

Transform Learning With Tech Co-Teaching

Teaching often resembles a tennis match when technology specialists and classroom teachers co-teach at Prairie Crossing Elementary School in Parker, Colorado. Teachers toss the ball back and forth from one teacher's court to another, back each other up, and occasionally go to "the net" to revise their lesson plan in the moment. Both teachers use their unique talents to make sure that all students stay in the game.

In Douglas County School District, co-teaching with technology specialists is on the rise. Approximately one-fifth of the technology teachers co-teach, with more embracing the concept each year. Technology teacher Debbie Blair began co-teaching at Prairie Crossing in 2007 after approaching her principal with the idea. In order to make it work, principal Tom McDowell removed Debbie Blair from the specials rotation. He continues to provide his teachers with a daily planning period, but it occurs during art, music, and physical education. This model has freed Blair up to work directly in classrooms while the teacher is present.

The classroom teacher is the expert on the integrated content, while the technology teacher knows the best software programs and ways to implement lessons. The presence of two teachers in the classroom allows students to gain deeper understanding and to wait less time to have questions answered. Jake, a second grade student, describes it this way: "It helps kids learn new things. It also helps the teacher learn new things, too."

Benefits

Prairie Crossing's experience reveals many advantages of co-teaching the technology curriculum.

Professional Growth. While students may be digital natives, most teachers are not. Busy with day-to-day teaching demands, they may feel that they don't have the time to learn new technology, along with the emerging research in the traditional content areas. A gap may exist between teacher

skills and student needs. Co-teaching bridges this gap. The technology specialist can model instructional techniques, technical language, and the latest Web tools, so that the classroom teacher can learn along with the students, becoming ready to continue support after the specialist leaves.

Improved Instruction. Steven Johnson, author of *Where Good Ideas Come From*, writes, "Good ideas want to connect, fuse, recombine. They want to reinvent themselves by crossing conceptual borders." When teachers cross departmental borders and collaborate, they develop instructional ideas that are more effective for students.

Differentiation. Collaboration also makes differentiation easier. Students work at various levels on an assortment of projects, with each teacher monitoring progress. In addition, technology lends itself particularly well to differentiation by student interest. Both teachers, working together, can design activities and facilitate learning so that each student is moving forward at his or her best pace.

Student Engagement. Teachers and students believe that the use of technology increases motivation and engagement, according to Project Tomorrow's annual Speak Up survey of nearly 300,000 students, parents, teachers, and other educators about their views on technology in education. The presence of a second teacher in the classroom has the potential to increase these engagement rates even further! Different vocal qualities, teaching styles, and experiential backgrounds allow teachers to share

the design and provision of instruction so that all students' styles and needs are addressed.

Making It Work

Principal McDowell sets an expectation that each teacher will work with the technology teacher to develop six technology projects during the year, dependent on emerging needs. The technology teacher meets with each grade level throughout the school year to plan projects based on the content they are addressing in the classroom. Integrated projects focus on national technology standards as well as content standards.

Rather than providing instruction once per week, the technology specialist might feel that an intense infusion of technology instruction and practice over the course of several consecutive days will be most effective. Project-based scheduling allows for large blocks of intense instruction to occur in each classroom at least six times per year.

Ripple Effects

Success with co-teaching at Prairie Crossing caused a buzz among local technology specialists and principals. As professionals engaged in conversations around the district, more schools adopted a co-teaching approach. While some schools have struggled with the budgetary implications, most recognize the benefits of having the technology specialist co-teach.

The program's success even impacted the district central office. Mark Blair, who works in the Douglas County School District IT department, was intrigued by the idea of collaboration among "techies" and teachers. He suggested that the IT department pilot a version of Google's 20 percent model, in which employees are encouraged to devote a portion of their work time to pursuing unrelated projects.

He and his colleagues have the opportunity to spend one day each month in schools reading to students and visiting classrooms. While visiting a school, Mark Blair heard about one of the challenges of back-to-school

night: Parents find it difficult to visit the art and music rooms to hear presentations about current instructional activities because classroom teachers take scheduling priority. Mark Blair suggested QR codes or augmented reality as a solution. Working with the building technology specialist, each of the special areas teachers made a video clip about their projects that were uploaded to the Web. QR codes were generated, which hung outside classroom doors so that parents could scan and view recent footage of their children engaging with the arts.

As a result, classroom teachers became excited about ways that they might embed QR codes in instruction. The first-grade team, working closely with the technology specialist, designed a word problem scavenger hunt. Using Google sites, teachers placed word problems at the top of a document, followed by a two-step direction for how to find the next QR code. Students worked in pairs with an iPad and a white board, purposefully moving throughout the building to find the QR codes and solve the word problems. Teachers clearly see the potential of QR codes as a tool to increase student engagement and learning.

Co-Teaching Evolution

As more technology specialists delve into co-teaching, challenges and solutions will emerge. This arrangement will require solutions for budget limitations, guidelines for co-grading, and common planning time. Many resources exist from the experiences of co-teaching in other specialty areas. These resources, along with positive experiences found at schools like Prairie Crossing, will inspire educators to embrace co-teaching as a positive tool for transforming learning. 

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