CHAPTER 4

Before we can transform our library spaces, we need first to take a good, hard look at what we've got to work with. It's vital to spend some time analyzing the physical space, observing how students and teachers use the space, and surveying your school community to identify their needs.

Taking Stock of Your Library Space

As we prepare to transform and reimagine our library spaces, it is crucial to take stock of our spaces. Even the most out-of-date, poorly designed school library has elements that work for students. There are easy changes that we can implement once we take the time to observe how our current space works and evaluate the resources that are already available to us.

Taking stock of your library space will take some time, but the process is worth it. If we immediately jump into making changes without thinking things through, we can make costly decisions that waste funds and create environments that don't support or welcome our students. It will be much harder to get stakeholder buy-in after making such mistakes.

Taking stock of your space involves three elements: inventorying your space, surveying your community, and forming a library design team. When inventorying the space, we take a look at what's already there and see what things we've been overlooking. Surveying your community through both question-and-answer surveys and a focus group will help you gain a better idea of the needs and interests of your users. A library design team will help in using design thinking to process the information you've collected, and it will help brainstorm workable solutions.

Inventorying Your Physical Space

The first step is to take an inventory of the physical space of our libraries. This process requires a bit of time and effort, but it's well worth it to gain some perspective into how your library currently functions. The inventory will help you to identify strengths and weaknesses in your library space. It will also help you to find areas to focus on as you work to transform the space. There may be elements of your space of which you were unaware. If you've been in your library space for a long time, this step is especially relevant because your familiarity with how the space has been used can make it more difficult to imagine fresh layouts or unusual arrangements that you might otherwise have visualized.

Create a Layout Diagram

Interior designers and architects often start their design and redesign of a space by creating a layout diagram of the area. We don't necessarily need to break out the drafting table to accomplish this—there are many easy solutions for creating diagrams of our library spaces. You don't need to be an architect or be proficient in CAD to do this. Even a simple sketch on paper, or a doodle in Microsoft Paint, can help us to plan. That said, if

you're working with an architect or a vendor, they are often more than happy to create a professional diagram of your space for you, often free of charge.

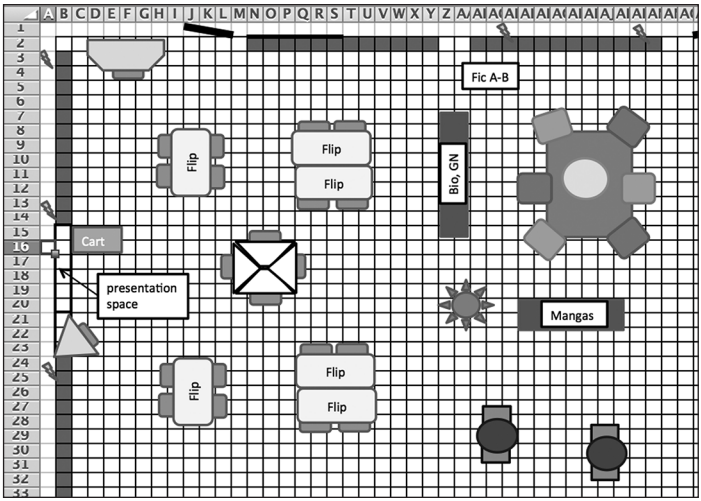

Figure 4.1 Excel layout diagram sketch of Stewart Middle Magnet School Media Center in 2016.

A to-scale diagram of your space helps you to get a better idea of how the room flows and what you can change. If you create pieces to represent your furniture (e.g., shapes in Excel or paper cutouts), then you can rearrange and rethink your space without moving a single piece of furniture. Creating a layout diagram can be as complex or simple as you like. The main idea is to get a feel for your space and how everything works together.

For a detailed tutorial on how to create a layout diagram in Microsoft Excel, refer to the following feature on creating a layout diagram in Excel," adapted from my blog post titled, "How to Create a Floor Plan in Excel" (renovatedlearning.com/2016/08/29/floorplan-space-excel). Visit the post to watch

a YouTube tutorial that demonstrates each of the steps. You can also download a copy of the Stewart Media Center Excel layout, which you can use as a starting template for your own.

TUTORIAL

Creating a Layout Diagram in Excel

1. **Create a rough draft on graph paper (or sketch it out on regular paper).**
   This step might seem counterintuitive, but it's easier to sketch out your floor plan on graph paper first, and then take that information to make a spreadsheet. Grab a tape measure, and measure the boundaries of the room(s) for which you're creating the floor plans (make sure to take notes as you go). If you have access to the blueprints, use those. Using one square on the graph paper to represent one square foot, draw out the basic boundaries of the space. Now it's time to put the stuff in your space.

2. **Measure ALL THE THINGS!**
   Measure the length and width of every table, desk, chair, storage unit, etc., in your space. Write down the measurements on a notecard. For now, you don't need to worry about exactly where they fall in the area. What you DO need is a list of how many of each item you have and their sizes (e.g., six 30″×60″ tables, four 36″×90″ bookshelves, etc.). Don't worry about the height—that isn't a factor in this spreadsheet. Once you've got all the data written down, it's time to transfer that to the computer.

3. **Set up your spreadsheet like a grid.**
   Excel spreadsheets start out with wide columns, which doesn't work well for floor plans. I like to create a grid of

squares where each square represents one square foot. That makes it the easiest for planning out the space. Select all of your columns and adjust their widths until they look close to perfect squares. You can test this by creating a square and seeing if it fits correctly in a row and column when you rotate it, but if that sounds complicated, don't stress out—it doesn't have to be perfect.

4. **Create the boundaries of your space in Excel.**
   Decide how many square feet each square on your grid will represent. I prefer one square foot per grid square, but that's me. Count out the boundaries of your space based on your scale, and highlight those squares. Create a bold border around this area to help you see the scale you have. Note: If your room isn't rectangular, this might be tricky. Remember, your diagram doesn't have to be perfect, so just do the best you can.

5. **Create fixed objects.**
   If individual elements of your space are fixed in one place, such as wall mounted library shelves or a circulation desk, add them straight to the grid. For the shelves at Stewart, I highlighted the areas where they are located and colored those squares burgundy. This step helps me to get a visual idea of where they are, and it'll be useful in the next step when creating furniture items.

6. **Set up and arrange your furniture items.**
   Using the measurements you took earlier, create the furniture pieces of your space. Your furniture icons can be as simple or complex as you like. Basic rectangle shapes tend to work best for most things. I like to color code my shapes in colors similar to the furniture items because it helps me to remember what they are. Try to position the objects relatively as they are now.

7. **Group items as needed.**
   If there's a certain grouping of furniture that always goes together (e.g., chairs at computer tables), you can group the items together using the group function in Excel. Hold down Control (PC) or Command (Mac) and select each of the items you want to group. Then choose "group items." Now, when you move one, you can move all of them.

8. **Play house.**
   Now that you have all your furniture elements in place, save your file. Then Save As and create a new file for experimentation and ideas. Move your furniture and experiment with new layouts. Create shapes for furniture items you're thinking about purchasing, and play around with your space. This process is my favorite part of creating an Excel layout—it makes it so easy to experiment with new ideas.

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Observe Your Space Like an Anthropologist

When anthropologists want to study a new culture or society, they spend time observing the locals. They watch for customs, gestures. They look at how different people interact with one another and their surroundings. In the same way, we can be anthropologists in our libraries by observing our students.

Take a look at your library space with fresh eyes. Watch how students utilize the space. Take notes of the traffic flow patterns. Spend a good amount of time really noticing how different groups of students use the various areas of the library. This observation might be difficult for you at first, but as you start to

see how students physically interact with the space, you'll start noticing changes that need to happen.

One useful guideline is the AEIOU acronym created by Conifer Research and described in-depth by Margaret Sullivan in *Library Spaces for 21st Century Learners: A Planning Guide for Creating New School Library Concepts* (Sullivan, 2013). The book is a fantastic resource for the practical aspects of planning and funding a space transformation, and I highly recommend it. The letters in AEIOU stand for: Activities, Environments, Interactions, Objects, and Users.

Activities

Look at the various activities your students are engaging in, including researching on the computer, reading a book, socializing with friends. Where students move, how they rearrange the furniture, the amount of lighting they have, and what posture they take are all things to note.

Environments

Look at other spaces that students use outside of schools, such as museums, stores, and amusement parks. More on finding inspiration from spaces like these appears in Chapter 5.

Interactions

Observe how your users interact with the space and each other. Consider the tactile elements of the space, comfort, noise, conversation levels, and so on. Look at how students interact and work with one another. Does the current space support or hinder interactions?

Objects

Notice any objects that a student uses. These can be anything from basic school supplies (a student taking notes with pen

and paper), using computers or tablets, to the different types of chairs they prefer to use for certain tasks.

Users

Observe your students themselves. Striking up informal conversations with your students and asking casual questions can help you to gain a wealth of insight (Sullivan, 2013).

In the extraordinary book *Make Space: How to Set the Stage for Creative Collaboration,* Doorley and Witthoft (2012) recommend taking the time to observe the way that your users (students) manipulate your space. By watching for these "user-initiated changes," you can discover hacks and modifications that can improve your space for students. Look for things that students are using unconventionally or surprisingly. At one point in the transformation process at Stewart, I had pushed some of our heavy tables to the side of the library to create space for a student presentation. Later that day, I noticed a student lying down underneath the table and working on a project (see Figure 4.2). Seeing this helped me to understand that: (1) my students like having places where they can lie down on the floor, and (2) my students enjoy having semi-enclosed cave spaces for reading and working.

Get a Fresh Perspective on Your Space

Ask trusted local colleagues to visit your library space during school hours. Have them spend time observing the students. Physically walk through the room together. Ask lots of questions about their observations. You might want to introduce the AEIOU framework to them, or you can just discover what their natural observations are. The experiences your colleagues bring from their own schools can help you to gain more ideas about how to transform your space.

Figure 4.2 Seeing a student working under a table at Stewart helped me understand the need for cave spaces.

Additionally, consider having someone who works outside of education visit the space. We become so accustomed to how our spaces are set up that we take many things for granted. Having the perspective of someone who doesn't spend forty hours a week in a school library space can provide fantastic insight. Make sure to emphasize that you are looking for honest, candid opinions and observations, and that they should not worry about hurting your feelings. You want the best information possible, not what they think you want to hear.

Surveying Your Community

The purpose of the school library is not to serve as a beautiful book repository, nor is the objective to fit the ideal desires of the school librarian. The school library exists to serve its community—the students, teachers, parents, and other people who visit and utilize the resources and physical space. When reimagining

our library spaces, we want to be sure to include the voice of our community early in the process. This can be done best through utilizing a survey questionnaire and creating a focus group.

Creating a Survey Questionnaire

When you're rethinking and redesigning your library, it's vital to make sure you hear the voices of students and teachers in the process. There may be unmet needs in your student body and teaching staff of which you are completely unaware. Sullivan (2013) gives some excellent, detailed instructions and advice for creating a survey and selecting a representative population of students.

You can create a pen and paper survey, if that's what works best for you and your population, but many schools prefer to use a digital tool like Google Forms, NearPod, or Survey Monkey, as these make it easier to collect and aggregate data. I suggest creating the survey digitally and keeping it to ten questions or less. Otherwise, students might not complete it. Include a variety of question formats, such as yes/no, multiple choice, all that apply, and so on. A few open-ended questions can provide interesting information as well—just bear in mind that it takes a lot more time to sort through the responses. Ideally, there should be only one or two open-ended questions—you should save the rest for your focus group, which we'll discuss in the next section.

Here are some examples of some types of questions to ask:

- Why do you usually come to the library?
    - Study
    - Hangout
    - Check out books
    - Use computers

- What describes your internet access situation at home?
    - Wired internet access
    - Wi-Fi
    - No internet access
- Which of the following technology items do you own? Check all that apply.
    - Smartphone
    - Desktop computer
    - Laptop computer
    - Tablet
    - Other internet-accessible device (Kindle, Nintendo DS, etc.)
- What are your favorite colors to wear? If you could paint your room any color, what would it be?
- Do you prefer to study in noisy environments or quiet environments? Do you like listening to music when you study? If so, what kind?
- What is one thing about the library that you would change to make it better?
- What is your favorite place in the library?
    - Computer lab
    - Comfy chairs
    - Study tables
    - Makerspace
    - Other
- What do you like to do to give your brain a break while studying?

Creating a Focus Group

A survey of your school community will provide with a great deal of invaluable feedback. But there is also much to learn from having real-time conversations with students and teachers about your library space. Gather a focus group and meet with them to plan your transformation. You might have just one meeting, or you might have several separate meetings, depending on the number of participants and what works best for your structure.

Students, Teachers, Parents

Ideally, you will want to have a focus group that is representative of your population. Students from each grade level should be present, as well as students from the ethnic groups and socioeconomic statuses represented in your school. They don't necessarily need to be avid readers or library regulars—we want our space transformation to serve the needs of all our students—not just those who are already coming regularly.

Teachers and parents should be included in the process as well. They can be mixed in with the student focus group, or can comprise a separate group. Look to represent a variety of subject areas, grade levels, and teaching styles for your teachers. With parents, try to get a broad sampling of school involvement—you don't want it to include only your PTSA regulars. However, beware of those teachers and parents who struggle with change—they might shut down ideas for the rest of your focus group with their resistance. Their voices should be heard, but you need to strive for balance, openness, and honesty.

Sullivan recommends having an assistant to record notes, leaving you free to ask more questions and listen intently. If possible, the meetings should be recorded, with signed consent forms from all involved. Be sure to explain that the information

will be shared only in aggregate, and that the individual opinions of those involved will not be disclosed (Sullivan, 2013).

Discussion Ideas for Your Focus Group

Begin by having your group brainstorm about the strengths and weaknesses of the library. Give each student some Post-It notes and Sharpies, and have them add their ideas to brainstorming boards. Give them some time to get their thoughts out before you gather the group to discuss them. Look for themes among their observations. Ask leading questions to get more detail.

Here are some examples of good open-ended questions you can ask your focus group:

- What makes the library important to the school?
- What is the first thing you notice when you enter this library?
- When you think of the word *library*, what are some of the first words that come to mind?
- What are some types of activities that you would like to see in the library?
- What are your favorite places to hang out in your free time? What is it about them that makes you happy?
- What is your ideal study environment?
- If you could decorate and design your dream room, what would it look like?

Sullivan has a fantastic list of even more open-ended questions in her book, as well as more advice and strategies for working with focus groups (Sullivan, 2013).

ISTE STANDARDS CONNECTION

ISTE Standards for Educators 4d. Educators demonstrate cultural competency when communicating with students, parents and colleagues and interact with them as co-collaborators in student learning.

ISTE Standards for Educators 2a. Educators shape, advance and accelerate a shared vision for empowered learning with technology by engaging with education stakeholders.

By surveying our community and focus group, and by forming a library design team, we are developing a vision for our libraries and communication by engaging with parents, students, colleagues, and other stakeholders in our schools.

Forming a Library Design Team

Most school librarians are on their own in their spaces, but when planning a redesign of your space, it's good to have a team to help you. This group is your library design team that will work with you to take all the ideas and information you have gathered and translate them into action. There may be some crossover between your focus group and your library design team, but they have two distinct purposes.

The individuals who participate on your library design team will be varied. When I was planning the makerspace and the library transformation at Stewart, I gathered a group of interested students to help me. I also met with my administration to discuss ideas. When Todd Burleson was redesigning the library at Hubbard Woods in Illinois, several parents joined his library design team and visited other schools with him to gather ideas and inspiration (more on Todd's story in Chapter 6).

For your library design team, consider students, teachers, administrators, and parents. If your school is working with architects or designers, include them in the process as well. The Third Teacher +, a design and architecture group focused on reimagining school spaces, recommends considering friends and colleagues who have a good sense of design, especially if you feel unsure about your own (Bill, 2013). You might have separate student and adult teams, or you might have everyone meet together. An advantage to having different groups is that students might feel more comfortable sharing their ideas and input without adults present. An advantage of having them together is that the adults can get a better sense of student needs and interests, and students can see that the adults care about what they think. Create this group in a way that works best for you and your school community.

ISTE STANDARDS CONNECTION

ISTE Standards for Students 4a: Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

By forming a library design team that includes students and student input, our students are working through the design process to plan, test, and create their library environment. They are also working to solve the authentic problems of the current library space.

Processing Survey and Focus Group Results

For your first meeting, gather your survey results and focus group(s) results. Package the information into an easy-to-read report, and send it out to everyone in the library design team before the meeting. As with the focus groups, it's ideal to have someone outside of the team available to take notes and/or to

record the session. After everyone has had a chance to review the results, gather your team for a solution session.

In Edutopia's fantastic series, Remake Your Classroom, designers from The Third Teacher + have their volunteer team brainstorm ideas based around the themes of display, storage, furniture, teaching zone, and personality (Bill, 2013). Your themes might be slightly different based upon your space, but they could include things such as display, shelving, technology, interactive spaces, furniture, instruction space, teaching zone, reading zone, and personality. Consider using tools such as Post-It notes, poster board, whiteboards, and graph paper to organize your design team's brainstorming ideas. The goal is to translate the results of your survey into concrete, actionable plans. We'll discuss more design thinking strategies that you can use with your library design team in next section.

Another option to consider is to brainstorm based on zones of your library. Doorley and Witthoft (2012) created a design template of spaces that focus several zones. They include home base (the main location of individual and group work), gathering spaces (places where people meet in large or small groups), thresholds/transitions (entries, exits, and passages of a space), and support structure (things that support work, such as supply areas, printer/copier, kitchen space, etc.). You can also consider using the types of spaces discussed in chapter 2, such as the six active learning spaces or Thornburg's primordial metaphors, or create your own names for different zones. Again, always look for what will work best for you and your school.

Using Design Thinking

Education emphasizes design thinking as a mindset and tool for students to use in project-based learning, but it is also a fantastic tool for rethinking and redesigning a library space. By

utilizing the information you have gathered, and sharing it with your library design team, you can use design thinking to come up with concrete solutions and improvements for your space.

According to Spencer and Juliani, design thinking is "a way to think about creative work. It starts with empathy, working to really understand the problems people are facing before attempting to create solutions" (2016, p. 24). They also describe it as "a way of solving problems that encourages positive risk-taking and creativity" (2016, p. 52). The key to design thinking is to empathize with whom you're trying to help and come up with a multitude of possible solutions to their problem. Since you've gone over the survey and focus group results with your library design team, they've already started to get a feel for the students and teachers who use the library, and hopefully they have begun to develop empathy and find problems in your space that need solving. Now, have students select a particular problem, brainstorm a variety of solutions for that problem, create prototypes of their solutions, and test them out in your library.

Figure 4.3. Student-designed 3-D printed models for makerspace furniture.

At Stewart Middle Magnet School, our afterschool Stewart makers club used design thinking to create designs for makerspace furniture. The challenge was for them to build designs for libraries that want to start a makerspace and need a little help getting organized. My students did research online, interviewed other students about what problems they encounter in our makerspace, and developed prototypes for their furniture ideas (see Figure 4.3). At the end of the project, students presented their prototypes to an educational furniture representative from Custom Educational Furnishings to get ideas and feedback. One of the students' creations was developed into a makerspace storage cart by the company and was named by the students.

DESIGN THINKING RESOURCES

Books

Doorley, S., & Witthoft, S. (2012). *Make space: How to set the stage for creative collaboration.* Hoboken, N.J.: J. Wiley.

Kelley, T., & Kelley, D. (2015). *Creative confidence: Unleashing the creative potential within us all.* London: William Collins.

Spencer, J., & Juliani, A. J. (2016). *LAUNCH: Using design thinking to boost creativity and bring out the maker in every student.* San Diego, CA: Dave Burgess Consulting, Inc.

Online Resources

Design Thinking For Educators designthinkingforeducators.com

Design Thinking for Libraries designthinkingforlibraries.com

The Stanford d.school K–12 Lab Network dschool.stanford.edu/programs/k12-lab-network

If you're interested in learning more about design thinking, check out some of the resources in the box Many of these resources contain sample exercises that you can work through with your students to help them learn how to use design thinking.

Tying Mission into Your Space

As you are brainstorming and processing ideas with your library design team, be sure to take time to discuss both your library mission statement and your school and district mission statements. How does the plan that is forming for your space tie into these mission statements? Work to create some concrete connections, as this will help as you advocate for funding and change.

Sullivan (2013) offers up several excellent examples of ways that the mission can be visible in the library space. For example, if parent and community involvement is an important part of your school vision, consider how your space can be set up to accommodate and welcome parents—maybe you can have a community resources area or a place where parents can read with their young children. If your mission statement focuses on leadership and student responsibility, look at how you can design your library for self-directed, independent use, such as creating student lounges, self-checkout stations, and wayfinding signage. If your school places emphasis on project-based and lifelong learning, consider the establishment of a makerspace and student project area.

Action Steps

Create a layout diagram of your space using Excel, graph paper, or another tool. Spend some time observing your space and take notes. Get an outside perspective from a friend or colleague.

Get input through a survey. Create and send out a survey to your students and teachers to find out their thoughts on your library space as well as what types of environments they like to study in. Use a variety of formats. and promote it in as many venues as possible, so as to get a broad, representative sample of your students.

Form a focus group. Meet with your group of students, teachers, and parents to get more input.

Create your library design team. Hold your first meeting to process the data you received and brainstorm on how to transform it into actionable data.