

CONSTANCE KAMII'S CRITICAL LOOK AT THE K-3 COMMON CORE STATE STANDARDS FOR MATH

Defending the Early Years (DEY) is an organization of early childhood professionals dedicated to speaking out with well-reasoned arguments against inappropriate standards, assessments, and classroom practices. We are concerned about the rising emphasis on academic skills in early childhood classrooms today. Increasing teacher-directed instruction is leading to the erosion of play-based, experiential learning that we know young children need from decades of theory and research in cognitive and developmental psychology and neuroscience.

The Common Core State Standards (CCSS), standards in literacy and math for K-12 that have been adopted in more than forty states, are intensifying the academic pressures on young learners. In general, these standards do not reflect how young children learn and are not developmentally appropriate.

Recently, DEY joined with the Alliance for Childhood to release a report called *Reading Instruction in Kindergarten: Little to Gain and Much to Lose*. The report showed that the Common Core standard requiring children to read in kindergarten is not based in research. Now, with a new report, *Selected Standards from the Common Core State Standards for Mathematics, Grades K-3: My reasons for not supporting them*, Dr. Constance Kamii shows that the Common Core math standards for grades K-3 are not grounded in the large body of research on how young children learn mathematics. Dr. Kamii is a member of the DEY's National Advisory Board and a leading scholar and researcher studying children's understanding of mathematics.

Dr. Kamii's research and pedagogy have been the cornerstone of early childhood math education for decades. She starts with the theory that math is made up of mental, logico-mathematical relationships. While these relationships can't be taught directly, teachers help children construct them when they encourage children to *think* as they engage in activities and interact with hands-on materials. Dr. Kamii's goal for math education is for children to become independent thinkers.

Dr. Kamii has worked for many years with early childhood teachers, experimenting with new ways of stimulating children's independent thinking. She has described many kinds of specific activities. She has also conducted systematic research to assess how well children understand mathematical concepts as a result of doing these activities. In the process, she has developed a solid sense of the kinds of mathematical concepts that children can be expected to construct at each grade.

In this report, Dr. Kamii explains that most of the CCSS are written as if the authors are not aware of logico-mathematical knowledge; they seem to think that the facts and skills in the mathematics standards can be taught directly. Dr. Kamii goes on to explain why the CCSS are set at grade levels that are too early. She selects specific standards for each grade from kindergarten to grade 3 and shows, based on her research, why young children cannot grasp the mathematical concepts these standards require. Dr. Kamii's explanations are thorough and grounded in child development research and understandings. They will give any interested reader a deep appreciation for the term "developmentally inappropriate."

According to Dr. Kamii, in an effort to meet the standards, teachers will try to accelerate learning by directly teaching specific and too-advanced concepts and skills. This, she explains, will result in empty “verbalisms” children learning by rote what they don’t truly understand. Children will learn to accept answers on the basis of what teachers and books say and will lose confidence in their own ability to think for themselves.

The powerful ideas found in Dr. Kamii’s paper are echoed in the recent essay released by Defending the Early Years in April, 2015 called *Lively Minds: Distinctions between academic versus intellectual goals for young children* by Dr. Lilian G. Katz (Katz, 2015). Dr. Katz is Professor Emerita of Early Childhood Education at the University of Illinois (Urbana-Champaign). Dr. Katz is Past President of the National Association for the Education of Young Children, and the first President of the Illinois Association for the Education of Young Children. She is an influential leader in the field of early childhood education.

In Dr. Katz’s paper, she explains the importance of *intellectual goals* for young children and contrasts them with *academic goals*. Intellectual goals and their related activities are those that address the life of the mind in its fullest sense - reasoning, predicting, analyzing, questioning - and include a range of aesthetic and moral sensibilities. Academic goals, on the other hand, involve mastery of small discrete elements of disembodied information designed to prepare children for the next levels of literacy and numeracy learning. Items designed to meet academic goals rely heavily on memorization and the application of formulae versus understanding. As Dr. Katz explains, intellectual dispositions may be weakened or even damaged by excessive and premature focus on academic goals.

In Dr. Kamii’s critique of the Common Core Math Standards, she shows how many of the standards further academic but not intellectual goals. Many of the standards she describes require children to master discrete bits of information and rely heavily on rote learning. For Dr. Kamii, genuine math learning engages children’s intellectual dispositions. In her opinion,

the CCSS redirect education away from thinking and genuine meaning making and focus it on more limited academic goals.

For both scholars, Dr. Katz and Dr. Kamii, an appropriate curriculum for young children is one that supports children’s in-born intellectual dispositions, their natural inclinations. In *Selected Standards from the CCSS for Mathematics, Grades K-3: My reasons for not supporting them*, Constance Kamii makes plain that most of the CCSS involve logico-mathematical knowledge and are therefore, not directly teachable. Dr. Kamii also maps out clearly in each of the examples why specific standards for the early grades are set at grade levels too early and are therefore developmentally inappropriate. She asks why the authors of the CCSS did not consider the large body of data available from research. And she concludes that any teacher of children in grades K-3 would easily understand that the standards are too hard for most children.

At Defending the Early Years, we are persuaded by the evidence from early childhood experts about the many failings in the CCSS for young children. We therefore call for removing kindergarten from the Common Core and for the convening of a task force of early childhood educators to recommend developmentally appropriate, culturally responsive guidelines for supporting young children’s optimal learning from birth to grade 3.

The DEY reports *Selected Standards from the Common Core State Standards for Mathematics, Grades K-3: My reasons for not supporting them* and *Lively Minds: Distinctions between academic versus intellectual goals for young children* are available to download at our website www.DEYproject.org.

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