

Public Charter Schools and the Core Knowledge Movement

September, 2000

By Robert Holland

Summary

A battle raged throughout the 20th Century over the best way to teach children – by teacher-directed, content-rich approaches or through a "progressive" method by which children direct their own learning.

It rages still, with progressivism continuing to exert a strong hold, despite mounting evidence that teacher-directed instruction using a core curriculum works best for most children.

Core Knowledge schools have risen to meet the need and demand for schools that teach children facts in a sequential manner, so that they gain the vocabulary and knowledge base for further learning. Implementation of a Core Knowledge Sequence started in 1991 with one school in Florida; this fall, there will be 1,100 Core Knowledge schools operating in 46 states. The parallel charter school movement offers opportunities for parents and teachers to start Core Knowledge schools.

A basic purpose of Core Knowledge and its founder, Dr. E. D. Hirsch Jr., is to advance equity in education by ensuring a full education for all, including children from low-income and minority homes.

There is mounting research showing that Core Knowledge is succeeding.

Details follow.

Public Charter Schools and the Core Knowledge Movement

The battle over the surest way to teach children what they need to know has gone on longer than the War of the Austrian Succession. That doesn't mean its resolution should excite pedagogues only. Settling the issue should interest all of us, because the debate has a serious impact on how well our children and grandchildren are educated.

In the past 30 years ample research has made possible a definite conclusion: Tightly focused teacher-directed instruction is more effective for most children than is child-directed instruction in which the teacher acts purely as a coach, mentor, or facilitator. For instance, a 1999 American Institutes of Research look at two dozen models of "whole school" designs reaffirmed the superiority of largely teacher-directed approaches like Direct Instruction, Success For All, and Core Knowledge.¹

Yet despite repeated proof that this is so, large segments of the education world stubbornly ignore this reality. They remain wedded to the so-called progressive doctrine. In her important new book, *Left Back: A Century of Failed School Reforms*, education historian Diane Ravitch documents how the progressive movement championed most notably by philosopher John Dewey has exerted a powerful hold on American education from the early days of the 20th Century to the present. Ms. Ravitch argues powerfully that American schools must return to their basic mission of teaching knowledge.²

There can be little doubt that most parents prefer the traditional, structured approach over progressive ways. Public Agenda, a nonpartisan research organization, repeatedly asked parents during the 1990s what they expected from their children's schools. Invariably parents of all races and backgrounds wanted schools that taught the academic basics, with attention to children being able to speak and write standard English. Parents also wanted schools where children were expected to obey rules, such as being "neat, on time, and polite." But Public Agenda found quite different goals among professors in the teacher-training schools, where strains of progressivism still exert a powerful grip. True to the old-time gospel of John Dewey, most professional educators thought advancing "social justice" more important than teaching children knowledge. Unlike parents, these teachers of teachers wanted schooling that is less structured and more "learner-centered."³

Keeping up with terms is important for anyone who wants to stay abreast of education debates. "Progressive" sounds benign but is the opposite of a structured approach in which the teacher is an authority figure who transmits essential knowledge to pupils. Some terms associated with progressive thinking and style are: child-centered, child-directed, constructivist (children construct their own learning), discovery, applied, hands-on, inquiry, cooperative learning, thematic, performance-based, and learner-centered. The Whole Language philosophy with regard to children learning to read is a latter-day example of progressive thinking.

The competing school of thought is the traditional or classical approach. Some terms associated with this approach are teacher-directed, structured, fact-based, drill, practice, ordered, and disciplined. Systematic phonics to teach reading is an example of this structured approach.

Of course excellent teachers can effectively mix the two approaches to find something that fits their own styles and best meets the needs of their own students. But there needs to be a default method that furnishes order and structure for the experimentation with style. University of Virginia English professor E. D. Hirsch, Jr., who started the Core Knowledge Foundation in 1986 in conjunction with the writing of his seminal work, *Cultural Literacy*, put it this way:

"The only truly general principle that seems to emerge from process outcome research on pedagogy is that focused and guided instruction is far more effective than naturalistic, discovery, learn-at-your-own-pace instruction. But within the context of focused and guided instruction, almost anything goes, and what works best with one group of students may not work best with another group with similar backgrounds in the very same building." Hirsch himself prefers to use drama or storytelling to engage the interest of students, but within the crucial context of structure.⁴

The Rise of Core Knowledge

In 1990, Dr. Hirsch and his allies convened a national conference at which 24 working groups finalized a draft Core Knowledge Sequence for use in elementary schools. The sequence was based on research into the content and structure of the highest-performing elementary schools around the world, as well as consultation with teachers, parents, scientists, curriculum specialists, and others.⁵

In 1991, the Core Knowledge Sequence debuted in a year of implementation at Three Oaks Elementary in Ft. Meyers, Florida under the leadership of the principal, Dr. Constance Jones (who in 1999 became president of the Core Knowledge Foundation in Charlottesville, Virginia). The Core Knowledge schools were born. The interest in and spread of these schools devoted to content-rich direct teaching has been phenomenal. This fall, there will be more than 1,100 full-fledged Core Knowledge schools in 46 states. (Hundreds of additional schools use portions of the Core Knowledge program.)

Particularly in the very early stages, adoption of Core Knowledge depended on principals and teachers who had to make the case to an often-skeptical school administration for importing a curriculum that rubs against the grain of education progressivism. James Traub wrote about Jim Coady, a principal in liberal Cambridge, Massachusetts, who had to battle the administration's hostile curriculum supervisors to bring Core Knowledge to Morse Elementary School, which was a struggling school with a relatively high proportion of children from low-income and minority homes. The supervisors argued, among other things, that the Harvard Graduate School of Education was against the experiment. But Coady won the right to experiment and by 1998 all grades at Morse scored at or above the national norm in math and reading, and the first graders were third in the entire city in their reading scores.⁶

With the emergence of the national charter school movement in 1992, Core Knowledge became a viable option for parents, teachers, and others seeking to secure charters to start their own schools. In Colorado, a state evaluation of the performance of 51 charter schools that have been in operation for at least two years found Core Knowledge distinguishing itself both in quantity and quality. Twenty-two of the public charter schools (or 42 percent) used the Core Knowledge curriculum. Among charter schools using a "whole-school" model Core Knowledge was clearly dominant – 22 versus three for the next-most-used model. More important, Core Knowledge was delivering results. The evaluators concluded that 14 of the Core Knowledge schools "exceeded expectations set for their performance," and the remaining eight "generally met" expectations.⁷

Furthermore, Core Knowledge schools were a significant part of the reason Colorado charter schools scored, on average, 10 to 16 percentage points higher on basic subjects than public schools with comparable demographics.

Nationally, about 15 percent of Core Knowledge schools are charter schools. Another 70 percent are regular public schools, while the remaining 15 percent are a mixture of secular and religiously affiliated private schools. But as the charter-school movement continues to spread, with more states passing charter school laws, the Core Knowledge model figures to attract many charter organizers who want to provide children a substantive academic fare.

There is considerable research indicating that Core Knowledge is bolstering academic success. But first let's look at what the program is all about.

The Core Knowledge Sequence

"Shared" is an important word in the Core Knowledge lexicon. In his 1996 book, *The Schools We Need And Why We Don't Have Them*, Dr. Hirsch emphasized the importance of shared knowledge.⁸ Citizens in a democracy need to share an extensive body of information in order to communicate and function fully in society. The same holds in the classroom: If students draw a blank at mention of the names "Lee" and "Grant" not to mention "Bull Run" and "Appomattox," how can they be expected to engage in critical thinking about the Civil War?

Education progressives claim that knowledge is changing so rapidly that what children learn today will be outdated tomorrow; that schools therefore can at best only teach them "accessing skills," such as how to surf the Internet. But such a rationale does a grave disservice to children, because there is a body of bedrock knowledge -- pivotal events in world history, the development of constitutional government, principles of writing and mathematics. And there are masterworks of art, music, and literature -- with which they should be familiar in order to be fulfilled individuals.

Progressivism has done a particularly grave injustice to minority and disadvantaged children, according to Dr. Hirsch. One of the "tragic paradoxes" of our times, he has observed, is that the 1954 *Brown* decision was handed down just as "romantic progressivism finally succeeded in abolishing the emphasis on traditional academic content in the early grades." This foreclosed the chance that school integration would "equalize achievement and enhance social justice." A large purpose of Core Knowledge is to bring both equity and excellence to schooling through an enriched, carefully designed curriculum for all.⁹

The Core Knowledge idea, as summarized on its Website (www.coreknowledge.org), is "that for the sake of academic excellence, greater fairness, and higher literacy, elementary and middle schools need a solid, specific, shared core curriculum in order to help children establish strong foundations of knowledge, grade by grade." The Core Knowledge approach is not to throw tidbits of information helter-skelter at children. Rather the program specifies important knowledge in language arts, history and geography, mathematics, science, and the fine arts, and lays out a sequence for children to master what they need to know grade by grade.

A guiding principle of the Core Knowledge Sequence is that "knowledge builds on knowledge." Children learn by building on what they already have learned. The Sequence provides in great detail exactly what children should learn at each grade in core subjects so they can carry that knowledge on with them to the next level.

Here is a very small sampling of the Core Knowledge Sequence, reprinted here by permission:

Kindergarten: **Visual Arts**

- Painting: line and color in such works as Matisse's "The Purple Robe," Picasso's "Le Gourmet," Mary Cassatt's "The Bath," Henry O. Tanner's "The Banjo Lesson," and Diego Rivera's "Mother's Helper."
- Sculpture: Statue of Liberty, mobiles of Alexander Calder, Northwest American Indian totem pole.

First Grade: World History

Early Civilizations: Ancient Egypt

- Importance of the Nile River.
- Pharaohs, pyramids, and mummies.
- Animal gods.
- Hieroglyphics

Second Grade: American History

Civil Rights

- Susan B. Anthony and the right to vote.
- Eleanor Roosevelt and civil rights and human rights.
- Mary McLeod Bethune and educational opportunity.
- Jackie Robinson and the integration of major-league baseball.
- Rosa Parks and the bus boycott in Montgomery, Alabama.
- Martin Luther King, Jr. and the dream of equal rights for all.
- Cesar Chavez and the rights of migrant workers.

Third Grade: Math

Fractions

- Recognize fractions to one-tenth.
- Identify numerator and denominator.
- Write mixed numbers.
- Recognize equivalent fractions (for example, $\frac{1}{2} = \frac{3}{6}$).
- Compare fractions with like denominators using the signs $<$, $>$, and $=$

Geometry

- Identify lines as horizontal, vertical, perpendicular, parallel.
- Identify polygons: pentagon, hexagon, and octagon.
- Identify angles: right angle; four right angles in a square or rectangle.
- Compute area in square inches and square centimeters.

Fourth Grade: Science

Electricity

- Electricity as the flow of electrons.
- Static electricity.
- Electric current.
- Electric circuits: closed, open, and short circuits.
- Simple circuit (battery, wire, bulb, filament, switch).
- Conductors and insulators.
- How electromagnets work.
- Using electricity safely.

Fifth Grade: American History and Geography

Westward Exploration and Expansion

- Daniel Boone: Cumberland Gap and Wilderness Trail.
- The Louisiana Purchase: Lewis and Clark, Sacagawea.
- Land routes: Santa Fe Trail and Oregon Trail.
- American Indian resistance: Tecumseh attempts to unite tribes to defend their land.
- "Manifest Destiny" and conflict with Mexico.

Sixth Grade: Language Arts

Fiction and Drama

- Dr.Jekyll and Mr.Hyde.
- The Iliad and The Odyssey.

- Julius Caesar.
- The Secret Garden.

Writing and Research

Write a research essay, with attention to . . .

- asking open-ended questions.
- gathering relevant data through library and field research.
- summarizing, paraphrasing, and quoting accurately while taking notes.
- defining a thesis.
- organizing with an outline.
- integrating quotations from sources.
- acknowledging sources and avoiding plagiarism.
- preparing a bibliography.

Again, this is just a tiny sampling, small units within large subject areas. "Civil rights," for instance, is just one study unit within the broad scope of American history, including the founding of the Republic, with the Constitution and the Bill of Rights. But this sample shows that the Core Knowledge schools do not doubt that elementary children can begin, in age-appropriate ways, to study serious subjects, in contrast with the progressive school, which would restrict them to contemplating their immediate environs – family and neighborhood.

Evidence of Core Knowledge Success

As cited earlier, the 1998-99 Colorado Charter Schools Evaluation Study showed that Core Knowledge schools were contributing in a big way to the success of charter schools in that state. Core Knowledge schools accounted for almost half the charter schools that were studied. And the charter schools outperformed their home districts and schools with comparable socioeconomic profiles. Note these proportions of Colorado charter-school students who scored "proficient" or higher on standardized tests:¹⁰

- 3rd grade reading: 77 % of charter students; state averages, 67%.
- 4th grade reading: 73% of charter students; state average, 59%
- 4th grade writing: 49% of charter students; state average, 34%.
- 7th grade reading: 66% of charter students; state average, 56%.
- 7th grade writing: 57% of charter students; state average 41%.

From other states and researchers evidence of the positive effects of Core Knowledge has begun tumbling in. One of the most impressive studies was done by Gracy Taylor and George Kimball of the Oklahoma City Public Schools.¹¹ Their study paired 300 Core Knowledge students with 300 students in other schools who had the same characteristics as the CK students on seven critical variables: grade level, pre-score, sex, race/ethnicity, and eligibility for free lunch, Title I services, and special education. The control students were randomly selected via computer according to those variables.

The researchers studied the effects of implementing one year of Core Knowledge in grade 3, 4, and 5. The well-validated Iowa Test of Basic Skills was the measuring stick. Given the almost identical backgrounds of the two groups of students, one might have expected one-year differences to be less than pronounced. However, the study found that Core Knowledge students made significantly greater gains in reading comprehension, vocabulary, science, math concepts, and social studies. Moreover, the greatest gains, which came in reading, vocabulary, and social studies, were judged to be "highly significant." The effect of raising vocabulary – the best predictor of academic success – was particularly noteworthy, because it shows hope for closing the socioeconomic gap in student achievement.

The researchers remarked that "according to the literature and personal conversations with Dr. Hirsch prior to the analyses, the impact on student achievement related to Core Knowledge instruction should be most pronounced in vocabulary and comprehension. The implementation of the Core Knowledge scope and sequence is intended to provide and develop a broad base of background knowledge that children utilize in their reading. According to Dr. Hirsch's cultural literacy theory, the more background knowledge a child has, the greater facility in reading the child will have. The initial results of this study do appear to support that notion."

In other words, the evidence so far is that the Core Knowledge approach accomplishes what it sets out to do. And if its adherents are right that knowledge builds on knowledge, the results should only grow more striking over the years.

Along that line, a three-year study by the Center for Social Organization of Schools, Johns Hopkins University, concluded from looking at 12 schools that use Core Knowledge to varying degrees that when the Core Knowledge Sequence is taken to heart and really implemented, it really works.¹² The study found that the difference in gains on standardized tests between low- and high-implementing schools averaged about 12 NCEs (approximately the same as percentile points), a highly significant gain. The study also found signs that, as predicted, the growth of general knowledge had a cumulative effect for students who had been in Core Knowledge schools since the early elementary grades.

As opportunities expand for parents, teachers, and other entrepreneurs to start charter schools, it is likely that many will be turning to Core Knowledge as not just a program but a philosophy, that works.

The Colorado Connection: A Look at Two Core Knowledge Charter Schools

I. Jefferson Academy

Jefferson Academy in Jefferson County, Colorado is one of the nation's success stories for both the Core Knowledge and charter school movements.

In the autumn of 1993, a group of parents in the county convened to seek a more academically challenging education for their children. They liked what they saw in the Core Knowledge Sequence. They also were encouraged by the Colorado legislature's passage of enabling legislation for charter schools that year.

The parent-led board of directors of Jefferson Academy submitted a charter-school application to the county Board of Education in January, 1994, and received a rejection in March. But proceeding under the strong Colorado law, which allows for appeals, the parents took their case to the State Board of Education, which remanded the application to the local school district. Finally, the Jefferson County School Board approved the charter proposal on May 12, 1994.

Jefferson Academy opened as a K-6 school that fall with 189 students and 350 on the waiting list. Just three years later, it became the first Jefferson County school to receive the prestigious Colorado School of Excellence Award, one of only 10 schools in the entire state to receive that honor. The Core Knowledge Foundation also has recognized it as a model school.

Upon entering Jefferson Academy in fall, 1994, 41.2 percent of students were performing below grade level. By the spring of 1998, only 12.4 percent of students were operating at below grade level.

Under the leadership of principal Rod Oosterhouse and the parent-led board of directors, Jefferson Academy takes pride in steering a firm course:

"In addition to the Core Knowledge Sequence," says the school's vision statement, "Jefferson Academy emphasizes the teaching of basic skills with a traditional and conventional approach, in a self-contained educational environment. Our academically oriented program is organized so that the entire class generally works as a single group on grade-level material with ability grouping where necessary. Emphasis is placed on the basic foundations necessary for an academically sound education: reading (with emphasis on phonics), mathematics, English, grammar, geography, history, government, penmanship, spelling, fine arts, physical education, and science. Homework will be assigned on a regular basis with the goal of strengthening and/or enriching daily work."

"Strict discipline and order will be maintained. Students are expected to respect authority, accept responsibility, respect the rights of others, take care of their own property, and be careful with the property of others. No student will be allowed to disrupt the education of other students."

Here are some other things worth knowing about this exceptional Core Knowledge charter school:

- Parent involvement is sky-high. Parents have put in more than 60,000 hours of service to the school over the past four years.
- The attendance rate for the past three years has been 96 percent.
- About 9 percent of the Academy's students have special needs. Jefferson does not screen out such children. It serves them diligently.
- On confidential surveys, 99 percent of parents "agree" or "strongly agree" that Jefferson Academy meets the needs of their children.
- The mobility rate has been just 1.5 percent, mostly due to families relocating.
- The Jefferson County School Board awarded the Academy a new five-year charter in 1997. The school has expanded to include junior and senior high school. Enrollment has grown to 660 students, and there are 1,200 on the waiting list for elementary school and 2,000 for junior/senior high school.

II. Liberty Common School

Liberty Common School opened as a Core Knowledge school in Fort Collins, a pleasant community in the Rocky Mountain foothills of northern Colorado, three years ago. Today it enrolls more than 540 students in grades K-9, with a waiting list of close to 1,000. "It is our goal," says headmaster Kathryn Knox, "to equalize the playing field for all students through a common and rich foundation of content and skills, high expectations and good citizenship."

Liberty's Board of directors is composed of seven elected parents. The board establishes and oversees the school's educational and operational policies. It meets twice a month in sessions open to the public.

This charter school supplements the Core Knowledge Sequence with such solid programs as Saxon Math, and the Riggs Writing Road to Reading, with strong emphasis on phonics and literacy. Electives for grades 7-9 include Ceramics/Printmaking, Drawing, French, Spanish, German, Speech, Advanced and Beginning Band, Orchestra, and Sports.

A ninth-grader's curricular fare typically includes: Economics, Survey of British Literature, Algebra I and II, Biology, and Introduction to Chemistry and Physics.

Liberty Common is serious about meeting its academic goals. One of them was that the school would exceed state standards as well as the district's. These were the results on the Colorado assessment in Liberty's second year:

Grade	Test	% at or above Proficient
-------	------	--------------------------

		Liberty Common	District	State
4	Reading	91%	73%	59%
4	Writing	79%	50%	34%
7	Reading	85%	66%	56%
7	Writing	72%	50%	41%

In all of the reading and writing tests for grades 4 and 7, Liberty Common School ranked No. 1 in the local school district.

Colorado's Core Knowledge Schools

(The Core Knowledge Foundation lists the following as full-fledged Core Knowledge schools in Colorado. Twenty-two that have been in operation at least two years were included in the Colorado Education Department study that documented significant gains for students in charter schools.)

Lincoln Academy Charter School, Arvada

Woodrow Wilson Academy, Arvada

Aurora Academy, Aurora

Rolling Hills Elementary, Aurora

Burbank Middle School, Boulder

High Peaks School, Boulder

Academic Achievement Academy, Broomfield

Jefferson Academy, Broomfield

Jefferson Academy Junior High, Broomfield

Academy Charter School, Castle Rock

Mountain View Charter School, Canon City

Cheyenne Mountain Charter Academy, Colorado Springs

The Classical Academy, Colorado Springs

Academy of Charter Schools, Denver

Elbert County Charter School, Elizabeth

Cherry Creek Academy, Englewood

Evergreen Mountain School, Evergreen

Rocky Mountain Academy of Evergreen, Evergreen

Douglas County Academy, Franktown

Boltz Junior High School, Ft. Collins

Liberty Common School, Ft. Collins

Moore Elementary, Ft. Collins

Spring Creek Country Day School, Ft. Collins

Traut Core Knowledge School, Ft. Collins

Frontier Academy, Greeley

Mountain View Academy, Greeley

Platte River Academy, Highlands Ranch

Lafayette Elementary, Lafayette

Phoenix Academy, Lakewood

Collegiate Academy, Littleton

Littleton Academy, Littleton

MacKintosh Academy, Littleton

Twin Peaks Charter School, Longmont

Louisville Elementary, Louisville

Moffat Elementary/Middle School, Moffat

Lewis-Palmer Charter School, Monument

Core Knowledge Institute of Parker, Parker

Swallow Charter Academy, Pueblo West

Superior Elementary School, Superior

Pinnacle, Thornton

Crown Pointe Academy, Westminster

Windsor Charter Academy, Windsor

Notes

1. *An Educator's Guide to Schoolwide Reform*, American Association of School Administrators, www.aasa.org/Reform/overview.htm
2. Diane Ravitch, *Left Back: A Century of Failed School Reforms*, Simon & Schuster, New York, 2000.
3. Steve Farkas and Jean Johnson, *Different Drummers: How Teachers of Teachers View Public Education*, Public Agenda, New York, 1997.
4. E. D. Hirsch, Jr., *The Schools We Need and Why We Don't Have Them*, an Anchor Book: Doubleday, New York, 1999, p. 174.
5. www.coreknowledge.org
6. James Traub, *Better By Design? A Consumer's Guide to Schoolwide Reform*, Fordham Foundation, December, 1999.
7. Colorado Charter Schools Evaluation Study, 1998-99, www.cde.state.co.us
8. Hirsch, op. cit.
9. E.D. Hirsch, Jr., "Why Core Knowledge Promotes Social Justice," Convocation Address to students and faculty of the University of Tennessee – Chattanooga, October 6, 1999.
10. Colorado Charter Schools Evaluation, op. cit.
11. Gracy Taylor and George Kimball, *The Equity Effects of Core Knowledge*, Oklahoma City Public Schools, May, 2000.
12. Sam Stringfield, and others, *National Evaluation of Core Knowledge Sequence Implementation: Final Report*, Center for Social Organization and Schools, Johns Hopkins University, 1999.