

The Evidence Gap: Why Families Are Seeking Evidence-Based Instruction Outside the Traditional Classroom

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Executive Summary

Despite decades of advancement in learning science about how humans acquire and process knowledge, instructional science about the most effective ways to teach, and the strong body of knowledge of what is necessary to learn to read, write and become proficient in math, the K-12 education sector struggles to consistently implement evidence-aligned practices. This paper explores how the failure to apply the principles of effective instruction based on evidence—encompassing public, charter, and private institutions—drives parents to seek alternative educational models. Drawing on the arguments of educational researcher Douglas Carnine and established principles of effective instruction, we examine how the transition to homeschooling is increasingly motivated by a demand for systemic pedagogical rigor that traditional institutions fail to guarantee.

Introduction: The Systemic Deficit in Educational Alignment

For decades, the national conversation surrounding homeschooling focused heavily on religious, cultural, or ideological motivations. However, a distinct shift has occurred. Robert Pondiscio, in a recent article [“Teaching in the Age of School Choice”](#) highlighted this shift which started during covid but has accelerated as more states provide funding enabling parents to decide the best way to educate their children. A growing demographic of parents is approaching education through the lens of data and efficacy, functioning essentially as "educational curators."

The primary driver for this segment is the recognition of a profound misalignment between teaching practices and the established science of reading (National Reading Panel Report, 2000), science of math, and learning and instructional science. While fields like medicine, aviation, and engineering routinely integrate new, high-quality data into standard operating procedures, K-12 education remains largely fragmented and insulated from rigorous scientific accountability. In K-12 education individual preferences often rule the day, and parents are noticing this lack of professional standards. Education, in fact, continues to [resist the use of rigorous evidence](#) to inform practices (Carnine, 2000).

Education as an Unregulated Profession

To understand why alternative models are appealing, one must examine why traditional schools fail to deliver evidence-aligned practices uniformly. In his analysis [What Education Can Learn from Trusted Professions](#), professor and researcher Douglas Carnine argues that for a profession to be considered "trusted," it must rely on five interdependent pillars:

- A Shared Knowledge Base: A universally accepted body of verified facts and practices.
- Coherent Preparation: Training programs that explicitly teach this knowledge base.

- Licensure/Certification: Rigorous testing to ensure entry-level competence in the knowledge base.
- Accreditation: Standards that protect the integrity of training institutions.
- Accountability Guardrails: Systems that ensure practitioners actually use the knowledge base in daily practice.

Currently, the education sector lacks these structural guardrails. Because educator preparation programs and state licensing requirements rarely mandate mastery of evidence-based knowledge, individual classroom practices are frequently governed by personal preference, tradition, or shifting ideological trends rather than empirical evidence.

The Illusion of the Charter and Private School Alternative

A common misconception is that market competition cures this lack of rigor, leading parents to assume charter or private schools offer a more evidence-aligned education. However, because teachers across all sectors typically graduate from the same legacy preparation programs, the structural lack of an evidence-aligned knowledge base persists regardless of the school's funding model. Private and charter schools often compete on amenities, class size, or niche philosophies rather than empirical pedagogical protocols. Consequently, families looking for verified instructional methods find that changing school types often yields the same inconsistent results.

The Core Pedagogical Gaps Driving the Homeschool Shift

When families opt out of the institutional school system, they are frequently seeking to correct specific, well-documented systemic failures.

1. The Literacy Implementation Gap. The most glaring example of this failure is the teaching of reading. The strong body of research—collectively known as the "Science of Reading"—has established that explicit, systematic phonics along with strong language comprehension instruction is essential for the vast majority of children to become proficient readers and writers. Despite this, thousands of schools across the country have spent decades utilizing "Balanced Literacy" or "Whole Language" philosophies, relying on disproven strategies like the "three-cueing system" (e.g. encouraging children to guess words based on pictures or context). While this is changing substantially due to the states enacting evidence-based reading legislation, not all educators have been adequately prepared, some may resist this change, and materials lag behind.

Carnine references this delay as a "period of [preventable](#) harm." Just as it took decades for the maritime industry to adopt citrus fruit to prevent scurvy after the cure was discovered, school systems often take decades to phase out debunked reading programs. Homeschooling allows parents to terminate this period of preventable harm immediately by adopting validated curricula without waiting for bureaucratic district turnarounds.

2. Time-Based vs. Mastery-Based Pacing. Traditional classrooms generally operate on an industrial, time-bound model: a set number of days is allocated to a unit, after which the entire class moves forward, regardless of individual student mastery. This creates cumulative learning

gaps, particularly in sequential subjects like mathematics. In contrast, educational research strongly supports Mastery Learning—a model pioneered by psychologist Benjamin Bloom and Siegfried Engelmann. Under this framework, time is variable while learning is constant; students do not advance until they demonstrate complete comprehension of a concept. Bloom’s research indicated that when students receive targeted, mastery-based instruction, their achievement levels can rise significantly compared to conventional group instruction. Around the same time Siegfried Engelmann along with education researcher Carl Bereiter was developing Direct Instruction, a mastery-based approach. Then with Wesley Becker, Engelmann developed the first DI programs for reading, math, and language. Homeschooling inherently facilitates this model, allowing for precise adjustment of pacing based on real-time data. Many homeschooling parents rely on Engelmann’s *Teach Your Child to Read in 100 Lessons* (Engelmann et al., 1983). Homeschool families often wonder why this mastery approach is not the norm in most schools.

3. The Power of High-Dosage Tutoring. Educational data consistently confirms that one-on-one or small-group instruction—often referred to as high-dosage tutoring—is one of the most effective interventions available for accelerating academic growth (Nickow et al., 2024). In a standard classroom of 25 to 30 students, a single teacher cannot realistically provide this level of individualized attention. The home environment naturally scales down the teacher-to-student ratio, maximizing the time spent in the student's "Zone of Proximal Development"—the optimal cognitive space where learning is challenging but achievable.

Institutional Realities vs. Evidence-Aligned Ideals

The structural differences between institutional settings (public, private, and charter schools) that are bound by class size and schedule constraints and personalized, homeschool learning environments illustrate why the traditional classroom struggles to compete with evidence-aligned home instruction. In the critical domain of literacy, institutional settings—whether public, private, or charter—frequently continue to use unproven methods, and too many of the textbooks, purporting to be based on the science of reading, are still inadequate. Many of the most used elementary school literacy materials in institutional settings lack rigorous explicit instruction, provide insufficient targeted and deliberate practice, and rarely include whole books for deep knowledge-building. Similarly, most math instruction falls into the discovery or constructivist approach leaving many children without a solid grounding in early and vital number fluency. A personalized home environment, by contrast, allows for the immediate, uncompromised deployment of explicit, systematic instruction.

Furthermore, while institutional pacing is structurally bound to a fixed calendar—forcing a teacher to move the class forward regardless of individual learning gaps—the home environment naturally facilitates mastery-based progression, where advancement is strictly conditional on full comprehension. These structural limitations extend to the teacher-to-student ratio; traditional schools operate at a high-density scale that severely limits individualized feedback and frequent response opportunities, both well-established as critical to learning and retention of the learning

(Hattie & Timperley, 2007; MacSuga-Gage & Simonsen, 2015). Instead, the home environment maximizes the proven cognitive benefits of high-dosage tutoring, frequent response opportunities, and immediate feedback. Finally, the high-stimulus, high-stress environments of large classrooms can elevate a child's cortisol levels, which biologically inhibits prefrontal cortex function (Whiting, Wass, Green, Thomas, 2021). Controlling these environmental stressors at home allows parents to optimize the physical conditions required for deep cognitive focus.

Conclusion: Homeschooling as Decentralized Accountability

When an entire profession lacks systemic accountability, the burden of quality control shifts to the consumer. The modern increase in homeschooling is, in many ways, its own self-regulatory movement. Parents are realizing that if they want their children to be taught using methods aligned with cognitive science and effective instruction, they cannot rely on institutions that treat evidence as optional. By taking education into their own hands, these families are not abandoning education; rather, they are enforcing the empirical standards that the professional education establishment has failed to secure.

References & Further Reading

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