

## Two Books on the “Science of Reading”

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*Beginning to Read and the Spin Doctors of Science*

And

*Debunking the “Science of Reading” - How The Spin Doctors of Phonics  
Are Harming America’s Children.*

*Beginning to Read and the Spin Doctors of Science* is the book that many of the original proponents of the “science of reading” did not want you to read.

*Spin Doctors*, as it became known, was published in 1998. Three thousand copies of *Spin* were sold in the first year and then it quickly disappeared.

*Spin Doctors* presented an in-depth analysis of the lack of scientific validity of the Houston Reading Study, and exposed the political campaign that was taking place at that time to change the minds of Americans about how young children are taught to read. In the twenty-five years since the book was published the analysis of the Houston Reading Study and the interpretation of the political events taking place have been born out in real time.

I have written many books on language, literacy, and learning, some of which have been in print for 40 years, but in less than a year I could not get copies of *Spin Doctors* for keynote presentations that I was invited to give, and *Spin* was not included in the books made available in exhibit halls by the publisher at national conferences and conventions. In the exhibit hall at one convention in 2000, I asked a representative of the publisher why *Spin Doctors* was not included with the books on display, and the answer given was that they had been told not to include it.

Researchers and teachers also contacted me to express their concern that they could not get copies of *Spin*. Some said they had been told it was no longer in print.

One amusing story was recounted by a reading researcher shortly after *Spin* was published. He said he had attended a meeting at which Reid Lyon of NICHD was a speaker, and that he introduced himself as “Spin Doctor Number Three.” I don’t know if this story is true, but it made me smile.

Barbara Foorman, Jack Fletcher, David Francis, and Chris Schatschneider also responded in an article entitled, “Response: Misrepresentation of Research by Other Researchers,” which was published in the *Educational Researcher* (2000, Vol. 29, No. 6, pp. 27-37). Most of the article was in response to a negative critique of the Houston Reading Study by Barbara Taylor, Richard Anderson, Kathryn Au and Taffy Raphael in the same issue of the *Educational Researcher*.

The data and analysis presented in *Spin Doctors* was given short shrift by Foorman and her colleagues. The book was dismissed as “sensational, conspiracy-motivated fiction.” Faced with the detailed scientific analysis in *Spin* that exposed the flaws in the study, their only recourse was more spin.

Unfortunately, the analysis of the Houston Reading Study presented in *Spin Doctors* was not fiction. What *Spin* showed by an analysis of the data was that the Houston Reading Study had no scientific validity, which might have been a problem for Bush who was directly involved in supporting the research and was on track to become the “education president.”

Once in office, Bush used the Houston Reading Study to establish the scientific basis of the No Child Left Behind (NCLB) law. The HRS was also used as the “scientifically based reading research” of NCLB and Reading First, which was conceived by Reid Lyon at NICHD as the principle mechanism to enforce the mandates of NCLB.

Reports state that Bush first flew Lyon to Texas in 1995, and the Houston Reading Study was an outcome of these meetings. The study took place in the run-up to the 2000 Presidential Election and, in conversations at that time, teachers who participated in the HRS described the pressure as intense. The outcome of the study was a foregone conclusion, even if it was not. Harold McGraw III was selected as a member of Bush’s transition advisory team and the “treatment” used in the Houston Reading Study was McGraw-Hill’s *Open Court*.

“On the day he assumed the White House,” Steven Metcalf wrote in *The Nation*, January 10, 2002, “the day he invited Harold McGraw III into his office, Bush called on Congress to help him eliminate the nation’s ‘reading deficit’ by implementing the ‘findings of years of scientific research on reading.’”

Metcalf quotes a lobbyist who states, “I’ve been lobbying on education issues since 1982, but the test publishers have been active at a level I’ve never seen before. At every hearing, every discussion, the big test publishers are always present with at least one lobbyist, sometimes more.”

Metcalf then writes, “Both standardized testing and textbook publishing are dominated by the so-called Big Three – McGraw-Hill, Houghton-Mifflin and Harcourt General – all identified as, ‘Bush stocks,’ by Wall Street analysts in the wake of the 2000 election.”

Bush, Lyon at NICHD, the Texas Business Round Table, McGraw-Hill, the Fordham Foundation, and the National Reading Panel have all used the Houston Reading Study in the promotion of the false “scientific evidence” that children must receive explicit instruction in phonemic awareness and phonics to learn to read. These efforts have intensified in the twenty-five years since the Houston Reading Study was first published and continue today through the disruptive efforts of “science of reading” acolytes and the acquiescence of many colleges and universities to the teacher training restrictions imposed by Fordham’s NCTQ.

But even before the Houston Reading Study was published in the *Journal of Educational Psychology* in 1998, the researchers who conducted the study - which was funded by NICHD - were announcing a “scientific breakthrough” in teaching children to read.

There was no “scientific breakthrough.” Nevertheless, in 1997 Foorman, Fletcher and Francis prematurely made an announcement on the LD *OnLine* website.

“The good news is that we have had a scientific breakthrough in our knowledge about the development of literacy,” Foorman and her colleagues erroneously state. “Reading problems occur primarily at the level of the single word” and

“decoding problems in reading are primarily associated with problems segmenting words and syllables into phonemes.”

Not only was there no “scientific breakthrough,” there was no scientific evidence either. The data presented in the Houston Reading Study did not support their 1998 published findings, and the meta-analysis of the original data in the HRS presented in *Spin Doctors* proves otherwise.

Nevertheless, the 1998 published article reporting the findings of the Houston Reading Study were included in the meta-analysis of phonics studies analyzed by the National Reading Panel.

And so, the political deed was done. In multiple hearings The following year Reid Lyon of NICHD presented the findings to Congress and in 2000 President Bush used the irreparably flawed HRS as with other confounded studies as the “scientifically based reading research” (SBRR) to support the 2001 No Child Left Behind Act (NCLB), which Bush signed into law in January 2002, which also put in place the Reading First mechanism to ensure that the programmatic and testing mandates of NCLB were enacted.

*Beginning to Read and the Spin Doctors of Science* provides the counter evidence that was never presented to Congress. You can read for yourselves in *Spin* the verifiable analysis of the Houston Reading Study, that is still being used with the equally flawed National Reading Panel Report as the scientific evidence that State Legislatures are using to pass “science of reading” laws, and that is also being used in a similar way by NCTQ to evaluate programs in schools of education in U.S. colleges and universities.

It is important to note here that the Institute of Educational Sciences (IES), ‘Reading First’ Impact Study: Final Report, published in November 2008, supports the findings of *Spin Doctors*. Intensive phonemic awareness and phonics instruction in first and second grade does not result in a significant improvement in the comprehension of cohesive texts. As stated in the IES Report:

Reading First produced a positive and statistically significant impact on amount of instructional time spent on the five essential components of

reading instruction promoted by the program (phonemic awareness, phonics, vocabulary, fluency, and comprehension) in grades one and two.

Reading First did not produce a statistically significant impact on student reading comprehension test scores in grades one, two or three.

The promotion of the idea that explicit, systematic phonemic awareness and phonics instruction results in improved reading comprehension is an empirically unconfirmed speculation that has deleterious political and social consequences that are dangerously destabilizing.

Speaking at Teachers College in 2023 Catherine Snow called NCLB “an unholy mess.” And in 2013 *The American Conservative* reported, “Texas is where the failed policies of NCLB, along with an almost pathological obsession with testing, had their start.” NCLB received one billion dollars per year for six years and it failed.

Returning to the year 2000, the report of the National Reading Panel added to the fervor for phonics. It was a political triumph for Bush and Lyon at NICHHD, but an empirical debacle.

The National Reading Panel identified 3,335 articles in refereed academic journals, 1,962 for phonemic awareness and 1,373 for phonics. However, there were only 57 articles from 52 studies in the category of the phonemic awareness, which together with 38 phonics articles, were selected for the meta-analyses. In some cases, there were multiple articles on a single study included in the selection. For example, one phonemic awareness study was represented in three articles. Thus, the number of studies in the meta-analysis is diminished further, and the weighting of studies with multiple articles confounds the findings of the meta-analysis.

Foorman had three research papers, including the 1998 article with her colleagues on the Houston Reading Study, selected by the National Reading Panel in the meta-analysis category on phonics. Two of her research articles were subsequently reviewed and both were disqualified by the Institution of Education Sciences-What Works Clearinghouse (IES-WWC).

Subsequently, between 2005 and 2017 the meta-analyses of the National Reading Panel were shown to be fundamentally flawed when the IES-WWC disqualified 13 of the 57 phonemic awareness experimental articles, and 11 of the 38 phonics articles, leaving only 71 acceptable articles that were included in the Panel's report. The U.S. public school system has been required to comply with national and state laws and mandates on teaching reading in public schools based largely on the illusion of "scientific evidence," which was the real outcome of the National Reading Panel meta-analysis.

Joanne Yatvin wrote a Minority Report that is included at the back of the National Reading Panel report and many renowned scholars wrote articles and spoke at state and national conferences and conventions contesting the conclusions of the NRP. In 2001, Stephen Krashen wrote an article published in *Phi Delta Kappan*, entitled, "More Smoke and Mirrors: A Critique of the National Reading Panel Report on Fluency," challenging the Panel's findings, and that same year Elaine Garan also published an article in *Kappan*, entitled "Beyond the Smoke and Mirrors: A Critique of the National Reading Panel Report on Phonics." The following year, 2002, Garan published a book on the NRP Report entitled *Resisting Reading Mandates: How to Triumph with the Truth*. In 2003 Gerald Coles published *Reading the naked truth: Literacy, legislation, and lies*, another analysis of the NRP report. All of these critiques and other commentaries remain relevant and as important today as they were when they were written, given the ongoing reliance on the NRP report by those who traffic in the "science of reading."

The findings of a detailed analysis of the National Reading Panel Report and a similar analysis of the individual phonemic awareness and phonics studies included by the Panel in their meta-analysis is presented in the follow-up book to *Spin Doctors* that will be published in Fall, 2023.

Neither the Houston Reading Study nor the National Reading Panel Report provide "scientifically based reading research" (SBRR) on which to establish national policies or pass federal and state laws that mandate approaches to the teaching of reading or the testing of children's reading development in U.S. public schools.

Data-driven empirical evidence to support the “science of reading” *does not exist*. It is a flawed paradigm, that distorts the reading process. The hegemony of Cartesian-Newtonian logocentric formality is challenged by very young children engaged in activities that include books, crayons, and paper. Scribner (1986) calls this “mind in action” or practical thinking. She states that “Practical thinking stands in contrast to the type of thinking involved in performance of isolated mental tasks undertaken as ends in themselves.” Direct instruction in phonemic awareness and phonics are isolated mental tasks devoid of meaning. Learning to identify a medial blend or a schwa and making the sound has no purpose. The event is devoid of meaning. There is an absence of communication. There is nothing for child to do or say other than the sound. Simply put, a phenomenon cannot be understood by reducing it to smaller units. It can be appreciated only by viewing it as a *non-linear* event or process. Thus, both the often-cited Houston Reading Study and the National Reading Panel Report are being *inaccurately*, and therefore *deceptively*, presented as trustworthy quasi-experimental and experimental research using a medical research paradigm.

“The NRP version of a medical model of research is, in fact, only a caricature of real clinical research in medicine,” Steven Strauss writes.

Strauss has a Ph.D. in Linguistics as well as being an M.D. with a specialty in Neurology. In an article entitled, “Challenging the NICHD Reading Research Agenda,” published in *Phi Delta Kappan*, 2003, Strauss states, “The NRP version of a medical model of research is, in fact, only a caricature of real clinical research in medicine.” He does not hold back. “The behavior of the National Institute of Child Health and Human Development (NICHD) with regard to the production of dissemination of the report of its National Reading Panel is nothing short of scandalous. In fact, the scandal is of such enormity that it demands full explanation” (p. 438).

In 2019, Paul Thomas writes with the similar concern in a blogpost entitled, “The Enduring Influence of the National Reading Panel (and the “D” Word).”

“I stand fast that even though Yatvin technically is a minority opinion,” Thomas writes, “she has the greatest expertise of the panel and her clarifications have proven accurate.”

“To reference the NRP report as credible is to *overstate its value*, to misrepresent not only the report but the field of teaching reading,” Thomas continues. “Yet, journalists with no expertise in literacy and no background in the history of reading or teaching reading are falling prey to alluring language, ‘the science of reading,’ and fulfilling the warnings offered by Yatvin nearly two decades ago.”

The NRP report has no scientific value and only serves as a reminder of how easy it is to sway the opinion of the public, when politicians, right-wing elites, discredited research factions, textbook and test publishers like McGraw-Hill and Pearson, unite with the mainstream press, and even receive the blessing of *The New York Times*, has joined the fray and is distorting the truth. In the *Grey Lady Winked*, Ashley Rindsberg (2021), calls *The New York Times* “the nation’s most prestigious and beloved news outlet,” but in the Foreword to this book, Martin Crispin Miller, Professor of Media Studies at NYU, reminds us that *The New York Times* has a “rich history of pumping out Big Lies.” The description on the cover of Rindsberg’s book is: “How *The New York Times*’s Misreporting, Distortions, and Fabrications Radically Alter History.” It is a statement that could also be written about Reid Lyon and NICHD at the beginning of the 21<sup>st</sup> century.

On many counts, both the Houston Reading Study and the National Reading Panel Report are *irreparably flawed*. In fact, both the HRS study and the other research studies reviewed in the National Reading Panel report were in actuality product trials. The Houston Reading Study used *Open Court*, which resulted in huge revenues and profits for SRA/McGraw Hill. The studies selected by the National Reading Panel used many different “treatments,” (the term “treatment” appears 575 times in the report), which were, in reality, assessing the efficacy of commercial direct instruction and phonics programs. Some of the programs are listed below. The asterisk \* next to the date of publication indicates that Siegfried Engelmann was a primary author:

Preventing failure in the primary grades (1969\* Science Research Associates);  
Reading Mastery, I/II (1988\* Science Research Associates, Inc);  
DISTAR reading, I/II An Instructional System (1978\* Science Research Associates);  
DISTAR language I, (1987\* Science Research Associates);  
Corrective reading, word attack basics, decoding A (1988\* Science Research Associates, Inc.);



Corrective reading, Decoding strategies, decoding B (1988\* Science Research Associates, Inc.);  
Spelling mastery, a direct instruction series – Level A (1981\* Science Research Associates);  
Spelling mastery, a direct instruction series – Level B (1981\* Science Research Associates):

Siegfried Engelmann is the originator of the term “Direct Instruction.” He was the author of DISTAR and many other direct instruction programs and tests. Engelmann was a behaviorist who followed in the footsteps of B. F. Skinner, who is considered the father of behaviorism and the originator of operant conditioning, experimental analysis of behavior, and behavioral conditioning. Engelmann also followed in the footsteps of E.L. Thorndike, also a behaviorist known for stimulus-response theory and the Law of Effect. Thorndike was also a proponent of eugenics which was closely associated with the testing of children and education reform.

While there are tributes to Engelmann by the National Institute of Direct Instruction, behaviorism was largely discredited by Noam Chomsky and others in the 1960s. Still, behavioral conditioning persists today largely because of Reid Lyon and experimental behaviorists funded through NICHD, whose research fulfills the manifesto of the elite ideological right and the billion-dollar coffers of textbook and test publishers. If you do a computer search for Engelmann, you will find multiple links of his name with the “science of reading.”

In a paper in *Education Matters* in 2001, entitled, “Much too Early,” David Elkind raises concerns about Behaviorism and Direct Instruction, naming Engelmann, Skinner, and Thorndike, among others. Elkind then counters with the names of the giants of early-childhood development—Froebel, Maria Montessori, Rudolf Steiner, Jean Piaget, and Lev Vygotsky. By now it must be clear that the struggle currently taking place is much bigger than the right-wing trope of “phonics versus whole language.” It is about the ways in everyday life *and in science* that we characterize human behavior, how we regard the very essence of our children, how we imagine both their lives and the caring society in which we hope they will have a chance to live.

The devastating impact of Direct Instruction is documented in the 1990 book *Learning Denied*, which provides an authentic account of a young boy's early reading experience both in and out of school from the time when he was five until he was eleven years old. In school Patrick was "diagnosed" with a "language-based learning disability," while at home and in his visits with me he was writing stories and reading books. When Patrick was in second grade a special education referral was sent to his parents that stated:

Lack of phonetic attack skills.

- Can not sound out the appropriate letter sounds and blend together to form a word.
- Patrick therefore can not read ["phonetically" inserted in text] which leads [sic] that he cannot comprehend what he is reading.

The referral meeting was held two weeks later. At the meeting his second-grade teacher said, "Patrick has difficulty reading a complete sentence." She repeated this statement, and then she said, "Patrick has become the student who underlines and circles, but there appears to be little comprehension." She ended with "When he looks at a word, I don't think he's seeing what I see. When he sounds out, he doesn't seem to be pronouncing the sounds."

The Director of Special Education explained to Patrick's parents that he could not be "coded" without new batteries of tests, and he named the tests that they planned to administer.

At the end of the meeting, as the Director of Special Education was gathering up his papers, Patrick's father asked him for permission to play an audio tape of Patrick reading when he worked with me. Patrick's parents had tried multiple times to share his out-of-school reading, but the response had always been negative. Reluctantly the Director of Special Education agreed. I put the tape recorder on the table and pressed play, and we sat and listened as Patrick read.

"That's not the same child," his teacher said, when I pressed stop. "I have never heard him read like that."

“Doesn’t this make a difference?” Patrick’s father asked. “How can he be coded with a language-based learning disability when you’ve heard him read?”

The Director of Special Education said the recording of Patrick reading was impressive, but he insisted that it was still important that Patrick was tested and coded with a language-learning disability. The paperwork was mailed to Patrick’s parents, but they refused to sign.

*Learning Denied* provides an account of the struggle that ensued, including evaluations of Patrick’s reading and writing by Jerome Harste, Jane Hansen, and Gerald Coles, and an in-person non-test-based assessment by William Wansart, a special education professor at the University of New Hampshire.

Mediation meetings took place at the State Department of Education. Meanwhile Patrick was home schooled, and he and I continued reading and writing stories together. Examples of Patrick’s stories and non-fiction narratives are presented in *Learning Denied*, and his proficiency as a writer is analyzed in the book, including his functional knowledge of grapho-phoneme relationships.

Patrick’s development as a reader and writer were never the problem. It was the stimulus-response, operant conditioning protocols that are inherent in Direct Instruction that had an adverse effect on Patrick’s ability to do the workbook exercises required of him in school. He was traumatized by the constant criticism and questioning of his ability to read and write. He had a school-based learning disability – in other words, direct instruction in synthetic, decontextualized phonics and associated skills had disabled him.

*Learning Denied* ends with the two research studies of the universe that Patrick conceived and accomplished while he was home schooled. His cross-section graphic representation of the sun is on the cover of the book. Patrick spent four months researching the universe, using scientific texts as well as children’s non-fiction books. Much of the time he spent in cross-referencing information from one book to another as he tried to understand the complexities of the vastness of space. He described Jupiter as “the sun that never grew up,” and he explained that “sunspots hold gas in and then the pressure increases and explodes causing solar flares and prominences.” In the chapter that he wrote on black holes he

hypothesized “what would happen if man went in.” He wrote that he might never come out. “He might die, or he might find another dimension with people just like us or a different kind of people.”

Years later, when Patrick was attending an alternative high school, he told me he was preparing for his senior project. He planned to walk the Appalachian Trail documenting his experience as Theroux once did. I asked him if he ever thought about his experiences in first and second grade. He shook his head and said he tried not to remember. “Makes me sweat,” he said. “Makes it hard to breath.”

Patrick’s school experience, which complied with current “science of reading” mandates, is not unusual. Countless times teachers, parents, and graduate students in my classes have said to me “I know Patrick, my cousin has a child just like him,” or, “Patrick reminds me of my son or my daughter.” Children who do not thrive in direct instruction, focused on explicit systematic phonemic awareness and phonics classroom environments, are hidden from view. They are referred, coded, and given the learning disability ascribed to them.

In “The Acquisition of a Child by a Learning Disability,” Ray McDermott, in a chapter in a book by Seth Chaiklin and Jean Lave (1993) encourages us to think differently. He writes of arbitrary school demands and the degradation and labeling of children. McDermott, who was one of my professors, writes that failure is already in every classroom in America when teachers and children enter the room in September. He states:

There is never a question of whether everyone is going to succeed or fail, only of who is going to fail. Because everyone cannot do better than everyone else, failure is an absence real as presence, and it acquires its share of the children. Failure and success define each other into separate corners, and the children are evenly divided as if by a normal curve, into successful and failing. Among those who fail are those who fail in ways that the system knows how to identify with tests, and these children are called special names. LD acquires its share of the children (p. 293).

“The deployment of unsupported, potentially harmful pedagogies is particularly pernicious at the early-childhood level,” Elkind writes. “It is during the early years,

ages four to seven, when children’s basic attitudes toward themselves as students and toward learning and school are established.” Elkind expands on this fact, which is discounted by the PIs in the HRS and by the experimentalists who conducted the NRP studies. He states, “Children who come through this period feeling good about themselves, who enjoy learning and who like school, will have a lasting appetite for the acquisition of skills and knowledge.”

Returning to the studies in the phonics meta-analysis of the National Reading Panel, other educational publishers included: Educator’s Publishing Service; Scott Foresman; International Learning Systems; Lippincott basic reading, McMillan Publishing Company; and SRA/McGraw-Hill. Because of the cacophony of publishers and programs, the meta-analysis was, in essence, just another political trope.

Even though neither the Houston Reading Study nor the National Reading Panel meta-analysis have any scientific validity, 25 years later both the HRS and the NRP report have been used as the scientific evidence to pass Federal and State laws and to establish policies and mandates at the state and local level. Ignoring the serious flaws clearly articulated by the IES-WWC both the HRS study and the NRP report have been used as the “scientifically based reading research” evidence in multiple arenas including by the National Council on Teacher Quality (NCTQ), which was created by the Thomas B. Fordham Foundation in 2000.

Richard P. Phelps, who is the author of 2023 *The Malfunction of US Education Policy Elite Misinformation, Disinformation, and Selfishness*, writes in an essay, entitled “The Thomas B. Fordham Foundation an Institute: Influence for Hire,” that “the Fordham organizations are the country’s most influential in education reform” (p. 29). Phelps writes that the Fordham organization is at the center of a network of movers and shakers in education reform. He names Bill Gates as a Fordham financier, noting the Gates and his foundation have been bad for public education. Phelps states it is the Fordham Foundation that decides who (and who does not) get belong in the education reform establishment (pps. 1, 2, and 29).

In the May 2002 five-year report, the Fordham Foundation announced that, “In late 2001, the still-new NCTQ was awarded a \$5-million grant from the U.S. Department of Education to launch a major new project of national significance.”

The Hoover Institution and the Manhattan Institute joined the Fordham Foundation in shaping a national education reform movement.

In the same 2002 report, the Fordham Foundation states that to maximize the impact of their school reform endeavors “the best way to boost the audience for good reform ideas is to borrow megaphones all over town. We do this by making ourselves available to journalists, by taking advantage of speaking opportunities large and small, by testifying before Congress, by joining forces with like-minded groups on various projects, and by networking as best we can” (p. 32).

In contrast critics of Fordham education reform initiatives are silenced.

Phelps writes of the Fordham Foundation’s “proclivity to suppress dissent, shun or ridicule those who disagree” (p. 24). To illustrate the aggressive use of slurs in texts by Fordham functionaries, he quotes some of the descriptors used in an essay by Robert Pondiscio, who was at Fordham from 2014-2021. In “Lessons on Common Core: Critical books offer more folly than wisdom,” published in *Education Next*, (January 5, 2017), Pondiscio uses the following pejoratives to describe the writings of critics: carping, spleen venting, fear mongering, conspiratorially minded, excitable enemies, riddled with scare quotes and sarcasm, bombast, dark mutterings, hyperbole, obsession, paranoia, folly, frets, paranoid conspiracy theories, and overreach.

The playbook of the right-wing education reform movement has been used to harass and discredit university professors, including the renowned scholar, Ken Goodman, and more recently to harass and discredit Lucy Calkins. Of deep concern is the harassment of public- school teachers and librarians. Today, some teachers report that they have been bullied and silenced. Some are fearful and say if they speak-up they will lose their jobs. In the mid-late 1990s some of the teachers in the Houston Reading Study actually spoke of fearing for their lives. It is not an exaggeration to write that some of them were terrified.

The 2002 Fordham report states, “Our short-term goal is to advance well-conceived but provocative ideas and information, to avoid the twin perils of being boring and being flaky, and to leverage the resources of others to spread the word about promising school reform ideas.” It was a highly successful master plan

to promote “scientifically based reading research” (SBRR) using the flawed Houston Reading Study and the National Reading Panel report.

Today, the Fordham Foundation controls NCTQ and is privately funded by right wing organization with oligarch donors, including massive infusions of cash from Bill Gates. NCTQ espouses corporate governance, citing the National Reading Panel Report and the Houston Reading Study as “scientifically based reading research” (SBRR), using soft power to control the language, literacy, and learning of children in public schools, *and* the training of public-school teachers in colleges and universities.

In *Teacher Prep Review: Strengthening Elementary Reading Instruction*, National Council on Teacher Quality, June 2023, NCTQ writes of the ““science of reading”” as if it is settled science instead of a disruptive deception. The *Teacher Prep Review* states, “Scientifically based reading instruction is grounded in the research on how students learn to read. It builds off the 2000 National Reading Panel report, which emphasizes the importance of alphabetic (phonemic awareness and phonics), fluency, vocabulary, and comprehension.”

The soft power of NCTQ has been used to co-opt rather than coerce both the left and the right political factions in the U.S. society. NCTQ capitalizes on the research in the Houston Reading Study and the National Reading Panel Report, and utilizing the discredited findings of both to control how teachers are instructed to teach in the courses they take in schools of education in many colleges and universities across the America.

NCTQ rates college and university programs based on the degree to which reading courses focus on phonemic awareness and phonics (alphabetic), fluency, vocabulary, and comprehension. NCTQ is a right-wing disruptive influence on how young children should be taught to read, with no mention of children writing and a total disregard for children’s active engagement with print in their classrooms and everyday world. Thus, NCTQ is altering the trajectory of the education of young children in America, closing minds and shutting down thinking.

Curt Dudley-Marling (2015) in *Preparing the Nation’s Teachers to Teach Reading* writes, “We found virtually no relationship between the NCTQ assessment of teacher education programs and reading achievement in particular states. Indeed,

we found a slight negative correlation between the proportion of teacher education programs in individual states that met NCTQ's criteria for how well-prepared teacher are to teach reading and 4<sup>th</sup> grade NAEP reading scores."

"It is ironic," Dudley-Marling writes, commenting on the 2013 NCTQ report, "that a report which valorizes scientifically based reading research failed to meet the minimal criteria for quality research."

In the follow up book to *Spin* you will find the 2023 analysis of NCTQ scores and NAEP state scores. Turns out, high NCTQ scores result in low NAEP scores. There is an inverse relationship. The advice in *Debunking* is avoid participation in NCTQ and abandon NCTQ's interpretation of the "science of reading."

NCTQ and the "science of reading" are rooted in right-wing conservative ideology, which is a threat to American democracy, not only because of the reductive and scientifically indefensible ways teachers are being mandated to teach children to read, but also because the erroneous speculations of the followers of the "science of reading" movement are changing the ways Americans think about language and changing their expectations of how children should be taught to read in school. It is a carefully orchestrated massive deception that can be traced back more than sixty years.

Today, young children are spending long periods of time in their kindergarten, first, and second grade classrooms sitting passively at their desks mechanically completing "science of reading" explicit systematic phonemic awareness and decontextualized phonics exercises, that real scientific evidence makes clear will not improve their reading comprehension. The less time children spend imagining, creating, hypothesis posing, and problem solving, the less opportunities they will have to develop the complex cognitive *and* social skills they will need to respond to the many catastrophic events that are already taking place in their local communities in this rapidly changing world.

Again, at the present time even *The New York Times* and other mainstream sources have succumbed to the propaganda, participating in the deception as if the newspaper does not have the resources to do the investigative reporting and publish the truth. *The New York Times* and other once trusted news outlets should



heed the warning of Hannah Arendt, wrote an article entitled “Truth and Politics,” originally published in *The New Yorker*, February 25, 1967, that has been republished many times. Arendt writes:

It has frequently been noticed that the surest long-term result of brainwashing is a peculiar kind of cynicism – an absolute refusal to believe in the truth of anything, no matter how well this truth may be established. In other words, the result of a consistent and total substitution of lies for factual truth is not that the lies will now be accepted as truth, and the truth be defamed as lies, but that the sense by which we take our bearings in the real world – and the category of truth vs. falsehood is among the mental means to this end – is being destroyed (p. 15).

The “science of reading” is brainwashing on an unprecedented national scale. In the Fall 2023 you will be able read for yourselves in the real world, *Debunking the “Science of Reading” - How The Spin Doctors of Phonics Are Harming America’s Children*. The book applies the same rigorous scientific analysis to the National Reading Panel Report that was undertaken for the Houston Reading Study. *Debunking the “Science of Reading”* also provides a chronological document analysis tracing the sixty years of deep rooted right-wing conservative ideology that has resulted in the “science of reading” becoming a threat to American democracy.

Paul Thomas, July 22, 2023, in a blogpost entitled “Neoliberal Education Reform: “Science Of Reading” Edition,” names the extreme threats to public education in America, and specifically names the “science of reading.” Thomas states, “SOR has its roots firmly in NCLB and the National Reading Panel (SOR cites the NRP report as much or more than any other evidence)—the peak of neoliberal education reform.”

*Debunking the “Science of Reading”* provides an evidence-based meta-analysis of the reductive and scientifically indefensible ways teachers are being mandated to teach children to read. The book counters the politically motivated propaganda of “scientifically based reading research” (SBRR) that originates in poorly conceived and badly executed experimental studies that the National Reading Panel

erroneously claimed were comparable to experimental studies in medical research undertaken to treat disease and qualify vaccines and medications.

*Debunking* presents counter arguments and alternative perspectives of science based on grounded theory and the systematic documentation of young children learning to read and write. In *Debunking*, over 50 years of data driven, evidence-based, empirical research is juxtaposed with studies that are used to support the “science of reading,” including the Houston Reading Study and the studies analyzed by the National Reading Panel. Thus, readers are provided with an opportunity to decide for themselves how children learn to read and write.

Full accounts of my studies of children’s early literacy development that counter the claims of the “science of reading” proponents are in print and available for readers to review. The research has received many national and international awards and has a global reach. The concepts originating in these studies are used by the United Nations and have been found to be in use being in use in more than 140 U.N. member states by governments, policy groups, and non-profit agencies. All this is documented. And, in recognition of the importance of full disclosure no private or corporate entity has provided financial support for any of these studies, and no remuneration was received for the research.

Elkind raises awareness of the findings of scientific studies completed by renowned scholars during the time that the behaviorists were at their zenith, but who are totally ignored by the National Reading Panel. The Panel also ignored the extraordinary research of renowned scholars today, including Anne Haas Dyson, Vivian Vasquez, and Gunther Kress, who have spent their entire lives as social scientists observing young children learning to read and write. This massive corpus of impeccable scientific research challenges the erroneous idea promulgated by Reid Lyon when he was at NICHD in the 1990s that “learning to read is not a natural process.” Even though there was no scientific evidence, Lyon made this assertion in speeches, publications, and in his testimony to Congress, often contradicting himself by linking phonemic awareness and phonics to genetics, which is cause for serious concern.

In 1998 in a paper summarizing the reading research of NICHD, Lyon listed the questions addressed by NICHD, including “What are the critical environmental,

experiential, cognitive, linguistic, *genetic*, neurobiological and instructional conditions that foster reading development?” (p. 1; ERIC, p.4). This is the question Lyon repeated in his 1997, 1998, and 1999 testimony to Congress.

In a video recorded keynote speech on April 16, 1996, before the Education Committee of the California State Assembly Lyon spoke of inner-city children learning to read. “The language interactions they’ve had at home are nil,” Lyon said. “They’ve never even heard these sound systems. Are they lousy readers? A lot of them are. Are they genetically predisposed? Some of them are, making that combination a tough one to treat.”

Lyon resigned from NICHD in 2005 but continued promulgating his version of teaching children to read. Even today Lyon relentlessly pushes the idea that reading is not natural. It is the mantra he continuously shares, as he did recently on the NCTQ website, where he states, “Almost all children learn to speak naturally; **reading and writing must be taught.**” (The bold print is Lyon’s.)

In his assertion that reading is unnatural, Lyon often references the discredited Houston Reading Study and the National Reading Panel report to support his erroneous claim, that is now an uncontested truth for the followers of the “science of reading” that is often repeated by the “science of reading” journalist, Emily Hanford.

Lyon’s undoing is when he added writing. There is a voluminous body of scientific research on children’s early writing behaviors beginning within the first year of life through the elementary school. The fundamental mistake that Lyon makes is to ignore Noam Chomsky, who has helped us understand that the human capacity for language is innate and that we as a species arc towards meaning.

Lyon also ignores the voluminous scientific evidence that for humans the use of tools is also innate. The fine motor capacity of our hands develops when we are children and so when a child in a highchair is given a crayon, they will make marks on paper. In a short period of time, when they grip the crayon, their arms will make straight motions and round motions and hammer-like motions.

And if a caregiver holds the paper still, the child’s marks will be lines like sticks, curves like primitive parts of circles, and include some hammered dots. Soon the sticks and

circles will be named, with the child's name for mother or father, perhaps the dog, or a sister or brother. Such utterances can occur when the child is quite young and learning to talk, and in these situations, it is possible to observe how oral and written language often occur simultaneously. And given the morphological base of the human capacity for language, pretty soon children's scribbles become stories that they will "read" to family and friends. And it is at this stage that letters begin to appear and are named or even referred to as words.

At this time conversations about the sounds of letters and how they are represented on paper become important. Often this is in kindergarten and the capacity of the teacher to systematically document each child's awareness of sound symbol relationships is of critical importance. To knowledgeable teachers, "systematic" when associated with phonics refers to the systematic documentation of the child's knowledge and use of grapho-phonetic relationships in their writing and drawing that can then be discussed and documented in their reading. "Systematic phonics" does not refer to some arbitrary list in a publisher's reading series that in all likelihood received a negative review from the IES-WWC.

Gunther Kress (1997) in *Before Writing: Rethinking the Paths to Literacy* has a subsection entitled, "Drawing Print: A Child's View of the Written Environment," in which he describes the reading and writing worlds of very young children – two, three, four, five. He writes:

"Children make signs and read them out of their interest and make signs which reflect the meanings they want to convey in the form and substance of the sign," Kress writes. "They make signs which are founded on a motivated relation between meaning and form, signified and signifier. That is the overriding principle with which they approach the world of alphabetic writing."

"And then they come up against a brick wall of a system," Kress writes, "which in a number of ways and at a number of levels resists an understanding in those terms."

"(Children) might find the whole process much easier if the complexity of their task was understood by those whose job it is to know," Kress continues, "– academics, 'educationalists' – planners, policymakers, teachers, and yes, politicians" (p. 73).

“If writing is situationally merely a task or a set of rote skills,” Ann Haas Dyson writes in *Negotiating a Permeable Curriculum*, as if in conversation with Kress, “then the researcher may have no access to children’s intentions, agency, and social lives nor, in fact to composing at all.”

For many of us who are anthropologists, linguists, sociologists, and have spent our lives observing young children, the curricular practices based on badly done experiments are an anathema.

“Some children are being taught superficial facts and to follow orders,” Dyson writes, “This is true in my own lifetime when I read as a teacher-to-be the appalling book by Bereiter and Engelmann *Teaching Disadvantaged Children in the Preschool*, with its breathtaking ignorance on language, literacy, and sociocultural difference.”

On Amazon, Bereiter and Engelmann are described by a reviewer as “early luminaries in the field of direct instruction” and their book is described as the “missing manual.” It is a deeply disturbing text, with a direct link to the badly done experimental research cited as a basis of the instructional practices advocated by Lyon, NCTQ, and the “science of reading.”

Kress interjects again, here writing, “Notions of language as a relatively stable system of signs as arbitrary and stable conjunctions of meaning and form, can lead to pedagogies and to curricula which are fundamentally mismatched with the potential, ability and dispositions of the child learners.”

There are many research studies that have documented children’s early literacy behaviors, and some are described in *Debunking the “Science of Reading”*. The research shows how early scribbles on paper become morphological interpretations that include letter-like forms that eventually represent the phonological decoding of written words. *Debunking* provides the evidence that understanding the relationships between sounds and symbols is an essential aspect of learning to read and write that has been documented in families and in schools in diverse racial, ethnic, and religious groups, mostly living in poverty, in rural, urban, and suburban settings (Taylor, 1983 & 1998; 1988; 1990; 1993; 1998; 1999; 2014; 2017a; 2017b).

In every study included in *Debunking* the main finding is that in children's early reading and writing behaviors at home and at school, the key factor invariably has been the children's meaningful engagement with written texts. And, in every study of children's early reading and writing behaviors, instruction in explicit phonics in school has been a detractor from children's meaningful engagement with written texts. Moreover, as documented in *Debunking*, in some instances instruction in explicit phonics has been an impediment to a child learning to read. In one case explicit phonics instruction caused long-term harm to a child's health and well-being as well as his academic development. All these findings are documented, peer reviewed, published, and available for review.

The "science of reading" proponents are falsely blaming low NAEP tests scores on not enough time spent on explicit systematic phonemic awareness and phonics lessons. However, an analysis of the NAEP data and the data on gun violence presents a totally opposite finding. There is conclusive evidence that children's health, well-being, and academic development, are negatively impacted by the extremely stressful school environments in which they are expected to learn.

On a daily basis very young children through high school are being bullied on social media and threatened by gun violence. There are an estimated 465 million guns in circulation in the U.S., and by 2023 an estimated 400,000 children will have experienced gun violence in their schools. This number is growing exponentially, and unless there is gun legislation the increase in the cumulative number of children exposed to gun violence in schools portends to reach more than one million children by the 2030.

The curricular practices that the "science of reading," followers, including reading researchers emulating medical researchers, right-wing elites, corporations that are making a ton of money, and members of the media that just want a story, are exacerbating the circumstances in which children are doing their best to learn in school. This includes NCTQ, Lyon, Foorman, Moats, Shanahan, and Hanford to name a few.

Van der Kolk (2003) made it clear at the time NCLB and Reading First were established that extreme events can "permanently alter the perception of danger and the regulation of internal homeostasis." He stresses that traumatic events

have a pervasive effect on cognition, socialization, and the capacity for affect regulation, and that activities like reading are negatively affected.

*Debunking* addresses the stressful environments in which children are doing their best to learn in school. The last third of the book focuses on the impact of the poverty, racism and gun violence on the health, well-being, and academic development of children that is ignored by right wing conservative organizations and corporate America that now control public education. An alternate national way forward is presented.

Politicians must step up, but in the meantime, there are steps that we can take to challenge the fake expertise and reject the mock logic of the “science of reading” that is negatively impacting the opportunities children have to become readers and writers with the problem-solving capabilities they will need to overcome the existential challenges that will confront their generation.

At the July 2023 U.N. High Level Political Forum on Sustainable Development the concern for people and the planet was immense. Time is running out. One speaker said it all in a single sentence – “If we do not change the way we live now, by the end of the decade the planet will change it for us.” The “science of reading” is a political construct for those with power to keep it and conceal the truth that the “science of reading” will not fix poverty, it will only exacerbate it.

Right-wing elites who profit by maintaining the status quo of white privilege, and billion-dollar corporate textbook and test producers like Pearson who have monetized children, are limiting the capacity of children and young people to actively engage in reading and writing in cognitive and social ways that will enable them to develop the skills they will need to respond to fast approaching existential risks.

The world we are handing over to our children is dangerously destabilizing. Children will suffer if all our energy goes into irrational speculations about the “science of reading.” We’ve got to get a grip. The challenge we face at this moment in time is to do everything we can to gain societal support for children and young people by ensuring public schools establish learning environments in which all students can develop the skills they will need to imagine and actualize

transformative innovations in response to the dynamic complexity of the catastrophes that the future will soon bring. For kids' sake we've got to step up. We can no longer be bystanders.

## REFERENCES

- Arendt, H. (1967, February 25). Truth and politics. Originally published in *The New Yorker*, reprinted with minor changes in *Between past and future* (1968, pp.223-259), Viking Press; *The Portable Hannah Arendt* (2000, pp. 223-259), P. Baier (Ed.), Penguin Books; and *Truth: Engagements across philosophical traditions* (2005, pp. 294-314), Wood, D., & Medina, J. (Eds.), Wiley-Blackwell. Original 1967 article in *The New Yorker* downloaded from: <https://www.newyorker.com/magazine/1967/02/25/truth-and-politics> and <https://idanlandau.files.wordpress.com/2014/12/arendt-truth-and-politics.pdf>
- Bereiter, C., and Engelmann, S. ( 1966). *Teaching disadvantaged children in the preschool*. Englewood Cliffs, NJ: Prentice-Hall.
- Coles, G. (2003, January 13). *Reading the Naked Truth: Literacy, legislation, and lies*. Portsmouth, NH: Heinemann.
- Dudley-Marling, C. (2015, September 11). *Preparing the nation's teachers to teach reading: A manifesto in defense of "teacher educators like me"*. New York, NY: Garn Press.
- Dyson, A. H. (2016, July 13). *Negotiating a Permeable Curriculum: On literacy, diversity, and the interplay of children's and teachers' Worlds* (B. Kabuto, Ed.). New York, NY: Garn Press.
- Elkind, D. (2001, Summer). Much too early. *Education Matters*. Downloaded from: <https://www.house.mn.gov/comm/docs/2b1164f3-9a2b-4da8-a30b-9862cadb5ce7.pdf>



- Foorman, R. F., Fletcher, J. M., and Francis, D. J. (1997). A scientific approach to reading instruction. *LD Online*. Downloaded from:  
<https://www.ldonline.org/ld-topics/teaching-instruction/scientific-approach-reading-instruction>
- Foorman, R. F., Francis, D. J., Fletcher, J. M., Schatschneider, C., and Mehta, P. (1988). The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology* Vol. 90, No. 1, 37-55. Downloaded from: <https://doi.org/10.1037/0022-0663.90.1.37> and <https://www.researchgate.net/publication/232515872>
- Foorman, B. R., Fletcher, J. M., Francis, D. J., and Schatschneider, C. (2000, August-September). Response: Misrepresentation of research by other researchers. *Educational Researcher, American Educational Research Association*, Vol. 29, No. 6, pp. 27-37. Downloaded from:  
<https://www.jstor.org/stable/1176806>
- Garan, E. M. (2001, March). Beyond the Smoke and Mirrors: A critique of the National Reading Panel report on phonics. *Phi Delta Kappan*. Downloaded from: <https://journals.sagepub.com/doi/10.1177/003172170108200705>
- Garan, E. M. (2002, February 15). *Resisting reading mandates: How to triumph with the truth*. Portsmouth, NH: Heinemann.
- Institute of Education Sciences, United States Department of Education. (2008, November). *Reading First impact study: Final report*. Downloaded from:  
<https://ies.ed.gov/ncee/pdf/20094038.pdf>
- Krashen, S. D. (2001, October). More Smoke and Mirrors: A critique of the National Reading Panel report on fluency. *Phi Delta Kappan*, Volume 83, Issue 2. Downloaded from:  
<https://journals.sagepub.com/doi/pdf/10.1177/003172170108300208> and  
<http://www.sdkrashen.com/content/articles/smoke.pdf>
- Kress, G. (1997). *Before writing: Rethinking the paths to literacy*. London and New York: Routledge.

Lyon, G. R. (1996, April 16). Testimony before California Assembly Education Committee on Reading and Language Arts, Part 3, at 21:15 to 21:35 minutes: [https://www.youtube.com/watch?v=wW1u\\_MmtSA0](https://www.youtube.com/watch?v=wW1u_MmtSA0)

Lyon, R. G. (1998). The NICHD research program in reading development, reading disorders and reading instruction: a summary of research findings. *Keys to Successful Learning: A National Summit on Research in Learning Disabilities*. ERIC Number ED430366. Downloaded from <https://eric.ed.gov/?q=ED430366> and <https://files.eric.ed.gov/fulltext/ED430366.pdf>

Lyon, G. R. (1999, 1998, 1997). Testimonies to Congress, 1997-2002. ERIC Number ED475205.

Lyon, G. R. (1999, October 26). Education Research: Is what we don't know hurting our children? *Statement for House Science Committee, Subcommittee on Basic Research, U.S. House of Representatives, Washington, DC* (p.32).

Lyon, G. R. (1998, April 28). Overview of reading and literacy initiatives. *Statement for Senate Committee on Labor and Human Resources, Washington, DC* (p.51).

Lyon, G. R. (1997, July 10). Hearing on literacy: Why kids can't read. *Statement for House Science Committee on Education and the Workforce, Washington, DC* (p.62).

Downloaded from: <https://files.eric.ed.gov/fulltext/ED475205.pdf> and <https://eric.ed.gov/?q=Lyon%2c+G.+Reid+Testimonies+to+Congress%3a+1997-2002.&id=ED475205>

Lyon, G.R. (2023, May 25). Ten maxims: What we've learned so far about how children learn to read by Dr. Reid Lyon. *NCTQ Blog*. Downloaded from: <https://www.nctq.org/blog/Ten-maxims:-What-weve-learned-so-far-about-how-children-learn-to-read-by-Dr.-Reid-Lyon>

McDermott, R. P. (1993, June 25). The acquisition of a child by a learning disability. In S. Chaiklin & J. Lave (Eds.), *Understanding Practice: Perspectives on Activity and Context* (Chapter 10, pp. 269-305). Cambridge, UK: Cambridge University Press. Book made available online (2010, January) at:

<https://doi.org/10.1017/CBO9780511625510> and Chapter 10 made available online at: <https://doi.org/10.1017/CBO9780511625510.011>

Metcalf, S. (2002, January 10). Reading between the lines. *The Nation*. Downloaded from: <https://ies.ed.gov/ncee/pubs/20094038> and <https://www.thenation.com/article/archive/reading-between-lines>

National Council on Teacher Quality. (2023, June). *Teacher prep review: Strengthening elementary reading instruction*. Downloaded from <https://www.nctq.org/publications/Teacher-Prep-Review:-Strengthening-Elementary-Reading-Instruction> or [https://www.nctq.org/dmsView/Teacher Prep Review Strengthening Elementary Reading Instruction](https://www.nctq.org/dmsView/Teacher%20Prep%20Review%20Strengthening%20Elementary%20Reading%20Instruction)

National Institutes of Health (NIH), National Institute of Child Health and Human Development (NICHD). (2000, April). *Report of the National Reading Panel: Teaching children to read*. Retrieved from: <https://www.nichd.nih.gov/publications/pubs/nrp/report>, and <https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf>

Pauken, T. (2013, January 23). Texas vs. No Child Left Behind: The state where it all began turns against the cult of educational testing. *The American Conservative*. Downloaded from: <https://www.theamericanconservative.com/texas-vs-no-child-left-behind>

Phelps, R.P. (2018). The Thomas B. Fordham Foundation and Institute: Influence for hire, Nonpartisan Education Review / Articles. Retrieved from: <https://ideas.repec.org/a/teg/journal/v14y2018i6p1-30.html> and <http://nonpartisaneducation.org/Review/Articles/v14n6.pdf>

Phelps, R. P. (2023, April 12). The malfunction of US education policy: Elite misinformation, disinformation, and selfishness. Lanham, MD: Rowman & Littlefield.

Pondiscio, R. (January 5, 2017). Lessons on Common Core: Critical books offer more folly than wisdom. *Education Next*. Downloaded from:  
<http://educationnext.org/lessons-on-common-core-critical-books-pondiscio>

Rindsberg, A. (2021, May 3). *The gray lady winked: How the New York Times's misreporting, distortions and fabrications radically alter history*. New York, NY: Midnight Oil Publishers.

Scribner, S. (1986, August 29). Thinking in action: Some characteristics of practical thought. In R.J. Sternberg & R.K. Wagner (Eds.), *Practical intelligence: Nature and origins of competence in the everyday world*. Cambridge and New York: Cambridge University Press.

Snow, C. (2023, June 7). *Sorting through "the science of reading" skirmishes: An historical and sociopolitical perspective* [Keynote presentation]. Teacher Preparation for Comprehensive Literacy Instruction, Teachers College, Columbia University, NY. Video available at:  
[https://www.youtube.com/watch?v=IUj43K-Y7Z4&list=RDCMUCXvsBEzD1\\_pVT2wAIJe5o2A&index=2](https://www.youtube.com/watch?v=IUj43K-Y7Z4&list=RDCMUCXvsBEzD1_pVT2wAIJe5o2A&index=2)

Strauss, S. L. (2003, February). Challenging the NICHD reading research agenda. *Phi Delta Kappan*, Vol.84., No.6, pp. 438-442. Downloaded from:  
<https://www.jstor.org/stable/20440381>

Taylor, D. (1983, 1998). *Family literacy: Young children learning to read and write*. Portsmouth, NH: Heinemann.

Taylor, D. & Dorsey-Gaines, C. (1988). *Growing up literate: Learning from inner city families*. Portsmouth, NH: Heinemann.

Taylor, D. (1990, November 13). *Learning denied*. Portsmouth, NH: Heinemann.

Taylor, D. (1993, September 1). *From the child's point of view*. Portsmouth, NH: Heinemann.

Taylor, D. (1998, January 1). *Beginning to read and the spin doctors of science*. Urbana, IL: National Council of Teachers of English.

Taylor, D. (1999, January). Beginning to read and the spin doctors of science: An excerpt. *Language Arts*. Vol. 76, No. 3, *Revealing Language*, pp. 217-231  
Published by the *National Council of Teachers of English (NCTE)*. Accessed at:  
<https://www.jstor.org/stable/41482968>

Taylor, D. (2014, August 5). *Save our children, save our school, Pearson broke the golden rule*. New York, NY: Garn Press.

Taylor, D. (2017a, April 12). *Teaching without testing: Assessing the complexity of children's literacy learning* (B. Kabuto, Ed.). New York, NY: Garn Press.

Taylor, D. (2017b, June 15). *From family literacy to earth system science. A 40 year research retrospective*. New York, NY: Garn Press. Available at:  
<https://www.dennytaylor.com/research-retrospective> and downloaded from:  
[https://static1.squarespace.com/static/5abc153cb1059858310b37e1/t/5b4354b7562fa71f00f24de0/1531139260947/Retrospectivte Family Lit Earth System Science DENNY TAYLOR 2018.pdf](https://static1.squarespace.com/static/5abc153cb1059858310b37e1/t/5b4354b7562fa71f00f24de0/1531139260947/Retrospectivte+Family+Lit+Earth+System+Science+DENNY+TAYLOR+2018.pdf)

Thomas B. Fordham Foundation. (2002, May). *Five year report 1997-2001*.  
Downloaded from:  
[https://www.edexcellencemedia.net/publications/2002/200205\\_tbfffiveyear/report.pdf](https://www.edexcellencemedia.net/publications/2002/200205_tbfffiveyear/report.pdf)

Thomas, P. L. (2019, May 14). The enduring influence of the National Reading Panel (and the “D” word). *Be Brave, Be Kind* blog post. Downloaded from:  
<https://radicalscharship.com/2019/05/14/the-enduring-influence-of-the-national-reading-panel-and-the-d-word/>

Thomas, P. L. (2023, July 22). Neoliberal education reform: “Science of Reading” edition. *Be Brave, Be Kind* blog post. Downloaded from:  
<https://radicalscharship.com/2023/07/22/neoliberal-education-reform-science-of-reading-edition/>

United Nations. (2023, July 10-19). High-level political forum on sustainable development (HLPF). Available at <https://hlpf.un.org/2023>

United States Congress. (2002, January 8). *Public Law 107–110, 107th Congress, “No Child Left Behind Act of 2001”*. Downloaded from <https://www.govinfo.gov/content/pkg/PLAW-107publ110/pdf/PLAW-107publ110.pdf>

van der Kolk, B. A. (2003). Psychobiology of posttraumatic stress disorder, Chapter 11 in *Textbook of Biological Psychiatry*. Edited by Jaak Panksepp. Hoboken, NJ: Wiley-Liss Inc.  
<https://onlinelibrary.wiley.com/doi/10.1002/0471468975.ch11>  
<https://onlinelibrary.wiley.com/doi/book/10.1002/0471468975>

Institute of Educational Sciences, What Works Clearinghouse. (2014, October). WWC review of research study: *The role of instruction in learning to read: Preventing reading failure in at-risk children*. Foorman, B. R., Francis, D. J., Fletcher, J. M., Mehta, P., & Schatschneider, C. (1998). *Journal of Educational Psychology*, v90 n1 p37-55. WWC study review retrieved from: <https://ies.ed.gov/ncee/wwc/Study/72348> and was reviewed for the WWC *Open Court* Intervention Report #347.

Institute of Educational Sciences, What Works Clearinghouse. (2009, June). WWC review of research study: *Early interventions for children with reading disabilities*. Foorman, B. R., Francis, D. J., Winikates, D., Mehta, P., Schatschneider, C. & Fletcher, J. M. (1997) *Scientific Studies of Reading*, v1 n3 p255-76. WWC retrieved from: <https://ies.ed.gov/ncee/wwc/Study/10373> and was reviewed for the WWC *Alphabetic Phonics* Intervention Report #26.