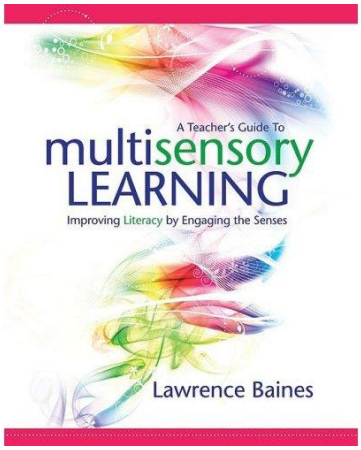

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Chapter 1

Literacy and academic standards

"Only 51 percent of 2005 ACT-tested high school graduates are ready for college-level reading" (ACT 2006, p. 1).

"In 2002, 28 percent of 4th-graders, 31 percent of 8th-graders,and 24 percent of 12th-graders performed at or above the Proficient level in writing….only 2 percent of students in each grade performed at Advanced" (National Center for Education Statistics 2005 p. 50).

1996 was a pivotal year. It was the year that Dolly the Sheep was cloned, the year of two space launches to Mars (*Global Surveyor* and *Pathfinder*), and the year newly re-elected Bill Clinton signed the Telecommunications Act, which helped wire public schools nationwide to the Internet. The year also marked a fundamental change in the ways students choose to spend their free time.

In 1996, Americans still spent more time reading books than surfing the Internet. However, since 1996, as use of non-print media has surged, reading—especially reading books—has been on the decline. An overwhelming volume of research (from media research firm Veronis Suhler Stevenson, the U.S. Census Bureau, The Department of Labor, the Kaiser Family Foundation, National Institute for the Humanities) indicates that time students spend reading is getting crowded out by time spent with a plethora of electronic media—particularly the Internet, video games, and, of course, television.

The Internet

The Internet serves as a vast, immediate source of information but, believe it or not, most adolescents do not go online to read Voltaire or Vonnegut, though we might wish they did. Recent studies of teen behavior on the Internet (Nielsen, 2005; Rainie & Horrigan, 2005; Gross, 2004) confirm that adolescents usually surf for images and music, to use email or instant messenger, or to play online games. Very few students sign onto the Internet looking for reading material. A teen's proclivity for seeking sound and images on the Internet holds true across categories of gender and race.

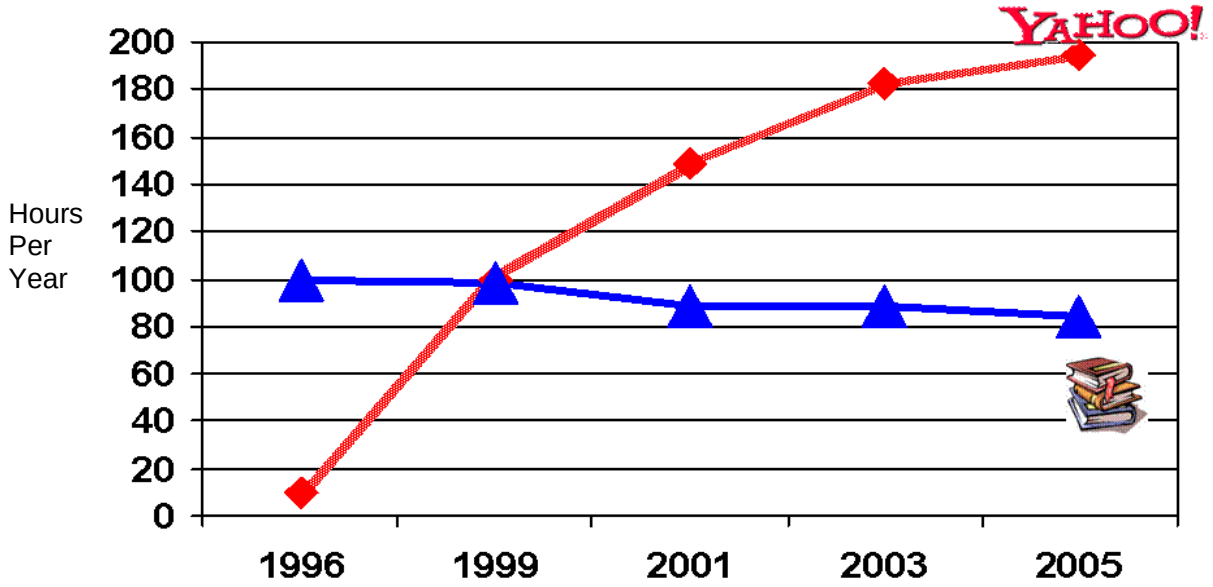

Figure 1.1: Time spent on the Internet vs. time spent reading books (1996-2005)

As indicated in Figure 1.1 above, the average number of hours spent per year on the Internet increased from around 10 hours in 1996 to 194 hours by 2005. During the same time frame, reading dropped from around 100 hours per year in 1996 to 84 hours per year (Veronis Suhler Stevenson, 2005). Corroborating data from the U.S. Census Bureau reveals that the smallest segment of book purchasers are aged 25 and younger. While individuals between the ages of 35 and 54 accounted for about half of all book sales in 2003, individuals under 25 accounted for less than 4%, a percentage that has been dropping since 1996. A study sponsored by the National Endowment of the Arts (2004) found a precipitous decline in the reading of literature. The steepest declines in reading literature were found among adolescents and young adults

> Over the past 20 years, young adults (18-34) have declined from being those most likely to read literature to those least likely…. The rate of

decline for the youngest adults (18-24) is 55 percent greater than that of the total adult population (p. ix).

Video games

The Internet is not the only medium to integrate itself into the daily lives of students. 1996 was also the year that Sony launched its Nintendo 64 in the United States. Soon thereafter, the video game industry began making billions of dollars more than the motion picture industry (Gaudiosi, 2003; Levine, 2006). In terms of hours spent per year (Figure 1.2), video games have mirrored the rise of the Internet. Half of all Americans play video games for an average of 8 hours per week. Of course, video game players are predominantly children aged 5-18, who constitute more than half of game players (Entertainment Software Association, 2005).

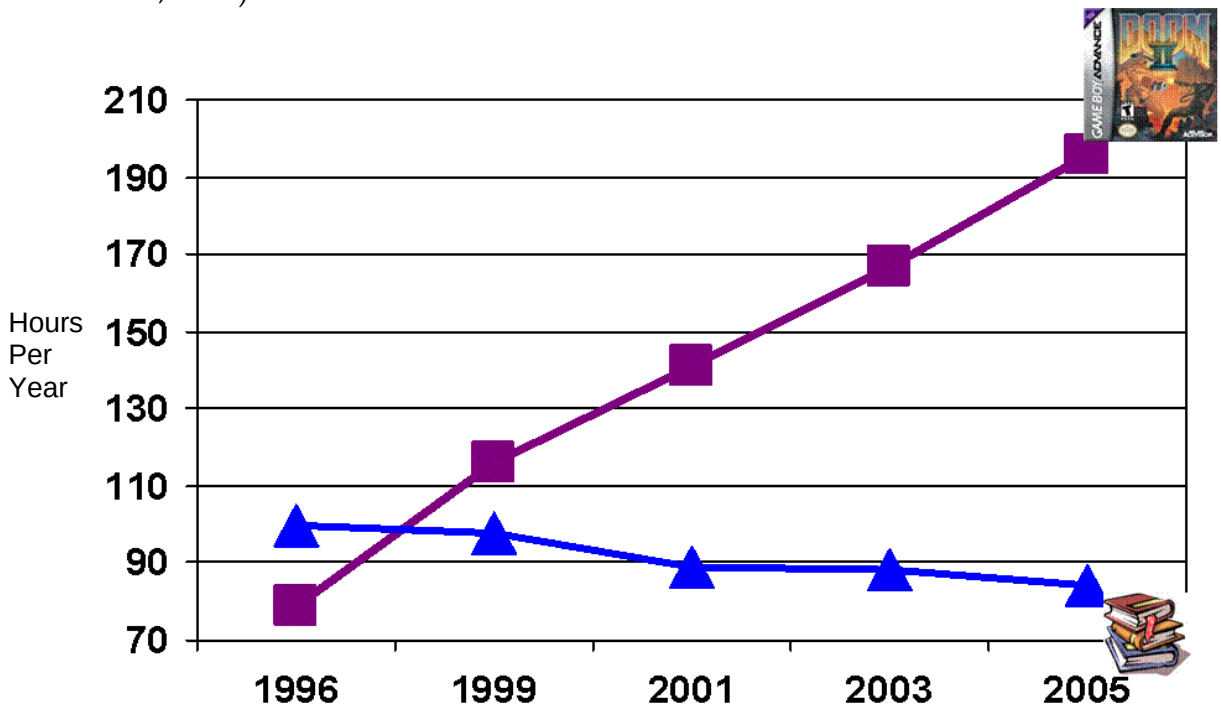

Figure 1.2: Time spent playing video games vs. time spent reading

Last year, I became acquainted with a seventeen-year-old boy at a local high school who was a video game fanatic. Chris was a good-looking, popular boy who made As and Bs in his classes, had a girlfriend, and a part-time job at a fast food restaurant on the weekends. While Chris appeared to be a typical high school junior, his schedule was a little unusual. On Sunday through Thursday nights, he ate dinner with his family around 5 p.m., and went to sleep at 6 p.m. Then, he woke up at midnight, logged onto the Internet, and played video games until 7 the next morning when he would get ready for school. According to

Chris, his "video game lifestyle" was fully supported by his parents, who seemed thankful that he had few other "bad habits."

Like most video game players, Chris predicted that the time he spent playing video games would only increase over time (Entertainment Software Association, 2005), although that prospect seems difficult to fathom. When asked how long he planned on keeping up his odd schedule, Chris responded, "For as long as I can."

If you try to start up a conversation with a group of students at school, do not mention books, writers, or the names of historical figures—they will not know them. To see students as young as five years old get animated and excited, bring up the titles of the latest video games. In its infancy, video games were developed for a predominantly male audience, but that has changed over the past few years, as females now comprise almost half of video game players (Entertainment Software Association, 2005). More than 228 million video games were sold in 2005, roughly two games for every household (U.S. Census Bureau, 2004). About half of American households own a Nintendo game and the best-selling video game of all time is probably *Super Mario Bros.*, which sold over 40,000,000 copies (*Guinness Book of World Records*, 2006). However, when I recently brought up Mario to a group of middle school children, I was promptly informed that Mario is "still kind of cool, but way old" these days.

Television

As a medium, television has neared the point of saturation in America. On any given day, more than 90% of Americans tune in to television for at least a few hours. Ninety-nine percent of American households have at least one television; cable TV is present in more than 70% of homes and 90% of homes with incomes over $50,000 (Energy Information Administration, 2006). While the average number of TV sets per household is 2.5, two-thirds of U.S. homes have three or more sets. Over the past few years, the bedrooms of children have turned into media bunkers—68% of 8-18 year-olds have TVs there, 54% have a VCR or DVD player, and 37% have cable TV (Kaiser Family Foundation, 2005). The explosion of media available in the bedroom means that "go to your room" has taken on a whole new meaning. No longer a threat, "go to your room" has become a treat, equivalent to a trip to the movies or the local arcade in earlier eras.

Since 1996, television has expanded its domain from the privacy of the home into an ever-increasing number of venues. TV screens have become commonplace in classrooms, airports, restaurants, grocery stores, waiting rooms, sports venues, concert halls, and retail stores, and are being built into refrigerators, clock radios, and even, wrist watches. Six big-screen TVs greet visitors at the entrance to the beautiful library in my hometown and they stay on all day. There are four additional big-screen TVs in the hallway leading to the parking garage and a dozen or so other sets scattered throughout the library. In

1996, the average American watched 15.6 hours of television for every hour of reading; in 1999, television watching crept up to 16.2 hours for every hour of reading. By 2007, the ratio had increased to 21:1. That is, for every hour spent reading, more than 21 hours are spent watching television. The ratio is expected to continue to escalate, though a ceiling seems inevitable (Veronis Suhler Stevenson, 2005).

The move away from print

Data on the leisure and sports habits of Americans is gathered periodically by the U.S. Bureau of Labor Statistics. Figure 1.3 below offers a summary of average hours per day spent in leisure and sports activities for Americans aged 15-24.

	Total leisure and sports	**Watching TV**	**Social time**	**Playing with computer**	**Sports**	**Relaxing and thinking**	**Reading**	**other**
Time-use study, Age 15-24	5 hours, 27 minutes	2 hours, thirteen minutes	1 hour, 1 minute	37 minutes	31 minutes	13 minutes	8 minutes	44 minutes
percentage	100	41	18	11	9	4	2.6	14

Figure 1.3: Average hours per day spent in leisure and sports activities, ages 15-24

Perhaps the most startling finding from Figure 1.3 is not the dominance of TV, but the small portion of time given to reading as a leisure time activity during a typical day—8 minutes! 15-24 year-olds spend 463% more time (37 minutes) playing on the computer than reading (8 minutes), which is consistent with data gathered by Veronis Suhler Stevenson (2005), depicted in Figure 1.1.

Figure 1.4 below shows downward trends in hours spent with print materials—books, magazines, and newspapers.

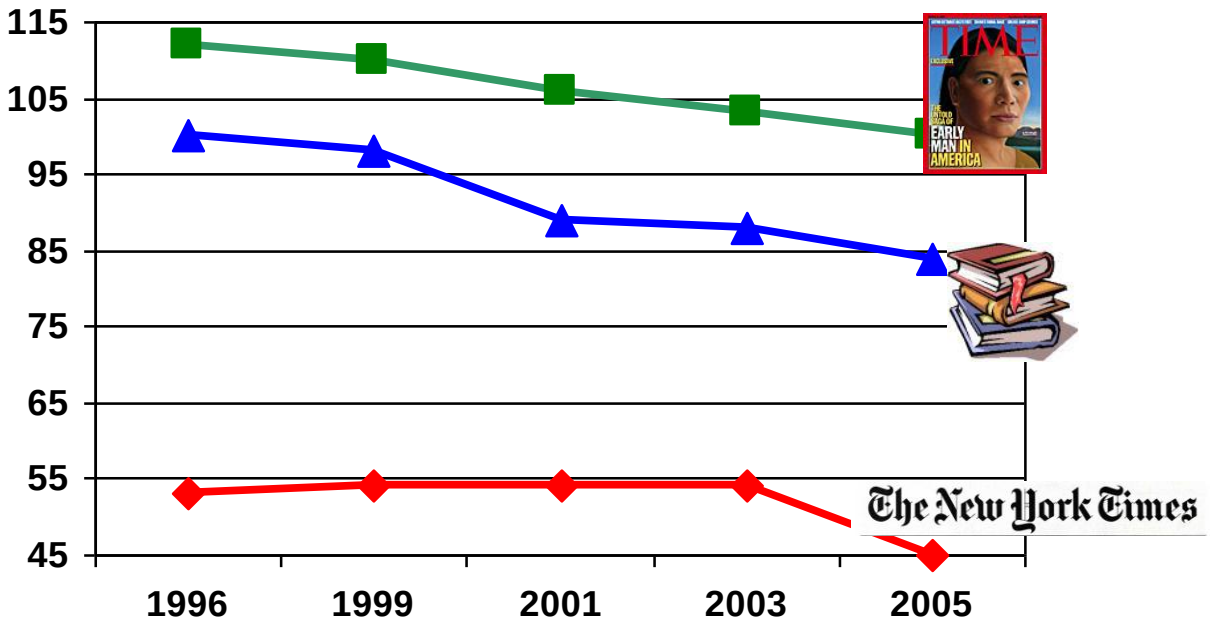

Figure 1.4: Trends in hours spent reading magazines, books, and newspapers

The quality of student writing

The decline of books is enough to turn some educators into head-shaking curmudgeons. In response to the decline of reading (especially during adolescence), some recent initiatives, such as the federal government's new High School Initiative (Olson, 2005; Chaddock, 2005; McGrath, 2005), seek to enhance achievement among high school students through a re-emphasis on reading and writing.

The National Assessment of Educational Progress has been testing students on their writing abilities since 1969. Although there have been fluctuations—improvements and declines in the performance of a particular age group or ethnic group from time to time-- results in the NAEP have been surprisingly consistent over time. Remember that the NAEP classifies student performance as being advanced, proficient, basic, and below basic. Ever since the administration of the first tests, only a tiny proportion of students—1 or 2%--score at the advanced level, a level at which writing should be "detailed and fully developed…well crafted and coherent," with "rich and compelling language, precise word choice, and variety in sentence structure" (NAEP, 2003, p. 9).

Twenty to twenty-nine percent of students can write at the proficient level, which means that they include "details that support and develop the main idea of the piece," through "precise language and variety in sentence structure to engage the audience they are expected to address" (NAEP, 2003, p. 9).

Incredibly, as many as 80% of students write at the basic or below basic level.

Another alarming statistic surfaced in a recent assessment of adult literacy. It was found that the number of 16-18-year-olds considered literate actually has decreased since 1992. Figure 1.5 below illustrates the average score declines.

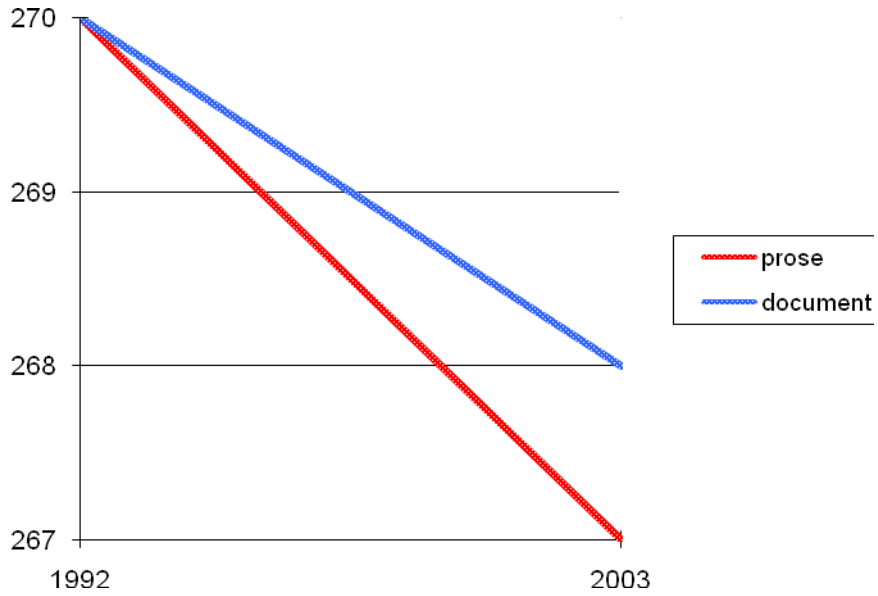

Figure 1.5: National Assessment of Adult Literacy (2005), performance of 16-18-year-olds

Another was the finding that the literacy of college graduates nosedived during the same period. "The percentage of college graduates with proficient literacy decreased from 40% in 1992 to 31% in 2003" (National Assessment of Adult Literacy, 2005, p. 15).

Books today

In decades past, the unveiling of a new work by a familiar author was a major event. Some select books, particularly those that gained widespread readership, might have been optioned to Hollywood producers and eventually adapted for film. Over the past few years, however, the relationship between books and films has been transmogrified. Today, rather than provide inspiration for films, books have become subsidiary to the public relations blitz that occurs with the release of a new film. If asked to guess the title of the best-selling children's book of 2004, most of us would be correct in assuming it was *Harry Potter and the Order of the Phoenix* by J. K. Rowling. And so it was—Harry owned the top spot. But, in examining the other titles in the top ten best-selling books of 2004, the number of film tie-ins is astounding (*Publisher's Weekly*, 2006).

10 best selling children's books, 2004

1) *Harry Potter and the Order of the Phoenix* by J. K. Rowling
2) *Disney/Pixar's The Incredibles* by Irene Trimble
3) *Spider Man 2: Spider-Man Versus Doc Ock* by Acton Figueroa; illustrated by Jesus Redondo
4) *Shark Tale: The Movie Novel* by Louise Gikow
5) *My Little Pony: Pony Party* by Kate Egan; illustrated by Carlo LoRaso
6) *Spider-Man 2: Everyday Hero* by Acton Figueroa; illustrated by Ivan Vasquez
7) *Spider-Man 2: Doc around the Clock* by Jacob Ben Gunter
8) *The Sisterhood of the Traveling Pants* (trade paper and mass market) by Ann Brashares
9) *The Polar Express the Movie: The Journey Begins* by Kitty Richards
10) *The Polar Express the Movie: The Magic Journey* by Tracy West

Nine of the top-ten best-selling books were made into films. Eight of the nine that were made into films were never books until the marking department of the film distribution company decided to hire someone to write a novelization. Lest you think of 2004 as a fluke, please note that the three best-selling children's books of 2003 were *Pirates of the Caribbean*, *Disney/Pixar's Finding Nemo*: *Junior Novelization*, and *Disney/Pixar's Finding Nemo: Best Dad in the Sea*.

It is difficult to dispute the importance of reading, but the dilemma is this: an adolescent must want to read more than he wants to hang out in the media bunker, where the latest, coolest, electronic gadget promises vibrant colors, thundering sound effects, and quasi-realistic adventure.

Academic standards

The quiet classroom where students rarely speak or write unless it is expressly pressed on them by fiat is the antithesis of the kind of interactive, multi-sensory environment that adolescents live and breathe outside of school. The dichotomy is jarring—from quiet, arduous *drill and chill* in school to noisy, fun, exciting games and movies outside of school. Teaching reading and writing through formula, memorization, and workbooks might have been effective once upon a time. However, let us finally admit that these sedentary, abstract, sensory-less approaches may be less than optimal today.

While traditional methods still have a place in a teacher's toolkit, they do not address the contemporary students' shift away from print and towards film, television, video games, and newer forms of electronic media. The bottom line is that students are reading less and plugging in more. How can a teacher who wants to develop students' literacy teach students who do not read, hate to write, are reluctant to think, and find it difficult to speak intelligibly?

One of the most striking commonalities among the sets of standards developed by professional organizations independently over the past twenty

years is the primacy given to literacy. Indeed, it is difficult to be proficient in high school social studies if you have trouble comprehending text; it is difficult to be proficient in algebra if you have difficulty translating symbols into practical operations; it is difficult to be proficient in science if you have difficulty accurately recording the results of experiments; it is difficult to be proficient in English if you cannot write a coherent sentence.

The standards, themselves, often operate upon an implicit assumption that students are able to read and write at grade-level. For example, consider two performance expectations with regard to a students' knowledge of culture as explicated by the National Council of Social Studies. "Social studies programs should include experiences that provide for the study of culture and cultural diversity, so that the learner can:

At the middle school level: Explain and give examples of how language, literature, the arts, architecture, other artifacts, traditions, beliefs, values, and behaviors contribute to the development and transmission of culture.

At the high school level: Apply an understanding of culture as an integrated whole that explains the functions and interactions of language, literature, the arts, traditions, beliefs and values, and behavior patterns" (National Council of the Social Studies, 2007).

Many National Science Education Standards (2007) are related to literacy. Consider the centrality of oral and written discourse to building scientific knowledge in this standard: "An important stage of inquiry and of student science learning is the oral and written discourse that focuses the attention of students on how they know what they know and how their knowledge connects to larger ideas, other domains, and the world beyond the classroom."

Perhaps surprisingly, seven of ten standards in mathematics (National Council of Teachers of Mathematics, 2007) are related to reading and writing—measurement, data analysis and probability, problem solving, reasoning & proof, communication, connections, and representation.

Of the twelve overall standards in English and reading (promulgated by the National Council of Teachers of English and the International Reading Association and cited in this book), all are predicated upon a student possessing both basic literacy and a desire to learn. For example, standard two requires that "students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience" (National Council of Teachers of English, 2007). Little understanding of human experience is possible for a poor reader who cannot speak clearly or write coherently.

The Partnership for 21st Century Skills (2006) offers an intriguing set of standards that include subject matter, but also standards for life skills, information technology, thinking, and "twenty-first century content." Sample outcomes for seniors in English is to "identify characteristics of suspect information that may indicate it is an Internet hoax, fraudulent activity or an

unreliable source" and to "construct a virtual museum exhibit depicting the role of the American Dream in classic texts" (Partnership for 21st Century Skills, 2004). Although I learned about the existence of Twenty-first Century Skills only after I finished writing the first draft of *Literacy through Multisensory Learning,* the Twenty-First Century outcomes mesh perfectly with the concepts in this book.

In response to the perceived weakening academic preparation of entering freshmen, the College Board (2006) has recently created standards expressly for the college-bound. To date, the College Board has developed standards for English/language arts and mathematics/statistics, and frameworks for science and world languages. When the College Board's standards are examined side-by-side with other standards, the commonalities become readily apparent. All emphasize the centrality of reading and writing to students' intellectual development.

In a series of reports, the National Commission on Writing (2005, 2004, 2003) has documented the expectation for literacy skills among tomorrow's workers, no matter a student's career aspirations. The Commission found that "Writing today is not a frill for the few, but an essential skill for the many" (2005, p. 6). The commission highlighted reading and writing as "essential skills," absolute necessities for success in the work place now and in the future.

According to the commission, two-thirds of all salaried employees already have at least some writing responsibility; 80% of companies in the service and financial sectors assess writing before hiring. Work is being transformed from the assembly-line, where employees performed repetitive, low-skill tasks to the think tank, where work has become complex and situational. As a result, the commission advocates putting writing "squarely in the center of the school agenda" with a doubling of the time spent writing in every class, across all subjects and at all grade levels (2003, p. 3).

Unfortunately, the shortcoming of reports and standards is that they explicate what needs to be done, but rarely divulge the protocol to accomplish it. If a student is barely literate and apathetic (or oppositional), standards can quickly seem like an impossible dream. While it is true that recent sociological and technological trends have militated against both engagement and traditional instructional strategies, multisensory techniques can recapture a student's interest and help build literacy—often, believe it or not, to the delight of the student.

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