CHAPTER 8

CBL

I never teach my pupils,
I only attempt to provide the
conditions in which they can learn.
—Albert Einstein

From outside appearances, Coppell High School, a suburban public school just outside of Dallas, looks just like any other ordinary, average high school. But if there’s one thing I’ve learned in life, it’s never to judge a book—or a school—by its cover. Take Coppell science teacher Jodie Deinhammer, for example. Jodie has been happily teaching at Coppell for over twenty years, and the things that take place within her Challenge-Based Learning (CBL) classroom are quickly becoming legendary.36
In 2015, Jodie’s students were learning about the human body, and they came up with a challenge for themselves: they wanted to find ways of fighting childhood malnutrition, a common problem within their community. The “Big Idea” they came up with was a project called Health Without Borders, in which, under Jodie’s guidance, they would use technology to create digital illustrations, texts, and multimedia projects as part of a series of interactive lessons for a global community.

Not only was the project itself an actual challenge, but throughout the process the students had other smaller challenges, in the form of “Essential Questions.” Jodie’s students learned a lot more than lessons about the human body and malnutrition; they also learned collaboration, teamwork, leadership, and project development; how to create new media, interview, research, present and speak publicly, budget, and use collaborative writing, editing, and illustration programs; and lessons in both sympathy and empathy—all within this single, month-long project. Most importantly, after the challenge ended, the students came away with a significant boost in their confidence levels, became closer friends, and, for the rest of their lives, will be able to look back at the things they made as something they created—something that now exists in the world that did not exist before.

PROJECTS: REWIRED

Challenge-Based Learning is an inquiry-based learning framework that poses individual and group-based challenges as a means of making learning relevant and engaging. As a familiar frame of reference, consider for a moment the popular model known as
project-based learning (PBL), in which teachers turn academic lessons into student-driven projects. PBL was inspired by the hands-on learning ideas of John Dewey and others, and turned into a loose framework that has gained in popularity over the past decade. The interactivity of PBL offers a tremendous improvement over the traditional lecture/textbook way of teaching and learning, but it isn’t without its share of problems. Jodie recalls first learning about CBL while visiting a colleague at a school reunion in 2014. “Obviously I knew about PBL and had been using it for years with various degrees of success, and while I always tried to include technology in the PBL framework, sometimes it seemed forced and didn’t make much sense,” she remembers. “So, when I learned that CBL was designed specifically to address this issue, I was anxious to give it a try and haven’t looked back since.”

Rather than attempting to reinvent the wheel, CBL built upon the best parts of PBL, putting more emphasis on creating challenges and integrating technology throughout the process. The two frameworks both rely on hands-on projects to bring learning to life, but there are key differences. For example, students learning through PBL projects are often assigned that project, whereas those working on CBL challenges are encouraged to work together in designing their own. This tends to make the entire challenge more relevant for students, which increases their sense of ownership, buy-in, and motivation.

Another key difference comes in the way that technology is used. In PBL projects, technology isn’t necessarily needed or even used at all, and where it is, it’s most often used for simple information gathering on the internet. By contrast, in CBL challenges, technology is used throughout all stages of the process. It’s not just a means of gathering information; it also provides various ways