Subject area teachers at one high school used grant money to change their teaching styles, significantly improving students’ reading abilities.

A hard fact of U.S. high school life is that within any classroom the range of reading abilities can be enormous (Hargis, 1997; Stanovich, 1986). This range may be wider than ever today as general education classes give way to growing numbers of inclusion students (Pearman, Huang, & Mellblom, 1997). We became reacquainted with the reality of this situation at Mountain View High School (the school’s name and all names of individuals in this article are pseudonyms) where, as literacy consultants, we were asked to interpret for faculty the results of standardized reading testing. A 10th-grade teacher, for instance, had a staggering 15-grade-level spread in one of his classes. Within that tremendous range, we found 9 out of 24 students had reading levels at the 8th grade or below; 7 were within the 9th- to 10th-grade interval; and 8 had scores from the 11th-grade to nearly the 19th-grade level. When these results were considered relative to the 10.2 readability estimate of the textbook (as part of our work, we ran five 100-word text samples from every core textbook in use at Mountain View through a word-processing program and calculated readability using the built-in Flesch-Kincaid formula) we realized that for over one third of his students, the text was too difficult to read. For another third, it might not be challenging enough to make the content interesting or engaging. The teacher could only shake his head in bewilderment and respond, “That’s why so many of us teach to the middle.”

This article is a description of our experiences at Mountain View High, where teachers and administrators used a reading grant to re-create the literate culture of the school. We detail how reading achievement testing was conducted and the results were translated into effective literacy reforms designed to go beyond teaching to the middle. Within a discussion of these initiatives we track the experiences of two students at either end of the reading ability continuum and the effects the initiatives had on them.

The testing initiative

Allington (2002) asserted that good teachers know their students well, know where to begin appropriate instruction, and know how to recognize growth. Identifying a starting point requires gathering relevant information about students’ skills, abilities, and knowledge. Without this essential information, teachers cannot account for individual differences in their planning or track progress. Although we believe the best
assessments of learning should occur within the context of daily instruction and situated literacy activities (Brozo & Simpson, 2003; Hargis, 1999), we also believe, as do others (Stiggins, 2002), that if assessment results can inform teachers and learners in ways that lead to improvement of the teaching and learning process, then a range of potentially viable assessment options are possible. One of those options—standardized reading achievement testing—provided Mountain View teachers with important data for moving forward with needed literacy reforms.

In September of 2000, we were contracted by Mountain View High School to provide consulting services in fulfillment of the Tennessee Goals 2000 grant awarded to the school. The overarching goal of the grant was to determine the reading abilities of all students and the effectiveness of initiatives to improve them. Because Mountain View hadn’t been notified of the grant award until nearly six weeks into its modified school year, which began in late July, we were faced with the immediate onset of the grant’s timetable. One of the first questions we posed to the administrative team was whether current reading achievement scores were available for all students. We were eager to avoid redundant testing, if possible. When we were told the only test data the district had were Iowa Silent Reading Test scores for current ninth graders given the previous spring, we began an immediate search for a pre- and postproject assessment instrument appropriate for the entire student body.

In collaboration with school staff, it was decided that reading achievement testing would occur first to determine the students’ range of needs before relevant initiatives would be implemented. It was also decided that the instruments used for this purpose would be used to evaluate the overall effectiveness of the grant program at the end of the school year.

The tests we administered had to have recognized technical adequacy and be sufficiently sensitive to measure achievement levels at the extremes of the reading achievement continuum in each of the high school grades. The tests would also have to be easy to administer to large groups in order to minimize disruption to teachers’ and students’ daily routines. We decided on the Gates-MacGinitie Reading Tests (2000) and the Nelson-Denny Reading Test (1993). The two tests have similar formats with vocabulary and passage comprehension subtests. The different tests of the Gates-MacGinitie range from 1st through 12th grade; the Nelson-Denny tests range from grade 11 to 18.9. According to Buros (2001), both are psychometrically mature, and the two in combination made it possible to find the most sensitive level of test difficulty for each student. This was especially important when using the instruments to measure end-of-year progress.

Because of the wide range of ability we expected the students to exhibit, we needed a means of estimating which students should get which test or test level. This was vital to our intent to match individual students with the most sensitive test for each. Because information on students’ reading achievement was not available, we searched for a convenient and efficient screening mechanism that would yield a reading level estimate for each student.

We discovered in a meeting with the curriculum specialist that the school had a site license to administer the STAR (see Buros, 2001, for a review of its technical qualities), the computerized reading test that accompanies the Accelerated Reader program. The program was not uniformly used at Mountain View but was serving as a supplement for the English teacher who taught the ninth graders. The school had a sufficient number of computers to make it possible for the entire student body to route through the two computer labs and take the STAR in one day. Make-ups were scheduled for the following day. STAR software calculated a score and an instructional reading level for each student.

With these results in hand, we assigned the appropriate Gates or Nelson-Denny test to students. With the help of the curriculum specialist, we set a testing date for early November and
administered the tests during one 90-minute instructional block. Only a couple of mix-ups occurred in an otherwise smooth morning of testing. The make-ups were scheduled within a couple of days, which ensured that all 346 students had been tested. When pretest scoring was completed, the data were assembled alphabetically by grade so teachers could be apprised of the reading skill level of each of their students.

Building a shared reform agenda and implementing literacy reforms

Upon completion of pretesting we began intense collaboration with Mountain View faculty and staff. Although by then it was the middle of November and the administration was eager to see the implementation of a new literacy program, we had no desire to impose a unilaterally designed plan on teachers. Instead, in order to ensure that as many as possible felt vested in the reform process, we requested and were given the opportunity to meet several times within a couple of weeks with all potential stakeholders.

These meetings were critical because overall pretest results revealed that nearly 35% of Mountain View students were reading one or more grade levels below grade placement—and, in many cases, far below the expected grade level. Another 18% were reading one or more grade levels beyond expectation. Many teachers were not aware of the reading ability levels of their students, and once presented with the pretest results they found themselves forced to adjust their evaluation of individual student performance in their classes. For example, Martin, an 11th-grade math teacher, had to rethink whether Tony, one of his students, was performing poorly out of “laziness” or because he was reading at the fifth-grade level. Conversely, Pam, who taught 11th-grade English, began wondering if Tamika, who fell just one year shy of reaching the maximum on the Nelson-Denny by achieving a grade equivalent of 17.9, was disengaged in her class out of boredom.

Taking frequent opportunities to converse with individual faculty members about their students’ pretest performances also allowed us to gather feedback on ideas for infusing the curriculum with a variety of literacy experiences and strategies to meet students’ varied needs. Meetings occurred before and after classes and during lunch and planning periods. We held focus sessions with the grant-writing team to become better acquainted with the original goals of the grant and discuss which ones could be feasibly met given students’ reading achievement. We brainstormed separately with department chairs, English teachers, the curriculum director, and the administrative team on potential initiatives to meet students’ wide range of abilities. We attended whole-school faculty meetings where reading test results were shared again, the relative merits of proposed initiatives were debated, an action plan was approved, and the logistics of implementing the plan were reviewed. We also participated in a Q&A session about the literacy reform plan with the school board and superintendent.

In the end, three initiatives were endorsed by the administration and a majority of the faculty: sustained silent reading, reading young adult novels in the content classroom, and making alternatives to the textbook available for struggling students and superior readers. The Mountain View administrative staff wanted to add one additional support option for students who had very low scores on the achievement test but were not receiving special education services. This evolved into a “Reading Buddy” program arranged during the second half of one class block for qualifying students. After launching these initiatives, we held frequent formal and informal sessions with individuals, small groups, and the whole staff to share concerns and successes. These frank and open conversations proved invaluable for nurturing commitment to the literacy reforms.
For the remainder of this article we follow Tony and Tamika, the two students mentioned earlier, through the literacy initiatives launched at Mountain View. By following these students from their pretest performance, through strategies implemented on their behalf, to posttest performance, we hope to personalize the reforms and demonstrate how schoolwide efforts and classroom instructional modifications led to improved and sustained growth for individual students.

**Sustained Silent Reading**

Once children have mastered basic reading skills, the surest road to a richer vocabulary and expanded literacy is wide and sustained reading (Allington, 2002; Anderson, Wilson, & Fielding, 1988; Cipielewski & Stanovich, 1992; Taylor, Frye, & Maruyama, 1990). Yet, many adolescents read less than their peers of 30 years ago (Carlson, 1999; Glenn, 1994; Libsch & Breslow, 1996) or, even more alarming, choose not to read at all (Beers, 1996; Schumm & Saumell, 1994). The less time young people spend with books and print, the less growth they exhibit on measures of vocabulary and reading achievement (Durrell, 1969; Gardiner, 2001; Glenn, 1994). This pattern seems to be particularly common among minority youth (Larson, Richards, Sims, & Dworkin, 2001), who score lower on achievement tests and are admitted to colleges in smaller numbers relative to other groups (Ogbu, 1994).

The Sustained Silent Reading (SSR) initiative at Mountain View, which students named “Get Ready to Read,” was launched to ensure that all students—regardless of ability—developed the reading habit, and all teachers participated in modeling the pleasure of self-selected reading. Using grant funds, the librarian and English department head purchased scores of high-interest young adult novels and magazines covering a wide range of reading levels, which were compiled into class sets. Metal racks were placed in every teacher’s classroom to hold the SSR material. Drop boxes were set up at several locations in the building, and students were encouraged to donate a favorite paperback to the cause. This netted many additional books for the classroom libraries. One day per week during homeroom, approximately 25 minutes were set aside for SSR; many teachers added days on their own as they discovered the advantages of having students involved in focused, constructive activity and the enjoyment of recreational reading during the school day.

**Tony**

Tony’s homeroom was with Mr. Watson, the chemistry teacher. Mr. Watson, one of the assistant football coaches, had many of his players in homeroom, including Tony. Mr. Watson would spend the 25 minutes between A and B blocks planning strategy with other coaches, making telephone calls, and talking with players. After a couple of weeks of SSR, however, this routine was slowly replaced by reading. We emphasized to Mr. Watson that his leadership role offered him a special opportunity to model recreational reading habits for his ballplayers, many of whom were struggling readers. Initially, Tony’s SSR material mimicked the selections of his coach, as he chose magazines such as *Sports Illustrated* and *Football Digest*. Tony eventually made his way through a couple of simple illustrated football biographies, one on Emmitt Smith (Stewart, 1996) and another about Brett Favre (Dougherty & Dougherty, 1999). By the end of the year, Tony became engrossed in an easier reading football novel, *The Heartbeat of Halftime* (Wunderli, 1996). Mr. Watson, knowing Tony’s reading level, helped him select these books and encouraged Tony to give him feedback on how difficult they were. If Tony said a book was too “hard” Mr. Watson did his best to find an alternative from the SSR material on his bookrack or borrow books from other teachers.

Advocates of secondary school reform (Alvermann, Boyd, Brozo, Hinchman, Moore, & Sturtevant, 2002; Langer, 2000; Moore, Bean, Birdyshaw, & Rycik, 1999; Ruiz-de-Velasco, Fix, & Clewell, 2001) concur that students need multiple opportunities for engaged, sustained print encounters in the classroom every day. More to the point, the easier access is to interesting print materials, the more frequently adolescents read (McQuillan & Au, 2001). Lack of opportunities for regular, engaged reading may help account for why most students who are poor readers upon
entry into high school remain so by the time of graduation (Cappella & Weinstein, 2001).

Tamika
From the outset, Tamika needed little encouragement to find reading material for SSR. Ms. Bly, her French and homeroom teacher, knew that with Tamika’s exceptional reading abilities she was capable of handling any book on the adult market, so she brought to class several from her own collection. From January through May, Tamika went through Drowning Ruth (Schwarz, 2000), She's Come Undone (Lamb, 1997), Vinegar Hill (Ansay, 1994), and Where the Heart Is (Letts, 1998). Ms. Bly often chatted with Tamika during class breaks about the books they shared, and found her level of appreciation for the plots and characters remarkably sophisticated for a 16-year-old.

Reading young adult novels in the content classroom
The practice of using novels anywhere other than the English classroom is rare at the high school level (Brozo & Simpson, 2003). We found that several Mountain View teachers were willing to try this approach once they knew that many of their students were unlikely to benefit from assigned textbook reading, because it was too difficult. We also overcame some initial reluctance by acquiring a large number of used class sets of books suitable for a variety of content area topics and themes and by conducting classroom demonstrations with novels.

Among the novels and information books that found their way into the subject area classrooms at Mountain View were the following: Beggar's Ride (Kress, 1996) in 10th-grade biology for the topic of genetics and genetic engineering; Visions of Symmetry: Notebooks, Periodic Drawings, and Related Works of M.C. Escher (Schattschneider, 1990) in a geometry class; and King: Volume 1 (Anderson, 1993), a graphic novel about Martin Luther King used in ninth-grade English during the study of biography.

Tamika and Tony
Both Tamika and Tony were members of Mr. Turner’s history class. We estimated his course textbook had a readability level of around 10.8, so it was ostensibly an appropriate book for the average 11th grader. However, Tamika’s superior and Tony’s limited reading abilities represented the range in his class. In a unit on World War II, we collaborated with Mr. Turner to develop curricular plans that included three different young adult novels related to the Holocaust: Jacob’s Rescue (Drucker, 1994), No Pretty Pictures (Lobel, 1998), and The Night Crossing (Ackerman, 1995). In addition, several engaging, though easier to read, picture books were also made available to students [e.g., Rose Blanche (Innocenti, 1998); The Holocaust, a History of Courage and Resistance (Stadtler, 1996); Tell Them We Remember: The Story of the Holocaust (Bachrach, 1994)]. These materials were purchased with Goals 2000 grant monies. Mr. Turner introduced the novels with brief book talks, then allowed self-selection of favorites. With tactful prompting, he steered Tony in the direction of Jacob’s Rescue, while inviting Tamika to read any of the books she would like. At least 15 minutes of class time were allotted for silent reading, after which students wrote answers to general questions meant to draw their attention to content in their books that coincided with or embellished upon ideas from the lectures. Each class session students discussed what was learned in the novels, comparing and contrasting that information with newly learned facts about the Holocaust and the Nazis.

Because Jacob’s Rescue was written on a level of difficulty in line with Tony’s reading ability, he was able to make steady progress over the three-week unit. He didn’t complete the novel, but was enjoying it so much he finished it during “Get Ready to Read” time. Tamika, on the other hand, was able to complete all three novels within the three weeks. For extra credit, she created a multimedia report with character analyses, plot summaries, and major similarities and differences of the books. She also used special software to create graphic displays of the facts of the war and their effects on characters from the novels.

Alternative texts in the content classroom
This initiative seemed necessary given the large number of Mountain View students who were reading two or more grade levels below their
grade placement. As stated, for these students, engagement with the textbooks they encounter in their subject area classes is unrealistic if not impossible. This situation poses special challenges because most high school teachers do not have at their immediate disposal texts at a range of difficulty levels on the same topic. We discovered that the Internet offers access to vast amounts of public domain material on virtually any school-related topic. We gathered and reviewed course syllabi to guide our selection of readings. For example, for chemistry, we located and prepared easy readings on carbon bonding, the periodic table, and balancing equations. These texts were reformatted and given inviting covers to avoid stigmatizing struggling readers. When students were expected to consult their textbooks for information to solve problems or describe processes, the chemistry teacher, Mr. Watson, allowed his less skillful readers to use the alternative texts as their information source. See Sidebar for some helpful websites.

**Tony**

Modified texts became an important learning tool for Tony. According to his world geography teacher, Mr. Combs, Tony paid close attention during lecture but rarely was seen consulting the textbook to locate information or read assignments. Mr. Combs agreed to make available to Tony and his other struggling readers a variety of passages we had compiled from the Internet as well as the actual sites where easier readings on geopolitical topics could be found. One day, the class was studying the ethnic fighting in the former Yugoslavia. Sorting out the complexities of nationalism, culture, and historical boundaries in the region was particularly vexing for Tony. Mr. Combs gave the class a set of questions to answer using the textbook, other print sources and reference material, or the World Wide Web. Tony was provided with the URLs to two websites from which he was able to locate informative and simply composed passages about the topic. Reading them directly from the screen, Tony was able to complete most of the assignment.

Mr. Combs acknowledged that before modified text and URLs with easier readings were made available to Tony, he had completed very little reading and independent work. Now that these resources were available to Tony, he was able to remain a participat-
**Buddy reading**

The overarching goal of the literacy grant awarded to Mountain View was to improve the reading abilities of all the students and close the gap between the reading achievement level and the potential reading skill level for those students who had fallen significantly behind. The Mountain View administrative staff wanted a service created for struggling students who (a) had reading skill levels at or below the sixth grade and (b) did not qualify for or were not already receiving special education or special language support. Instead of relying exclusively on pull-out tutoring for these neediest students, we worked with the curriculum specialists at the elementary and the high school to implement a buddy reading program. The most potent benefit of such a program is that it imbues struggling readers with a sense of responsibility and purpose for improving their own abilities (Avery & Avery, 2001; Wilhelm, Dube, & Baker, 2001). Our approach matched a high schooler with a second or third grader.

Because the high school students’ schedules were already set, those participating in the program had to take time out of one of their classes. The faculty who taught the students we identified for the program agreed to allow them to leave during the second half of an instructional block for three days per week. After a couple of orientation sessions, we settled into a routine that began by gathering at 10:30 a.m. and walking the short path around a duck pond to Mountain View Elementary, where our high schoolers paired up with their reading buddies in the library.

**Tony**

A total of 12 high school students, including Tony, participated in the program. Tony and his reading buddy, like the others, spent the 30 minutes involved in the following activities: (a) reading aloud from a favorite children’s book, (b) filling out a log sheet upon a book’s completion, (c) making an entry in a shared response journal, and (d) writing and making a book of their own. All participants were monitored to ensure they were reading material within or very close to their independent ranges and that they were making optimal use of their time together.

With our guidance, Tony prepared for the read-aloud by orally rehearsing the story at least two times, identifying vocabulary that might pose difficulty for his reading buddy, and preparing strategies to assist in decoding and contextual understanding.

One of the books Tony and his buddy, Mia, read together was *The Rainbow Fish* (Pfister, 1997). Tony helped her pronounce and work out the meanings of several words. When they concluded the story, Mia wanted to make her own cartoon book, so Tony helped her draw, color, and write captions.

The book they created was based on a fall outing to pick apples. The experience left a lasting impression on Mia. Mia brought in photographs her mother had taken of her in an apple tree, filling a bushel and eating apples. These and the text were placed on pages Tony cut in the shape of apples. At the end of the year, we held a reception to showcase the reading buddies’ work. The principal, curriculum specialists, parents, and other teachers attended and offered their praise and congratulations.

During the four months of the program, Tony and Mia read several children’s books, and although they were relatively simple, the additional reading practice seemed to improve Tony’s fluency and confidence. For instance, as Tony learned of Mia’s interest in soccer, he helped her find books on the topic in the elementary school library and read several others to her that we supplied for him.

Buddy reading helped Tony view himself as a reader in a new way. We observed how his former complacent attitude toward reading gave way to active participation, concern replaced antipathy, and engagement overcame disinterest. Not all students in the buddy reading program responded as enthusiastically, but each participant did spend more time in sustained print encounters that might not have occurred without the program.

**Posttesting and a postscript**

In mid-May 2001, just a couple of weeks before the end of the school year, Mountain View students were administered the same tests they took in November in order to determine if reading achievement gains had been made. Overall, there was significant improvement. For example, nearly
half the students increased their scores by two or more grade levels, while another third maintained their pretest scores with an average grade equivalent of 12.5. Tony’s Gates-MacGinitie posttest reading level of 7.0 was nearly two grade levels higher than his pretest score of 5.2. Although Tamika’s exceptionally high pretest score of 17.9 on the Nelson-Denny left little room for improvement, she did manage to raise it to 18.2.

Improved test performance may be a good indicator of reading growth, but perhaps more significant were reports from Tony’s and Tamika’s teachers that specific information on students’ reading levels and strategies for accommodating them brought about improved classroom performance. Feedback from his teachers indicated that Tony was participating more actively in class, completing more assignments, and generally making a greater effort to read. His participation seemed to contribute to the modest though meaningful rise in his grade point average (GPA) from the equivalent of a low “D” the first six weeks to a solid “C” in the last grading period. By the end of the school year, Tamika’s high academic potential was realized as she raised her GPA from a 3.0 to a 3.78 on a 4.0 scale.

Whether the gains observed are greater and the class performance better than might have occurred without the literacy initiatives undertaken at Mountain View, we cannot say. This project was not a controlled experiment, and previous reading achievement data were not available to compare with our findings. We believe, however, that it is unlikely any of the reforms would have been implemented but for two critical factors: building and maintaining a reform community, and making teachers and administrators aware of students’ specific reading ability levels through reading achievement testing.

As professors and researchers in adolescent literacy, we realize that none of the initiatives established at Mountain View High School are especially novel. At the same time, we know that getting content area teachers to play an active role in integrating literacy throughout the curriculum is never easy (Barry, 1997; Bintz, 1997; O’Brien, Stewart, & Moje, 1995). Some recent findings have confirmed earlier explanations for the lack of penetration of literacy innovations into secondary school culture. For example, in one study (Zipperer, Worley, Sisson, & Said, 2002) over 40% of high school teachers said they did not feel competent addressing reading problems or planning instruction to foster reading development, while another 30% were unsure of their competencies. In another study (Sunderman, Amoa, & Meyers, 2001) of the constraints on implementation of California’s reading initiative in middle and high schools, the authors concluded that “The organization of secondary schools and middle and high school teachers who are trained as subject matter specialists are challenges schools confront as they respond to the reading deficiencies of their students” (p. 675). In Lester’s (2000) review of the literature, he found that many secondary-level teachers perceived literacy instruction in high school as low priority, unnecessary, the responsibility of an English or reading teacher, or a burdensome addition to an already full workload. Given this state of affairs it should not be surprising to learn that comprehensive and coherent reading programs in U.S. high schools are not common, and, in fact, the trend has been toward a reduction in secondary reading services (Barry, 1997). This explains why secondary school reformers continue to assert that much remains to be done to make reading more engaging and literacy instruction more responsive to adolescents’ needs.

Making instruction more responsive to students’ reading needs was achieved by many teachers at Mountain View, even though the initiatives they employed to do so might appear to be commonplace to many of us. In our year there, we witnessed several intelligent and concerned teachers and administrators taking seriously the idea that the grant they received could be used as a catalyst for change. Certainly, not all teachers bought into this idea. For instance, Pam, Tamika’s English teacher, made no instructional modifications for students in spite of being apprised of their reading achievement levels. However, like all
of her colleagues, Pam chose to participate once a week in SSR time. Many of the other teachers recognized the potential of enacting all of the reforms they had helped craft and remained committed to the idea that better readers make better students in every subject area (Campbell, Hombo, & Mazzeo, 2000).

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**Writers and Reviewers Wanted**

The International Reading Association invites interested members to apply to write and/or review high school lesson plans for ReadWriteThink.org. Writing and reviewing lesson plans can be a great way for teachers to share their ideas and get exposed to the process of professional publication. In addition, authors receive payment for published lesson plans.

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