Repurposing for the Future

A Library Story

SUSAN WOLFE AND LINDA REULING

"Our teacher said we have to read a biography. Where are they?"

Linda Reuling, our librarian, experienced this mindset with every class that visited the library on that first day, her vantage point being atypical. Linda is a thirty-five-year veteran teacher turned librarian. Approaching her new librarian assignment as her teaching instincts directed, she was prepared to share the wonderment of books. But as she reflected upon her experiences of this first day, she came to some significant conclusions, all reflecting the need for a twenty-first-century upgrade:

1. The library environment was inadequate.

2. A collaborative paradigm shift was needed by all constituents on how the library needed to evolve and become the learning hub of the school community.

3. The age of the library materials was not effectively meeting the needs of the modern student.

Linda's introduction to the school library was a culture shock because of the archaic perceptions of the role of the school library. As a teacher, she had sent hundreds of students to the library to find a specific book to fulfill curriculum requirements or a theme of study. With "Which book is the skinniest?" still reverberating in her mind, she realized that she had never given much thought as to whether the topic interested the student. After all, teachers have curriculum to cover. She quickly realized that the library she had inherited was something of a grab-and-go concept akin to a fast-food establishment and students didn't see it as a place to go and be filled with the wonderment and joy of learning. Teachers had not been introduced to the idea of the library as a place to support project-based learning and open-ended research and collaboratively shared ideas. The intent of the library at that time was not a room designed to be a learning hub of the school community but rather a room housing a librarian with the heart of a teacher, ready to collaborate and partner with students and teachers. How was Linda going to change both student and teacher perceptions? She had no idea.

Hawthorne Elementary School was built in 1961. Like every other elementary school built in the '60s, it served its middle-class neighborhood in Boise, Idaho, with classrooms, hallways, an office for the principal and secretary, a teacher lounge with cigarettes in ashtrays, custodial closets, and, of course, a traditional library. If those library walls could talk, they would certainly tell stories of students and teachers and librarians doing what was expected in the '60s—stories of students and teachers perusing the shelves for just the right book, and librarians shushing the loud whisperers, keeping the library quiet and orderly.

Culture and society advance, driven in no small part by seemingly never-ending technological progressions. The smart phone, tablet computers, GPS, ubiquitous phone and video coverage—all these things have impacted our lives and how we educate children. This change in our culture has led to new curriculum standards, design, and learning models. But perhaps the least changed are the brick-and-mortar learning facilities—nowhere is this more apparent than in our country's aging school libraries.

Linda inherited a small traditional library whose walls were lined with stationary wooden bookcases. Freestanding metal bookshelves ran down the middle of the two small rooms. Large round tables and old, heavy chairs filled the rest. Her first decision: make the room more welcoming by changing its look and feel. In a librarian's fantasy world, a quick phone call to facilities to initiate the remodel would have been sufficient. Unfortunately, this was the nonfiction version. She began hauling out the freestanding shelves and most of the tables, which then required material reshelving and reorganization and consumed much of the first year. Finally, the library began to "feel" less cluttered and more open. So began the transformation.

As happens in elementary schools, Hawthorne had new teaching faces the next year. A veteran teacher herself, Susan Wolfe hadn't yet met Linda, as she was preparing herself and her classroom for her upcoming fourth- and fifth-grade gifted class. Susan had been peeking into the shadowed library, fascinated by the menagerie of items and objects on the walls and ceiling. A certificated GATE teacher with former administrator and director roles, Susan was starting her twenty-second year in education and her first at Hawthorne, a Title I school, in a district with thirty-two elementary schools.

One year into the transformation, the library still contained books, though some were hanging from the ceiling or folded and deconstructed into a modern art piece. The real eye-catching items in the room—ask anyone—included a skeleton named Einstein hanging from the ceiling, a waterless sink holding an open book just hanging on a wall, and a bicycle wheel chandelier with an ever-changing collection of items hanging from the spokes. This colorful global marketplace was an innovative showcase of repurposed materials utilized to highlight books and technology. Linda had successfully crafted a space to meet the needs of her student population—a space with curiosity, visual interest, and an intellectual itch to scratch.

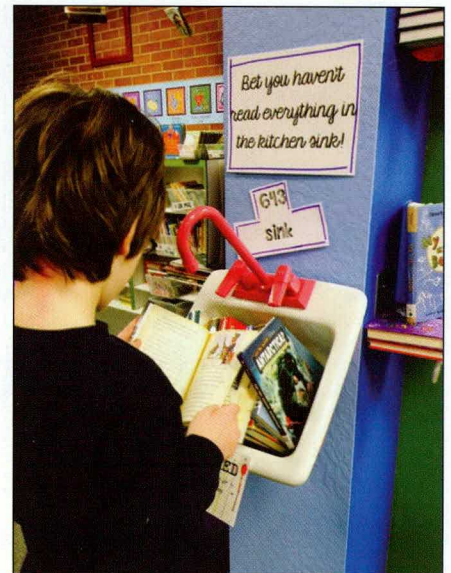As with any great inquiry learning project, it all began with a driving question. When Linda and Susan finally met face to face to discuss the logistics and details of "library time," Linda posed a question that initially surprised and befuddled Susan: "What should we do with your students during their library time?"

This was a question Susan had never heard. For teachers around the country, library time provides a break from students, prep and lesson planning time, maybe a bathroom visit. This simple question was an invitation to imagine something different.

It turns out that Susan and Linda were kindred spirits, evidenced by the objets d'art in Linda's library space and her fascination with and excitement for her library and the students. Linda shared that while both students and staff enjoyed the new look of the library, the catalyst of change was the recognition that it could be more. What was that next step? As Susan and Linda began to get to know one another, they began to construct the vision to provide shape to what would eventually become an amazingly transformative space in Hawthorne Elementary School.

Initially, Susan had a conundrum of her own. Her upcoming gifted students had already exhibited a passion for math and science, so she spent the summer studying STEM (science, technology, engineering, math) and STEAM (addition of art) integration and makerspaces. In her research, she happened upon the work of A. J. Juliani and his Genius Hour concept (www.geniushour.com). Genius Hour is a project-based learning activity that allows students to explore their own interests and passions. It fosters creativity and promotes inquiry, perseverance, innovative thinking, and problem solving. There are three guidelines:

1. Projects are inquiry based and start with a driving question that cannot be answered with a quick web search.

2. Projects are research based.

3. Projects need to be shared with an authentic audience.

Understanding the many desires and needs of gifted kids, Susan planned to mold her classroom into a STEAM/Maker/Genius Hour space—that is, until she met Linda and they began to think differently, bigger. They would merge individual ideas into a collaborative partnership. As their conversation deepened, Linda shared a desire to embark on a vision of a "teaching library." In this vision, teachers and librarians collaborate, resulting in a new, different, exciting, stimulating student experience. A twenty-first-century upgrade began to emerge: Susan and Linda would partner their efforts, further rebuilding the library as a STEAM hub. Neither could imagine the full impact of their decision.

If we build it, they will come.
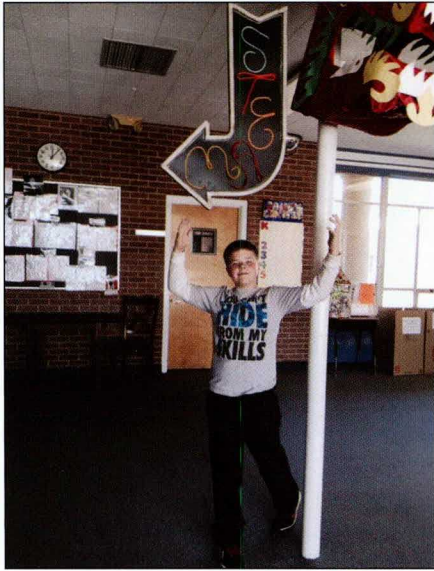
OR

If THEY build it, they will use it.

Students desire choice and ownership over their learning, and the more the teacher is willing to cede, the more motivated and engaged the learner. Daniel Pink's book asserts that the secret to high performance and satisfaction at work is a need to direct our own lives, to learn and create new things, and to do better by ourselves and our world. Extrinsic motivation may have worked in the twentieth century, but it pales in today's motivation hierarchy. He posits that the three elements of true motivation are autonomy, mastery, and purpose.

Enlisting Pink's philosophy, Susan embarked on bringing about change through her students. What matters to them? What motivates them to improve? What drives them to implement change? Over the course of a few weeks, she was hyperconscious of these questions and recorded her observations while forming a plan. During this time she introduced STEAM and related curriculum. Her students loved these "lab days" and gained valuable knowledge of both the STEAM concept and the specific lab topics.

Susan discovered an online movie that might bridge the gap and lead to student full engagement. Posing the question "What is a passion?" she showed Nirvan Mullick's short film "Caine's Arcade," the story of a nine-year old boy's handmade cardboard arcade. This brilliant and touching movie clearly resonated with the students. Returning to the "What is a passion?" question, the students could readily define passion, self-direction, and why Steve Jobs brilliantly stated, "If you are working on something exciting that you really care about, you don't have to be pushed. The vision pulls you."

After a lesson on the concept of driving questions, which form the foundation of Genius Hour projects, and on fire with vision and inspiration, the students commenced the formation of their driving questions. Their projects varied in scope and complexity. The most challenging was a green design architecture project utilizing computer-aided design to address third-world housing. This student's driving question was "How can we design cheaper and safer buildings for third-world environments?"

All students quickly seized the opportunity to be self-directed in their research and learning. They excitedly wrote their driving questions on sticky notes, collaborated by checking criteria, and posted them to the "What Is Your Passion" board. With few exceptions, these tied into STEAM concepts. One student wanted to study chemistry and conduct experiments, another wanted to test the properties of force and motion, another to build simple electrical circuits, and yet another to study the history of origami design and teach it to others.

The students noticed the correlation to the STEAM topics. As if on cue, a student asked about using the library to research, experiment, and share projects with other classes. One student pointed out that sharing with an authentic audience is a Genius Hour criteria. Might they get Mrs. Reuling's permission and help to make this idea happen in the library?

With Susan's help, the students developed a to-do list and began to brainstorm. A large calendar was posted in a newly created student conference area in

PICTURE BOOKS

A FRIEND IS A FRIEND

Atkinson, Cale. **To The Sea.** Disney-Hyperion, 2015. 48p. $16.99. ISBN: 9781484708132. Grades PreK-2. From moody loneliness to happy accomplishments, this book shows the result of comforting friendship as Tim is finally seen for the good friend he can be. Small whale lovers will celebrate the relationship between boy and whale while they learn that friends can be relied upon for help.

Berry, Lynne. **Pig and Pug** illus. by Gemma Correll. Simon & Schuster Books for Young Readers, 2015. 40p. $16.99. ISBN: 9781481421317. Grades PreK-1. Two pets with similar size and name wonder if they can be the same or different and if they can ever get along. Children will laugh at the antics in this minimally worded book that shares the delight and dread of new friendship.

Perret, Delphine. **Pedro and George.** Atheneum Books for Young Readers, 2015. 32p. $17.99. ISBN: 9781481429252. Grades K-2. An alligator and a crocodile (cousins, no less) are tired of being mistaken for the other and travel to the children "at the end of the world" to explain the difference. A funny school visit with many chaotic events satisfies the two reptiles who return home with memories of their new friends. Lovers of Lyle, the Crocodile will appreciate these illustrations for their simple style.

Aldorozo, Gabriel. **Good Night, Firefly.** Henry Holt and Co. Books for Young Readers, 2015. 32p. $16.99. ISBN: 9781627792226. Grades PreK-K. Nina is afraid of the dark until she catches a firefly. Her bug friend comforts her until she realizes that the firefly is not happy as a captive so Nina bravely releases it and in turn is more comfortable with the darkness of night. This would make an excellent naptime or bedtime tale.
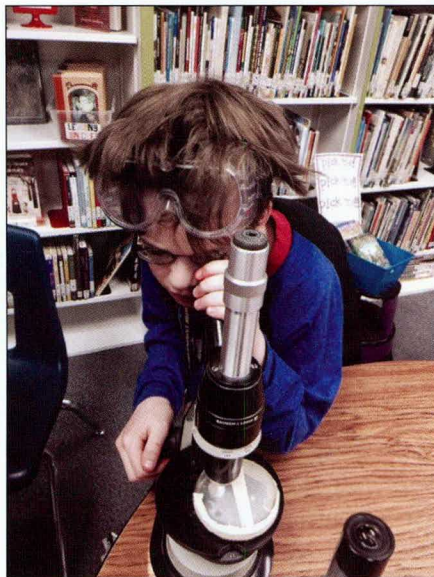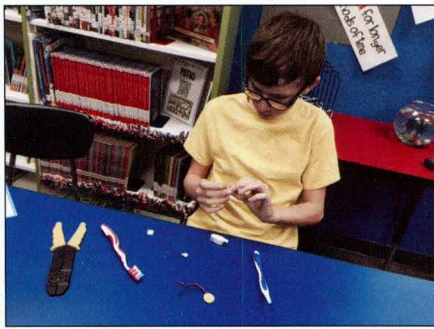
the classroom. Responsibilities were disseminated based on interest. A committee formed to gain the permission of the principal. PowerPoint and Prezi presentations were designed and surveys created to get teacher and student feedback and buy-in. The teachers graciously made time for Susan's student presentations. The learning process was exciting and challenging! Presentations were created, scrapped, and re-created. A younger (nonreading) audience needs a different type of presentation. Linda collaborated with the students, and a model for the Hawthorne STEAM room was created. Students were given a total of sixty minutes per week to work on their projects during library time and class time. More often than not, students begged to stay in from recess to work. A student blog was created where they posted their goals for the week and the progress they made. Parents noted that their children were happily engaged at home, freely working on their Genius Hour projects.

While Susan was working to implement Genius Hour, Linda was consistently adding more technology in the library. She introduced students to Quick Response Codes and digital book trailers using iMovie, but students hungered for more. Susan seized the opportunity and posed the question to her students: "How do we give our library a twenty-first-century upgrade?" The students immediately began listing ideas such as iPads, a space to solder electronics and make things, a place to research with comfortable furniture, a space to create scien-

tific experiments, a quiet space to relax and read, and more. As the students gained vision and ownership, Susan and Linda were attempting to break the ground, often finding themselves only a few steps in front of the kids (and sometimes trying to catch up). Just as a cartoon snowball gets larger as it progresses down the hill, so too the transformation of the antiquated library space to schoolwide learning hub picked up speed, mass, and momentum.

In spring, the first "soft" opening of our new STEAM room/library was met with nervousness. The plan was that volunteer third and fifth graders could come in during lunch or recess prepared with a polymer lesson and demonstration. Teachers and student presenters did not know what to expect. Learning stations were set up around the library. Two student presenters would teach and hold a demonstration. These students would then be able to create their own bouncy rubber ball. As the fifth graders filtered through the "magical" door connecting the lunch room to the STEAM room, there was a gasp of wonderment, excitement, and smiles. The demonstration enraptured the students, and they asked questions and participated eagerly.

In the next months, the library was wild with engaged students of every age exploring, creating, and learning. Management was a nonissue, as the students were so busy. Our STEAM room learning labs included a polymer lab (and creating a bouncy ball), a design challenge for the tallest structure constructed with spaghetti

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and marshmallows, building a brush bot from a simple circuit, the history and engineering of origami, living labs with microscopic organisms, and more. After many encore performances, the upper student body was hooked and eagerly asked their teachers if it was their turn to participate in the STEAM room.

A COMMUNITY OF LEARNERS

It happened incrementally. Third- through fifth-grade students voluntarily gave up their recess to explore, tinker, and learn through hands-on science labs and experiments. We educators observed and championed their efforts, manifested by increased rigor and inquiry. At every turn, there was infectious excitement. Perhaps unpredictably, the school's female students expressed a very high level of interest in the project, especially the art aspect. They were fascinated with the possibility of turning ideas into reality.

The budgets were limited, meager. Make-it labs and STEAM inquiry projects

prevailed for the older students; on the horizon was "Tinker Lab" for the K–2 students. The students wanted more materials for the library/STEAM room. An electronic sign was being constructed by students to designate the library as the home for STEAM. The Raspberry Pi computer was identified as a platform to quench the thirst for learning. A marketing group was organized and plans for bake sales were drawn up.

One of Susan's students became fascinated by 3D printers and the potential this technology brings to the curious and inventive mind. He researched the topic and set up Skype calls to the district's technology personnel and a science teacher at a district elementary school. He developed a PowerPoint presentation and enlisted our class as audience, then other classmates, teachers, and the upper student body. Budgets were contemplated, numbers crunched and recrunched. Students learned about spreadsheets and brainstormed to solve the problem of purchasing the printer. The student continued his research, and a grant application was found, written (by Susan), and awarded.

Sometimes parallel efforts with similar goals proceed to fruition, without recognition or acknowledgement of the other. Such might have been the case with the Hawthorne library transformation, but fate intervened in the form of an April 2015 interview with Katrina Schwartz of San Francisco's PBS/NPR public radio station KQED and posted on their Mindshift section (http://ww2.kqed. org/mindshift/2015/06/24/steps-to-help-low-income-students-direct-their-own-learning/). In the interview, Susan answers questions regarding student motivation, self-directed learning, Genius Hour, and other classroom practices. David Loertscher took notice and contacted Susan, forming the bridge to this magazine. David asked

Susan if she had ever heard of the library learning commons, and a new journey unfolded.

In September 2015, the repurposing of the Hawthorne library into a learning library commons continues. Susan and Linda's students are armed with a new 3D printer, a few additional Chrome Books, and the momentum of excited, empowered self-directed learners. We all have library stories. What library stories will you create?

Linda Reuling (linda.reuling@boiseschools. org) has been in the field of education for the past 40 years as a classroom teacher, teacher librarian, field teacher for universities and an educational consultant. She currently works as a teacher librarian in a Title 1 school in Boise, Idaho with the goal of turning the small, out-dated library into a 21st century LLC.

Susan Wolfe (susan.wolfe@boise-schools.org) is an award winning educator, speaker, and consultant. She teaches gifted and talented students in a self-contained multi-grade Title 1 classroom in Boise, Idaho. Her passion for staff and curriculum development is evidenced by a career of gifted Title 1 educational service and the belief that we serve by providing the foundation for all children to learn to their highest abilities.