



Differentiating Instruction and Engaging Families with Technology

—Dr. Leslie Ponciano*

“My students were off the charts. In fact, the computer kept telling me as I was entering their scores that they weren’t valid scores. They most likely couldn’t have scored that high for this age. But it was child after child after child that kept having a high score.”

—Julie Choudhary
Escondido, CA

Julie Choudhary, a 25-year-veteran kindergarten teacher, returned to her hometown of Escondido, California, to teach in the public schools in 2002 because of her commitment to the community. Escondido is a city of 150,000 in inland Southern California; its population is approximately 50% Latino, with a significantly lower median household income and higher poverty rate than the rest of the state. Julie’s students are primarily from low-income families and learn English in her classroom.

2011–2012: Differentiating Instruction

During the 2011–2012 school year, one of Julie’s students repeatedly requested she bring ABCmouse.com *Early Learning Academy* into the classroom, and Julie explored it for the first time mid-year. “It took me five minutes to register my class. And it was the easiest and most worthwhile thing I’ve done.”

Julie introduced the comprehensive early learning website to her class primarily as a language model. “It was fascinating. I would have students who were almost non-verbal using scientific or social studies words that I wouldn’t think a five-year-old would use.”

Significant vocabulary gaps have been found between children living in English-speaking and non-English-speaking homes.¹ Research supports the strategies of teaching the meaning of basic words and providing ample review with student-directed reinforcement activities.²

Julie assigned every child an individualized lesson on ABCmouse.com each day, according to the areas of need indicated by a standardized assessment administered at the beginning of the year. “They have to do one complete lesson every day. And then they’re allowed to go to their bedroom or their hamster on ABCmouse.com and to use their tickets and go shopping. Because that’s exciting to the children....”

Julie discovered that she could differentiate her instruction with ABCmouse.com’s Lesson Builder, which allowed her to select and assign specific learning activities for individual students, groups of students, or the entire class. Julie attributed her students’ success on the end-of-year assessments to her ability—using ABCmouse.com—to meet their individual academic needs.

* Director of Research and Educational Partnerships, Age of Learning, Inc.; formerly Assistant Professor and Director of Early Childhood Education Master’s Program, Loyola Marymount University

¹ National Center for Education Statistics, 2003

² August, Carlo, Dressler, & Snow, 2005

Differentiated instruction allows teachers to meet the needs of diverse students through a variety of teaching strategies, including dynamic grouping, targeting multiple strengths, and implementing different types of activities.³

“As in any class, you have students that are at different levels. So, I’ll have a group lesson where maybe students are working on subtraction at the beginning of the year. Or, I’ll have a whole-group lesson where students are working on a sight word or a word family. It just really depends on what the concept is that I am working on. I’ll look at the DIBELS⁴ data and I’ll go to the Lesson Builder and I’ll pull [activities related to] those concepts into a student’s file.”

2012–2013: Engaging Families

The next fall, Julie began a one-to-one iPad program and opened up her classroom before and after school for students to use ABCmouse.com.

Research demonstrates that family engagement is one of the important keys to educational success.⁵ Children achieve at higher levels in math, language, and literacy when their families are involved in their education.⁶ However, many parents hesitate because they aren’t confident about how to best support their children.⁷ Similarly, teachers welcome family involvement, yet are uncertain if this is a reasonable expectation.⁸

Not only did the students in her class come to learn on ABCmouse.com, they also brought their parents and their siblings to use the website. Julie had found a unique way to engage families in the education of their children through technology, demonstrating that educational technology has the potential to open the virtual doors of the classroom for parents and foster a dialogue between teachers and families.

“I had parents knocking on the door early in the morning to come in and use ABCmouse.com, or staying late in the afternoon. Families that weren’t in my class would come in to use the computer. I have families coming in and begging for their preschoolers to be on the site. I have toddlers to kindergarteners and even some older sisters and brothers using ABCmouse.com, either on the iPad or on the computer. And the parents are sitting with their kids—with the whole family. It’s been amazing, and the classroom is packed every day! ABCmouse.com helped make up a huge [family engagement] deficit in our classroom.”

Position statements on both family engagement (2009) and technology (2012) from the National Association for the Education of Young Children (NAEYC) promote the importance of communication regarding educational goals and the provision of age-appropriate online activities to achieve those goals.⁹ The early childhood years are an important time to develop an understanding of the value of education for both children and their families. It is also a time when positive patterns of interaction between families and teachers can be established.

Julie discovered that the website’s capability of providing all navigation options and instructions in Spanish helped parents understand what their children were learning in school and exposed the entire family to English vocabulary. “The parents are learning to speak English and to read and write, sometimes for the very first time, right along with their children.” Speaking about one student’s parents, Julie said:

“His dad was so worried and he told me, ‘No English, Señora, no English.’ The son cried for the first week because the only words he knew were ‘no’ and ‘bathroom.’ His family came in every day. They didn’t have Internet at home. But his mom was bringing him and his younger brother before and after school every day, and if mom couldn’t make it, dad changed his schedule at the farm to come in with them. And within

³ Tomlinson, 2001

⁴ The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) is a leading assessment of language and literacy skills for kindergarteners. <http://dibels/uoregon.edu/>

⁵ Beveridge, 2005; Esler, Godber, & Christenson, 2002; Hara, 1998; Jeynes, 2007

⁶ Griffith, 1996; Sui-Chu & Willms, 1996; Marcon, 1999; Sheridan, Knoche, Kupzyk, Edwards, & Marvin, 2011

⁷ Eccles & Harold, 1993; DePlanty, Coulter-Kern, & Duchane, 2007

⁸ Comer, 2001

⁹ National Association for the Education of Young Children, 2009; 2012

two months, my student was joking around, laughing, and teaching, and you wouldn't know that he had zero English at the beginning of the school year. His mom was picking up on English and feeling more confident. You could just tell in the way she carried herself when she walked in the classroom."

The impact was remarkable. Parents began initiating conversations with Julie about their children's educational progress. The students were staying on task and focused. "I have twenty-five little bodies and twenty-five different things going on in the room. At the computers, the kids have their headphones on; they're all engaged. They might be talking or singing back at the computer but they're all focused and doing exactly what they need to be doing."

Impact on Student Achievement

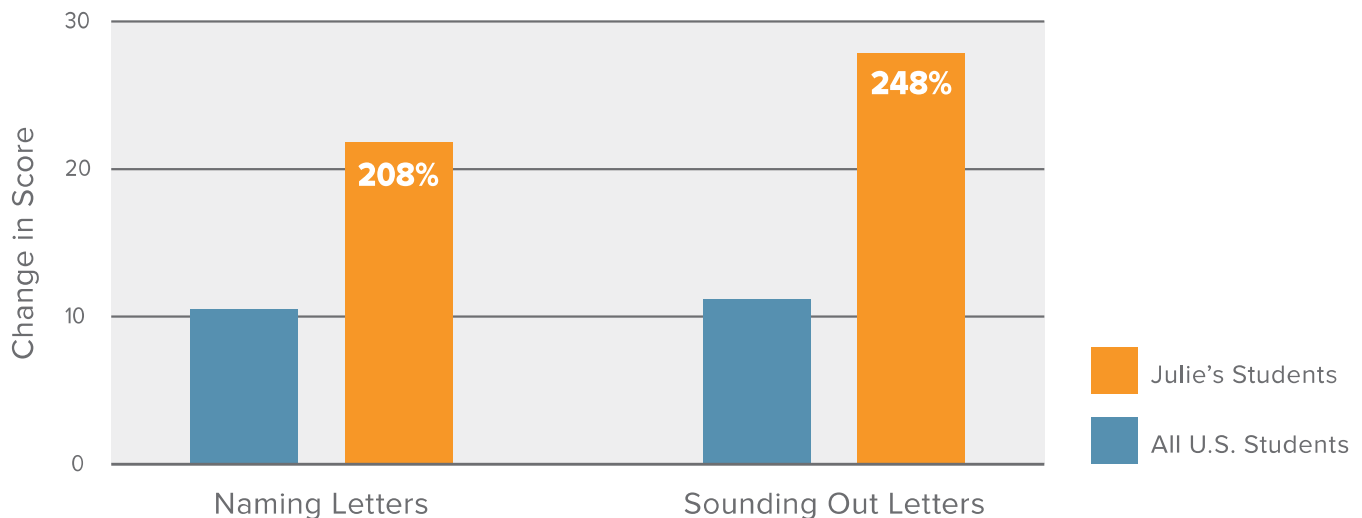
At the end of 2011–2012, her first year using ABCmouse.com, Julie was surprised by the impact of the website on her students' achievement. "Their letter

naming fluency and their concept of sound fluency increased significantly as the year went on." Overall, Julie's class improved by more than 50% on multiple early reading skills from the middle to the end of the year, with most of her students at least doubling their scores on one or more skills.

Julie's use of ABCmouse.com to differentiate instruction and engage families during the 2012–2013 school year contributed to further positive outcomes for her students. At the beginning of the school year, 32% of her students were significantly below benchmark in literacy; by the end of the year, only 9% were in that category. And Julie's students' gains from the middle to the end of the year on key literacy skills were more than twice the national average (see chart).

Julie opened the door of her classroom and provided educational technology to open up a new world of learning for her students and their families. Her success in differentiating instruction and engaging families using ABCmouse.com led to academic success for Julie's students.

*Early Literacy Gains in Julie Choudhary's Classroom
More Than Double the National Average*



Median change in DIBELS Letter Naming Fluency (LNF) and Correct Letter Sounds (CLS) scores from middle to end of 2012–2013 school year. "All U.S. Students" includes more than 350,000 kindergarteners with scores in the DIBELS Data System.

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