



The Crisis in Early Education

A Research-Based Case for More Play and Less Pressure

By Joan Almon and Edward Miller

“While early formal instruction may appear to show good test results at first, in the long term, in follow-up studies, such children have had no advantage. On the contrary, especially in the case of boys, subjection to early formal instruction increases their tendency to distance themselves from the goals of schools, and to drop out of it, either mentally or physically.”

—Lilian G. Katz,
Professor Emeritus, U. of Illinois

The crisis in early education in the U.S. continues unabated. Policymakers persist in ignoring the huge discrepancy between what we know about how young children learn and what we actually do in preschools and kindergartens.

Numerous studies—some extending over decades—show the effectiveness of play-based education that combines hands-on learning with child-initiated play. But that research is largely ignored. Instead, short-term studies that show gains in discrete skills like letter and number recognition are increasingly used to justify didactic and even scripted instruction for young children—with disastrous effects for many of them.

The desire for early achievement is not new. The Swiss psychologist Jean Piaget, who died in 1980, mapped the stages of cognitive development in childhood. He frequently ran into what he called “the American question”: How can we speed up the developmental process?¹

The pushing down of the elementary school curriculum into early childhood has reached a new peak with the adoption by almost every state of the so-called common core standards. They call for kindergartners to master more than 90 skills related to literacy and math, many intended to get children reading in kindergarten.² Yet there is no research showing that children who read at age five do better in the long run than those who learn at six or seven.

For many children the outcomes of this hurried curriculum are unhealthy. Educators and physicians report increasing incidents of extreme and aggressive

behavior in preschools and kindergartens and link these to the stress children experience in school.

When Walter Gilliam, head of the Child Study Center at Yale, surveyed almost 4,000 teachers from state-financed preschools, he learned that three- and four-year-old children were being expelled at three times the national rate for K-12 students. And 4.5 times more boys were being expelled from preschool than girls.³

Gilliam’s data showed a correlation between the amount of dramatic play in preschool and expulsion rates—less play, more expulsions. Other researchers are examining rising rates of aggressive behavior in pre-K and kindergarten classrooms. The Alliance for Childhood’s *Crisis in the Kindergarten* documents several examples:⁴

The *Hartford Courant* reported that Connecticut students in the earliest grades, including kindergarten, are increasingly behaving in ways that pose physical threats to themselves and others.⁵ Connecticut schools suspended or expelled 901 kindergartners for fighting, defiance, or temper tantrums in 2002; this was almost twice as many as in 2000.⁶

One New Haven school official attributed the spike in violence among young children to the increasing emphasis on standardized testing and the elimination of time for recess, gym, and other chances to play. “It’s not like it was when we were kids, when you could expect to have an hour or so every day to play and explore,” she said. “That kind of time just isn’t there anymore.”⁷

A *Time* magazine article in 2003 linked aggressive behaviors with rising academic pressure in kindergarten and first grade in anticipation of the yearly tests demanded by the No Child Left Behind Act. Stephen Hinshaw, a professor of psychology at the University of California, Berkeley and an expert in hyperactive disorders, spoke of the need for a broad-based kindergarten approach: “Even more vital than early

reading is the learning of play skills, which form the foundation of cognitive skills,” he said. He pointed out that in Europe children are often not taught to read until age seven. “Insisting that they read at 5,” he said, “puts undue pressure on a child.”⁸

Time to Slow Down: Evidence from Abroad

In the 1970s Germany embarked on a similar plan to push early learning—turning its kindergartens into centers for cognitive achievement. But a study compared 50 play-based classes with 50 early-learning centers and found that “by age ten the children who had played excelled over the others in a host of ways. They were more advanced in reading and mathematics and they were better adjusted socially and emotionally in school. They excelled in creativity and intelligence, oral expression, and ‘industry.’ As a result of this study German kindergartens returned to being play-based again.”⁹

Finland’s approach to early education has been much studied and stands out for its long-term success. Finnish high school students consistently rank at or near the top in the Programme for International Student Assessment (PISA). This test of literacy, math, and science is given to a sample of 400,000 15-year-olds in 57 of the wealthiest countries comprising 90 percent of the world’s GDP.¹⁰

Finland guarantees high-quality child care for all. Most children do not enter child care until age three, as mothers get financial support if they choose to stay at home for that period. Support is especially strong in the first year, so that almost no children enter child care before age one.

Child care, generally called kindergarten in Finland, extends until age seven, when children enter first grade. The programs are play-based, with well-trained teachers and aides and low child-adult ratios. For 6-year-olds, half-day programs are also available, usually in child care centers, which “place a slightly greater emphasis on academic preparation and language development than typical child care.”¹¹ This slow but well-developed approach lays a strong foundation for school success.

Recent research by Sebastian Suggate of New Zealand’s University of Otago found no long-term gains from teaching children to read at age five compared to age seven.¹² Suggate undertook his study because “he could not find any quantitative controlled study within the English-speaking world to ascertain whether later starting readers were at an advantage or disadvantage. He found only one methodologically weak study conducted in 1974, but nothing

since that time. Yet people regularly insist that early reading is integral to a child’s later achievement and success. He admits to being surprised, therefore, by his own findings that this is not the case.”¹³

Suggate conducted three quite different but complementary studies. In the first he re-analyzed data collected as part of the 2006 PISA exam “and found that by the age of 15, there was no advantage in learning to read early from age 5.”¹⁴

He then compared 54 children in Waldorf schools where reading instruction began at age seven with 50 children who attended schools where it began at age five. All took the same test at age 12. The study controlled for home literacy environments, family economic status, parental education, ethnicity, and gender. He found “no difference” by age 12 in the reading fluency and comprehension of the two groups.

Suggate’s third, longitudinal study looked at reading from first instruction to the end of primary school to see whether differences in school experiences and

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the primary curriculum at the two different types of schools would have accounted for the ability of Waldorf children to reach the same reading level as their state counterparts by age 12. He concluded:

One theory for the finding that an earlier beginning does not lead to a later advantage is that the most important early factors for later reading achievement, for most children, are language and learning experiences that are gained without formal reading instruction. Because later starters at reading are still learning through play, language, and interactions with adults, their long-term learning is not disadvantaged. Instead, these activities prepare the soil well for later development of reading. This research then raises the question, if there aren’t advantages to learning to read from the age of five, could there be disadvantages to starting teaching children to read earlier.... In other words, we could be putting them off.¹⁵

The Down Side of Speeding Up

The desire for a fast track to success, coupled with the push for tough standards and test-based account-

ability, has built a new superhighway without speed limits or guardrails—a dangerous place for children. The new core standards, beginning in kindergarten, are the on-ramp. It is worth noting that until recently the term “core standards” was primarily used in manufacturing, where it is vital that materials like nuts, bolts, and cement are strictly uniform.

Applying the concept of core standards to children, with all the uniformity and mechanistic perfection implied in the term, is inappropriate. Ratcheting up pressure with high-stakes testing of narrow skills dehumanizes education. This approach has already failed in the No Child Left Behind Act. Education based on a mechanical view of the human being cannot succeed.

Rather than standards, well-prepared early educators need appropriate guidelines they can apply with flexibility. Rather than testing narrow skills, we should broadly gauge growth in cognitive, social-emotional, and physical areas, as well as creativity and other essential qualities of human life.

What are the long-term consequences of inappropriate early education? The few studies in this area show indications of great harm. The HighScope Preschool Curriculum Comparison Study (PCCS), not as well known as HighScope’s famous Perry Preschool Study, may be the most striking example.

The Perry Study documented the long-term benefits of preschool for low-income children. Missing from the picture is that not all preschools yield equally good results. In the late 1960s HighScope began the PCCS, with 68 at-risk children from low-income families randomly assigned to one of three preschool classes: (1) a direct instruction program (DI), where teachers used a script and expected correct answers from the children; (2) a traditional nursery school, where children learned through play and large-group activities; and (3) the HighScope program, where children learned through group time and play with a “plan, do, and review” focus. The latter two emphasized child-initiated activities. With support from the staff, the three- and four-year-olds in the study pursued their own interests. All were followed until age 23.

It is important to note that at first the outcomes seemed to be the same for children in all three groups. All showed a large increase in IQ scores, from an average of 78 to 105. The researchers initially concluded that “well-implemented preschool curriculum models, regardless of their theoretical orientation, had similar effects on children’s intellectual and academic performance.” In the long term, however, “time has proved otherwise”¹⁶

By age 23, when the study concluded, the direct instruction students showed serious problems in overall development:

- 47% of the DI students had needed special education, compared to only 6% of the other students;
- 34% had been arrested for a felony offense, compared with 9% of the others;
- 27% had been suspended from work, while none of the others had been;
- None of the DI students had married and were living with spouses, compared with 31% of the others.
- Only 11% of the DI students had ever done volunteer work, compared to about 43% of the others.

The results are clear: When at-risk children get inappropriate early education it has a lasting negative effect. Yet millions of young children in recent years have been subjected to schooling that demands too much too soon. We are not reducing the learning gap with such methods; we are intensifying the problems. It is time for educators and policymakers to adopt the rule that guides the medical community: First, do no harm.

What Have We Lost?

While schools focus on drilling literacy and math skills into young children, a few researchers are studying what is being lost. Creativity is one casualty. The Torrance creativity test, which has been given

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Curiosity is another.*

millions of times over five decades in over 50 languages, is a better predictor than IQ of which students will become successful innovators in a host of professions.

When Kyung Hee Kim at the College of William & Mary analyzed almost 300,000 Torrance scores of children and adults, *Newsweek* reported in 2010, “she found creativity scores had been steadily rising, just like IQ scores, until 1990. Since then, creativity scores have consistently inched downward. ‘It’s very clear, and the decrease is very significant,’ Kim says. It is the scores of younger children in America—from kindergarten through sixth grade—for whom the decline is ‘most serious.’”¹⁷

Curiosity is another casualty. Susan Engel, senior lecturer in psychology and director of the Program in

Teaching at Williams College, designed research to study curiosity in classrooms. During a series of school visits, however, she saw so few examples of children asking questions and expressing curiosity that she had to call off the study.¹⁸

The loss of curiosity has profound implications for education. Science and math educators increasingly speak of the need for inquiry-based learning, that is, a “focus on student constructed learning as opposed to teacher-transmitted information.”¹⁹ Ironically, student-initiated learning is exactly the way young children learn when allowed to play and engage in hands-on discovery. Many current approaches to kindergarten education inadvertently stifle experiential learning and curiosity in young children, which makes teaching advanced math and science in later grades more difficult.

An Urgent Need for Action

When the Alliance for Childhood began its campaign to restore play both in early education and outside

school, we found other organizations committed to play. Each was doing important work, but each in its own silo. It was a perfect picture of parallel play that had not yet advanced to rich, social play. Once we began working (and playing) together, a movement was born. Play began to appear more regularly on the cultural radar screen.

We knew we had reached a critical point in this effort when the *New York Times* reported in January 2011 that “the movement to restore children’s play gains momentum.”²⁰ This momentum must be continued and expanded. Educators must join forces with parents, pediatricians, child development experts, and enlightened policymakers to turn the tide in favor of a healthy and creative childhood for all children. Only concerted action by people from across the disciplines of children’s learning, health, and well-being will raise general awareness of the crisis. It is time to launch a decade for childhood that will restore and preserve play-based early education. Join us in doing so.²¹

¹ Edward Zigler and Elizabeth Gilman, “The Legacy of Jean Piaget,” chapter 9 of *Portraits of Pioneers in Psychology*, Vol. 3, edited by Gregory A. Kimble and Michael Wertheimer, Washington, DC and Mahwah, NJ: American Psychological Association and Lawrence Erlbaum Associates (1998), pg. 155.

² The National Governors Association Center for Best Practices and the Council of Chief State School Officers released the Common Core State Standards for K-12 education in June 2010. By October 2011 all but 6 states had adopted them. See <http://www.corestandards.org/>.

³ Walter S. Gilliam, “Pre-K Students Expelled at More Than Three Times the Rate of K-12 Students,” New Haven, CT: Yale University Office of Public Affairs (May 17, 2005); <http://opa.yale.edu/news/article.aspx?id=4271>

⁴ Additional examples of aggression in early childhood classrooms can be found in *Crisis in the Kindergarten* at www.allianceforchildhood.org/publications.

⁵ Matt Burgard, “Into School, Out of Control: Nowadays, Even the Youngest Students Turn to Violence,” *Hartford Courant* (April 2, 2007).

⁶ Sara Bennett and Nancy Kalish, *The Case Against Homework*, New York: Three Rivers Press (2006), p. 109.

⁷ Burgard, op. cit.

⁸ Claudia Wallis, “Does Kindergarten Need Cops?” *Time Magazine* (Dec. 7, 2003); <http://www.time.com/time/magazine/article/0,9171,1101031215-556865,00.html?cnn=yes>.

⁹ Edward Miller and Joan Almon, *Crisis In the Kindergarten: Why Children Need to Play in School*, College Park, MD: Alliance for Childhood (2009), pg. 7. Further information on the study can be found in “Curriculum Studies and the Traditions of Inquiry: The Scientific Tradition” by Linda Darling-Hammond and Jon Snyder, in the *Handbook*

of Research on Curriculum (1992), edited by Philip W. Jackson; New York: MacMillan, pp. 41-78.

¹⁰ http://www.oecd.org/document/60/0,3343,en_2649_201185_39700732_1_1_1_1,00.html

¹¹ <http://www.newamerica.net/blog/early-ed-watch/2008/how-finland-educates-youngest-children-9029>

¹² Suggate’s research has been published in several journals and a book is in press. See http://www.i4.psychologie.uni-wuerzburg.de/mitarbeiter/dr_sebastian_paul_suggate/.

¹³ University of Otago, Jan. 3, 2010; <http://www.sciencealert.com.au/news/20100401-20448.html>

¹⁴ *Ibid*. The first study has been published in the *International Journal of Educational Research*, <http://www.sciencedirect.com/science/article/pii/S0883035509000573>

¹⁵ *Ibid*

¹⁶ http://www.highscope.org/file/Research/high_scope_curriculum/Curric_factsheet.pdf.

See also <http://www.highscope.org/Content.asp?ContentId=241>. There is also a video about the study at <http://www.highscope.org/video.asp?file=/media/Larry/Last%20Diff%20final%204309.mov>

¹⁷ Newsweek, July 10, 2010.

<http://www.newsweek.com/2010/07/10/the-creativity-crisis.html>

¹⁸ Comments by Susan Engel at a session for senior staff of the Department of Education, Washington, DC, May 23, 2011.

¹⁹ <http://www.brynmawr.edu/biology/franklin/InquiryBasedScience.html>

²⁰ <http://www.nytimes.com/2011/01/06/garden/06play.html>

²¹ Information on the 2012 Summit for Childhood and the decade for childhood can be found at www.acei.org.