

**TESTIMONY SUBMITTED TO THE HOUSE COMMITTEE ON EDUCATION
AND LABOR**

**EARLY CHILDHOOD, ELEMENTARY AND SECONDARY EDUCATION
SUBCOMMITTEE**

IMPROVING THE LITERACY SKILLS OF CHILDREN AND YOUNG ADULTS

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“The generation that is in school now, and those who will follow them are the people who will envision the future of our nation and chart our course through the 21st century and beyond. We owe it to them and to ourselves to ensure that they can read, write and learn at a high level in every classroom and every school, college and university throughout the United States.”

Vartan Gregorian, President Carnegie Corporation of New York

Overview

Throughout the history of Carnegie Corporation, its presidents have been engaged with literacy. Andrew Carnegie's legacy includes over 2000 free public libraries that he saw as a link "bridging ignorance and education." Access to books and the explicit teaching of reading are two ways in which literacy is fostered. From the 1930's to the 1960s reading was increasingly taught through methods that concentrated on "whole words" (or whole language), using sentences and stories that were closely geared to children's interests. Surprisingly, the teaching of reading became an intensely debated national issue in 1955, when Rudolf Flesch's *Why Johnny Can't Read And What You Can Do about It* (Harper) moved onto a national best-seller list. Flesch charged that the neglect of phonics instruction had caused a national crisis in literacy and that "whole language" was based on a flawed theory that required children to memorize words and guess how to pronounce a word they did not know, instead of sounding out the word. The "look-say" or whole-word method had swept the textbook market, despite the fact, Flesch alleged, that it had no support in research.

Carnegie Corporation President John Gardner (1955-1967) saw the debate about reading as central to the foundation's interests, writing in a 1959 Annual Report, "The question of whether Johnny can or cannot read-if so why, if not why not-has probably given rise to more hue and cry throughout the land than any other single educational issue. There are those who claim that today's youngsters cannot read as well as their parents did at their age; others state the situation is actually reversed. Proponents of one or another method of reading argue vociferously for their method and heap scorn upon other methods. Wherever the truth lies, it's not yet obvious, and any research which may shed light on this complicated problem will be to the good." Following this logic, the

Corporation soon funded a key grantee, Jeanne Chall of the City College of New York, to help "settle" the reading debate.

Chall spent three years visiting classrooms, analyzing research studies, examining textbooks and interviewing authors, reading specialists and teachers. She found substantial and consistent advantages for programs that included systematic phonics, finding that this approach was particularly advantageous for children from lower socioeconomic backgrounds. In 1967, Chall collected her Corporation-supported research and published *Learning to Read: the Great Debate* (Chall, 1967), which became a classic. Later, after moving to Harvard University, Chall developed a conceptual framework for developmental reading stages that extended from the pre-reading stage of very young children to the highly sophisticated interpretations of educated adults. Chall's reading stages clearly distinguished "learning to read" from "reading to learn;" she also identified and named the "fourth grade slump."

Advancing Literacy Initiative

The Corporation's distinguished history in support of literacy—some of which is described above—has recently extended from pivotal initial support for the Emmy award-winning PBS series *Between the Lions*, to the work of the International Development Division in strengthening libraries in sub-Saharan countries in Africa. As always, our work in this area includes a concern with access to books, the search for better methods of teaching reading, and building a body of knowledge about the developmental issues associated with early childhood and adolescence. Taking all these factors into account, Carnegie Corporation came to its current focus on literacy with enormous comparative advantage. Indeed, to many people, the name Carnegie Corporation is associated with the very foundations of literacy going all the way back to the philanthropy of Andrew Carnegie himself and of the Corporation in its early years; both were instrumental in helping to create the nation's network of free public libraries.

The Corporation's Advancing Literacy Initiative was developed after an extensive two-year review that included consultations with the nation's leading practitioners and researchers. We learned that the teaching of reading in K-3 is well supported with research, practice and policy, but that these are lacking for grades beyond this point. In 2002, Carnegie Corporation commissioned RAND to convene a small group of scholars and policy analysts to discuss the then-current state of research on adolescent literacy and help lay the groundwork for a long-term effort directed toward supporting and improving the literacy skills of adolescent students in our nation's schools. The resulting task force on adolescent literacy produced a "briefing book" that identified and examined several topics relevant to adolescent literacy about which more thinking was needed.

Despite the recognized importance of specialized literacy skills for adolescents, the knowledge base on this issue was at that time relatively small, with school instruction relying more on intuition than solid evidence and the institutional dissemination of best practices. Notable earlier reports, including *Preventing Reading Difficulties in Young Children* (Snow, Burns & Griffin, 1998) and the *Report of the National Reading Panel* (National Reading Panel Report, 2000), had offered strong arguments and recommendations for systematic literacy instruction in the primary grades even though international comparisons suggested that the performance of American children in the

primary grades had long been comparable to that in other developed nations (Martin, Mullis, Gonzalez, & Kennedy, 2003). The specific challenges of adolescent literacy and learning had been comparatively ignored in favor of the “inoculation” model of literacy instruction, wherein later problems are avoided through early efforts at prevention.

The RAND Task Force delivered its briefing book to the Advisory Council on Advancing Adolescent Literacy (ACAAL), an enlarged group established by the Corporation, in 2004. ACAAL members then took on the task of working out how to expand knowledge about the topics identified in the briefing book by overseeing (and in some cases themselves producing) synthetic reports and white papers. Some of these early reports were widely distributed and have received considerable enthusiasm. ACAAL commissioned a substantial list of reports and small studies focused on issues as varied as comprehension assessment, out-of-school learning, second language learners’ instructional needs, writing in adolescence, literacy in the content areas, and standards for adolescent literacy coaching (see *Appendix A* for a complete listing of books and reports from the initiative). Members of ACAAL also contributed to teams that produced a variety of guides for policy makers including governors, state school boards, principals, superintendents, district school boards, and curriculum developers, and participated in adolescent literacy summits organized and promoted by the Alliance for Excellent Education.

Therefore, we have chosen to focus our efforts on intermediate and adolescent literacy, to build research, practice and policy for literacy in students in grades 4 through 12. Our decision is informed by our grantmaking, which has helped us and the nation learn a great deal about children in their early, middle and adolescent years of development, as well as about teaching and learning and the complexity of school reform. What has become evident is that good school reform and knowledge of adolescent development are not mutually exclusive: they go together.

During the last twenty years our nation’s educational system has scored some extraordinary successes, especially in improving the reading and writing skills of young children in grades K-3. Yet the pace of literacy improvement has not kept up with the pace of growth in the global economy, and literacy gains have not been extended to adolescents in the secondary grades.

Overall, we are failing to create highly literate, college-ready adults with the literacy skill sets that qualify them for employment in the new global knowledge economy. The most recent data shows poor performance by U.S. students compared to many other nations (UNESCO Institute for Statistics, 2007). Although U.S. students in grade four score among the best in the world, those in grade eight score much lower. *By grade ten, U.S. students score among the lowest in the world.*

In addition, many of our high school graduates are not prepared for college-level coursework, a widespread problem that has impelled most colleges and universities to introduce remedial reading programs for the large numbers of freshmen unable to cope with the quantity of reading assigned to them college classrooms (NCES, 2001, 2003). Likewise, estimates indicate that private industry now spends up to 3.1 billion USD (National Commission on Writing, 2004) per year to bolster the writing skills of entry level workers. Part of the problem is that societal demands for high levels of literacy have increased dramatically: “The skills required to earn a decent income have changed radically. The skills taught in most U.S. Schools have not” (Murnane & Levy, 1996)

In other words, our adolescents are not being adequately prepared for the demands of higher education, employment and citizenship in the 21st Century (American Diploma Project, 2004; Center on Education Policy, 2007; Lee, Grigg, & Donahue, 2007; Perie, Grigg, & Donahue, 2005). It is a well-publicized fact that young people who fail or under-perform in school are increasingly likely to suffer from unemployment or drastically lower income levels throughout their lives (e.g., OECD, 2007).

The Corporation is by helping to build the nation's capacity to teach and strengthen reading comprehension skills, with a special focus on grades 4 through 12, i.e., ages 9 through 17. Therefore, we refer to this effort as intermediate and adolescent literacy. The Corporation begins from a position of comparative advantage, having established a knowledge base of theory and effective practice in early learning and education systems reform.

The marketplace for employment is governed by a new knowledge-based economy, requiring better educated, highly literate and technologically fluent high school graduates. The causes of the weakness in intermediate and adolescent literacy are poorly understood, but current research suggest several reasons why students do not maintain the gains they make in earlier grades:

- A shortage of qualified literacy experts who can coach and teach literacy for students and teachers in the middle grades;
- A lack of capacity, time and will for middle and high school teachers to teach literacy within their content areas;
- A lack of reinforcement of comprehension of "informational text" in early reading;
- A lack of strategies at the end of the third grade for pupils to deal with a rapid shift from narrative text to expository text;
- A lack of systemic thinking in schools about literacy beyond age eight;
- Decrease in student motivation to read as children progress from fourth grade through twelfth grade;
- Middle and high school designs that lack the capacity to identify and target students that need literacy assistance;
- Little awareness by parents and community groups that literacy instruction needs to continue after children have learned the basic skills of decoding words and following a simple narrative.

We believe there is strong evidence that schools with a focus on literacy (reading and writing) are associated with improved academic performance and successful academic outcomes for students. At the Corporation, we are making grants aimed at having a profound influence on adolescent literacy by directing national attention to the issue, bringing together the best talent in the field to address the issue, and supporting needed research and innovative practices (See Carnegie Council on Advancing Adolescent Literacy *Time to Act: An agenda for advancing adolescent literacy for college and career readiness* and other corresponding reports at: <http://www.carnegie.org/literacy/tta>).

Good early literacy instruction does not inoculate students against struggle or failure later on. Beyond grade 3, adolescent learners in our schools must decipher more

complex passages, synthesize information at a higher level, and learn to form independent conclusions based on evidence. They must also develop special skills and strategies for reading text in each of the differing content areas (such as English, Science, Mathematics and History) – meaning that a student who “naturally” does well in one area may struggle in another.

We have a strong knowledge base of reading instruction for grades K-3. However, literacy supports for adolescents present greater instructional challenges and demand a range of strategies. Middle and high school learners must learn from texts which, compared to those in the earlier grades are significantly longer and more complex at the word, sentence and structural levels, present greater conceptual challenges and obstacles to reading fluency, contain more detailed graphic representations (as well as tables, charts and equations linked to text) and demand a much greater ability to synthesize information.

Also, each content-area has its own set of literacy skills that students are required to master before they can move fully from “learning to read” to “reading to learn.” Adolescents who fail to master these more complex tasks in their learning process are likely to become unskilled workers in a world where literacy is an absolute precondition for success.

This is particularly true in mathematics and science. The Carnegie Corporation of New York – Institute for Advanced Study Commission on Mathematics and Science Education report, *The Opportunity Equation: Transforming Mathematics and Science Education for Citizenship and the Global Economy* (www.OpportunityEquation.org), advocates for expanding Science Technology Education and Mathematics (STEM) education by educating significantly more students to be STEM-capable for college readiness rather than viewing STEM as subjects offered only to the highest achievers. The Commission also recommended reframing STEM to be a catalyst for the kinds of education reform that is needed to accelerate the development of rigorous curricula, improved teaching practices, and high quality assessment and accountability measures.

However, reading scientific texts pose specialized challenges to inexperienced and struggling readers. For example, scientific research reports include abstracts, section headings, figures, tables, diagrams, maps, drawings, photographs, reference lists and endnotes. Science textbooks usually include similar elements. Each of these elements serves as a signal as to the function of a given stretch of text and can be used by skilled readers to make predictions about what to look for as they read, but consider the situation of an adolescent reader confronted for the first time by such texts and trying to make sense of them using the basic decoding tools acquired in “learning to read.”

Comprehension of scientific texts also often requires mathematical literacy, or an ability to understand what mathematical tables and figures convey. It is not uncommon for such figures and tables to invite multiple points of view or to open up questions that are not posed directly in the text (Lemke, 1998). Many scientific texts also require visual literacy, using diagrams, drawings, photographs and maps to convey meanings.

Similarly, mathematics textbooks can serve as a significant barrier for students who are struggling readers. “It is a myth that mathematics and math-dependent majors in college do not require strong reading and writing skills. Students have to be able to comprehend complex informational text so they can identify which mathematical operations and concepts to apply to solve a particular problem” (Lee & Spratley, 2010).

In order to integrate reading and writing instruction successfully into the academic disciplines, district, state and federal policymakers must:

- 1) Define the roles and responsibilities of content area teachers clearly and consistently, stating explicitly that it is not those teachers' job to provide basic reading instruction;
- 2) Members of every academic discipline define the literacy skills that are essential to their content area and which they should be responsible for teaching;
- 3) All secondary school teachers receive initial ongoing professional development in teaching the reading and writing skills that are essential to their own content area;
- 4) School and district rules and regulations, education funding mechanisms, and states and accountability systems combine to give content area teacher positive incentives and appropriate tools with which to provide reading and writing instruction.

The challenge is to connect reading and writing instruction to the rest of the secondary improvement agenda, treating literacy instruction as a key part of the broader effect to ensure that all students develop the knowledge and skills they need to succeed in college and careers (Heller & Greenleaf, 2007).

Re-Engineering Schools for Literacy

After the investment of millions of dollars and the talents of the best and brightest reformers over decades of educational reform, it is now clear that urban schools cannot be successfully reformed without substantially changing the way school districts operate. The Corporation considers the redesigning of urban high schools to be a daunting challenge but also a promising target of opportunity for accelerating the pace of school district reform. This requires treating urban schools as a complex system rather than an aggregation of individual schools. School districts are embedded within communities that strongly influence their mode of operation. Therefore, school districts cannot succeed in addressing the problems of educating all students to high standards in isolation and must also employ community and organizational resources.

Carnegie Corporation seeks to increase the number of promising school designs demonstrating substantial gains in student achievement and to build on those, in particular, that are addressing systemic barriers and demonstrating effectiveness at scale. New models of small, academically rigorous high schools developed with support from Carnegie Corporation and the Bill & Melinda Gates Foundation, which have significantly improved graduation rates of the schools they replaced, are outstanding examples of such designs. These schools, all of which have been developed with partnering higher education, cultural or community organizations and school development organizations, also include leadership and teacher recruitment and professional development components.

New school designs aim to overcome the inherent weaknesses in urban schools and systems, which include low expectations, weak curricula, incoherent management approaches, limited talent pools and capacity-building strategies, entrenched school models that prevent innovation, poor instructional practices and systems of support, and isolation and failure to benefit from external resources. To reinforce the development and

sustainability of these new designs, it's essential to build up a sector of intermediary organizations, university centers, non-profit school and design developers, and research and demonstration organizations—some of which specialize in content areas like adolescent literacy or mathematics while others focus on leadership development and turning around low-performing schools.

Without question, literacy is a critical component of learning and therefore of all new, improved school designs. In order to have “literacy for all” we must also have a comprehensive agenda for re-engineering America’s schools that will support adolescent learners. Re-engineering for change at the school level must achieve the following:

1. The school culture is organized for learning: Quality instruction is the central task that organizes everyone’s work. Thus, teachers feel personally responsibility for student learning, and trust one another and the principal to support them in their work. Because there is a sense of participation in a professional community, decisions are made collaboratively and are based upon data. The staff strives for continuous, incremental improvement of student performance over time. The school provides optimal learning conditions characterized by a warm, inviting, and low-threat learning environment for students and for teachers. Students and teachers are well-known to and by each other.

2. Information drives decisions: Student achievement data is that it drives decisions about instruction, scheduling, and interventions. District- and state-provided test data are used as appropriate for these decisions. In addition, the staff receives support in efforts to gather and analyze real-time data from team-developed formative assessments and uses that information to inform instruction and to target remediation. As a result, teaching and learning become a dynamic process based upon the current needs of all learners. Additionally, data are systematically archived so knowledge is accumulated over time regarding the effectiveness of programs and other innovations.

3. Resources are allocated wisely: Time, energy, and materials are focused on areas deemed critical for raising student achievement. Scarce resources are distributed wisely according to student needs. The schedule allows time for teacher professional development and collaborative data analysis as part of regular work. There is also time in the schedule for supplementary instruction in smaller classes to bring struggling students up to grade level. Professional support (coaches, mentors) for promoting literacy skills is available to all content-area teachers.

4. Instructional leadership is strong: The school’s leadership works tirelessly to keep student learning the primary goal. Time and attention are distributed according to consensual importance. Leaders work in partnership with subject area specialists, literacy coaches and other skilled experts to ensure successful implementation of critical programs. The principal understands assessment data, knows struggling students and their teachers by name, creates effective internal accountability mechanisms, and manages both the instructional (i.e., curriculum, assessment, professional development) and the infrastructural (i.e., scheduling, budgeting) literacy needs of the school. A literacy leadership team is centrally engaged in designing, supporting, and overseeing the school’s literacy work.

5. Professional faculty is committed to student success: Teachers subordinate their preferences to student needs, participate willingly in professional development because it is focused on the challenges they are facing and is designed to improve their work, recognize the importance of literacy skills to content area learning, participate in vertical and grade-level teams, and work with colleagues and coaches in observing, describing, and analyzing instructional practice. Coaches participate in the professional community as colleagues rather than as evaluators or as administrators.

6. Targeted interventions are provided for struggling readers and writers: Multi-tiered, scaffolded instruction helps students to build the skills and strategies they need for success. A logical progression of interventions is available, to which learners are assigned based on their differential needs. Those students lagging furthest behind receive intensive courses that provide explicit instruction on critical reading and writing skills and strategies with ample opportunities for scaffolded practice. Such scaffolding allows for acceleration and helps struggling students to tackle rigorous work. Courses aimed at overcoming specific reading difficulties, whether decoding, fluency, or comprehension are taught by teachers with specific expertise in reading. These courses do not replace instruction in English Language Arts or other content area classes, and whenever possible carry credits toward graduation.

7. All content area classes are permeated by a strong literacy focus: Teachers naturally address literacy instruction as a normal part of the teaching and learning process. Core classes (math, science, language arts, social studies) have reading and writing (instruction and application) woven in throughout. Content-area teachers have a strong background in their content areas and a metacognitive understanding of the specific types of literacy skills these areas require. Teachers have strategies for teaching challenging content both to advanced readers and to struggling readers, by identifying critical course content, focusing on the big ideas, and delivering content in an explicit, learner-friendly way. The skills struggling readers learn in reading class are explicitly reinforced in content-area classrooms, and reading teachers use content area materials as a basis for practicing the reading skills they are teaching.

Recommendations:

While federal legislation historically has had a “hands off approach to school-school based practices in the past, we have seen that a more active role, particularly around policies that have the potential to impact classroom practices based on sound research, can have indelible impact on teachers and a nation of readers (i.e. Reading First). Strong federal legislation, such as the LEARN Act, that support middle and high school to ensure many more of our young people graduate high schools and are well prepared for postsecondary education and the workforce are critical. A funding stream focused on middle and high schools should include the following:

- Increasing Title I support for middle and high schools or creating a new funding stream. At the moment only 5 percent of federal Title I funds go to middle and high schools. If the nation is to remain competitive we must increase high school graduation and college-going rates among our most disadvantaged

students. An infusion of resources at the secondary level focused on higher levels of literacy is critical to making this happen. As we have mentioned, an “inoculation” in primary grades does not presume students will do well in secondary schools.

- In a globalized economy we need world-class common standards and assessments. Common standards in English language arts will help to increase attention to reading and writing and especially focus on comprehension that can be embedded in other content areas. Common standards discussion will also accelerate the development of high quality assessments for secondary school students.
- Fully fund and expand a comprehensive preK-12 continuum with specific support set aside for grades 4-12 adolescent literacy so that more students and their teachers have access to federal support. The “Literacy Education for All, Results for the Nation Act” or LEARN Act, specifically addresses this call to action.
- Investigate the costs and benefits of linking the National Assessment of Educational Progress (NAEP) to international literacy tests, such as PISA and PIRLS. While NAEP has been an indispensable measure for tracking America’s educational progress, it provides no sense of how America stands in relation to other nations. Funding an effort to equate long-term trend NAEP test with PISA and PIRLS would allow us to get an instant snapshot not only of how today’s youth perform in relation to yesterday’s youth, but also how America’s youth perform in relation to the larger world’s youth. With the rapidly changing face of the 21st century economy, we need accurate and timely information on America’s educational standing
- Literacy demonstration sites in high poverty areas that can implement best practices and proven strategies for what works in middle and high schools. This is particularly important for districts that need to coordinate their professional development efforts to effectively work with content area teachers to embed literacy into their domain areas.
- Support states to build comprehensive preK-12 literacy plans. While almost all states have made K-3 literacy plans, we need to ensure the all states have strategic literacy plans for grades 4-12 in reading and writing and are working systemically work with school districts to ensure all schools have a way of embedding literacy with their designs. Literacy extends well beyond 3rd grade with states. Federal resources can help to establish efforts similar to those run by the National Governors Association’s Reading to Achieve: State Policies to Support Adolescent Literacy and High School Honor States—to help states develop adolescent literacy plans (Snow, Martin and Berman, 2008).
- Additional support to improve the education of middle grade students in low-performing schools by developing and utilizing early warning data systems to identify those students most at-risk of dropping out, assisting schools in implementing proven literacy interventions, and providing the necessary professional development and coaching to school leaders and teachers.
- Increase support for the National Writing Project (NWP). NWP has been one of the most coherent literacy professional development efforts in the nation for over 30 years. The NWP’s substantial network of 175 sites and in Washington DC,

- Puerto Rico and Guam. NWP has also begun a National Adolescent Reading Initiative to complement its work in writing. Increased support for NWP will ensure that the research-based methods used in reading and writing in secondary schools are infused in a large number of school districts across the country.
- Increase federal funding for evidenced-based research for adolescent literacy. There are a number of questions to which a robust and well-funded research effort could provide answers, with the prospect of immediate improvement in adolescent literacy outcomes. We know we need to intervene and individualize instruction with students as soon as they begin to fail. We don't know what the best strategies are for the particular levels of failure. It is critical that funding for research in middle and high schools be increased to fund research at NICHD and IES that could demonstrate how best to assess adolescents quickly and efficiently in order to determine their need for intervention and/or support, what works for older readers, and what some of the most productive strategies are for struggling readers. The American Recovery and Reinvestment Act is an exciting opportunity for much of education but there is little reference to English-language learners. ELLs deserve more research attention particularly the issue of language proficiency and academic content needs. Research into the impact of different approaches to teacher education and professional development, and the best design of vocabulary and comprehension instruction for ELLs and other struggling readers is critical.

Conclusion

The Corporation's rich history in literacy has, at its core, Andrew Carnegie's belief that, "Only in popular education can man erect the structure of an enduring civilization." This belief has guided the Corporation as it has moved from helping to establish public libraries, to laying the groundwork for what we know as Head Start, to its groundbreaking efforts to improve middle schools and high schools. At a the recent launch of the *Time to Act* report, Corporation president Vartan Gregorian encouraged us all to take action: "Today, let us set ourselves the task of helping all American students to become wealthy in knowledge and understanding by improving their literacy skills. As Andrew Carnegie said, one of the jobs of a patriot is "...the dispelling of ignorance and the fostering of education." Hence, as patriots and as parents, teachers, leaders of business and government--and as Americans-- let us commit ourselves to being good ancestors to the generations who follow by ensuring that each and every student can "*read to learn.*"

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Appendix A

Carnegie Corporation of New York's Advancing Literacy Initiative: Works and Commissioned Papers. Most posted on www.carnegie.org/literacy

2009

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