

Design Thinking Revisited

A Personal/Group Study Guide

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I was shocked, surprised, and amazed! My students, faced with creating cotaught design-thinking learning experiences, took to it like ducks to water. In the first two more traditional cotaught learning experiences created with a partner, I asked them to explain how they had:

- Learned how to create goals and objectives together
- Learned how to embed inquiry, information, technology, and a novel instructional design into a teacher's objectives
- Built Google Sites as knowledge building centers where adults and students worked together virtually
- Assessed progress alongside the teacher at every step
- Participated in all the learning activities
- Reflected with the teacher and the students after the experience had ended about how to keep getting better at inquiry

Given all this under their belt, they said the battle was already half over when confronted with the differences in design-thinking projects. Reflecting on our experience, let's look at a system to place the library at the center of design-thinking experiences in the school. Yes, we can be at the center, even though the professional literature rarely or never recognizes our expertise. Perhaps our pathway is one you can use as your own personal guide or share with your group and modify to meet local design-thinking project goals.

CHALLENGE 1: BRING EXPERTISE TO THE PLANNING TABLE WHEN DESIGN THINKING IS DISCUSSED

If you already know how to do what the students above knew, then you already know more about design thinking than you think you do. A successful track record of partnered inquiry

projects with a variety of teachers in the building goes a long way toward knocking at the door of design problems.

The Umbrella to Question Model Knowledge Building Center site (<https://tinyurl.com/y842d97o>) shows various collaborative rooms where both adults and students are working 24/7 to do an inquiry project. If your content management system is not as robust as this, we suggest that you create something that is much better designed and link the kids from that system to one you have designed. A good example is Google Classroom, which usually ends up being a list of assignments. The students can work in your creation but submit projects if needed to Classroom for grading.

CHALLENGE 2: INVESTIGATE DESIGN-THINKING PROJECTS CAREFULLY TO BUILD A BACKGROUND IN THE SIMILARITIES AND DIFFERENCES FROM INQUIRY PROJECTS DESCRIBED ABOVE

Here are a few resources we used to familiarize ourselves with design thinking. We soon realized that the major difference between inquiry and design thinking is that in inquiry, the adults seem to be in the driver's seat. However, in creating a design-thinking problem to solve, the students are now in the driver's seat, with the adults walking alongside or pushing from behind. It is the difference between being a sage on the stage or a guide on the side.

Here is our list of helpful resources. Perhaps you can add to it:

- Video definition of design thinking: <https://tinyurl.com/ybkjw6cv>
- The MIT free course on design thinking: <https://tinyurl.com/yd8blk2o>
- 30-minute webinar about design thinking by David V. Loertscher and Marc Crompton: <https://tinyurl.com/y7nd6w8a>
- A tech teacher uses design thinking to have kids create a makerspace: <https://tinyurl.com/y9zbqqb8>
- Listen to Tim Brown, the Guru of Design Thinking, at IDEO: <https://tinyurl.com/ya2wvubf>
- "Combining Design Thinking with Problem Based Learning": <https://tinyurl.com/y7cbfos2>
- Blog post about design thinking: <https://tinyurl.com/y86n7myx>
- Blog post about design thinking/education <https://tinyurl.com/yc9zqxxy>

- Rubric for assessment in design thinking: <https://tinyurl.com/ybpf2yk>

CHALLENGE 3: TRY YOUR HAND AT CREATING A DESIGN-THINKING EXPERIENCE THAT IS COTAUGHT WITH A CLASSROOM TEACHER

Take a look at the tutorial on creating an Umbrella Creation Model question for students to use at <https://tinyurl.com/yax9pnze>. Instead of just turning students in groups to “come up with a problem you are passionate about,” we provide a topical umbrella under which projects can be created in order to emphasize the process of designs across topics and also have the opportunity to compare and contrast the various solutions that student groups build. Topics might include problems at school, the environment, current political issues, health challenges, etc.

CHALLENGE 4: SEE IF YOU CAN CREATE SOMETHING EVEN BETTER THAN GRADUATE STUDENTS AT SAN JOSE STATE UNIVERSITY DID THIS PAST SEMESTER

I asked my students if they would be willing to share what they had created with you as examples to compare and contrast what you have been doing in design thinking. They are novices. Certainly, you can do even better!

- *Mariah Sparks, Mary Moreno, Veronica May. Recycle It!* Middle school students at a school with no recycling evaluate the need for better waste management and find an item to pull from the waste stream and upcycle/reuse: <https://tinyurl.com/yat6j6wt>.

- *Patricia Goering and Kathryn Smithyman. Be the Change.* Students use the design-thinking model to identify a problem that is affecting their school community and propose a solution: <https://tinyurl.com/yaehamqw>.
- *Theresa Needham and Crystal Talley. Make Something New: Virtual Yearbook.* Schoolwide students are contributing ideas and pictures and participating in polls and surveys to work together to design the school’s yearbook. A yearbook club with the coteachers will complete the final products to be showcased at the end of the year: <https://tinyurl.com/ybn96acs>.
- *Sharon Lintz and Scott Amdahl. Disrupting the Literature Study Guide.* Students explore and then create an educational site to learn about literary concepts: <https://tinyurl.com/y8dcmcgg>.
- *Javier Morales and Lori Sasaki. Re-Imagining the School Library.* Students explore ways the library is used and can be potentially used and redesign the space to encourage different ways of learning: <https://tinyurl.com/y9rb99ek>.
- *Deepti Mahajan and Sherry Chapman. Redesigning the School Library.* Leadership students in eighth grade redesign their middle school library to reshape it into a learning commons: <https://tinyurl.com/ybsfbtmf>.

What is the difference between design thinking and the traditional models of inquiry? Here are some of the comparisons San Jose State students made:

- Traditional models started with what students know about the topic, whereas design-thinking models be-

gan with empathy of the topic.

- Traditional models are content driven by the teacher, while design thinking is about problem solving by young scholars.
- Design thinking is user focused, iterative, not afraid of failure, and focused on experience—finding the problems to solve and learning through process instead of directed teaching.
- There’s more of a focus on the process than the product. For example, there’s more emphasis on prototyping and trying different ways to approach the problem.
- Design-thinking models seem to emphasize having students create solutions and have more hands-on experience with problem solving.

CHALLENGE 5: BROADCAST THE SUCCESS AND CHALLENGES OF EVERY JOINT DESIGN PROJECT WITH YOUR FACULTY

If I had a crystal ball, I would see this vision of every teacher librarian not only at the center of inquiry in the school but of design thinking. And we would be recognized by the general education community for being at the center. Is that so difficult? Is that a fantasy? Such a dream will not happen in the halls of AASL or ISTE or Future Ready Librarians. It will only happen if you make it happen in your school.