

# **Beyond national borders: the Johns Hopkins University Center for Talented Youth reaching out to gifted children from throughout the world**

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The Johns Hopkins University Center for Talented Youth (CTY) is celebrating 25 years of working with gifted children both in the USA and from throughout the world. Beginning in 1979, its mission has been to identify students of exceptional academic promise and to offer them distinctive and challenging educational opportunities. More than one million young people have now been reached through CTY's talent search and program offerings. The programs and services offered to CTY students include: summer programs, distance education, civic leadership institutes, family academic conferences, awards ceremonies, diagnostic counseling and testing, research and publications. Through its offerings, CTY has reached beyond the USA and has become an international program, with students attending its summer program from almost 80 countries and enrolling in its distance education courses from 55 countries. In collaboration with colleagues from throughout the world CTY remains committed to nurturing these highly talented young people and to providing an environment where their talent can 'soar'.

## **Introduction**

'Helping talent soar' was the theme of the Johns Hopkins University Center for Talented Youth (CTY) as it celebrated its 25th Anniversary in 2004. It was hard to believe, as thousands of CTY students and their families, colleagues, donors and other supporters celebrated, that CTY had indeed come a long way since its initial beginnings. Starting with a few students in 1979, CTY has now seen over one million young people walk through its doors and has gone beyond its national borders to reach children from throughout the world. This paper will focus on the educational services CTY has offered for the past 25 years and how it has come to be a world leader in gifted education in both the national and international arena.

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Discussion will also center on the issues to be addressed and goals to be accomplished during the next 25 years of CTY.

The mission of CTY, since its founding in 1979, has been to identify students of exceptional academic promise and to offer them distinctive and challenging educational opportunities that nurture intellectual abilities, advance academic achievement and enhance personal development. More than 1,000,000 highly gifted children have been touched—emboldened to let their talents soar—by CTY’s programs and services. Students have stated that CTY has pushed their academic goals ‘to new levels’ and that ‘it is the most interesting, challenging, rewarding and amazing experience!’ CTY strives to ensure that the quality of educational programming and the ‘amazing experience’ for which CTY is noted is offered to an increasing number of students. Now in its third decade, CTY is continually expanding its outreach to students, both nationally and internationally. Despite the tremendous growth and changes CTY has undergone in its 25 years, it has remained committed to its mission. How has CTY fulfilled this mission? Let me begin by discussing how CTY identifies academically gifted students through its ‘Talent search and identification’ model and then discuss the programs and services CTY has developed to address the needs of highly gifted students.

### **The CTY talent search**

The Johns Hopkins University Center for Talented Youth is a non-profit institute that conducts the nation’s oldest and most extensive university-based academic talent search. It engages over 80,000 students in more than 12,000 schools each year. CTY focuses on the top 3% of academically able children nationwide and works with schools to identify students who score at the 97th percentile and above on standardized tests. These children are invited to participate in the CTY talent search and take above grade level tests to assess their verbal and mathematical reasoning abilities. For example, Grade 7 and 8 students take the SAT, geared for high school seniors seeking university admission. Based on their scores, students qualify for various programs offered by CTY. The majority of students in the CTY talent search (73%) are from public schools, with the other students attending private, parochial and home schools. These schools represent both urban and rural America.

Students come to CTY and to other talent search programs available in other parts of the country not only to qualify for the educational opportunities offered but, equally as important, to take tests that discern their academic abilities more specifically. With this information they and their parents can more strongly and accurately argue for their educational needs within their schools. This will often lead to more appropriate academic placement for the student.

A 1999 *USA Today* article stated that what talent searches have done

is give gifted education names, faces, and numbers. Above-level test scores speak louder than the most insistent parent. Before the talent searches, no one believed that the highest-performing middle school students could score as well as high school seniors on college entrance exams. (Briggs, 1999)

For the students who participate in the Johns Hopkins University CTY talent search CTY offers programs that provide academically challenging and innovative educational opportunities that parents seek for their gifted children and that children themselves benefit from both academically and personally.

### **CTY programs and services**

Enrolling in the CTY talent search is the gateway to participating in the many CTY programs and services. Some of these programs, such as the summer academic programs, were developed and instituted shortly after CTY began and constitute the foundation of CTY. Other aspects of the CTY, such as distance education and family academic conferences, were developed later and have experienced tremendous growth. All these programs, in addition to the ones discussed below, combine to provide a wide array of offerings for highly gifted students.

#### *Summer academic programs*

Challenging summer academic programs, offered at 23 sites from Johns Hopkins University in the eastern USA to Stanford University in the western USA, are the CTY trademark. During the 3 week sessions students study one subject in depth, from over 100 choices of mathematics, natural sciences, social sciences and humanities courses offered.

These courses cover a wide range of topics. In science, for example, they include biotechnology, neuroscience, genetics, pharmacology and toxicology, fast paced chemistry and physics, astronomy, paleobiology, oceanography and marine physics and engineering. In mathematics we offer courses such as mathematical modeling, mathematics and music, computer science, data structure and algorithms, cryptology and self-paced mathematics. In the humanities and social sciences there are courses such as ethics, existentialism, the crafting of poetry, international politics, cognitive psychology, women and US social reform, the civil rights movement and American legal history.

For our youngest students, beginning in Grade 2 (around 7 years of age) we offer courses including writing and imagination, model United Nations and advanced geography, the ancient world, inductive and deductive reasoning, an introduction to robotics, geometry and spatial sense, mathematical problem solving, ecology, dynamic Earth, flight science, through the microscope and crystals and polymers.

Each year about 10,000 students attend CTY summer programs from throughout the USA and nearly 80 countries.

#### *Distance education programs*

Currently, students from throughout the USA and 55 countries are enrolled in rigorous courses, available all year round, in writing, mathematics and science. Accelerated mathematics courses are offered at all levels from pre-primary and first grade to high-school, ranging in topics from pre-algebra and problem-solving to

Honors geometry, Honors algebra, and Honors pre-calculus with trigonometry. Writing courses are offered in topics such as crafting the essay, writing analysis and persuasion and crafting poetry and fiction. The distance education program also offers an extensive number of advanced placement courses in calculus, composition, chemistry, biology, micro- and macroeconomics, psychology, US government and physics. A mathematics program, entitled Descarte's cove, has also been developed and is being utilized by both individual students and schools. Distance education is an important way of offering CTY courses to students beyond the traditional summer programmes and certainly beyond the traditional national boundaries. With a growing number of students enrolling in these courses from throughout the world, CTY can now bring its courses to a child's doorstep, regardless of where that child lives.

In addition to distance education, another all year round educational opportunity CTY provides to its students comes as a result of CTY's partnership with over 160 universities from across the USA. These universities provide one course scholarships to CTY middle-school students to take university courses. CTY students, even at the young age of 12 and 13 years, generally excel in these courses and exemplify the ability of many gifted students to undertake work well beyond what is expected of their age group.

### *The Civic Leadership Institute*

The Civic Leadership Institute is a 3 week residential program offered every summer for high school students Grade 10 and above. It was created to instil in students a sense of civic responsibility to their communities and their nation and allows students to examine what it means to be a citizen and a leader in today's complex world. The Institute combines rigorous academic work with community service and is designed to help young people develop the leadership skills they need to make a positive impact on society. This vision for the Institute is well captured in the following quote by statesman Robert Kennedy:

You can use your enormous privilege and opportunity to seek purely private pleasure and gain. But history will judge you, and ultimately, you will judge yourself, on the extent to which you have used your gifts to enlighten and enrich the lives of your neighbors. (Kennedy, 1966)

This quote is utilized in the Civic Leadership Institute materials and exemplifies the kind of foundation CTY hopes to build for its students, who will undoubtedly be among the leaders of the next generation.

### *Family academic conferences*

Created as an opportunity for children and their parents to learn together, the CTY Department of Family Academic Conferences offers over 50 educational programs each year. These programs range from 1 day conferences to extended seminars and field trips. The one day conferences focus on special themes, such as biomedical

technology, astronomy, science and engineering and various academic and career topics. The week-long seminars feature field trips to many destinations, such as dinosaur digs in Colorado, the rain forests of Costa Rica, the Yucatan in Mexico, marine biology in Scotland and a safari in Tanzania. Thousands of parents and their children participate in these family adventures every year and appreciate the opportunity to learn together.

#### *Academic awards ceremonies*

In addition to the many types of courses which are offered by CTY, as discussed above, there are also other services and activities that are provided. The academic awards ceremonies, for example, were established to recognize and celebrate academic talent among students in our talent search. Over 60 award ceremonies are held every year for students and their families, to ensure that students understand and appreciate that their intellectual abilities are as worthy of recognition as musical talents or sports abilities.

As important as recognizing excellence in students is the recognition of excellence in teachers and administrators. Through the 'Sarah D. Barder fellows program' CTY holds an award ceremony and conference every year to recognize teachers and administrators who have done an outstanding job in education. Endowed by Sarah Barder, this program enables CTY to provide an annual opportunity for selected educators to meet for rigorous study and engaging fellowship. Over 300 teachers and administrators have been honored in the 17 years of the 'Sarah D. Barder fellows program'.

#### *The study of exceptional talent (SET)*

SET was created to help extremely talented students achieve their full potential. Since 1980 SET has assisted students from throughout the USA who exhibit extraordinary mathematical or verbal reasoning ability by scoring at least 700 on either the mathematical or verbal part of the SAT 1 before the age of 13. SET provides mentoring and counseling services to help these students find appropriately challenging academic opportunities. Through both direct contact and publications, such as the award winning *Imagine* magazine, SET continually strives to better meet the needs of these exceptional students.

#### *Diagnostic counseling and testing*

Diagnostic counseling and testing is another service provided by CTY. Students and their parents are able to receive individualized assessments and consultations for students from pre-kindergarten through college. Their goal is to help families and educators develop education plans for students on the basis of their demonstrated abilities, knowledge and interests. While their expertise is in working with gifted students and gifted students with learning disabilities, they also serve students with a variety of characteristics and needs.

*CTY research and evaluation*

Conducting research on all aspects of giftedness has been the major focus of the CTY Department of Research and Evaluation. To this end, the major themes in CTY research over the years have included: acceleration and other effective ways of meeting the educational needs of gifted students; the social and emotional adjustment and development of highly able youth; personality and learning styles of highly able students; gifted students and learning disabilities; gifted ethnic minority students; spatial ability. This research is available through published articles and papers to schools, parents and the general community. Because of the importance of ensuring continuing quality in educational programming a major focus of the research department has also been to conduct ongoing evaluation and assessment of CTY programs.

**Reflecting the face of America and the world in CTY programs**

Underlying all the programs and services CTY offers is the commitment to have a truly diverse student population and to reflect the face of America as well as the faces of the world; to truly nurture not only American students, but the children who have come from nearly 80 countries to participate in CTY programs.

In terms of America, over the past decade CTY has focused its energy and resources to expand its outreach to thousands of students who meet CTY's high academic standards but who cannot afford to attend CTY programs without financial assistance. It is an inherent part of CTY's mission that all children who qualify for CTY programs will be able to participate, a vision grounded in Thomas Jefferson's famous observation that:

By ... [selecting] the youths of genius from among the classes of the poor, we hope to avail the State of those talents which nature has sown as liberally among the poor as the rich, but which perish without use if not sought for and cultivated. (Jefferson, 1782: 1999)

How does CTY ensure that its programs are accessible to economically disadvantaged children? First, that goal became part of the core mission, that all children who qualified for CTY would be able to attend its programs regardless of ability to pay. And then CTY began to work earnestly on achieving that goal through increased outreach and increased financial assistance.

In the USA, reflecting the face of America means ensuring that students from both majority and minority populations are able to attend CTY programs, particularly African-American, Latino and American Indian students who are too often under-represented in gifted education programs. CTY is utilizing two approaches to recruit economically disadvantaged and under-represented students. One is intensified recruiting in both urban and rural areas to find under-served students who are already scoring high on standardized tests but who have not been previously identified to participate in gifted programs. Once students are identified, CTY provides scholarships to those who are financially disadvantaged so that they can attend CTY summer programs. Thousands of economically disadvantaged students

across the country, from Los Angeles to Baltimore and from San Francisco to New York, have benefited from these initiatives. In partnership with foundations such as The Goldman Sachs Foundation, the Geraldine R. Dodge Foundation and other generous donors who share similar goals, CTY has increased the participation of African-American, Latino and American Indian students from less than 1% of students in 1998 to over 12% this year, an increase from a few hundred minority students to several thousand. During this same period scholarships awarded to economically disadvantaged children from all segments of the population have increased 10-fold.

Secondly, CTY does not just work to identify students who are already able to meet CTY criteria, but also to develop students with potential but who have been limited because of poor resources and other gaps in their education. Through the CTY Preparatory Academy these promising students receive intensive instruction in mathematics, the sciences and language arts. This enables them to successfully compete with other well-prepared students in order to enter top ranking universities. As illustrated by the following quotes, CTY is making a positive difference in the lives of many highly talented and deserving young students:

Your generosity and faith have changed my life and the lives of hundreds of kids like me across the country. Now my future looks brighter than ever before. ... Thank you from the very bottom of my heart for your generosity, your support, and above all, for your faith in me and in the dreams that you are entrusting me to make a reality. (CTY student<sup>1</sup>)

The comments of CTY students such as this, who come from impoverished inner city schools and communities across America to our university sites every summer, make us realize why we must reflect the face of America in gifted education programs and recruit diverse students of all backgrounds. The talent is there and we need to ensure that it is nurtured if we are to benefit these children, their communities and our nation.

### **CTY International**

CTY remains as committed to inclusion on an international scale as it is on a national level. As stated previously, CTY enrolls students from almost 80 countries in its summer programs and students from 55 countries participate in its distance education courses. To continue this outreach and to nurture collaborative efforts CTY International was formed to foster both formal and informal relationships with colleagues in other countries. Countries are recognizing that their highly talented children are indeed a national resource and treasure that must be nurtured for the good of the child and of their nation.

From its contributions to international conferences on education to the establishment of academic programs in other countries, CTY has worked extensively with schools, educators, parents and students from around the world. In the mid 1990s CTY founded CTY International, with CTY Ireland and CTY Spain serving as charter members. CTY Bermuda has now been established as well. Members of CTY International are united by a common vision to help academically talented

students strive for excellence by developing and implementing academic programs with their abilities in mind. Some of the principles guiding CTY International include: to enhance rigorous and challenging educational course work with a social experience that encourages the development of a well-rounded individual; to incorporate evaluation and accountability as essential components of all education efforts; to share information and conduct joint research projects that produce comparable databases for cross-cultural studies.

CTY receives delegations from many countries who come to visit and to learn about how similar programs can be established in their own countries. Both formal and informal collaborations and conversations have begun with England, Thailand, Korea, China, Brazil, Mexico and India. Through CTY International CTY is committed to providing a forum where educators can discuss issues of common concern. This ongoing dialogue will hopefully lead to a greater understanding and commitment to the educational needs of exceptional young people from around the world.

### **The advantages of attending programs like CTY**

Why has the Johns Hopkins Center for Talented Youth made such a long and intensive effort to create programs for students of high ability? What are the advantages of attending programs like CTY for these students? CTY was created to address an unmet need and its growth is indicative of the fact that many students and their parents also felt there was a void in meeting the needs of gifted students.

There are undoubtedly fundamental advantages to providing educational opportunities geared to gifted children. Certainly, first and foremost is that these students seek out and thrive on academically challenging and rigorous coursework. Second, by assessing student's intellectual capabilities, parents are better able to argue for their children's academic needs in their regular school environment. Third, students state that CTY courses prepare them well for more rigorous courses in their schools. Also, after attending a CTY summer course in mathematics and/or science the majority of students were appropriately placed in an advanced level course at their home school and were also more likely to enroll on advanced placement courses. Students feel that acceleration of courses results in increased interest and an increased challenge for them.

CTY prides itself on offering students opportunities for personal and social growth as well as academic and intellectual growth. The majority of students report a social benefit from taking a CTY summer course with other academically talented students and many of them maintain long-distance relationships with each other. CTY strives to achieve a balanced, positive, nurturing environment for all students who attend CTY.

### **What makes CTY unique?**

In addition to offering courses and other educational opportunities for gifted children, CTY also takes seriously its responsibility to argue for gifted children and



to dispel stereotypes about them that abound in the national media and popular culture. For example, a prominent stereotype is that gifted children are beset with emotional and psychological problems.

This stereotype persists, despite the early Terman study, begun in 1921, which followed 1000 gifted individuals throughout their lives. Among other things, the study investigated emotional and mental problems in the study group. The findings determined that there was no greater incidence of emotional instability or psychological problems among the very bright than in the general population; in fact, there was less (Terman, 1930).

Similarly, in the CTY summer programs we enroll over 10,000 children each summer and work closely with them for 3 weeks. Contrary to stereotypical portrayals, they are a remarkably well-adjusted group. Among our students there are swimmers and soccer players and dancers and musicians. One of the teachers in our program summed it up by saying ‘They are normal children, they just have wonderful brains’.

### **Why is the work that CTY does important?**

Since the late 1960s there has been a national decrease in the USA in programs for high ability students. One of the first major reports to discuss this issue was the Marland Report, issued in the 1970s. The report stated:

Disturbingly, research has confirmed that many talented children perform far below their intellectual potential. We are increasingly being stripped of the comfortable notion that a bright mind will make its own way. Intellectual and creative talent cannot survive educational neglect and apathy. (Marland, 1972)

Additionally, the 1983 report *A nation at risk* was a serious and well-publicized warning about the declining state of public education for all students, including the gifted. Ten years later the report *National excellence: a case for developing America’s talent* found that while the number of states mandating programs for gifted children rose from seven to 50, many of the states did not fund the mandates. This report was also critical of our continuing under-service of bright children, calling it education’s ‘quiet crisis’.

The United States is squandering one of its most precious resources—the gifts, talents, and high interests of many of its students. ... In a broad range of intellectual and artistic endeavors, these youngsters are not challenged to do their best work. (US Department of Education, 1993)

The 1999 report *Reaching the top* also echoed these concerns, particularly when it comes to minority students, and asked the question ‘What is the most important educational challenge for the United States? Many would say that it is eliminating, once and for all, the still large education achievement gaps among the nation’s racial and ethnic groups’ (The College Board, 1999).

In meeting with colleagues from around the world it seems these concerns regarding their own student populations are all too familiar in many other countries as well. That is why it is so important for programs such as CTY to offer the courses

that they do. Sometimes they are supplementary to what schools offer, but too often they are the only academically challenging and enriching programs to which gifted students have access.

Children with abilities in any area like to be able to use their talents and in many areas we support efforts to build proficiency. A child who excels at the violin gets concentrated help in that area. A young soccer star can join the travel team and get recognition and support. Research by the scholar K. Anders Ericsson has shown that 'on the average, elite musicians have spent over 10,000 hours in solitary practice before the age of 20' (Ericsson *et al.*, 1993).

Yet, although we often nurture a student's musical or athletic ability by focused instruction on that single subject, when it comes time for us to help students make the most of their academic abilities we fall short in the USA, and most likely in other countries as well, in ensuring that high academic ability is also nurtured and supported. We tell bright students they need their character developed or their messy handwriting cleaned up or we tell them they can't take another course ahead in mathematics because they'll get too far ahead of the rest of their class or, sometimes, we deny outright their abilities altogether, sloughing off high marks on standardized tests with the words 'she just tests well'. Worse yet, we assume that if they are smart they are going to achieve anyway, without realizing that we are putting their achievement at jeopardy by failing to help them reach their full potential, failing to help 'their talent soar'.

Twenty years ago there were even greater fixed assumptions about supposed top levels of student ability that were, in fact, limiters to true student potential. When CTY found, at that time, students younger than 13 who could achieve scores of 700 or greater on the mathematics portion of the SAT that feat on the part of students was hard to argue with and led to some schools becoming more flexible in allowing these students to take upper level courses or even courses at nearby universities. For 25 years CTY has worked to remove the barriers that presume limits of intellectual capacities based upon age or grade level and has enabled students to reach beyond and to exceed the traditional expectations.

In partnership with other university talent searches, both in the USA and abroad, CTY will continue to offer and to expand the opportunities available to gifted children. We believe that when we raise the bar for gifted children in our schools we raise it for all children and thus enable children of all backgrounds and capabilities to benefit and to achieve at greater levels.

### **Our vision for the future**

CTY staff have contributed to this volume to share what we have accomplished and learned during these past 25 years and what we hope to accomplish and learn in the next 25 years. Uppermost in our minds is the desire to continue to establish partnerships with those who share the same vision: the commitment to reaching the tremendous young talent that is in all of our neighborhoods, from urban metropolitan areas to the suburbs to rural communities.

CTY believes, with many who weigh America's future, that all of its brightest children will be needed to secure this nation's promise for its citizens. It is clear, in speaking to our international colleagues, that many other countries are also recognizing the valuable national treasure that these gifted young people represent for their nation's future. It is equally clear that the responsibility rests on us all to seek ways to nurture this talent and to help talent soar in every child. We must create the environment that encourages this to happen and that John Stuart Mill referred to when he stated: 'Persons of genius, it is true, are a small minority, but in order to have them, it is necessary to preserve the soil in which they grow' (Mill, 1859).

Seeking students with high academic talent and nurturing this talent through academically challenging, inspiring and innovative courses is what the Johns Hopkins University Center for Talented Youth has striven to do for 25 years. When you look at the calibre of students who enroll every year in CTY programs, at their talents and capabilities, one cannot help but be optimistic about the future. We work with the students who will help shape our nation's future and the future of the many nations they represent. They are a very impressive group of talented young people and, as Dr William Brody, the President of Johns Hopkins University stated, they are the young students 'who must prepare themselves to solve the questions that have yet to be asked' (Brody, 1999).

CTY is proud and honored to have played a role in the academic preparation and the intellectual and personal development of hundreds of thousands of gifted children and remains committed to continuing to do so in the future. We remain committed because we continue to be inspired in our work by the words of the CTY students themselves:

Have you ever had a miracle happen to you?

CTY has opened my eyes to a world of education, fun, independence, and everlasting memories. You have made a profound difference in my life.

## **Note**

1. CTY students quoted are unnamed for privacy purposes.

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