



## Field Notes

# How We Know Kids Living in Poverty Can Meet the Common Core Standards

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The Common Core State Standards underscore five key shifts in teaching and learning that place greater emphasis on

1. Critical thinking, reasoning, and use of evidence to defend an argument.
2. Deeper conceptual understanding, particularly in math.
3. Writing, not only through explicit standards for writing, but also through the need to communicate one's reasoning through writing.
4. Applying learning to real-world situations.
5. Using informational texts to build content knowledge and literacy.

The shifts embodied in the standards necessitate that students become self-regulating, metacognitive learners. And for each shift, a body of research points toward pedagogies that are particularly effective in helping students who live in poverty meet and achieve the skills, knowledge, and dispositions embodied in the shifts. The brief descriptions below describe these research-based approaches in relationship to a particular shift; however, many of these approaches could apply to more than one shift. The purpose is not to "sell" or promote a particular approach, but rather to illuminate the large volume of evidence that can challenge our mind-sets about students from low-income families and their ability to learn to high standards.

## Critical Thinking, Reasoning, and Use of Evidence to Defend an Argument

The Higher Order Thinking Skills (HOTS) program developed by educator and researcher Stan Pogrow provides students with the opportunity to create and articulate ideas and then articulate rationales, justifications, and strategies using a Socratic teaching methodology. Large-scale research (2,600 schools and half a million disadvantaged students all over the United States) has shown that HOTS is able to produce substantial gains simultaneously on 16 different measures of academic and cognitive development, including GPA, metacognition, writing, and novel problem solving (Pogrow, 2004).

The Advancement via Individual Determination (AVID) program was developed by high school English teacher Mary Catherine Swanson in 1980 to provide all students with access to rigorous curricula, particularly those who were underrepresented in four-year colleges and universities. Through AVID, students have access to rigorous curricula and are expected to enroll in and complete college. AVID has a 93 percent success rate in sending underrepresented students to college (Mehan, Villanueva, Hubbard, & Lintz, 1996).

## Deeper Conceptual Understanding, Particularly in Math

New pedagogies and mathematics curricula are leading to deeper, more conceptual understanding in many states. Studies of curricula developed through funding by the National Science Foundation (NSF) demonstrate that students in schools using these new curricula consistently outperformed comparison groups (ARC Center, 2000; Riordan & Noyce, 2001). This result held across all tests, all grade levels, and all strands, regardless of socioeconomic status and racial or ethnic identity (ARC Center, 2000; Riordan & Noyce, 2001). Examples of NSF-funded curricula include Everyday Mathematics; Connected Mathematics; and Investigations in Number, Data, and Space.

## Emphasis on Writing

Nationally, a well-documented achievement gap exists in writing between students from low-income families and their more affluent peers (National Center for Education Statistics, 2012). The National Writing Project has conducted an extensive number of studies that demonstrate the positive effect of high-quality professional development for teachers on student outcomes in writing, critical thinking, and creativity. For example, the Pathway Project in the Santa Ana Unified School District found that students whose teachers engaged in ongoing professional development and implemented a cognitive strategies

approach to reading and writing instruction "significantly outgained peers on holistically scored assessments of academic writing for seven consecutive years. Treatment-group students also performed significantly better than control-group students on GPA, standardized tests, and high-stakes writing assessments" (Olson & Land, 2007, p. 269).

## Applying Learning to Real-World Situations

Placing a greater emphasis on application of knowledge and connecting academic learning to purposes beyond the walls of schools is perhaps the hallmark of the Common Core standards. Numerous pedagogies support this shift, including various forms of place-based education (PBE), which allows students to connect what they are learning in school to their own lives. PBE can take many forms, including service learning, apprenticeships, environmental education, community-based learning, and indigenous education. In *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*, Gerald Lieberman and Linda Hoody (1998) suggest, "When educators develop their instructional practices in the context of the local environment, students do better academically" (p. 2). Their qualitative study of 40 schools demonstrates how, why, and to what degree PBE enhances learning.

Expeditionary learning is a well-developed, well-researched approach to connecting academic learning and real-world application. It uses an experiential project-based approach in which students engage in original research and create high-quality products for audiences beyond the classroom. Expeditionary learning fosters critical-thinking and problem-solving skills in students while compelling them to care about and contribute to the world. Nearly two decades of research demonstrate this approach's positive effect on closing achievement gaps. Extensive examinations of expeditionary learning have shown that full implementation reduces the achievement gap for students in poverty (Albert, 2010; Amoruso, Bontempo, & Wilson, 2010; Levine, 2010).

## Using Informational Texts to Build Content Knowledge and Literacy

An increased emphasis on constructing knowledge through informational and nonfiction texts may pose the greatest challenge for all students, regardless of socioeconomic status. More than 50 years of research documents the negative effects of living in poverty on language and literacy development (Neuman, 2008). Many students who live in poverty are also learning English as a second language. According to the 2000 U.S. Census, nationwide 59 percent of adolescent limited English proficient students live in families with incomes 185 percent below the poverty line, compared to 28 percent of adolescents speaking English only (Batalova, Fix, & Murray, 2005). Nonetheless, when provided with appropriate instruction, students who live in poverty, including students with limited English proficiency, can succeed in rigorous coursework. The Sheltered Instruction Observation Protocol (SIOP) provides an instructional framework for sheltered instructional strategies in content-area instruction. SIOP's goal is to integrate academic language in a way that makes learning comprehensible to English language learners. Studies on SIOP's effectiveness reflect promising results.

Although the Common Core standards contain significant shifts for teaching and learning, decades of research highlight successful programs and curricula that demonstrate educational rigor and equity is possible for students who live in poverty.

## References

- Albert, D. (2010). *Expeditionary learning participation in the City School District of Rochester*. Cambridge, MA: EduConsultant.
- Amoruso, M., Bontempo, B., & Wilson, D. (2010). *The relationship between ELS participation & academic growth*. Portland, OR: Mountain Measurement, Inc.
- ARC Center. (2003). *The ARC Center tri-state student achievement study: Executive summary*. Retrieved from [http://www.comap.com/elementary/projects/arc/Executive\\_Summary.pdf](http://www.comap.com/elementary/projects/arc/Executive_Summary.pdf)
- Batalova, J., Fix, M., & Murray, J. (2005). *English language learner adolescents: Demographics and literacy achievements*. Report to the Center for Applied Linguistics. Washington, DC: Migration Policy Institute.
- Levine, E. (2010). The rigors and rewards of internships. *Educational Leadership*, 68(1), 44–48.
- Lieberman, G., & Hoody, L. (1998). *Closing the achievement gap: Using the environment as an integrating context for learning*. San Diego, CA: State Education and Environment Roundtable.
- Mehan, H., Villanueva, I., Hubbard, L., & Lintz, A. (1996). *Constructing school success*. New York: Cambridge University Press.
- National Center for Education Statistics. (2012). *The nation's report card: Writing 2011* (NCES 2012–470). Washington, DC: Institute of Education Sciences, U.S. Department of Education.
- Neuman, S. B., (2008). *Educating the other America: Top experts tackle poverty, literacy, and achievement in our schools*. Baltimore: Paul H. Brookes.
- Olson, C., & Land, R. (2007). A cognitive strategies approach to reading and writing instruction for English language learners in secondary school. *Research in the Teaching of English*, 41(3), 269.

Pogrow, S. (2004). The missing element in reducing the learning gap: Eliminating the "blank stare." *Teachers College Record*. Retrieved from <http://www.tcrecord.org/Content.asp?ContentID=11381>

Riordan, J., & Noyce, P. (2001). The impact of two standards-based mathematics curricula on student achievement in Massachusetts. *Journal for Research in Mathematics Education*, 32(4), 390.

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