Action Research as a Pathway to Discovery in the School Library

by David V. Loertscher and Michelle Young

Key Words: Action Research, School Libraries, Data Visualization, Data Dashboards

For millennia, civilizations and societies have used models, visual or conceptual illustrations of systems, to inform and explain complex ideas. From the scientific method to the solar system, the water cycle or the three branches of government, these models serve as examples that embody the adage "A picture is worth a thousand words."

In the field of education, models such as Bloom's Taxonomy and the debates between Dewey and Thorndike have been pondered for decades. In school libraries, concepts like inquiry and the UTec Maker model of creativity have been scrutinized and discussed across time. Notably, major models undergo change over time. For example, Wiggins and McTighe recommended *Understanding by Design* (or backwards planning) encourages teachers to think first about the desired outcome before designing assessments. In school libraries, the idea of inquiry has been refined by both Stripling and Maniotes. Additionally, the development of STEM and STEAM has become the foundation of new science standards. A related approach, Design Thinking, has emerged as a "cousin" to inquiry, enabling the refinement of current systems and the invention of new ones to solve significant problems.

Over the past several years, our work with the [Alive Library Project](#) and the [Leap into the Future of School Libraries conference](#) has revealed the ongoing need to rethink the concept of the traditional library and the role of the school librarian. For this article, we propose the rethinking of action research within the school library field as a pathway of discovery. This pathway would investigate new and innovative ideas and their potential impact on the teaching and learning within the broader movement toward developing school library learning commons, makerspaces, and innovation labs that are happening both in the U.S. and Canada.

In this article, we take a closer look at action research as a recommended strategy for improvement in individual school libraries. To follow our proposal, we invite you to engage with the following:

- Refresh your understanding of the traditional action research model by exploring the article *Action research as teacher Inquiry: A viable strategy for resolving problems of Practice* by C. A. Mertler (2021). Read the article here.
- Review the findings from the Alive Library Project, which explores the work of over 30 world-class school librarians. This project highlights the practices and traits that distinguish exemplary librarians. The article, *Characteristics of World-Class School Librarians* outlines the eight key characteristics that elevate these professionals from mediocrity to excellence. Read the article here.
- Examine the action research article written by Maggie Dowd, a practising elementary school librarian in Everet, Washington, which tests the "MyTime" concept. Read Self-Directed Learning in the Elementary Library here.

Drawing from these sources and our own experiences, we present for your consideration our proposed revision of action research as a means of discovery about how the school library might move into the center of teaching and learning in the school.
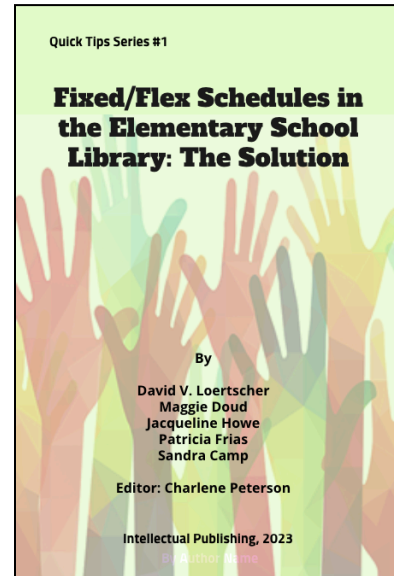
The Model:
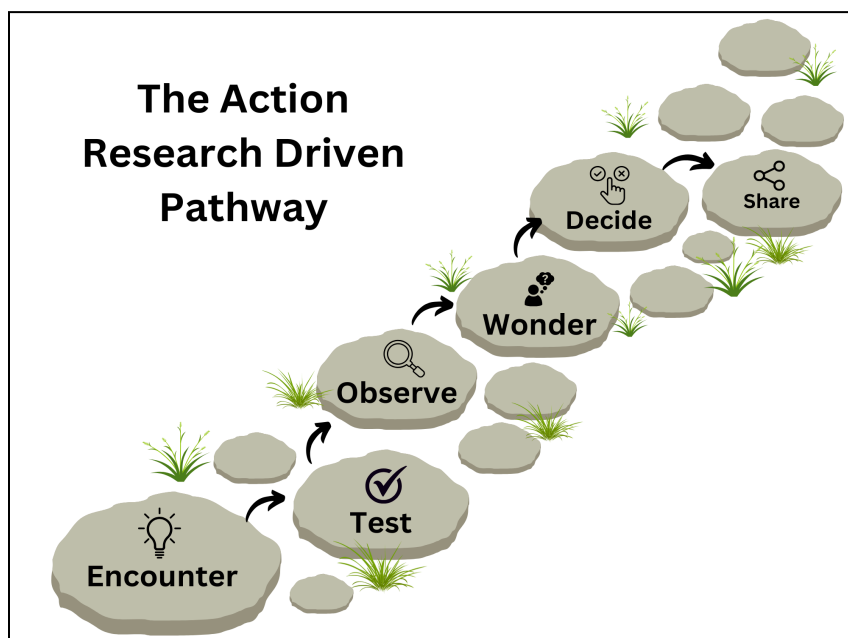
The Model Explained:

Encounter: By design or happenstance, you encounter an idea that attracts your attention. In Maggie Dowd's case, she learned about the concept of "My Time" in a graduate class and even contributed to writing a [book](#) exploring its possibilities. You might come across an idea from reading an article, a conference presentation, required professional development, or in conversation with a colleague. Your curiosity is piqued to the point that you decide to test the idea in practice. As you move toward concepts like the library learning commons, maker spaces, or innovation labs, trying something new feels like a natural step. (Note: Now would be a great time to collect some baseline data to create a "before and after" story.)

Quick Tips Series #1

Fixed/Flex Schedules in the Elementary School Library: The Solution

By

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Intellectual Publishing, 2023

Test: Like Maggie Dowd, you decide to test out the idea. In her case, she tested "MyTime" with a single class just to see what would happen. Starting small, or "going micro" rather than attempting a large-scale, macro implementation, you begin, planning, creating, and doing. In Maggies's case, she informed the teacher about the self-directed activities the students would try during their assignment library time. The teacher, who used that period for planning, was agreeable to the experiment. Maggie prepared several self-directed activities for the students to explore during My Time, introduced the concept through a couple of instructional sessions early in the year, and encouraged students to follow their interests. (Note: During the test phase, collecting data to assess the impact would be particularly valuable.)

Observe: This step is critical and requires professional expertise. In Maggie's case, she quickly notices how simple it is to explain to the students that they all have choices and are in control of their own learning during library time. Remarkably, their behavior during My Time changes instantly, from rowdy to fully engaged. In fact, they object to interruptions. It is a surprising phenomenon.

Over centuries, careful observation has resulted in major improvements and inventions. For instance, a Dutch farmer growing fields of white tulips noticed a single tulip from a whole field had developed a few red stripes. Recognizing this as a mutation, he carefully cultivated that single tulip, eventually creating a whole new strain of colored varieties. Similarly, smallpox was eradicated when a Dutch physician observed that milkmaids did not develop the disease. Additionally, the Global Positioning System (GPS) was invented in 1985 after a few scientists, inspired by a discussion about the Russian Sputnik during lunch, made a significant discovery for the U.S. Navy.

In almost any field today, if you have the expertise to notice carefully, you too just might encounter an unexpected phenomenon that changes everything. (Note: Be sure to collect data on your observations, it could be the key to transformative insights.)

Wonder: Observation is one thing, but confirmation is quite another. Is what you observed real? Just an aberration of local circumstances: something meaningful or merely dismissible? In Maggie's case, she decides to validate her observation by exploring whether any research supports the idea. She uncovers a substantial body of research on self-directed learning, which consistently shows that self-directed students are much more motivated, interested, engaged, and too busy to misbehave.

However, unlike Maggie, pioneers Edison and Franklin found their curiosity led them into areas with very little previous research done, so they were taking a step out into the world of the unknown. Like the sailors of old, who noticed that the top of a ship's mast appeared first on the horizon, followed gradually by the rest of the ship, they were making observations that hinted at larger truths—such as the curvature of the Earth. Sharing these insights widely meant venturing into uncharted waters, challenging established ways of thinking. (Note: At this point, collected data becomes critical to support and verify your observations.)

Decide: You are now confronted with a decision. What should you do next? In Maggies's case, she decides to replicate the test for a second year, expanding it to engage a whole grade level. In the interviews with world-class school librarians, new and focused ideas of a great variety became their claim to excellence, rather than continuing to follow a one size fits all notion. For all of us, we keep asking ourselves important questions: Is it sustainable? What is the real impact on teachers and learners? What are the costs? Are the risks worth the effort? Taken as a whole, what actions has your research confirmed? Is data helping you make a sound decision?

(Note: You might log the reasons for the decisions you make based on the data you have collected.)

Share: As professionals and adult learners, we may not expect everything we try to be a success. Rather, we develop resilience to pivot and try again as we sort through our personalized practice. Sharing both successes and failures can provide encouragement to colleagues and our own community of practice. Shop talk sessions, storytelling, and even publication are all ways to embolden others beyond just a local experiment. Sharing is part of becoming an influencer and leader. The use of social media, blogs, and published authorship are popular ways to build community. Like Lucy from Peanuts cartoon fame, we put out our sign that we have delicious lemonade for sale at just five cents. In fact, the authors have been experimenting with data visualization tools to be used by credentialed librarians to signal their impact on teaching and learning. See this idea below in this article. (Note: At this point, you will want to build your sharing track record across various channels.)

Discussion

Rather than focusing on the macro documentation of standardized test scores, this tweaked version of action research focuses on the micro documentation of personalized practice. When we asked world-class school librarians what their bottom line was, they inevitably talked about their focus on the learner, then the teacher, and finally the administration. They also regularly improved their skills in technology or other topics that complimented their current efforts to partner with teachers in the development of deeper learning experiences. To them, credentialing as a librarian was just the beginning of their professional career, not a set of practices to be learned once and repeated year after year. Personalized professional growth, linked to regular action research seems to be the pathway to discovering excellence. These librarians are both visible and indispensable in their schools and communities. Their passion stems from constant improvement over time.

Two factors have stimulated our efforts to tweak the structure of normal action research methodology. First, we have a sense that not very many current school librarians are doing any action research. If so, we have not seen many action study reports in the professional literature. The tweak presented and proposed here seems to follow a simpler and natural part of daily practice that invites curiosity to investigate rather than rejecting research as just one more thing in an overwhelming list of things to do. Instead, it provides a series of guideposts and discoveries along a career pathway.

Secondly, we have identified a lack of professional journals dedicated to the publication of action research. To address this gap, we have created a new online peer-reviewed journal that encourages both the publication of formal research and also action research. The journal's inaugural issue will be available early in 2025, and we invite readers to subscribe and submit their work for publication. Sponsored by the School of Information at San Jose State University, the journal is free to access and does not require membership in any organization. See the journal at Learninghub.website.

We remind the reader that the major difference between action and formal research is that action research is not generalized to situations that you as a professional have studied in your school. However, if replicated by others, then we begin to see patterns worth doing formal research. Some ideas just go viral because their impact is more than apparent. Peers often recognize excellence when they hear about it and nominate their colleagues for recognition at conferences and in the literature for their leadership and courage in the face of common barriers that others see as difficult to overcome.
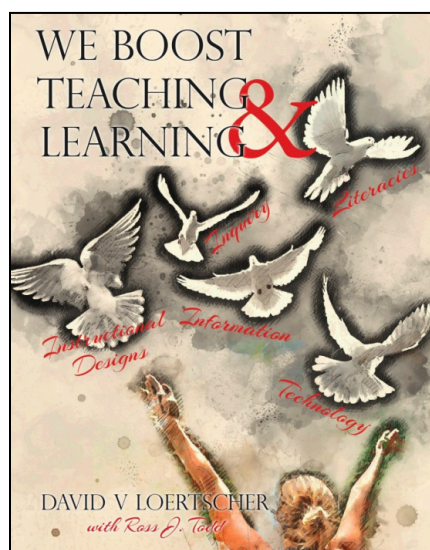

Learning Hub

LEARNING HUB

An open access refereed journal encouraging and connecting peer reviewed research articles to the growth and development of K-12 library learning commons.

VOLUME 1 No 1 (2025)

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Along the Pathway of discovery

In recent years, the collection of data about individuals, including our preferences,

satisfaction with services, and even how often we engage with online posts, has become ubiquitous. The advantages of sharing such data are framed as ways of improving services or connecting us to something we might find useful. People who call us on the phone often retain their jobs if they get good ratings from customers.

Similarly, libraries can benefit from the strategic use of data, particularly in the context of the current challenges they face. In light of efforts to ban books in school libraries across the U.S., it is clear that a strong offense should accompany any defensive measures we, as information professionals, offer to our patrons. Observing how data collection is used effectively in other sectors can guide us in

strengthening our advocacy. This is why, earlier in this article and at each step of the action research process, we emphasized discovering and collecting meaningful data related to library initiatives.

Fortunately, many AI tools are already embedded in the systems we use, making it easier to collect and analyze data across three major categories of initiatives: the organization level, the teaching unit level, and the learner level as recommended by D. Loertscher and RJ Todd in this foundational work. Responding to the urgent need for stronger data-driven advocacy, we have also been working with SJSU iSchool graduate students to explore ways to create impactful data visualizations.

To understand the value of this approach, consider an 8-minute interview with Dr. Rosalyn Washington, an educator who integrates storytelling and data collection to convey impactful data narratives. Dr. Washington demonstrates how to use simple tools, such as Google Slides, to create effective data dashboards. Additionally, an article and associated website by Shala Howell explores how to use Looker Studio for sophisticated tools for the same purpose. Investing your time and effort into developing your skills in these techniques can help you effectively communicate your library's story to your community.
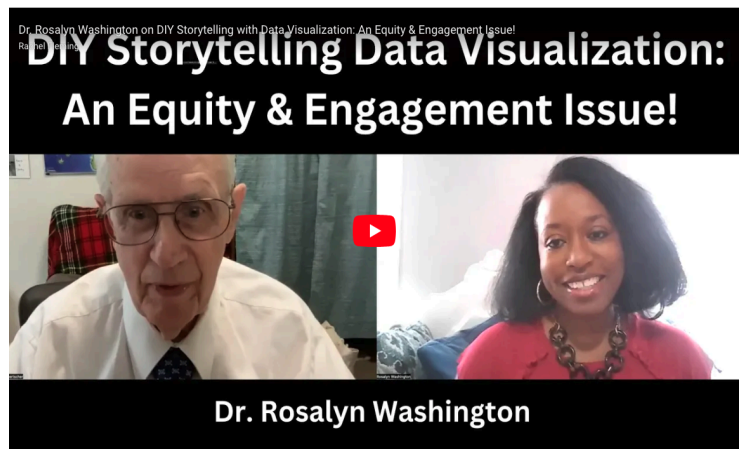
Here are some steps and resources to help you get started:

1. Identify Available Data Sources: review the data sources that you already have access to. Many vendors are incorporating AI tools into their software which can provide minimal effort opportunities for data collection and visualization.

2. Define your Data Collection Plan: Determine the types of data you will collect and the measurement levels that you need to help tell your story.
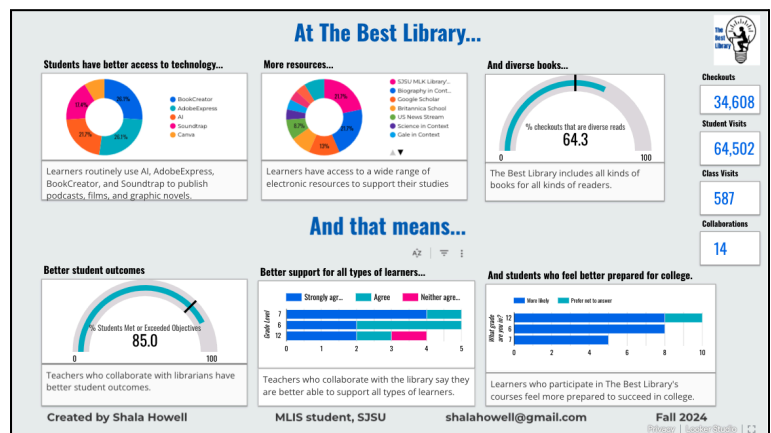
Focus on the three key levels:
   a. Learner Level: Data about student engagement and outcomes.
   b. Teacher Level: Data about instructional support and impact.
   c. Organizational Level: Data about the overall library operations and impact on teaching and learning in the school community.
3. Organize your Data: Use a Google Sheet or Excel spreadsheet to structure your data collection. Depending on your preference, you can either create a Google Form to gather responses or enter data directly into the spreadsheet.
4. Collect and Populate your Data: Begin gathering data and populating your form or spreadsheet. Ensure consistent and accurate entry for clarity in your visualizations.
5. Choose a Data Visualization Tool: Selecta tool to create your data dashboard. Some options include Google Slide, Canva, Looker Studio and Microsoft Power BI.
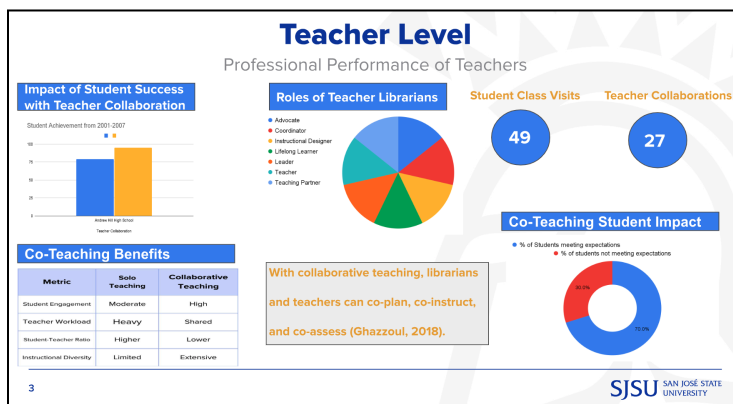
6. Link your Data to your data dashboard. Integrate your data to create a dashboard that is both informative and visually appealing.

By following these steps and referencing the Guide to Creating a Data Dashboard for Your Library Impact Report, you can create dynamic data dashboards that highlight your library's impact and engage your community effectively. Below, we have shared excellent examples of data dashboards created by MLIS graduate students to inspire and guide you in representing each level of measurement.
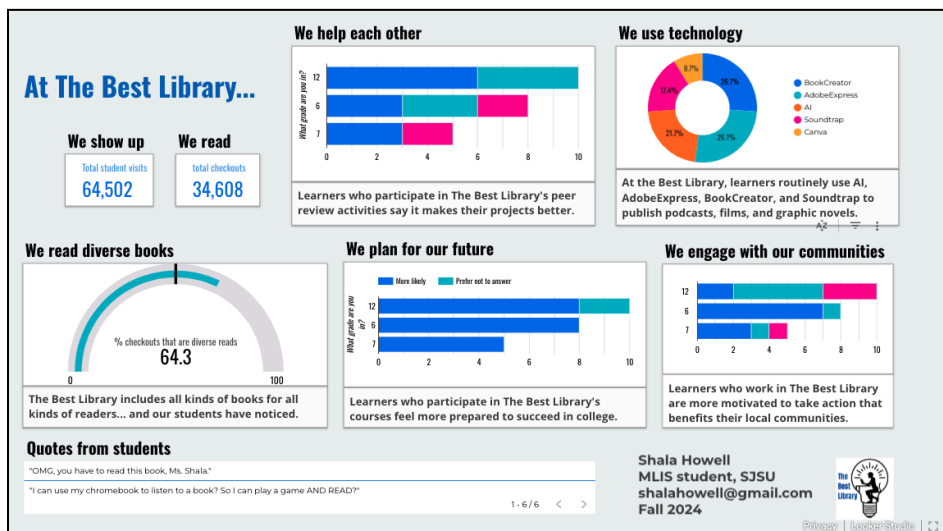
The Why, the So What, and the Future

There are several situations happening in our profession that support a sense of urgency about the need for more action research. Here are a few of our ideas and you probably have some concerns of your own to share:

- The pace of change in education as a whole, let alone at the individual district or school level, requires school librarians to keep up with phenomena happening around them to keep relevant in today's world. The learners themselves are changing, technology is changing rapidly, and educational practices keep evolving. To stand still seems to signal irrelevance.
- Personalization of practice is happening in many professions. We can see this happening in medicine, individualization of technologies, and lifestyles are but a few examples of the change in our society. Our world-class Librarian set a new standard about personalizing their whole career, the organization of the library learning commons concept, and the needs of individual students has replaced a one-size-fits-all sense of best practices in school libraries. We don't just think of a set of standards for school libraries, rather, we embed our standards into many other standards, such as science, education, literacy, mathematics, and technology standards. A broader vision of the idea of standard forces us to practice ways of achieving success in a wide variety of major educational theories, ideas, and practices.
- World-class librarians experience excitement, joy, and persistence as they continue to evolve their practice. They discover that their position is the most exciting role in the entire school. Their passion continues to emerge over time, giving them a sense of self-satisfaction, worth, and value to the great career. They have embarked on and continue to develop in.
- Doing action research on a regular basis, seems to be a major tool in the recognition of both failure and success. It becomes informative, not only to us as individuals, but as we share, it becomes a part of the entire community of practice.
- Finally, it seems wise to document our contributions regularly. Institute the personalized/individualized practice and document your impact with data that can be easily visualized. With the target, what is the best thing that I can do to create the biggest impact on teaching and learning in my special/individual community of teachers and learners?

Has this article spiked any interest in doing action research or using its findings to improve practice? If so, the authors invite you to subscribe to learning hub.website and think about contributing an article or an action research report that would inform other professionals about new practices or the reinvention of old ones that would benefit colleagues. Please feel free to use any of the resources on learning hub.website in professional development, conferences, study groups, or any other ways that would benefit practice not only in your own school, but in your district region or even nationally, questions, ideas, and participation in this entire effort is most welcome.

Please contact David Loertscher reader.david@gmail.com or by telephone at 801-755-1122. Let's have a chat about all kinds of possibilities!

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