notes. Working together with your school, you can help your own child and, at the same time, pave the way for highly able students who follow.

CTY GUIDELINES FOR CREDIT AND PLACEMENT

Computer Science, Mathematics, and Science

CTY Course Title (Course Code)	Recommended High School Credit	Recommended Placement
COMPUTER SCIENCE		
Fundamentals of Computer Science (FCPS)	½ year computer science or math elective	AP computer science
Theory of Computation (TCOM)	½ year computer science or math elective	*See note below
Data Structures and Algorithms (DATA)	½ year computer science or math elective	*See note below
MATHEMATICS		
Individually Paced Algebra I (MATH)	1 year math (algebra I)	Next course in school's math sequence (geometry or algebra II)
Individually Paced Geometry (MATH)	1 year math (geometry)	Next course in school's math sequence (algebra II, functions, trigonometry, discrete math, etc.)
Individually Paced Algebra II (MATH)	1 year math (algebra II)	Next course in school's math sequence (geometry, functions, trigonometry, discrete math, etc.)
Individually Paced Functions (MATH)	½+ year math (functions)	Next course in school's math sequence (trigonometry, discrete math, analytic geometry)
Individually Paced Trigonometry (MATH)	½+ year math (trigonometry)	Next course in school's math sequence (discrete math, analytic geometry, calculus, etc.)
Individually Paced Discrete Math (MATH)	½+ year math (discrete math)	Next course in school's math sequence (trigonometry, analytic geometry, calculus, etc.)
Individually Paced Analytic Geometry (MATH)	½+ year math (analytic geometry)	Next course in school's math sequence (calculus)
Mathematical Modeling (MODL)	½ or 1 year math elective	*See note below
Mathematical Logic (REAS)	½ or 1 year elective	*See note below

CTY Course Title (Course Code)	Recommended High School Credit	Recommended Placement
Cryptography (CODE)	½ or 1 year math elective	*See note below
Probability and Game Theory (GAME)	½ year math elective	*See note below
Number Theory (THEO)	½ year math elective	*See note below
Set Theory (SETM)	½ year math elective	*See note below
Advanced Cryptology (COD2)	½ year math elective	*See note below
Macroeconomics and the Global Economy (MACR)	½ year math elective	*See note below
Fundamentals of Microeconomics (MICO)	½ year math elective	*See note below
SCIENCE		
Archaeology (ARCH)	½ year science or elective	*See note below
Astrophysics (ASTR)	½ year science or elective	*See note below
Genetics (GENE)	½ science or elective	*See note below
Genomics (GNIC)	½ year science or elective	*See note below
The History of Disease (HDIS)	½ science or elective	*See note below
Introduction to Biomedical Sciences (INBS)	½ year science or elective	*See note below
Neuroscience (NEUR)	½ year science or elective	*See note below
Paleobiology (PBIO)	½ year science or elective	*See note below
Introduction to Laboratory Sciences (ISCI)	½ or 1 year general science or elective	Biology or chemistry
Scientific Investigations: St. Mary's River (RIVR)	½ or 1 year general science or elective	Biology or chemistry
Fast-Paced High School Biology (BIOL)	1 year science	Honors biology or AP biology
Fast-Paced High School Chemistry (CHEM)	1 year science	Honors chemistry or AP chemistry
Fast-Paced High School Physics (PHYW)	1 year science	Honors physics or AP physics

CTY Course Title (Course Code)	Recommended High School Credit	Recommended Placement
Selected Topics in Advanced Chemistry (ACHM)	½ year advanced chemistry or science elective	1 st or 2 nd semester of AP chemistry or independent study to complete the AP chemistry syllabus
Advanced Topics in Physics: Special Relativity (SREL)	½ year advanced physics or science elective	*See note below.
Electrical Engineering (ENGE)	½ year science	*See note below.
Investigations in Engineering (IENG)	½ year science	*See note below.
Oceanography: The Hawaiian Pacific (MARI)	½ year science or elective	*See note below.
Life Cycle of an Island (LCIS)	½ year science or elective	*See note below.

* **Note:** These courses do not have comparable school-based courses. Subsequent placement cannot be addressed in general. Students should discuss placement options with school administrators. Placement options might include independent study or course work at a local college.

CTY GUIDELINES FOR CREDIT AND PLACEMENT

Humanities

CTY Course Title (Course Code)	Recommended High School Credit	Recommended Placement
ART & MUSIC		
History of Western Art (HART)	½ year art, humanities, or elective	AP art history or college-level art history
Twentieth-Century Art (TWEN)	½ year art, humanities, or elective	AP art history or college-level art history
Music Theory (MUST)	½ year music, humanities, or elective	AP music theory
CLASSICS		
Beginning Ancient Greek (GRK1)	1 year foreign language	High school Greek 2 or 2 nd semester beginning college Greek
Intermediate Ancient Greek (GRK2)	1 year foreign language	Not applicable
Etymologies (ETYM)	½ year English, humanities, or elective	Not applicable
Latin 1 (LAT1)	1 year foreign language	High school Latin 2 or 2 nd semester beginning college Latin
HISTORY & POLITICS		
Great Revolutions (HIST)	½ year history or social studies	High school history course (honors section)
Russian History (RUHI)	½ year history or social studies	High school history course (honors section)
American Studies: The Sixties (AMST)	½ year history, social studies, or elective	College-level American Studies or US history
Women and US Social Reform (AWOM)	½ year history, social studies, or elective	College-level American Studies or US history
Dissent (DSET)	½ year history, social studies, or elective	College-level American Studies or US history
Modern European History (EUHI)	½ year history or social studies	Honors or AP European history
International Politics (POLY)	½ year history, social studies, or elective	College-level political science, geography, or international relations

CTY Course Title (Course Code)	Recommended High School Credit	Recommended Placement
Islam (ISLM)	½ year history, social studies, or elective	College-level political science, cultural studies, or international relations
The Asian Pacific Rim (PRIM)	½ year history, social studies, or elective	College-level political science, cultural studies, or international relations
Politics in the Middle East (PLME)	½ year history, social studies, or elective	College-level political science, geography, or international relations
Law and Politics in US History (LAWP)	½ year history, politics, social studies, or elective	College-level political science or US history
American Studies: The Harlem Renaissance (HREN)	½ year history, politics, social studies, or elective	College-level American Studies or US history
Taking Action: Leadership and Service (SERV)	½ year history, politics, social studies, or elective	College-level service learning
PHILOSOPHY		
Ethics (ETHC)	½ year humanities or elective	College-level philosophy
Existentialism (EXIT)	½ year humanities or elective	College-level philosophy
Logic: Principles of Reasoning (LOGC)	½ year humanities or elective	College-level logic or philosophy
Philosophy of Mind (MIND)	½ year humanities or elective	College-level philosophy
PSYCHOLOGY		
Cognitive Psychology (COGN)	½ year psychology or social studies	Second-semester college-level psychology
WRITING		
Creative Nonfiction (WRT3)	½ year English composition or ½ year elective	CTY recommends placement in high school or college course based on review of student writing samples.
The Critical Essay: Literature and the Arts (WR4A)	½ year English composition or ½ year literature elective	CTY recommends placement in high school or college course based on review of student writing samples.

CTY Course Title (Course Code)	Recommended High School Credit	Recommended Placement
The Critical Essay: Popular Culture (WR4B)	½ year English composition or ½ year elective	CTY recommends placement in high school or college course based on review of student writing samples.
The Critical Essay: Shakespeare (WR4C)	½ year English composition or ½ year elective	CTY recommends placement in high school or college course based on review of student writing samples.
The Critical Essay: Science Fiction (WR4D)	½ year English composition or ½ year elective	CTY recommends placement in high school or college course based on review of student writing samples.
The Critical Essay: Film (WR4D)	½ year English composition or ½ year elective	CTY recommends placement in high school or college course based on review of student writing samples.
Utopias and Dystopias (TOPI)	½ year English composition or ½ year elective	CTY recommends placement in high school or college course based on review of student writing samples.
Fiction and Poetry (INCW)	½ year creative writing or ½ year literature elective	College-level creative writing
The Crafting of Drama (PLAY)	½ year creative writing or ½ year literature elective	College-level creative writing
The Crafting of Poetry (POET)	½ year creative writing or ½ year literature elective	College-level creative writing
Advanced Fiction (FICT)	½ year creative writing or ½ year literature elective	College-level creative writing

In education, the term "acceleration" refers to the many strategies used to speed up the rate at which talented students move through academic curricula. (For a comprehensive list of accelerative strategies, see the boxes on pages 12-13.) Some forms of acceleration move students out of learning groups composed of their age-peers, placing them with students who may be significantly older. But acceleration is also often subject-based, allowing students to maintain ties with same-age peers while forging ahead in particular academic areas.

Acceleration is intended to facilitate learning for highly able students who might otherwise be limited to a diet of repetitive educational experiences. Supporters claim that acceleration places these students where they will be exposed to the academic challenges they need, thus promoting real advances in their skills and understanding.

Yet acceleration sparks resistance from some educators, parents, and other critics who argue that acceleration rushes students through school, putting students' social, emotional, and even intellectual development at risk.

THE DEBATE

The debate over acceleration is heightened by a tendency to view the practice in terms of its most pronounced forms, such as grade skipping. While the pros and cons of different kinds of acceleration, including grade skipping, should be examined, it is important to remember that there are also forms of acceleration that do not bring major changes to students' lives. For example, the precollege Advanced Placement Program provides a popular, easily utilized accelerative learning experience in hundreds of high schools across the country.

IMPACT ON SOCIAL AND EMOTIONAL ADJUSTMENT

At the heart of the dispute over some accelerative strategies are differing views of their effects, especially on social and emotional adjustment. Those who express doubts about acceleration tend to affirm the importance of biological age, asserting that children need to develop among peers who mirror their own levels of physical, emotional, and social development.

From this perspective, acceleration may disrupt patterns of experience and rites of passage that typically characterize the precollege years. A student who takes night courses in mathematics at a local university may need to give up high school dramatics or athletics. Another who skips the twelfth grade may miss out on some traditional social experi-

ences. (Such students are often asked whether they mind missing the prom.)

On the other hand, supporters of acceleration tend to deemphasize biological age, stressing instead the intellectual readiness of the student. They see intellectual readiness as a highly significant trait, one that should not be sacrificed in favor of other considerations. According to this view, trivializing students' potential to learn can itself create adjustment problems. Highly able students are already different from many of their classmates. Forcing them to repress their learning capacities may indeed hinder their social and emotional development more than any stresses associated with acceleration.

LEARNING BENEFITS

Concerns

It is important to acknowledge that acceleration is not an absolute good and that its likely impact on the skills and understanding of each student must be considered individually.

Educators tend to be very conservative in recommending acceleration, so that many talented students advance more slowly than their abilities and achievements indicate that they could. Nevertheless, questions of thoroughness are important in planning any student's academic career.

Students who are excellent in arithmetic may not be ready to deal with the more advanced concepts important in algebra and geometry. Students with high verbal aptitudes may not be prepared to grapple with novels by William Faulkner. Ideally, prior academic performance, ability tests, and the student's own disposition should all contribute to decisions about readiness to move ahead.

Positive Considerations

What do students say about acceleration? Those who have chosen to learn more rapidly and who have been permitted to do so tend to be positively enthusiastic about accelerative options.

Dr. Jane C. Charlton, a former "radical accelerant," is now assistant professor of

astrophysics at Pennsylvania State University. Dr. Charlton, who received her Ph.D. at age 22 from the University of Chicago, took her first college-level course at the age of 13 after she had completed the seventh grade. She then decided to begin full-time college-level studies at age 14.

With an outstanding academic background and an exciting professional future, Dr. Charlton now credits acceleration with being the key

IN THE BALANCE

Acceleration: Evaluating the Controversy over Higher-Speed Education

by Lesley Mackay

Today's important educational questions are too often discussed in ways that distort the issues. Educational strategies are held to be invalid when they are simply in need of modification. Different theories and practices of teaching and learning are pitted against each other as if they were incompatible. Thus, cooperative learning comes to be viewed as being at odds with ability grouping; enrichment is seen as being opposed to acceleration. This unproductive climate of debate makes it difficult to achieve a clear understanding of different educational ideas and options.

*Our series "In the Balance" is intended to offer a comprehensive, reasoned look at the complexities of some crucial educational issues. We began in *Imagine's* March/April 1994 issue with an analysis of the merits of ability grouping and cooperative learning. Here we explore acceleration and enrichment. And in the next issue, we will focus on the influence of feminism, multiculturalism, and other progressive agendas on academic programs.*

that opened up the substantial challenges she needed as a talented, curious, and hardworking student. Accelerating allowed her to probe and act on her talents. "And the amazing thing," she adds, "is that I am where I always wanted to be four years sooner than I might have been had I not accelerated."

Dr. Charlton's example, though very unusual, illustrates acceleration's capacity to help outstanding students make good use of their time and, relatedly, avoid boredom. Acceleration's potential as an escape hatch from boredom is extremely important. The lack of challenge that good students may sometimes feel in school is not only tragic, it's damaging.

Dr. Julian Stanley, Director of the Study of Mathematically Precocious Youth at The Johns Hopkins University, believes that adhering to conventional academic timetables can compromise the futures of highly able students.

While the accelerants with whom Dr. Stanley works have almost all enjoyed very successful college careers, talented students who complete high school entirely in step with their age-peers may have more trouble in college. One possible explanation: academic boredom at a young age can lead to lack of motivation and less developed work habits, traits that pose problems as students mature and face tougher academic challenges.

NOT JUST PLACE, BUT PACE

In order to gain a perspective on the debate over acceleration, consider that certain accelerative options allow students to modify not only their *place*—the *level* at which they are learning—but also their *pace*—the *rate* at which they are learning. Strategies that allow for the ongoing adjustment of pace, such as continuous progress, self-paced instruction, and curriculum compacting, ensure that students are not merely jumping ahead, but also advancing at an optimal rate.

Unfortunately, not every school offers or is currently able to offer a variety of accelerative options. However, a full range of accelerative possibilities, including those that permit the ongoing adjustment of pace, is necessary to enable students to move ahead appropriately. Diverse options ensure the responsiveness of the learning environment; it is this responsiveness that is the key to the benefits of acceleration. Intellectually talented boys and girls need to work cooperatively with parents and teachers to find special, supplementary, accelerative educational opportunities.

FLEXIBLE PACING FOR ALL

Talented students' need for flexible learning environments has implications for all students, regardless of whether they need to accelerate. An ongoing commitment to provide the conditions that can nurture the abilities of each student should be central to any understanding of the task of education.

The needs of highly able students are in this sense no different from those of others: each learner needs access to the material for which he or she is ready, as well as the freedom to advance at a personally appropriate pace. When these conditions are met, students are liberated to work in a zone of ideal challenge.

For some students, acceleration is critical to achieving this Optimal Match. For all students, correct placement and an appropriate tempo of progress are the basic ingredients of genuine education.

Parents and teachers should encourage consideration of accelerative options; a hands-off approach on the part of adults can be detrimental. But a critical part of the Optimal Match is listening to the voice of the student.

As much as considerations such as age allow, students should guide the decisions made about their own education. As one experienced educator put it, acceleration is least successful when implemented at the urgings of an adult; it is most beneficial when students decide on it for themselves, in an atmosphere in which they are free to make the choice. ■

ACCELERATION OPTIONS

Early entrance to kindergarten: The student is admitted to school prior to the age customarily specified by the district for entry into first grade.

Grade skipping: The student moves ahead of normal grade placement. This may be done during an academic year (e.g., a third grader goes directly into fourth grade; skips the last two years of high school to enter college), or at year end (e.g., a third grader is promoted to fifth grade).

Continuous progress: The student is given material deemed appropriate for current achievement as the student becomes ready.

Self-paced instruction: The student is presented with materials that allow him or her to proceed at a self-selected pace.

Subject-matter acceleration: Without being assigned to a higher grade, the student is placed for part of the day with students at more advanced grade levels for one or more subjects (e.g., a fifth grader goes to sixth grade for science instruction).

Combined classes: The student is placed in classes where two or more grade levels are combined (e.g., third and fourth grades split rooms). The arrangement can be used to allow younger children to interact with older ones academically and socially.

Curriculum compacting: The student is given reduced amounts of introductory activities, drill, and review. The time saved may be used to move more quickly through the curriculum.

Telescoping curriculum: The student spends less time than usual in a course of study (e.g., completes a one-year course in one semester or finishes junior high school in two years rather than three).

Mentorships: The student is exposed to a mentor who provides advanced training, experiences, and pacing in a content area.

Postscript

Acceleration was the focus of a conference on "Adolescence, Acceleration, and National Excellence" held in June at Simon's Rock College of Bard in Great Barrington, Massachusetts. Conference participants, including educators and former accelerants such as Dr. Jane Charlton, discussed issues related to acceleration. As Brian Hopewell, the Conference Chair, noted in his welcoming letter to the conferees, "While acceleration is clearly not a novel phenomenon, fundamental pedagogical, developmental, and policy issues remain unresolved."

THE ENRICHMENT OPTION

Enrichment adds extra breadth and depth to students' learning, taking education beyond the bounds of typical curricula; it does not speed up the rate at which students advance through academic programs.

Enrichment is often viewed as an alternative to acceleration and is favored by some educators who resist the idea of more rapid advancement for talented students. But there is no reason to view acceleration and enrichment as opposing educational approaches; both can make valuable, mutually supportive contributions to students' learning.

In fact, enrichment is a natural byproduct of acceleration. When a student accelerates, he or she has more time not just to move ahead, but also to learn more—to make a more profound, “enriched” exploration of his or her subject.

But while acceleration may lend itself to enrichment, current enrichment programs usually entail no accelerative options or effects. These supplementary academic programs award no credit or advanced standing; programs that do provide these benefits are accelerative.

Let's consider some examples of the countless enrichment programs available at many schools and elsewhere. Some enrichment offerings may be provided by a particular school or school district, while others are private or community programs available to students or to the general public. Enrichment may include a Greek mythology unit added to a language arts curriculum; a supplementary art history course offered at a local museum; math or science contests, such as the Westinghouse Science Talent Search; and many non-accelerative academic summer programs.

As excellent as many of these programs are, they cannot meet the needs of a student who is ready to move decisively ahead in a particular field. Acceleration cannot be replaced by enrichment.

And shouldn't many enrichment options be offered to all, not just talented, students? Opportunities for deeper learning should be made more broadly available. Nevertheless, enrichment adds an important component to talented students' learning options. ■

Suggested Reading: *The Academic Acceleration of Gifted Children*, edited by W. Thomas Southern and Eric D. Jones, Teachers College Press, 1991.

WHAT DOES THE RESEARCH SAY?

EFFECTS OF ACCELERATION ON TALENTED STUDENTS

In 1984, James A. Kulik and Chen-Lin C. Kulik published the findings of a broad meta-analysis—a “statistical analysis of a large collection of results from individual studies for the purpose of integrating the findings”

—on the effects of accelerated instruction on elementary and secondary school students.¹

According to their findings, acceleration promotes students' intellectual development. “The analysis showed that examination performance of accelerates surpassed by nearly one grade level the performance of nonaccelerates of equivalent age and intelligence. Examination scores of accelerates were equivalent to those of same-grade but older, talented nonaccelerates.”

The Kuliks' meta-analysis is peppered with references to the studies it surveys that attest to the learning benefits of acceleration. They endorse the conclusion of one researcher who stated in the late 1950s that it was “hard to find a single research study showing acceleration to be harmful and that many studies proved acceleration to be a satisfactory method of challenging able students.”

The Kuliks go on to probe the paradox of why the consistently favorable results of studies on the learning benefits of acceleration have not been taken to heart by most educators, who often resist this strategy. They refer to one analyst who suggested that North

American cultural values favor patterns of dependency in youth instead of the “social or individual need for achievement and independence.”

ADJUSTMENT

The Kuliks did not discover consistent findings on the effects of acceleration on students' social and emotional adjustment. However, in an analysis published in 1983 based on a review of the literature investigating this question, Lynn Daggett Pollins confirmed that “not one study has found acceleration to harm the social and emotional development of gifted students permanently or severely.”² ■

1. Kulik, J.A., & Kulik, C.C. (1984, Fall). Effects of accelerated instruction on students. *Review of Education Research*, 54, 409-425.

2. Pollins, L.D. (1983). The effects of acceleration on the social and emotional development of gifted students. In C.P. Benbow & J.C. Stanley (Eds.), *Academic Precocity: Aspects of Its Development*. Baltimore, MD: Johns Hopkins University Press.