



## **Closing the Achievement Gap Building Academic Capacity Through Collaboration, Competition and Study: The LA<sup>2</sup> Tenacity Challenge**

*“Can you tell us what the topics are for next year. I want to go home and start studying right away....” -Tenacity Challenge Contestant, 2012*

*“One thing we do know, however, is that many high-achieving students from all racial and ethnic groups are beneficiaries of extensive formal and informal supplementary educational opportunities over time, many of which are provided directly or paid for by their parents. We also know that some of the most academically successful groups in our society have created a network of supplementary opportunities for their children that might best be described as a parallel educational system.”(College Board, 1999, Project Excite)*

### **Abstract**

The Achievement Gap is a suburban as well as an urban phenomenon, and its causes can be found in both the structural inequalities that deprive urban schools of sufficient resources and in the attitudes of teachers and students alike. The LA<sup>2</sup> Tenacity Challenge brings together urban and suburban Latino and African-American students in an extended process of academic preparation that culminates in a team-based day-long scholarship competition, and in doing so, increases academic capacity and promotes a culture of achievement in participating urban and suburban schools. In unique and powerful ways, the LA<sup>2</sup> Tenacity Challenge incorporates many of the achievement gap remedies that have been advanced by researchers during the past fifteen years, including cooperative learning, strong faculty relationships, meaningful, engaging content, college readiness focus, and scholarship incentive. It presents a model whose impact is growing locally, and which lays the foundation for both regional and national expansion or for regional replication. Because of the low cost/broad impact ratio and the multidimensional nature of its approach, the Tenacity Challenge presents a unique opportunity for funders to make a difference in both urban and suburban schools.

### **The Tenacity Challenge**

The Tenacity Challenge brings together urban and suburban Latino and African-American students in an extended process of academic preparation that culminates in a team-based day-long scholarship competition, and in doing so, increases academic capacity and promotes a culture of achievement in participating urban and suburban schools.

As a team-based competition, the Tenacity Challenge facilitates the development of cooperative learning experiences and lays the foundation for ongoing peer support as these relationships extend into students' normal courses of study. By including four events in five different academic areas: literature, history/social science, math/science and art, the competition draws on students' diverse strengths and interests. By focusing on Latino and African-American history and culture, the literature and history events strengthen the students' positive ethnic identities and the participating faculty's cultural proficiency, two developments that contribute to achievement gap closing efforts. By explicitly including SAT questions in the math event and by framing the competition as a merit "scholarship" opportunity, the Tenacity Challenge enhances the development of students' "college possible" selves, an important aspect of the work being done to bridge the gap between college aspirations and college attainment for many Latino and African-American students.

The multi-month-long preparation process is conceived to be as important if not more important than the competition itself, as students commit to extensive academic preparation beyond the demands of their regular coursework. Participating students establish new and meaningful relationships with faculty members who volunteer to help students through the preparation process by meeting with them weekly to review physics, math, English and social studies material. As the news of the competition builds from year to year and students experience the competitive atmosphere and the high level of competitive performance of the other teams, we expect that new students will be drawn to the process and returning students will redouble their efforts to prepare.

The competition itself involves a Saturday-long experience of being with, meeting and competing with Latino and African-American peers who have similarly committed to prepare for the academic events. The day is divided into the four events, with a midday lunch and guest speaker/professor of color from a neighboring university, and culminating in the scholarship awarding ceremony. The four events include an artistic banner, an essay/literature prompt, a digitally recorded oral history/social science argument, and a math/science quiz bowl. There are team medal and trophy winners of each individual event, and team winners of the overall event, with the latter receiving scholarships: each of the six members of the winning team earns a \$500 scholarship; second place winners earn \$300 scholarships each; and third place winner \$200.

*One of the greatest determinants of a student's success is an internal drive, a tenaciousness that compels one to strive toward ever greater feats of accomplishments. The Tenacity Challenge, through its rigorous structure and emphasis on collaboration, is an incubator for this type of determination by helping students to see that they can be successful doing difficult work. I have never before seen so many students excited about math and science or the research they are doing for their Social Studies argument. I have noticed quite a substantial change in students who participated in last year's challenge. They are much more motivated to do well in school and hold themselves to a much higher standard of academic performance. These fantastic outcomes will not only help them do well in school, but they will also help them succeed in life. -Dr. Percy Napier, METCO Director (Boston Metropolitan Busing Desegregation Program), Bedford High School*



### **The Achievement Gap: Urban and Suburban**

The achievement gap between Latino and African-American students and their White counterparts persists in both urban and suburban districts. Both No Child Left Behind and Race to the Top both have as core goals the closing of achievement gaps. The National Assessment of Educational Progress (NAEP) delineates the gaps both between Whites and Hispanics and between Whites and African-Americans in two major reports based upon reading and math tests in 2009. While the gap between White and Hispanic students narrowed for 8<sup>th</sup> graders between 2003 and 2009 it remains in the 20 point range for both reading and math, a difference equal to about two grade levels. (IES, National Center for Education Statistics) Similarly, while Black and White students scored higher in 2007 than in any previous year in 4<sup>th</sup> and 8<sup>th</sup> grade math and reading, and contributed to a narrowing of gaps in a number of states. However, White students still scored on average 26 points higher in both subject areas. (IES, National Center for Education Statistics) In a review of the research on Black male students, the National Education Association found that a much higher proportion of Black males, as opposed to their White counterparts, were placed in special education, suspended from school, or dropped out of high school or college. (NEA, Educating Black Boys) At the high school level, while African-American and Latino students showed the greatest increase in credit hours, fewer than 10% participate in advanced courses.(EdWeek, July, 2011)

While a great deal of research (Blanchett, English, Talbert-Johnson) has examined the existence of the achievement gap in urban settings, only in the past ten years has its presence in suburban, mixed race schools been clearly documented. (Ferguson 2002, Ogbu 2003) While some of the disparities contributing to achievement gap, like the unequal distribution of resources and of high quality teachers across different groups (the US ranks 42 out of 45 nations in this regard) (EdWeek, July, 2011), gaps persist in middle class suburban districts as well.(Johnston and Viadero 2000- as cited in The Achievement Gap, Issues of Competition, Class and Race in Education and Urban Society, Hunter and Bartee) (Ferguson, 2002) and across income levels (Chandler, 2008). While researchers of achievement gaps in suburban district do not discount economic

differences (Ferguson, 2002), which may account for half of the problem (Ferguson, 2002) since significant economic disparities persist even in middle class communities, much of the research points to cultural or sociological factors as well. In these and other studies, school-based and home-based factors were found to be principally responsible for these gaps and point to measures that can be taken to impact student achievement.

### **Multiple Factors**

The factors contributing to the persistence of gaps are myriad and varied, ranging from systemic, structural inequalities in the delivery of schooling, including the distribution of high quality teachers (Viadaro and Johnston 2000, Borman 2005), to the pervasive impact of poverty (Ladson-Billings 2012 check ), to teacher attitudes and expectations disparities (D'Amico 2001, Flores 2007), to students' perceptions of themselves and their schools (Ogbu 2008), and to the interactions between these variables. After all, the African-American and Latino student populations are far from homogeneous, and are subject to differing influences both external and internal. These differences pertain to urban vs. suburban/mixed race settings, and they arise in relation to the range of individuals involved in these settings. While a variety of data has been interpreted to support competing analyses of achievement gap causes, the problem is sufficiently complex to allow for a variety of causes. Similarly, different research methodologies have yielded different conclusions, and yet, a close examination reveals that these conclusions are often not mutually exclusive, particularly as they pertain to different individuals in different settings. For example, where some research is deficit focused and identifies cultural phenomena such as disengagement as obstacles to success (Ogdu 2008), other research examines the conditions that students self-identify, such as engaging pedagogy, as causes for their success (Wiggan). But the two are not mutually exclusive, particularly as they pertain to different subgroups of students within the African-American and Latino student population. By combining deficit analysis and positive attribute analysis, we derive a particularly rich set of actions, which, when taken in concert, promise to yield significant results.



Accordingly, the Tenacity Challenge draws from and builds upon the following relevant conceptual frameworks: academic self-concept, positive school engagement, peer influence and peer support, positive ethnic identity, cooperative learning, college preparedness, and scholarship incentive, strong teacher expectations and student-teacher relationships, and engaging content, intellectual relevance and higher order thinking. Research bears out that individual students bring a wide range of strengths and face a broad range of obstacles as they confront the challenge to achieve academically in both urban and suburban settings. For many hard-working, highly motivated students, the obstacles to achievement concern insufficiently prepared teachers who lack cultural proficiency or an absence of schemas and procedural knowledge to get from aspiration to successful execution. Other students lack motivation, associate academic striving with “acting White” and shy away from doing the work. The Tenacity Challenge recognizes that some students are burdened by low academic self-concept and high mistrust and disengagement, while others, often in the same school, benefit from high motivation and strong academic self-concept. The team-based scholarship competition provides cooperative peer learning opportunities through which successful students’ strengths impact the negative attitudes of other students. By creating a culture of achievement, while providing opportunities to develop actualizing academic schemas and the relationships needed to help to sustain them, the Tenacity Challenge provides a deliberate, coherent and broad-based approach that can meet the needs of a wide range of learners.

### **Academic Self-Concept, Academic Disengagement and Peer Attitudes**

Studies indicate that academic self-concept correlates closely with GPA (Witherspoon, 1997 in Cokley, 2000). Academic self-concept, defined as a set of attitudes, beliefs, and perceptions held by students about their academic skill sets and performance (Lent, Brown, & Gore, 1997), therefore can play both a positive or a negative role relative to academic achievement, particularly at the classroom level, as opposed to performance on standardized tests (Awad, 2007). While negative academic self-concept by no means characterizes all Latino and African-American students’ self-sense, it is sufficiently prevalent to surface in a number of empirical studies (Cokley, 2000; Gerardi, 1997; Brookover and Passalacqua, 1982), and is impacted by a range of environmental factors. In fact, Gerardi found that African-American students at predominantly Black universities had higher academic self-concept than African-American students attending predominantly White universities, and found furthermore, that this stronger self-concept among male students correlated most strongly with positive faculty relationships and not with GPA. (Gerardi, 1990).

For many students, low academic self-concept and the peer pressures not to “act White” contribute to an avoidance of competition (Howard 1985), which we see manifest in students holding back from seeking upper level coursework and in their absence from math and science competition teams. Based on extensive interviews, Ogbu posited a “cynical perception” of schools and teachers by African-American students ( Ogbu 2003) that significantly impacts their effort and performance. Moreover, using the term

“community forces”, Ogbu asserts that African-American students disengage from education not only because of their mistrust both of the educational process and its value for social mobility, but because of peer pressures not to “act White.” (Ogbu 2003).

Conversely, Shin (2007) found that academically positive peer relationships can provide a protective function that mitigates the impact of academically negative peer pressure. And Horvat and Lewis (2003) found that peer groups were often more complex, and that African-American students frequently engaged both in “camouflaging” their success and in sharing it, depending upon the peer group. They uncovered a phenomenon that they labeled “managing academic success”, and their work strongly suggest that the creation of peer groups in which academic success becomes the norm will encourage high achievement. They found that high achieving students were adept as managing academic success and negotiating different peer groups, but more particularly, that they found or created peer networks that supported academic success.

### **Positive Racial/Ethnic Identity and Academic Achievement**

“Because negative stereotypes about Black and Latino youth include low academic achievement, disengagement from school, and lack of academic ability (e.g., Oyserman et al., 1995), when academic achievement is not directly addressed within REI youth will be less able to recruit sufficient motivational attention to override these messages and stay focused on school success. By viewing achievement as part of being African American or Latino, identification with this goal is facilitated.”(Altschul, Oyserman, Bybee 2006)



At the same time, African-American and Latino students in majority White schools are frequently denied their individual identities when they are both perceived and treated by White teachers as representatives of their racial or ethnic group. A lack of cultural competence complicates this phenomenon when those perceptions are impacted by

stereotypical generalizations, leading, for example, to a middle class African-American student in a social studies class being asked speak about a “ghetto” experience.

So framing achievement in positive racial/ethnic identity terms must be a personal choice rather than an imposition for African-American and Latino youth, and in that sense an affirmation rather than a negation of their individuality. That said, providing historical and cultural information about African-American and Latino intellectual contributions and achievements, offers the opportunity for students to develop positive racial and ethnic identities that are contextualized academically.

Black Racial Identity (BRI), which has been studied in relation to psychology (Burlew & Smith, 1991; Marks, Settles, Cooke, Morgan, & Sellers, 2004), sociology (Howard, 2000; Porter & Washington, 1979), and education (Carter & Goodwin, 1994) (in DeCuir-Gunby 2009), has particular relevance for education, where it intersects with teacher influences as well as peer influences. That there are conflicting claims regarding the latter (Fordham and Ogbu positing that the ascription of “acting White” undermines academic achievement, and O’Connor, Spencer, Noll, Stoltzfus and Harpalani associating achievement with BRI) should remind us that African-American students must be understood as individuals rather than as one homogenous grouping, and that educators “must learn “we must learn *who* the children are, and not focus on *what* we assume them to be;” this includes “developing relationships with our students, and understanding their political, cultural, and intellectual legacy” (Delpit 2003 in DeCuir-Gunby 2009).

In the face of societal racism’s particularly salient manifestation in schools as “stereotype threat”, “rumors of inferiority” and other pernicious associations of non-intelligence with being African-American, “in order to establish positive academic identities, the identities of African American adolescents “must contain a self-relevant goal of being smart and doing well in school and believing that school success is part of one’s racial or ethnic identity” (Oyserman & Harrison, 1998, p. 287 in DeCuir-Gunby 2009).

The Tenacity Challenge, by focusing on African-American and Latino literature and history as the substantive content in the Literature and Social Studies challenges, provides this opportunity. During the first Tenacity Challenge, the Social Studies event required student teams to research and craft an argument about which “change” strategy employed by civil rights and liberation struggle groups during the Sixties and Seventies they thought was most effective. In this way, students probed deeply into questions of political philosophy, political strategy, the relationship between tactics and objectives, etc., and were judged on the logic of their argument and the sophistication with which they organized the evidence. While the generally more cursory treatment of the Civil Rights Movement in contemporary texts does attribute agency to the key actors, it is often limited to famous leaders, and fails to reveal either the complexities of the movement or its richness as an intellectual watershed of competing views and ideas within the African-American and Latino communities. Reflecting on what he had learned during his team’s preparation for this event, one Tenacity Challenge participant exclaimed that he “never knew that this history was so powerful.”

Even more so, the competition itself, framed as an academic scholarship competition for Latino and African-American students, communicates a link between academic achievement and racial identity, and it reinforces this through the creation of peer support teams who study and prepare together over an extended period of time and then depend upon each other during the competition. The bringing together of trans-school competitors, all Latino or African-American, creates a sense of belonging to a fraternity of academically interested and capable peers. As one participant enthused to a Tenacity Challenge organizer during the first annual event, “I want to thank you for organizing this. Where I’m from, there aren’t a lot of other students who take their work as seriously as I do, and it was a great experience to be here among so many similar kinds of kids. Can’t wait for next year!”

### **Peer Support and School Engagement**

(Azmitia and Cooper 2001). Moreover, Crosnoe, Cavanagh, and Elder (2003) “found that peer support can promote achievement through increased motivation, more participation in academically related activities, and the general elevation of school as a priority in the adolescent’s life,” (Shin 2007) and that “adolescents of color who are attached to academically oriented peers clearly benefit from these relationships” (Azmitia & Cooper, 2001). Additional research indicates that peer support is a contributor to academic achievement, and that the creation of peer support networks or teams, a function of the Tenacity Challenge, can contribute to closing the achievement gap. Peer support in Shaker Heights is among a number of initiatives that show promise in closing the achievement gap (Prince, 2004, Changing Policies to Close the Achievement Gap)

Therefore, achievement gap-closing measures like the Tenacity Challenge must take academic self-concept into account and create modalities through which academic self-concept can be strengthened and supported, school engagement can be increased, and peer support can be promoted. As a team-based academic competition, the Tenacity Challenge creates the conditions for positive academic self-concept in three important ways: one, as students engage in the protracted preparation for the competition, they receive positive signals from their teachers and themselves about their value as competitive students engaged in high level academic work; two, during the competition day itself, they are members of a large group of African-American and Latino students who all value academic achievement; and three, their membership in a team whose purpose is academic competition and which is comprised of peers who equally value high levels of academic achievement, gives individual members “permission” to see themselves as academically focused. As the Tenacity Challenge gains “cache” among African-American and Latino students, the impact that these teams will have on other students is expected to grow.



### **Peer Collaboration and Cooperative Reward Structure**

Team learning has become a hallmark of 21<sup>st</sup> Century Skills pedagogy, a skill set that we aim to develop to prepare students for increasingly cooperative economic processes. But group cooperation has long been an important component of civic education and there is significant data to support its value as a learning technique. Slavin (1980) found in particular that cooperative rewards were a significant factor in student achievement, and the Teams-Games-Tournament instructional modality, a particularly effective one. While Slavin identifies cooperative rewards as a more significant factor than peer support, he concludes that practically the distinction makes little difference. This is particularly germane to the Tenacity Challenge, which uses both cooperative rewards (the potential for winning trophies, “bragging rights” and scholarships) and peer support in its model.

Vaughan (2002) found in that group accountability and group processing promoted achievement, and that “some groups of students, especially students of color, are more inclined to function better in group settings than individually (Pang & Barba, 1995).” Slavin and Oicle (1981) argued that students of color actually benefit academically more from cooperative learning than do their White counterparts. Their findings have been replicated in studies by Cohen (1986), Devries and Slavin (1978), Okebukola (1985), Johnson and Johnson (1983) and Reid (1992), as students of color made more significant academic gains in math, social studies, science and language arts classes using cooperative learning over traditional methodologies. (Vaughn 2002)

Accordingly, the six-member Tenacity Challenge teams provide ongoing opportunities for cooperative learning. Teams create an internal division of labor, assigning preparation roles to each other based on areas of interest: language arts, art, math and science and social studies. During the four month long preparation period, the subgroups are comprised of two to six members who study together with the support and guidance

of faculty members who are expert in their subject area. During the competition, the teams support and encourage each other.

During the first annual Tenacity Challenge event, the degree of collaboration that we observed during the hour long history argument preparation period that students were given on the day of the event was remarkable.

### **Focus on College Readiness and College Probable Identity**

The competition promotes a college readiness focus in several important ways. First, by framing the competition as a scholarship competition, it actively promotes a focus on preparing for college as an important and attainable goal. It poses the individual as an active agent in readying him/herself for college. Secondly, by stressing challenging academic content, it not only strengthens students' academic achievement reinforces the message that they are college bound. Thirdly, by incorporating SAT vocabulary and math curricula as the quiz bowl event focus, it promises tangible college readiness results, and again, impacts on the student's self-image as college bound.

A study of Latino college aspirations and attainment found that it was important to recognize the heterogeneity among Latino high school students. Cuban American, as opposed to Puerto Rican and Mexican American students, were more likely to see themselves as college bound. These differences, the study attributed largely to socio-economic differences between the subgroups. (Bohon, Kirkpatrick and Johnson 2006) This raises the importance of recognizing distinction between college aspirations and college expectations, with the latter being mediated by factors such as the students' sense of the likelihood of attainment. But the two are not unconnected, as a student's lowered expectations may militate against his or her aspirations through a kind of self-protective psychological process. The Tenacity Challenge Scholarship Competition speaks to this dynamic by building on students' college aspirations by strengthening their college expectations.



One of the important bridges between aspirations and expectations is the set of procedures, knowledge and skills that enable students to act on their college aspirations. In a study of 28 low income, African-American college students, Pizzolato found that the development of what she refers to as “schematic possible selves” is “crucial to the achievement of possible-self goals.” (Pizzolato 2006) Positing that academic success and persistence are largely a product of a student’s aspirations for success, Pizzolato examined the tension between aspirations and academic success and found that there is a larger gap between the two for low income, students of color than there is for higher income White students. Students have aspirations and expectations, and the two diverge to the degree to which students do not believe in the possibilities for success. This may be a product of the unavailability of models, of peers who have college aspirations, and of being first generation college bound students. Cross and Markus (1994) found that students who possessed schematic possible selves were more likely to achieve their aspirations than students who did not (Pizzolato 2006). The Tenacity Challenge, as an avenue for working towards college, provides students with a set of deliberate steps for attaining their goal, opens dialogue with faculty advisors about their aspirations, and thereby contributes to the creation of schematic possible selves focused on getting to college.

**Financial Incentives and College Possible Selves.** A study of students’ opinions regarding the factors that would improve African-American students likelihood of attending college, cited, among other variables, “increasing possibilities” and “increasing cultural awareness.” (Freeman 1997). As students’ responses included both economic and school-based factors, changes that encompass both and create linkages between them promise greater potency. By providing students with both a conceptual framework and a practical experience that link *hard work, study, academic achievement, financial assistance and college readiness*, the Tenacity Challenge contributes significantly to students’ college probable identities.

Financial incentives that are merit-based and which therefore the students have a sense of control over, can contribute to students actually seeing themselves as college-bound. Angrist, Lang and Oreopoulos (2007) found that freshmen women at a large Canadian university who were offered organized study groups and merit-scholarships had higher first-year grades than those in the control group. In a study of the impact of Children’s Development Accounts (CDAs) on at-risk college-aspiring youth, Elliot (2009) found that students’ sense of control over college financing increases the likelihood of college attendance. Additionally, students who had CDAs performed better in high school, and showed a 4.71% increase in math scores. Given a gap of 41% points between the number of at-risk youth without CDAs who aspire to go to college and those who consider it a real possibility, the issue of finances looms large in the deterrent column.

A study of financial aid incentives for low income students show marked improvements in high school grades and SAT scores. The HOPE Scholarship Program (Helping Outstanding Pupils Educationally) in Georgia, where economically qualifying students who graduate with a 3.0 GPA or better may either attend a state university for free or

receive \$3,000 towards annual private college tuition, has had a measurable effect on grades and a stronger impact on African-American students than on White students. (Henry and Rubenstein 2002)

Similarly, the Kalamazoo Promise Scholarship Program at Kalamazoo Central High School in Michigan, which provides a full scholarship to graduates attending state-sponsored post-secondary institutions, has focused all constituents on systemic reform and yielded a number of significant structural changes. According to a federally sponsored evaluation, significant changes have resulted in higher teacher expectations and student academic aspirations, as between 83-85% of eligible graduates have taken advantage of the scholarships. Among these, a 79% increase in the number of students taking AP courses, with higher percentage gains for low income and minority students, indicates important educational gains. (Myron, Jones and Kelaher-Young 2011)

The Tenacity Challenge, while not providing a full scholarship to a public university, employs the same motivational characteristics that the HOPE and Kalamazoo universal scholarship programs embody.



### **Teacher/Student Relations and Achievement**

Research into the role of teachers in closing achievement gaps, not surprisingly, has indicated that teacher quality (Ferguson 1991, Viadaro and Johnston 2000), culturally responsive teaching (Risko and Walker-Dalhouse 2011, Gay 2010) teacher perceptions and expectations (Ferguson 2003) and strong teacher-student relationships (Freeman 1997) all make a difference. In surveys, students report that teachers who push them, who understand their culture, and who demonstrate that they care can make a difference. “Because we are pushed. We are pushed to go on to higher education and then get a job. That’s Ms. Getter’s [name changed] whole basis [for] being here basically.” (Magnet

school student, Los Angeles) “You know, I had teachers who, like, were strong. They motivated you to do your work and helped you a lot. I think some schools in the Black community, they don't have enough money to buy books that will teach the kids; so, you know, the teachers don't want to teach it, then it is not good material and the students don't want to learn. So I think it is like you got to get your money together, put it in the schools where it counts, you know, and help these kids.” (Independent school student, Los Angeles) (Freeman 1997)

Throughout the months of academic preparation leading to the Tenacity Challenge event, teachers are engaged as coaches and tutors who commit time beyond the school day to prepare their school's team(s) and establish relationships with the students that transcend the classroom. By focusing the Literature Event and the History and Social Science Event on African-American and Latino literature and history, the Tenacity Challenge educates faculty coaches as well as student participants. Consequently, the Tenacity Challenge infuses important cultural knowledge into the schools and promotes cultural proficiency among its faculty members. Both students and teachers benefit from this process, as the following faculty thoughts from last year indicate:

*I was fortunate enough to present certificates to all BHS participants last year in a small ceremony a few weeks after the competition. I was thrilled to hear them enthusiastically re-tell the day's events and collectively pledging to participate in the future. I don't recall hearing students articulate such sincere pride in teamwork and accomplishment over my 14 years in coaching high school athletics. They were literally giddy with excitement over history and mathematics.*

*For me, the Tenacity Challenge has been about true intellectual discourse and true personal connection. Coaching the students has allowed me to engage them without having to assess them; it has allowed them to engage me without constantly feeling assessed. Yes, I gave them feedback as they practiced reading and writing skills, but it was a different kind of give and take than the standard classroom experience, perhaps partly because we had a comfortable space within which to explore themes of express interest to them. As we read, wrote, and discussed, there grew a sense that we were all in this enterprise together, facing the same direction, instead of facing each other from opposite sides of the teacher's desk--in short, that we all belong to a learning community.*

*Plus, we had fun, and now we know each other better. Ever since competition day, every student in the Challenge smilingly greets me by name whenever we pass in the halls. Within the larger school community, we are visible to each other in a way that empowers us both.*

### **Engaging Content: Higher Order Thinking and 21<sup>st</sup> Century Skills**

Engaging content is perceived by students as being interesting, relevant and/or useful. Higher order thinking content and its concomitant instruction are inherently engaging because they correspond to students' meaning-making mental processes. The Tenacity Challenge engages students' content knowledge, subject-specific skill development and

more general thinking and communication skills, including historical and textual analysis, persuasive writing and oral argument, and creative expression. In doing so, the Tenacity Challenge contributes to students 21<sup>st</sup> Century Skill development and coincides significantly with the Common Core curriculum. It is a powerful complementary process to their normal course of studies, and has been shown in its brief history to provide additional motivation to meet the demands of a challenging curriculum. Examples of the higher order thinking task events in which participants engage include:

- Researching and preparing a thesis argument addressing the following question: *“To what extent has post-apartheid South Africa fulfilled the promise of the democratic revolution that overthrew its historic system of legalized segregation and oppression? How or how not?”* (History/Social Science Event)
- Choosing a title from a range of Latino and African-American authors and composing a poem, a letter to a character or an additional scene that imitates the style of the author (tone, diction, sentence structure, etc.), incorporates the central image or motif from the text, or imitates the form of the author. (Literature-Based Performance Event with Written and Oral Rationale)

### **Team Mix: Heterogeneous Interests and Abilities**

Schools are encouraged to create 6-member teams that combine a range of academic interests, strengths and skill levels. Because the aims of the program are academic capacity building, the nurturing of cultures of academic risk-taking, and promoting of character traits and peer support structures that can sustain academic effort, it is important that participating teams are not limited to the participating schools’ highest performing students. This message is communicated to the schools in the program literature.

### **The Tenacity Challenge: A Sum Greater Than Its Parts**

The Tenacity Challenge, then, rests on a strong research foundation and incorporates



multiple elements that have been shown to positively impact achievement. But the whole experience, the coming together of hard-working peers, the collaborative study over a protracted period of time, the competitive spirit that infuses the culminating event, the relationships built with teachers, has already yielded a motivational quotient that participating students and teachers testify has carried over into their regular school work. The big picture results, the creation of cultures of academic risk-taking, perseverance, and students' beliefs in their own intellectual capacity, are transformative.

### **The Tenacity Challenge: The First Two Years and a Look Ahead**

Last year, the LA2 Tenacity Challenge's first, 11 six-member teams from nine high schools from the metropolitan Boston area participated in the Tenacity Challenge. The competition took place on a Saturday in late March, following three months of team preparation for the day's four academic events. The events included: an essay/literature prompt drawing on African-American and Latino literature; a math/science quiz bowl; an artistic banner expressing the concept of "tenacity"; and a digitally recorded and orally presented history/social science argument focused on contrasting civil rights strategies in American history.

Observing the teams as they prepared for their history/social science presentations on the day of the event, faculty witnessed exceptionally self-directed and skillful students working collaboratively to refine what in many cases were wonderfully sophisticated arguments. White boards were filled with information, arrows and other schematic representations of their researched information and their ideas, and in other cases, students had used the classroom Smart Boards to organize their work. During the math/science quiz bowl, contestants were so self-confident that in one instance they challenged the judges' ruling and, upon review, were proven correct. Throughout the day the energy was electric, as the teams moved from event to event.

When lunch was served at midday, students were treated as well to an inspiring guest speaker, a professor of history at a local university. After lunch the contests continued, and the day concluded with an awards ceremony at which team winners of individual events were awarded trophies, and overall competition team winners were awarded scholarships: \$500 for each of the six members of the winning team; \$300 for each member of the second place team; and \$200 for each member of the third place team.

Faculty volunteers staffed the event, serving food, judging contests, etc., just as volunteers worked as team coaches and tutors leading up to the event. One faculty member received a small stipend to organize and coach Bedford's three teams. Faculty were highly energized by the entire process and described the particular value derived of creating meaningful connections with students who they otherwise did not know.

During the three or four months of intensive academic preparation around Common Core/21<sup>st</sup> Century skills leading up to the day's events, the collaborative teamwork, the competitive spirit, the supportive faculty relationships, and the reinforcement of students' college aspirations will combined to strengthen achievement and nurture a culture of scholarship in each of the participating schools. As a first year effort, there were some

delays getting information out to all interested schools and getting teams organized at some of the schools, so the preparation time was quite varied. This has been corrected this year as information about each of the competition events and accompanying scoring rubrics were disseminated in the late fall and early winter. Some schools also faced challenges in getting sufficient teacher volunteers involved, and we expect that in the future, schools may be able to budget a stipend for a faculty coordinator, and seek volunteers earlier on.

The Tenacity Challenge engaged social studies, English, physics, chemistry and mathematics teachers who, over the course of the three months preparation period, met with students after school in groups and individually, as well as during preparation periods and activity blocks. Because the students had not previously participated in competitive academic teams like the Math League, their energy, excitement and commitment to extensive extra-curricular study and preparation similarly energized the teachers who had volunteered.

Already, the participants in the first year's event, energized by the potential for winning a college scholarship and emboldened by the opportunity to study with their peers, have expressed not only their love of the experience but their excitement about studying for next year's competition. The participants proudly wore their LA<sup>2</sup> Tenacity Challenge T-shirts and medals in their schools the following day.

### **Students Recruiting Their Peers: The Second Year**

In the Tenacity Challenge's second year, the number of districts and teams grew to 16 districts and 22 teams involving 132 students. Several high schools that participated during the first year increased the number of teams that they sent in the second year, a consequence of the participants talking up the experience and recruiting friends. This not only indicates a strong measure of success, but it speaks to the central goal, which is to strengthen a culture of academic achievement, intellectual risk taking and confidence, cooperative peer support and enhanced student-teacher relationships.

## **Measuring Success**

### Qualitative Measures

#### Participants' Evaluations

#### Participating Faculty Evaluations

#### Changes in Adult-Student Relationships

- Acknowledgement and Greetings
- Seeking Extra Help
- Teachers' Self-assessment Re: Cultural Proficiency

#### Changes in the Quality of Work from Year to Year

#### Post Event Self-reporting Questionnaires RE:

- impact on college aspirations, expectations, planning
- impact on motivation for complex and demanding school work
- establishment of new peer relationships
- establishment of new faculty relationships
- impact on intellectual risk taking (moving to higher academic level)

Quantitative Measures

Tenacity Challenge Participation Growth:

- Number of Schools
- Number of Teams Within Schools and their Growth from Year to Year
- Rate of Return
- Establishing a Base Line for Participants Relative to GPA and Course Level and Collecting and Comparing Post Tenacity Participation Data

Baselines: participating students:

- Grades
- Course levels
- PSAT/SAT scores
- Honors or AP course participation

Post Event Measurements

- Grades
- Course levels
- PSAT/SAT scores
- Honors or AP course participation



**Program Cost and Funding: First Two Years**

<b>Year</b>	<b>2011-2012</b>	<b>2012-2013</b>
Districts/High Schools	9	14
Teams	11	22
Student Participants	66	132
<b>Cost</b>		
Scholarships: (6 @\$500.00, 6 @ \$300, 6 @ \$200.00)	\$6000.00	\$6000.00
Medals, Certificates and Trophies (\$5.90 per person)	390.45	309.00
T-shirts: (\$8.24)	750.60	1244.50
Food for breakfast and lunch: (\$9.21)	921.01	1186.00
Bags		107.60
Custodian:	150.00	1,328.00
<b>Subtotal Actual Spent</b>	<b>\$8,211.45</b>	<b>\$9,775.35</b>
<b>Revenue:</b>		
Carry-over from Year One	---	\$1,652.55
Greater Boston Students of Color Achievement Network	\$5000.00	5000.00
Entry fee per team	550.00@\$50	1400.00 @\$100
Bedford Parents Association (BHSPA)	600.00	500.00
Bedford Congregational Church	150.00	---
First Parish of Bedford	500.00	---

Bedford High School Enrichment Grant	1500.00	2000.00
Individuals	---	600.00
Progress Software	---	1000.00
St. Pauls Church	---	150.00
Middlesex Savings	---	200.00
<u>METCO Grant</u>	<u>---</u>	<u>1328.00</u>
<b>Actual Revenue</b>	<b>\$8300.00</b>	<b>\$12,830.55</b>

**In-kind Contributions:**

Volunteer teacher coaches* (based on equivalent school		
Stipends at approx 3 hrs x 8 weeks x 11 teams):	\$12,540.00 (x22)	\$25,080.00
Event Set-up, Judging and Organization	3,040.00	4,040.00
Event Planning (8 people X 16 hours @ \$47.50/hr)	6,080.00	6,080.00
<b>Total</b>	<b>\$21,872.06</b>	<b>\$35,200.00</b>

\* Beginning in 2013-2014, participating high schools will be expected to provide a stipend for team advisors/coaches.

**Funding Proposal**

Our goal is to establish an endowment from which to draw annually the \$17,075 needed to complement the in-kind and local contributions to ensure an ongoing Tenacity Challenge Academic Scholarship Competition.

**Annual Funding Need**

**Based upon 30 Participating Schools/Teams**

Scholarships: Six First Place @\$1000.00	
Six Second Place @\$500.00	
Six Third Place @\$300.00	\$10,800.00
Medals, Certificates and Trophies:	1,062.00
T-shirts:	1,895.00
Food for breakfast and lunch:	2,118.00
Judges	1,500.00
Printing	300.00
Coordinator	1500.00
Custodian:	900.00
Advisor/Coach Stipends @\$1,500.00	45,000.00
<b>Total</b>	<b>\$65,075.00</b>

**Regular Revenue**

<b>\$100 per team registration fee</b>	3,000.00
Participating Schools' Contributions- Coaches' Stipends	<u>45,000.00</u>

**Total annual need** **\$17,075.00**

**Expanding the Model**

While the Tenacity Challenge can be easily replicated in other geographic regions across the Commonwealth or the nation, it also establishes a framework for creating a national level competition whose contestants are the winners of school-based, then regional, then state-based, competitions.

To create a national model, we require the creation of state competitions and the establishment of a national organizational structure, director/coordinator, clerical support and advertising/outreach capacity. In this model, regional competitions would provide 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place winners (no scholarships) who would compete at the state level, and state winners would compete at the national level, with scholarships awarded to state and national winners.