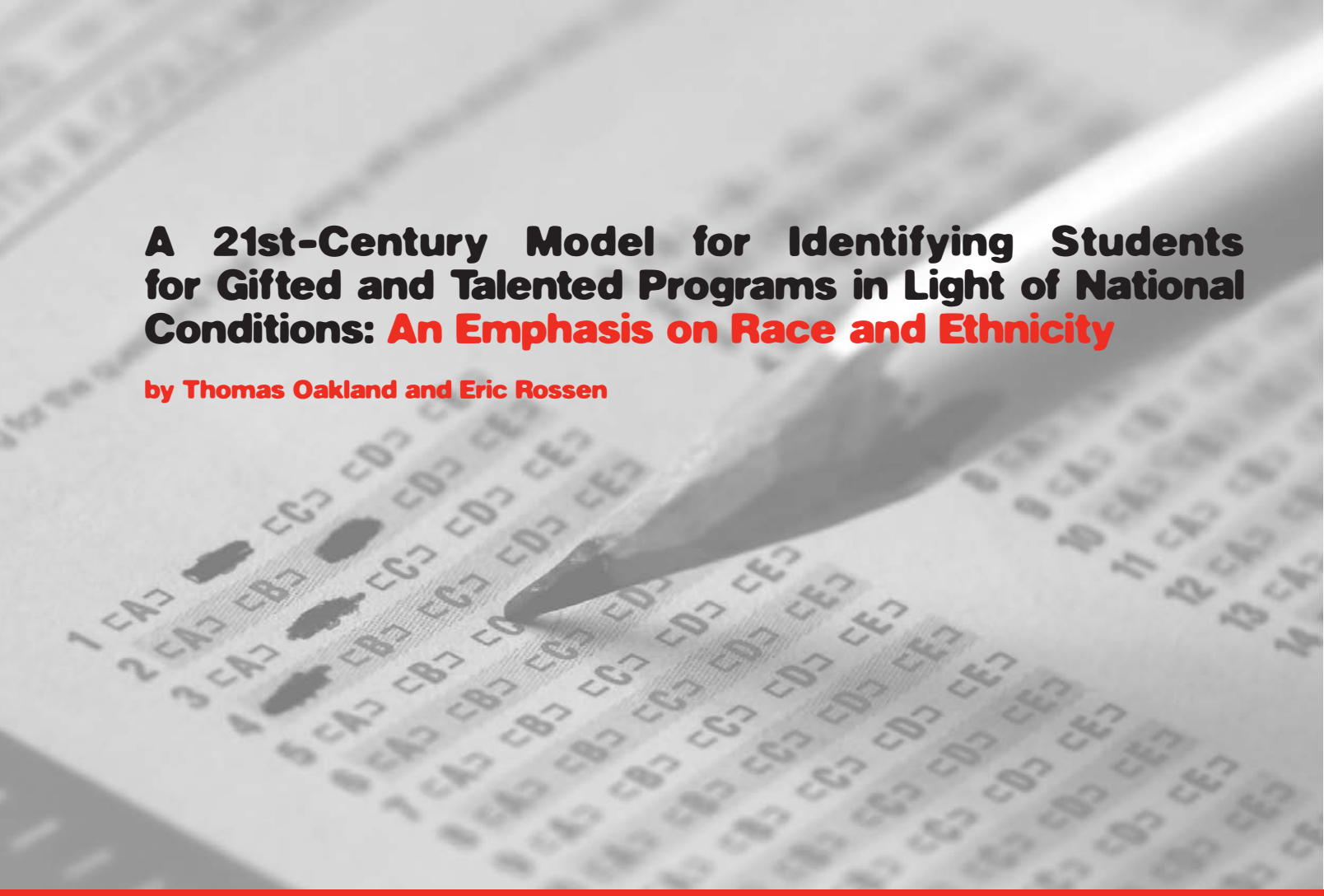

A 21st-Century Model for Identifying Students for Gifted and Talented Programs in Light of National Conditions: An Emphasis on Race and Ethnicity

by Thomas Oakland and Eric Rossen

Schools began providing services for gifted and talented (GT) students in the 1860s (DeLeon & VandenBox, 1985). However, GT programs in public schools did not become common in the United States (U.S.) until about 100 years later. Terman's (1925) scholarship helped establish standards for GT programs when he identified intelligence as an important, perhaps the most important, marker of gifted students, and he suggested they should score among the top 2% on nationally standardized intelligence tests. These standards for identification continue in many locations. For example, 73% of school districts rely on standardized measures of cognitive abilities when identifying GT students (Heward, 2000).

GT programs are intended for students who display exceptional qualities, whose needs are not sufficiently served in regular education programs, and are likely to benefit from special education and related services. Although GT programs presumably are intended to meet students' needs, support for the programs is highly dependent on whether they meet local, state, and national needs.

The federal government highlighted the importance of educating GT children following the Soviet Union's launch of its first satellite in 1957. Congress passed and the President implemented the National Defense Education Act (NDEA) in an effort to educate exceptional students for the purpose of closing the gap between the Soviet Union and U.S. in science and technology. Prior to the Act's ratification, only six states had legislation addressing the needs of GT students. With NDEA funding, services for GT students reached an all time high and were found in all states (DeLeon & VandenBox, 1985).

Legal Basis for GT Programs

The federal government has offered several definitions for GT students. The Marland Report (Marland, 1972) may have had the most influence on GT programs (Bireley, 1995). It listed six qualities that often are cited as options for GT programs: general intellectual abilities, specific academic aptitudes, cre-

ative or productive thinking, leadership ability, ability in visual or performing arts, and psychomotor abilities. A 1998 survey found a number of states omitted the psychomotor abilities category in their definition (Shaunessy, 2003).

The Javits Act (1988), derived from the Elementary and Secondary Education Act, underscored the importance of *"high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity,* or in specific academic fields" (National Association for Gifted Children, 2004).

The most current definition (USDE, 1993) significantly broadens the scope of GT programs and is intended to embrace more students of color and those from low-income families.

Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capacity in intellectual, creative, and/or artistic areas, and unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor (USDE, 1993).

Its emphasis on *potential* and *capacity for performing at remarkably high levels* together with the expectation that *children and youth from all cultural groups and across all economic strata* will be included in GT programs underscores the desire of the federal government to be more responsive to the needs of minority, impoverished, and otherwise at-risk students. Note that no federal definition requires the use of national norms when selecting GT students for GT programs.

Education is largely a state function. Thus, federal definitions may be adapted by individual states, resulting in differences in state definitions (Shaunessy, 2003).

Current Status of Programs for GT Students

An estimated 81% of school districts in the United States (currently) offer GT services (Mansfield & Farris, 1992). Approximately 37 states currently have legislation for GT education, while only 26 states have full or partial mandates to serve GT students (Information Center on Disabilities and Gifted Education, 2002). Although the process used to identify GT students may differ somewhat between school districts, it typically relies on GT committees composed of teachers, counselors, and administrators to establish both the process and standards for GT identification. Although some school districts identify students in kindergarten, most initially identify students in grades 2 through 4.

The process initially depends heavily on teachers nominating students they believe have not been served sufficiently in regular education programs and who are likely to benefit from special education and related services. Parents and peers also may be invited to participate in this nomination process. GT committees typically consider existing data (e.g., class grades, work samples, teacher reports) and collect additional information on the nominees (e.g., from measures of intelligence, achievement, creativity, leadership, and/or performing and visual arts) before making their selections (Heward, 2000).

Changes within the U.S., including its public education system, challenge the manner in which districts offer GT services. Issues pertaining to possible program changes are discussed below.

Race/Ethnicity and Social Class

The U.S. is a nation composed largely of immigrants or their ancestors. People from more than 220 countries reside temporarily or permanently here. Immigration continues, with more than 15% of the U.S. population having entered the country within the last 10 years (United States Census Bureau, 2001a, 2001b).

In many nations, students from middle class homes generally attend private schools, and students from lower class homes generally attend public schools. In contrast, the U.S. strives to have its public school system serve students from every class and race/ethnicity. The proportion of a school district's resources provided to students who differ by social class, race/ethnicity, and thus by educational need has been used as an index of its commitment to this important principle. Black and Hispanic students generally have received a smaller portion of resources devoted to GT education than others.

Students from most minority groups typically are underrepresented in GT programs. When examined in closer detail, we find that, compared to White students, Asian/Pacific Islanders are one third more likely to be in GT programs, while Blacks and Hispanics are less than half as likely to be in such programs (National

Research Council, 2002). More specifically, approximately 7.5% and 10% of White and Asian students respectively are identified for placement in gifted programs. However, approximately 3% and 3.5% of Black and Hispanic students are identified as gifted (Information Center on Disabilities and Gifted Education, 2003). Thus, the proportion of students receiving GT services is inconsistent with current national population distributions and their trends. The relatively small percent of Black and Hispanic students engaged in GT programs is a concern to educators and others nationally (National Research Council, 2002).

Possible Causes for Racial/Ethnic Disparities

The lower percentage of Black and Hispanic students in GT programs is due to multiple causes, including failure to be nominated, the grade in which students first are nominated, the qualities that constitute the GT program, information considered during the screening process, and the use of national norms. These five issues are reviewed below.

Failure to Be Nominated

The nomination process has a significant impact on disproportionate representation. Those not nominated typically are not considered by the GT committee and thus are not eligible for GT programs.

Teachers have the most contact with students, are most knowledgeable about them, and typically can provide more comprehensive information about student performance than that obtainable from other sources (Feldhusen & Heller, 1986). Teachers' knowledge of students' achievement is especially keen.

Although teachers serve as an invaluable resource, they may not be properly engaged in the nominating process (Ford, 1996) and may be biased when estimating academic potential among students who differ by race/ethnicity (National Research Council, 2002). Moreover, teachers who serve the poorest students may be the least qualified (Associated Press, 2004). Exclusive reliance on teacher nominations may contribute to underrepresentation of minority students. Reliance on parents of minority children also may have its limitations in that their referral rates are lower than those of White parents (National Research Council, 2002). A process that allows self- and peer-nominations helps broaden the nominated pool somewhat.

The Grade in Which the Nomination Process Begins

The grade in which students first are nominated also may impact the number of minority students nominated for and thus included in GT programs. More minority students are identified when the identification process focuses on students in the lower grades than in the higher grades (National Research Council, 2002). This seemingly holds true whether standardized tests or checklists based on personal characteristics are used.

Qualities That Constitute the GT Program

Tests of intelligence are used widely to screen GT students. Data from these tests generally display reliable and measurable racial-ethnic differences (Herrnstein & Murray, 1994; National Research Council, 2002; Shore, Cornell, Robinson, & Ward, 1991), with Blacks and Hispanics scoring lower than Asian/Pacific Islanders and Whites (Jensen, 1980; Sattler, 2001). As a result, programs that prioritize intellectual abilities and rely heavily on intelligence test data are likely to have fewer Black and Hispanic students than those that focus on other qualities (Ford, 1996). Nomination methods based on specific educational needs seemingly lead to greater racial-ethnic equity (National Research Council, 2002).

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Qualities That Are Screened

Once nominated, students typically are examined in some detail. Ideally, the identification process mirrors the activities and goals of the GT program (Ford, 1996).

The screening process often relies heavily on intelligence test data. Intelligence and achievement test data correlate highly and thus are used in GT programs to assist in identifying able students. The correlation between intelligence and achievement is approximately .50 (Sattler, 2001). Thus, approximately 25% of the variance associated with achievement is attributable to intelli-

gence. This figure, 25%, although substantial, indicates 75% of the variance associated with achievement is attributable to qualities other than intelligence. Moreover, measures of intelligence provide little direct information about one's passion for learning, persistence, learning styles and strategies, and other qualities that may contribute to academic success.

In that intelligence test data tend to be lower for Black and Hispanic students, reliance on them may preclude otherwise qualified students from being selected for GT programs (Rosenfield, 1983). Thus, the use of a broader set of data-gathering methods (e.g., information from students, their parents, and peers acquired through interviews, checklists, behavioral observations, and measures of classroom performance) that focus on interactions among intellectual abilities, task commitment, and creativity (Renzulli, 1978), special abilities, nonintellective qualities, environmental conditions (Tannenbaum, 1983), and on exceptional problem-solving skills (Maker, 1993; Sternberg, 1988) may be needed when identifying minority students (Boatman, Davis, & Benbow, 1995). We also need to recognize the best predictor of future performance is prior performance on a similar task (Sattler, 2001). Thus, future academic attainment is best predicted from information on past and current academic attainment.

Use of National Norms

The use of national norms for selecting students for GT programs assumes students' qualities are normally distributed and somewhat equally represented throughout our states and cities. This assumption is untenable. States and cities differ in scholastic performance and the qualities students bring to schools. Substantial differences in achievement exist between states, presumably due to such qualities as differences in race, social class, school resources, and curriculum (Lee, 1998).

For example, scores from the Scholastic Ability Test are considerably higher in some states (e.g., North Dakota and Iowa) than in others (e.g., Georgia and South Carolina; National Center for Education Statistics, 2001). Students in some states (e.g., Hawaii and Mississippi) read at significantly lower levels than those in other states (e.g., Connecticut and New Hampshire; NAEP, 2001). Furthermore, achievement tends to be higher in suburban than in inner-city schools.

Teachers base their instructional activities on classroom and school norms, not on national norms. For example, those teaching lower achieving students generally modify their activities by providing a less rigorous curriculum and slower paced instruction, as well as establishing lower academic standards in light of classroom norms. Students who display a passion for learning and high achievement are not served well in these classrooms and thus are likely to need a GT program.

Programs for GT students are intended for students whose needs are not sufficiently served in the district's regular education programs and who may benefit from related services provided through local resources. In that considerable differences exist nationally in the rigor of schools' curricula and students' academic attainment, effective GT programs develop policies and practices based on local conditions. States and cities that have large numbers of lower performing students often adjust their criteria for admission into GT programs, knowing that their more able students are not well served in many regular education classes. The use of lower cut scores is one method to adjust national norms to better reflect location conditions. For example, cities that have large numbers of low performing students may establish lower cut scores on intelligence test data for GT program entrance (e.g., the 84th percentile rather than the 97th or 98th percentiles). Thus, for them, the use of local rather than national standards is more viable.

A Focus on Public Education in the 21st Century and Implications for GT Education

As a publicly supported institution, public education is expected to respond to high priority public needs at all levels of government. At the federal level, the President and Congress expressed their clear support for improving students' academic development, initially in reading and later in mathematics and science, through the No Child Left Behind Act (NCLB; 2001). The driving force behind the NCLB and the NDEA is similar: to help ensure our country's future.

Student achievement is lower in the United States than in many other industrialized countries (Organisation for Economic Co-operation and Development, 2003). This poses a threat to our nation's future and leads to a clarion call for swift and decisive action to address this problem. While the NDEA was intended to develop talent needed to combat the Soviet threat, the NCLB is intended to develop talent needed to maintain our

competitive edge internationally in education, science, technology, and the military and to create an educated workforce that will ensure good domestic jobs. Thus, GT programs that support federal education efforts under the NCLB by helping to develop high levels of achievement among our most able students are needed.

The demographic nature of our nation's student population is changing. Students increasingly are more likely to be minority, especially Hispanic, and to come from lower income families (United States Census Bureau, 2001a, 2001b). These changes may foretell lower levels of academic achievement among students in light of well-established group differences in intellectual and academic abilities (Herrnstein & Murray, 1994; Jensen, 1980).

Educators are dedicated to the principle that quality education programs can materially improve achievement. There is support for the belief that the combination of a class of passionate learners engaged in a challenging and enriched curriculum presented by dedicated teachers who utilize appealing instructional methods results in high levels of achievement (Darling-Hammond, 2000). Programs for GT students are needed to help improve achievement among Black and Hispanic students, especially those who are educated alongside low achieving peers.

The need to be competitive educationally also is important at state and local levels. States and cities often develop a reputation based on the quality of their education as seen in student achievement. Locations known for their academic excellence develop a positive reputation and are better able to attract and keep industries that require an educated work force and thus high wage earners. In contrast, states and cities with prevailing low student achievement are likely to have higher levels of unemployment and a lower paid workforce. Their jobs increasingly are being outsourced and performed by those working in low-income countries. The development of GT programs by state and local education agencies can help by providing a well-educated labor force for local needs and creating a magnet that attracts quality industry.

Implications for GT Programs in the 21st Century

The promotion of students' academic and civic development, as well as regular school attendance constitutes education's prevailing goals. Among the three, the importance of promoting students' academic development has been highlighted by the NCLB. Virtually every state and school district is committed to making the goals of the NCLB a reality.

The NCLB redefines the federal role in K–12 education. Its broad goal is to close the achievement gap between low and high achieving (e.g., minority and majority) students while helping all students reach higher state-approved academic standards through the following four reform principles: research-based reforms, accountability for results, flexibility and increased local control, and expanded parent options and education.

The NCLB requires states to develop high academic standards along with annually administered academic assessments aligned with these standards. The assessments are to provide multiple, current, reliable, and valid data for use in evaluating whether these standards are being met at state, school district, individual school, and individual student levels. The academic performance of minority students is receiving close attention.

While the act does not address GT programs directly, its implications for GT programs are clear. All programs within a school district can be expected to help support the NCLB's goal to demonstrate annual yearly progress in students' achievement. Due to budget constraints, school districts are downsizing, even eliminating programs, including GT programs that do not support their major goals. Thus, to survive, GT programs may need to emphasize achievement and to de-emphasize intellectual ability, creativity, leadership, and/or performing and visual arts. The strongest advocacy for GT programs may be found in aligning them with more prevailing school programs (e.g., NCLB).

Intelligence also is likely to be de-emphasized because it is somewhat tangential to achievement and highlights racial/ethnic differences. Moreover, in part because of a heightened interest in achievement, the program's description together with methods for nominating and screening are likely to focus more on achievement, and local norms will be used to select students.

Program Description

The GT program should state its goals clearly and develop nomination, screening, and selection processes that reflect its program goals. For example, a GT program that has advanced levels of achievement as its goal, initially in reading and later in math and science, should develop nomination, screening, and selection methods that

help ensure the identification of students who currently are not well served academically in regular education, who need special education and related services, and have the ability to benefit from a GT program's curricula and instructional methods.

Nominations

Given a district's focus on achievement, its nomination process must help identify students who are not well served in regular education and need special education and related services. Reading is likely to be prioritized first while math and science will follow. A nomination process that first informs, then educates, and then encourages teachers, parents, and students to become engaged is likely to identify students who constitute a pool who deserve greater scrutiny through screening. Moreover, the nomination process should begin as early as feasible and no later than the second grade.

Screening

The best predictor of future academic success is one's past and current level of success. Thus, students' achievement should be screened closely. Additionally, qualities associated with achievement also should be screened, including students' passion for learning, persistence, dedication, and self-discipline.

Norms

We are likely to see a decided movement away from national norms and toward the use of local norms. For example, local norms have been developed using curriculum-based measures and pre-literacy skills from Dynamic Indicators of Basic Early Literacy Skills (Stewart & Kaminski, 2002). Nationally normed achievement measures have two possible limitations: They may assess skills and abilities inconsistent with a school's curriculum, and they inform test users about how students compare to peers nationally, not their peers locally. Unless a school's curriculum is consistent with the test content and the school's population is representative of the nation, the test information may be inadequate, even invalid.

GT programs are most likely to survive, even flourish, when they help support prevailing broader education efforts, including the promotion of achievement in light of the NCLB.

Local norms may provide more accurate information when GT committees are committed to identifying students who have not been served sufficiently in regular education programs and who are likely to benefit from special education and related services. Local norms provide more accurate information about how students are performing within their own curriculum compared to their peers locally. Attempts to make local decisions based upon national comparisons should be questioned when a district's characteristics differ from prevailing national characteristics.

Local norms are likely to better predict success within a curriculum when making educational decisions for students in a district that is culturally/linguistically different (Kamphaus & Lozano, 1984) and may decrease the likelihood of bias when making educational decisions (Stewart & Kaminski, 2002). Although the development of local norms may require additional time and resources, their value is thought to outweigh their costs. Furthermore, various references exist to assist in their development (Habadank, 1995; Kaminski & Good, 1998; Stewart & Kaminski). Steps for their calculation are outlined in Table 1 on page 63.

Conclusions

GT programs are most likely to survive, even flourish, when they help support prevailing broader education efforts, including the promotion of achievement in light of the NCLB. Furthermore, effective GT programs develop policies and practices based on local conditions. Thus, efforts are needed that focus more on achievement and less on intelligence, leadership and/or the performing and visual arts. Given a stronger emphasis on achievement, existing methods used to nominate and screen students for GT programs should be reviewed and may need to be revised. Additionally, the use of local norms is likely to better serve many districts. GCT

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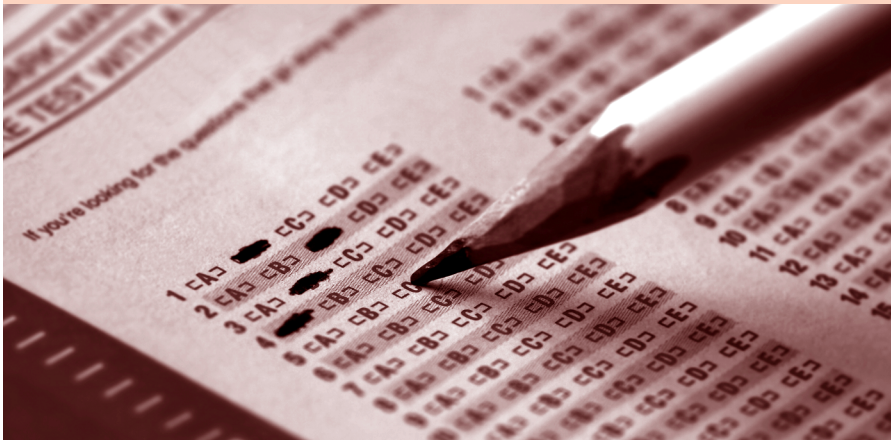
Table 1
Steps to the Development of Local Norms

1. Administer a test to a sample of 100 or more students.
2. Record the test scores.
3. Calculate the number (i.e., frequency) of students who obtained each possible score.
4. Calculate the cumulative frequency (a running total) of students who obtain each score.
5. Calculate the cumulative percentage of students who obtain each score by dividing the cumulative frequency by the total number of examinees, then multiplying by 100.
6. Calculate the percentile corresponding to each test score by subtracting the cumulative percentage from 100, then rounding to the nearest integer.

For additional assistance, visit
http://www.psionline.com/
howto_develop_norms.htm



continued from page 37

their problem-solving skills. With careful planning and facilitation, the rewards extend beyond the prizes given to first-place winners. Teachers, their students, and competition sponsors can benefit. The greatest outcomes, however, might be for the world of tomorrow, as students grapple with authentic problems faced today. Their solutions can make a difference! GCT

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