What Makes a School Library Good? An Action Research Casebook Study

By Dr Carol A. Gordon

"What makes a school library good?" There have been many attempts to answer this question by professional library associations on international (International Federation of Library Associations, 2015), national (Australia School Library Association, 2004; 2012, American Library Association, 1975, 1988, 1998, 2009) and state levels (Massachusetts School Library Association, 2003). For most of four decades, library program standards have taken a quantitative approach to 'measuring' the library's inputs. Facility is measured by square footage or how many people could be seated in the library. The number of volumes in a library collection or the average copyright date is a typical measure of the collection. Similarly, the number of professional full-time library staff, the size of the budget, and the number of classes taught are measures of school library capacity to deliver programming and services.

The flaw in this approach is that quantity can be an indicator of adequacy but it does not indicate quality. Perhaps more importantly, a strictly quantitative approach to evaluation fails to recognise that instruction is central to all library inputs, i.e., facility, technology, staffing, collection and funding (AASL, 2009).

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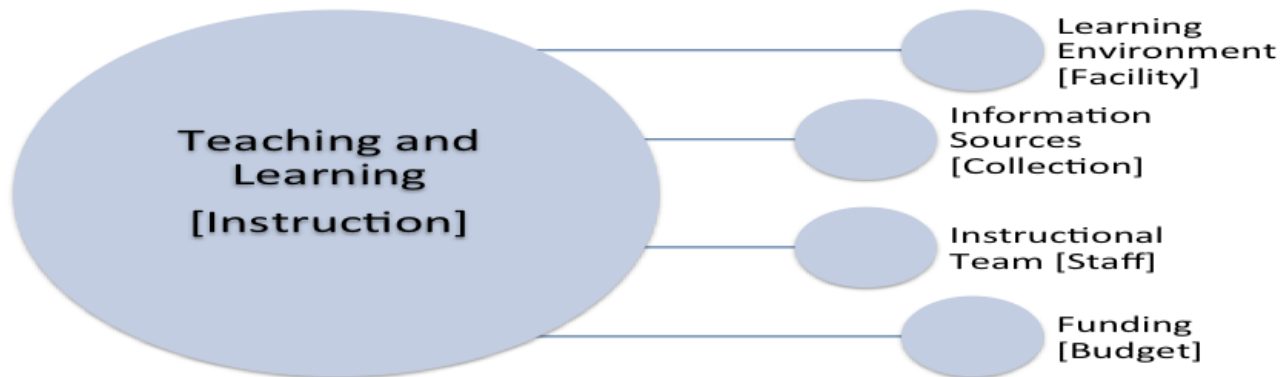

Figure 1: The Centrality of Teaching and Learning in a 21st Century School Library

Figure 1 illustrates the centrality of teaching and learning and suggests a new lexicon for talking and thinking about library programming and services.

'Facility' connotes library as a fixed place rather than an interactive and inclusive physical and virtual *learning environment* that includes the library website, research guides, help materials, reading lists and any other artifacts that address literacy and learning. Digital technology, networking, bandwidth, and equipment, grounded in the physical library, ensure local and remote electronic access to resources and help, connecting library space with instruction. While the physical library is still important because it can present a welcoming message to library users and an opportunity for building relationships through its floor plan, furnishings, displays, and staff, the virtual aspects of a library increases access to ionformation and help.

The 'collection' is no longer a fixed entity selected by a library professional that can be easily measured. The librarian as curator assembles analogue and digital *information sources* in multimedia formats tailored to school curricula and the interests and abilities of learners as casual and investigative readers.

Such a diverse collection necessitates *instruction* in searching, retrieving, evaluating and using information in ethical, efficient, and creative ways. For these reasons 'staff', whether professional, paraprofessional, or voluntary, comprise an *instructional team* that delivers help formally and informally, in direct or indirect ways at points of need. 'Budgets' go beyond a fixed allocation of school funds to include external sources such as grants and fund raising. The *21st century school library* is a *teaching and learning centre* situated in a sophisticated *information and technology environment* that challenges learners to use *information sources* with help from an *instructional team*, and with *funds allocated from school budgets and secured from external sources*. In an era of evidence-based practice and accountability the evaluation of your library inputs and how the outputs contribute to teaching and learning cannot be left to chance. Teacher-librarians need systematic and reliable tools for gathering and analysing evidence and using the evidence for continuous improvement of their programs.

Action research for the teacher-librarian

What is action research?

Action research is a tool of evidence-based practice that empowers teacher-librarians to take charge of the systematic evaluation and continuous improvement of their school library programs. It enables teacher-librarians to collect, organise, and analyse evidence as it emerges

from every day work. But is it real research? Can teacher-librarians be action researchers? Are findings valid and reliable? Can we translate research into action to improve our library programs?

Fortunately the answers to all of the above are 'Yes!' The five-year Londonderry Project (Gordon, 2006) demonstrated that teacher-librarians as action researchers can successfully use qualitative and quantitative methods such as: observation and field notes about library operations and regulations; content analysis of student work or the library's Selection Policy and archived annual reports; descriptive statistics for collection use; and surveys, interviews, focus groups to understand users' needs. Unfortunately action research, even though it uses the same methods as formal research, is sometimes viewed as quasi-research – an illegitimate attempt by practitioners to mimic real research. It is important that teacher-librarians lead a culture of evidence-based practice in their schools by modeling an authentic model of action research and by defending its credibility and validity to their colleagues.

Can we translate research into action to improve our library programs?

In order to understand action research it is helpful to distinguish between two types of formal research, quantitative and qualitative, so that we can see how action research is the same and different from them.

What is the difference between quantitative and qualitative research?

These two types of formal research pose different questions and collect data differently. Quantitative researchers ask, 'What happens if . . .' and count frequencies of events using descriptive statistics, such as percentages, and inferential statistics, such as correlations. For example, a publishing company may use descriptive statistics to find out how many books they sell annually and the percentage that number represents compared with all book sales. Quantitative researchers use inferential statistics that establish relationships between data sets. For example, correlation measures how much two or more attributes or measurements tend to vary together. Although inferential statistics is regarded as the most scientific method of measurement there is a probability of .5 or .1 which means there is the chance that 5 out of 100 times, or once in 100 times, the statistic could be wrong. This is called the level of confidence.

On the other hand, qualitative researchers ask *how* and *why* questions to gain deep understanding of a phenomenon, such as teaching or learning. Data are verbal rather than numerical in the form of thick description of the object studied. Theory is important to this kind of research. For example, researchers in education may use a theory of learning, such as constructivism, as the foundation for their research. Since this theory posits that learners create their own meaning based on what they already know, the qualitative researcher may compare a piece of student writing about what they know on a certain topic before and after an inquiry unit of instruction. The researcher analyses these texts by color-coding trends, or repetitions, or patterns he notices in order to form categories that will lead to his understanding of the usefulness of a particular instructional method. The biggest threat to credibility and reliability of quantitative research is researcher bias because verbal data is more vulnerable to subjectivity whereas numerical data is, on the surface, objective.

The biggest threat to credibility and reliability of qualitative research is researcher bias because verbal data is more vulnerable to subjectivity whereas numerical data is, on the surface, objective. Quantitative and qualitative researchers establish the credibility of their research in different ways. The most important standard for quantitative research is the generalisability, or external validity of the findings from a sample to a population. For example, medical research tests the efficacy of a drug on a limited but large number of people who are selected randomly from the population and are therefore considered to be representative of that population. Formal qualitative research, on the other hand, uses small groups whereby key characteristics, such as gender, age and first language, are the same. The qualitative researcher is looking for transferability, or the application of findings to a population that matches the sample. Like Margaret Mead's cultural studies of a particular tribe of native people in Samoa, qualitative research findings are context-bound. Mead could not generalise her qualitative findings to other populations of native cultures in other countries but her findings are transferable to other native Samoan tribes that share similar characteristics.

Quantitative and qualitative researchers are also concerned about internal validity of their research, or how well the research was done. Quantitative researchers have three traditional standards. **Criterion validity** refers to the extent to which one measure estimates or predicts the values of another measure or quality. For the practitioner this means a test reflects a set of taught abilities. Researchers apply the same questions to their work as you do to your teaching to ensure that their findings are valid, just as your best practice ensures that your teaching is valid. When you design any kind of assessment are all the questions or activities related to the set of standards that are teaching? If so your assessment has criterion validity.

Content validity refers to how well a measure represents every element of a construct. When you teach your students to search a database you include every element of that concept you consider appropriate to your audience and essential to their ability to search a database. Your lesson has content validity.

Construct validity questions whether you are measuring or evaluating what you say you are evaluating. When you design a project with a classroom teacher does your rubric for the project include what you really want to assess? If so, your assessment has construct validity.

Qualitative researchers are also concerned with internal validity. Lincoln and Guba (1985) identified four types of internal validity for qualitative research. They include: credibility, or confidence in the 'truth' of the findings; transferability, or showing that the findings have applicability in other contexts; dependability, or showing that the findings are consistent and could be repeated; and confirmability, or the degree of neutrality, or lack of bias, of the researchers. One way qualitative researchers demonstrate that these standards have been met is by triangulation, or the use of more than one method of collecting data and the variation of ways that they collect data (e.g., collecting evidence on different days of the week or times of the day). Since action research more closely resembles qualitative research, these types of validity are well-suited to action research.

What is the difference between formal research and action research?

Action research, like qualitative research, poses how and why questions and uses qualitative methods for collecting verbal evidence. This is not to say that action research does not use quantitative measures. Descriptive statistics displayed in graphs can illustrate circulation rates or budgetary expenditures. Action researchers can meet the standards of Lincoln and Guba for transferability by triangulation, or the use of more than one source of evidence, and by monitoring for bias. There is less concern for dependability because action research studies tend to be unique, with findings only applied to the population studied. The expertise of the teacher-librarian ensures dependability of the findings.

However, to date, no one has adapted formal research methods to action research. What would a case study look like when it is adapted to an action research 'casebook study?'

A casebook study of Seaside High School library

Casebook action research is based on the case study, a qualitative research method that tells a story about a dilemma, conflict or problem. Using library evaluation as the theme of a casebook action research project the teacher-librarian poses questions such as, "What makes a good library?" "How can my library meet standards of good practice?" The focused collection of evidence pushes the 'plot' of your story forward. In this case the 'setting' is the natural environment of your school library. The 'characters' include you and your colleagues and students who generate the evidence you need to answer your questions. When a teacher-librarian conducts an action research casebook study of her library the findings are valid for that particular library but may be transferable to a similar case. Your casebook study has some degree of transferability. Additionally, a teacher-librarian can test the findings of another librarian's casebook study if the case library is similar to her library.

Casebook studies may vary with regard to library size, or location in an urban, suburban or rural area, or whether it is well or poorly funded. The more casebook studies the school library profession has, the more likely a teacher-librarian will find a casebook study that is transferable to her library. Teacher-librarians can apply methods of gathering evidence from a casebook study of one library to the study of the same problem or issue in their libraries, even if the libraries are different. This article tells the story of Seaside High School Library that can serve as a model for one way a casebook study can be conducted. We will begin with the method of 'thick description'.

> A rambling expanse of brick and glass defines this seemingly state of the art high school library. A luxuriously long circulation desk sweeps along the right side of the entrance that is punctuated by a high tech alarm system. To the right, behind the circulation desk, is the Reference section housed in imposing bookcases that stand in perfect alignment, like well-disciplined soldiers. To the right, behind the circulation desk is a workroom that contains a fully equipped kitchen leading into the librarian's office. Beyond the office are offices for the Technology Director and her staff. Computers dot the library landscape, with printing directed to two stations. Wall-to-wall carpeting, wall to ceiling windows, ceiling fans, and contemporary upholstered seating behind the Reference section create an almost futuristic ambience. What more does a library need? The principal of Seaside High School knew that a library facility was not a library program. When she interviewed candidates for the position of school librarian, she said, "I want to see this library filled with students and teachers. I want it to be used."

So begins the story of bringing this library into the 21st century. The first chapter is a needs assessment that asks, "How does Seaside High School compare to a good school library?".

Needs assessment

A needs assessment identifies gaps between the current status of the library and the desired status, in this case how the library compares to two sources: 1) The recommendations of a regional accrediting agency for K-12 schools; and 2) The standards for school libraries set by the school library association located in the same state as Seaside High School.

Regional accreditation

Seaside High School underwent a self-study and team visit from a regional accreditation agency that resulted in recommendations for the school library, which are listed in column one of Table 1. The issues for improvement were: Improved student access to the library; budgetary increase to update the collection and support school curriculum; development of a library skills curriculum; library staff involvement in curriculum revision: employment of another full-time certified teacher-librarian; and use of teacher-librarian to develop students learning habits. These recommendations envision the library as a place of teaching and learning. They are powerful because they were made by an external, authoritative source. Accreditation is important to secondary schools in the U.S. In order to retain accreditation, school principals must address the recommendations within five years when the accreditation team re-visits the school.

Table 1 describes the progress made by the end of Year Two and Year Three. The teacher-librarian presented these results to the principal as part of her annual evaluation. Those conditions did not meet the recommendations are colour-coded red. The only recommendation that was not met was the addition of a certified teacher-librarian, which was beyond the control of the teacher-librarian. However, blue color-coding indicates that progress was made to add more staff through voluntary parent and student help in Year Two. This resulted in the principal's assignment of teachers to the library for at least one period a day for every day of the week during Year Three. In this instance the teacher-librarian was able to leverage her progress to get the best possible outcome.

The teacher-librarian knew she would have to show progress in student and teacher use of the library in Year One in order to justify requests for more funds. She made a bold decision to spend her entire book budget on computers in Year One for two reasons:

1. The book budget was the only source of funding; and
2. Technology was the major component of the facility that would increase student and teacher use of the library and transform the learning environment.

The principal saw the positive results of this strategy and allocated another $4,000 to the library in Year One. In Year Two a larger library budget helped fund the expense of expanding the technology infrastructure of the library with a dedicated server, more bandwidth and increased capacity for 40 computers. The Technology Director, whose office was in the library, observed the increased use of the library as more computers were added and offered to write a successful $40,000 grant. The teacher-librarian was then able to reach her goal of 40 computers in the library.

The teacher-librarian's strategy resulted in increased student use of the library . . .

Another strategy that won the attention of the Technology Director was the teacher-librarian's use of the computer lab, which was funded and managed by the Technology Department. Since the lab was located across the hall from the library the teacher-librarian had access and opportunity to reserve the lab whenever she needed it, which was often in Year Two as her instructional program grew. What a great way to demonstrate the need for more computers in the library!

The teacher-librarian's strategy resulted in increased student use of the library, heightened interest of teachers in using the library and support for an information literacy curriculum across the disciplines. This chain of events was key to meeting most of the accreditation recommendations. By Year Three the library budget expanded from its initial allocation in Year One of $8,000 to $28,000. This was not only a vote of confidence from the principal; it was powerful evidence that the teacher-librarian had reached her big goal of increased use of the library.

Accreditation Recommendations	Progress in Years One and Two	Progress in Year Three
1) Increase student access to the library.	There were 40,885 student visits to the library this year, including the 769 classes scheduled. This is an increase of almost 100% from last year. The library was also open after school two days a week. The number of unscheduled student visits (passes; lunch/before & after school) was 20,162. Total students in the library was 40,885.	There were 44,650 student visits to the library this year, including 778 scheduled classes. The library was open after school four days a week. The number of unscheduled student visits (passes; lunch/before & after school) was 25,200. Total student visits was 44,650.
2) Increase library-media budgetary allocations to update the print and non-print collection to support curriculum and independent research.	The principal increased the budget by 71% of what was originally allocated for the year. The Technology Department, under Grant 160, purchased over $40,000 in equipment and electronic materials subscriptions for the library. The library received a local grant for $2,000.	The principal increased the budget by 350% from Year One. The library received a local grant for $1,500.
3) Develop a library skills' curriculum that integrates core academic components across disciplines.	The librarian wrote a 9-12 Library Information Literacy curriculum. Curriculum maps based on class usage of the library resources documented information skills integration and identified instructional gaps.	Curriculum maps based on class usage of the library resources documented information skills integration and identified instructional gaps. The English Department's Research Committee received the list of information and research skills from the Library Information Literacy curriculum.
4) Involve library personnel in on-going curriculum revision.	The library assistant completed curriculum maps for grades 9-12 based on classes scheduled for the library. The librarian analysed these maps to determine gaps and goals for next year. While the librarian has not yet worked with departments on curriculum, there is a lot of interest in the purchase of subject-specific databases such as ABC-Clio (Social Studies), GALE Science Center, which are aligned with the MA Frame-works, and Contemporary Literature.	The librarian conducted an in-service for the English Department on developing a curriculum for teaching students to do research. The librarian served on the Research Committee and Summer Reading Committee with English Department.
5) Employ a second full-time library-media specialist to insure proper delivery of services to all students.	No staff changes were made. A parent volunteer helped this year.	No staff changes were made. A parent volunteer and a student Clerical Assistant served in the library. The principal assigned 14 teachers per week to the library to monitor student passes and behaviour.
6) Utilise the library and the librarian's expertise to encourage life-long learning.	The librarian was involved in Summer Reading, Technology Grant 160, the Career Fair, library curriculum develop-ment, and several resource-based projects with students and teachers.	The librarian developed a website for the Summer Reading program, assisted with the Career Fair, worked with teachers to develop magnet units in English and Psychology.

Table 1: Status and Progress on Accreditation Report Recommendations

Black: The standards, or desired outcomes Red: Does not meet standard Blue: Progress toward meeting standard Green: Meets standard

State school library standards

The second part of the needs assessment was the school library standards for the state in which Seaside High School was located. This is an example of triangulation whereby there are two sources of evidence that identify specific areas for improvement. At the time of this action research casebook study the 1998 standards and guidelines of the American Association of Teacher-librarians were outdated and the 2009 standards had not yet been published. The program standards published by the state school library association, an affiliate of the American School Library Association, strengthened the teacher-librarian's argument for resources, along with the evidence of progress in Table 2. The first column contains library inputs. The second column contains the state standards; the last three columns describe progress toward attainment of the standards for Seaside High School Library. In Year Two almost all standards were met.

Library Inputs	State Standards	YEAR ONE PROGRESS	YEAR TWO PROGRESS	YEAR THREE PROGRESS
Staffing	Schools with more than 801students: Two full-time librarians and two full time support staff.	One full time certified librarian and one full time support staff.	No change in staffing. One parent volunteer one full day once a week.	No change in staffing. One parent volunteer worked one full day a week; one student as Clerical Assistant four days a week; 14 teachers assisted in the library monitoring passes and student traffic.
Print Resources	1. Books: 24 print titles per student (48,000 for BHS based on a student population of 2,000). 2. 70% of the collection should have a copyright date no earlier than 10 years prior to the current year (1994). 3. Periodicals (print): 100 full text titles	1. Books: 24,729 or 12.36 books per student, or half of the number recommended. 2. Lack of inventory data to determine age of collection. 3. Periodicals (print) 3 newspapers and 0 magazine subscriptions. The library has disparate magazine items in the collection but no back issues or indices to provide access.	1. Books: 24,040. The library has 50% of required number 2. The librarian will engaged Follett Library Co.to conduct analysis of collection 2) purchase an inventory module update catalogue and 3) Inventory collection 3. No change in print periodicals.	1. Books: 24, 041. The library still has only 50% of the number of books required. 2. The Follett software Titlewave was used to conduct a partial inventory (Fiction section); hand-held inventory hardware and software were purchased. We can now say that the library catalogue is accurate for the Fiction collection. 3. Although there is no change in print periodical subscriptions, the library will subscribe to specific print publications in electronic formats. In September *Scientific American* will be added to electronic subscriptions.
Non-print Resources	Total number should equal 1% of total print collection (247). Includes A-V materials (videos, DVDs, CD-Roms) and computer software	1. A-V materials = 0. Videos are available through another facility. None are in the library catalogue. 2. Computer software = 17 library subscription databases that contain more than 247 non-print resources	1. A new subscription to United Streaming offers access to 4,000 digitised films. 2. Computer software: 3 text-based databases were added for a total of 20. Our library has 10% of recommended items, mainly because videos are not kept by the library.	1. Library exceeds the 1% standard for non-print materials compared with total collection because of the additional of aggregated databases. Three new subscriptions to electronic databases include: EBSCO; Science Resource Centre; Literature Resource Centre 2. The library started a DVD collection with five items that have been catalogued
Technological Resources	1. Connected to LAN and WAN 2. At least 20 workstations	1. Connected to LAN and WAN 2. 8 workstations total	1. Connected to LAN and WAN	1. Connected to LAN and WAN

	Standards (desired outcomes)	Year One	Year Two	Year Three
	3. Software: accessible to all; curriculum relevant; up to date; user appropriate	3. Three new computers 4. Four computers on order. 5. 17 databases with remote access 6. Educational software resides in departments.	2. 29 workstations and 3 new administrative computers 3. 20 databases accessible through school network for school and home use. 4. No change; educational software resides in departments.	2. 20 new computer workstations will be added to the lower level of the library over the next two years for a total of 40 workstations Added 3 electronic databases. 3. 24 databases including magazines, journals, newspapers, electronic reference books, and films. 4. No change; educational software resides in departments.
Budget	5% per pupil expenditure for the school system exclusive of salaries, special education expenses, transportation and capital improvements.	The library budget was set at $8,500 and increased in the course of the year by 50%.	The library budget was increased by 4.5 per cent of the total budget of 2003-04.	The library budget was increased by 100 % of the Year One budget to meet the Standard.

Table 1: Status and Progress of Seaside Heights with State Standards

Black: The standards, or desired outcomes Red: Does not meet standard Blue: Progress toward meeting standard Green: Meets standard

Tables 1 and 2 also indicate what the teacher-librarian did not achieve. There were three areas where the library did not meet standards by Year Three that are useful for the lessons they teach. The first was increasing staffing by adding a certified teacher-librarian as noted in the discussion of accreditation recommendations. This is an area of improvement that is difficult. New strategies that go beyond the school library are needed, such as placing this goal where it belongs: with the principal, the School Board, and the legislators. The teacher-librarian is not the only professional responsible for improvement of the school library!! The principal's 'solution' to staffing, however, was creative. She assigned teachers to the library rather than to monitoring the cafeteria and hallways. Although the teachers did not have prescribed duties, they found their comfort levels in the library and brought the library into the mainstream of school life.

The second category that did not meet the standard was the size of the book collection. Since the non-print collection standard was within reach and could supplement the book collection the teacher-librarian opted to invest in electronic resources. The need for reference books and print periodicals declined dramatically when the teacher-librarian subscribed to e-databases. Fiction and non-fiction collections were improved through weeding and the purchase of low-cost paperback books. [This library contained no paperbacks at all!] Improvement of the collection was actually better than the statistics indicate. This suggests that teacher-librarians need different metrics to evaluate print resources and to calculate how e-resources improve the worth of their collections.

The third area of concern that did not show improvement was educational software. This scattered collection of slides, filmstrips, videotapes, vinyl records, and CD-Roms beloned in a museum, not in a library. The location of these materials in classrooms, closets, and departmental offices was a battle not worth fighting. The casualty in such a battle would have been the good will and cooperation of faculty. Lesson learned: Some recommendations or standards need to be adapted to the context, or situation in which the perceived problem exists. Only the teacher-librarian has the expertise to decide what she can change and the wisdom to know what is better left undone.

In her analysis of evidence the teacher-librarian compared the accreditation recommendations with the MSLA standards. Both sources identified similar goals for the library for staffing, resources, and budget. This strengthened the teacher-librarian's rationale for setting priorities and goals. The state standards introduced library curriculum development while the accreditation report emphasised technology updates. This helped to establish content validity for what a good library looks like by including all the critical constructs for what makes a good library. In addition, having two sources helped to balance quantitative and qualitative recommendations so that the library could focus on both quantity and quality with the goal of increased access and use of the library.

The teacher-librarian was strategic in putting time, effort, and funds into what she could achieve. She was able to create a continuous upward spiral of funding and improvement. In so doing, she created a model for library improvement shown in Figure 2. Often a model emerges from research. In this case the model offers a strategy for teacher-librarians to strategically improve their libraries. The model sets priorities, sequences goals, and suggests solutions. Note that the priority is not instruction, or even collection development because the principal set the priority of increased library use. Will the model work for every library? Probably not! It will be transferable to some libraries but more importantly it opens the door for the generation of more new models for school library improvement.

There is a lot more to say about this casebook study in terms of the Strategic Plan that the teacher-librarian wrote for each of the three years of her action research project. You can probably guess what her goals were based on the progress described in Years One, Two and Three of Tables 1 and 2. I recommend *Strategic Planning for School Library Media Centers* by Zilonis, Markuson & Fincke (2002) to learn more about how to continuously improve your school library.
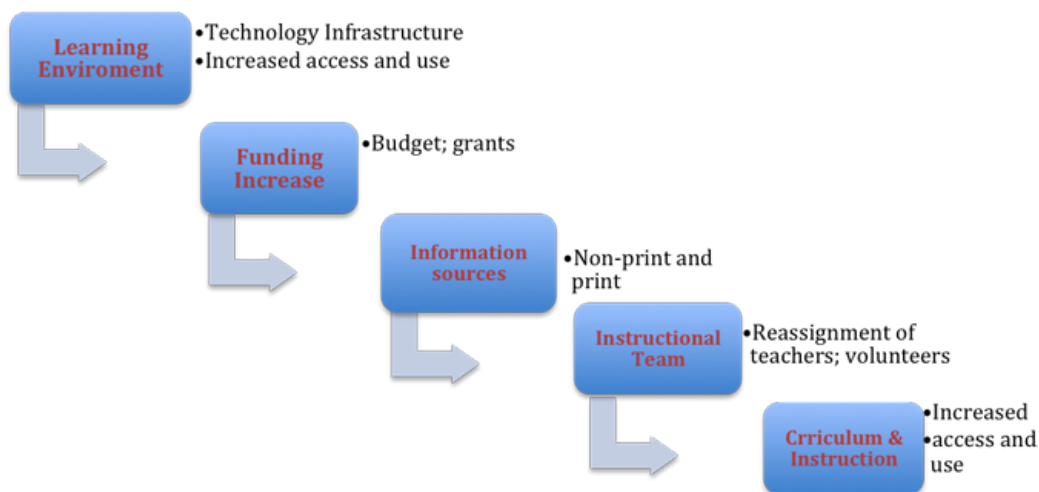
Figure 2: Model for School Library Improvement

Evidence gathering

The primary method used for gathering evvidence in this casebook study is content analysis of the accreditation report and state standards. When a teacher reads a student's essay or the teacher-librarian reads reviews of library materials to make purchasing decisions, she is doing content analysis. Usually content analysis requires the creation of categories, or topics that can serve as buckets for the content of the documents. The goal is to sort the information into the appropriate buckets. In this casebook study the buckets were the recommendations of the accreditation report and state standards, which became the targets for developing goals in each year's strategic plan and the objectives, or actions taken to attain those goals.

	Library Inputs [Operational]	Library Outcomes [Instructional]
Qualitative Research Methods		
Thick Description	Facility [technology, website] Collection Staffing	Learning environment: How does the library attract users? Information Sources
Survey	Facility Collection	Instruction-'How do I do it better next time?' Information Sources: What does the user want?
Suggestion Box	Facility Collection	Learning environment Information Sources
Interview	Staffing	Formal/informal instruction
Focus Group	Facility Collection	Instruction Information Sources Sources of Information
Observation/Field Notes	Facility	Instruction
Post-mortem meeting with teachers		Instruction
Content Analysis-Library Documents [annual library reports, budget documents, policy documents; archival records]	Facility [website] Staffing [job descriptions]	

Content Analysis-School Documents [school records, publications, policy]	School website	
Literature Review [Educational and information/library readings.	Facility [technology] Collection Staff Budget [grant writing]	Instruction
Information or Learning Theory		Instruction
Critical incident		What good instruction looks like
Quantitative Research Methods		
Descriptive statistics [charts, graphs, tables, figures]	Facility [technology] Collection Staffing Budget	How the learning environment [library, website] is used How the collection is used How staff supports learning as an instructional team

Table 3: Evidence Gathering for Casebook Study of Library Inputs and Outcomes

Table 3 suggests methods for gathering evidence for library inputs and outcomes. Inputs can generate verbal or numerical evidence about library operations or the inner workings of the library, while library outcomes are more user-centric. It is important to include both perspectives in the evaluation of your library so that your findings are credible. While some methods listed in Table 3 can be used for both inputs and outcomes, the choice of methods depends on the kinds of questions the teacher-librarian wants to investigate. Traditionally, inputs have been evaluated quantitatively, but there are many quantitative methods such as content analysis and literature review that yield interesting findings.

Thick description: *'A rambling expanse of brick and glass defines this seemingly state of the art high school library . . .'* This method is perfect for studying the library's learning environment and can be effective in recording observations about teaching and learning.

Survey (or questionnaire): Surveys are effective instruments for gathering quantitative and qualitative evidence. Survey items can be closed, using a Leikert rating scale such as Strongly Agree – Agree – Disagree – Strongly Disagree for respondents to react to statements in the survey. Open questions call for comments from respondents that can be analysed by colour-coding for patterns. A Respondent Profile gathers information about the respondents, such as gender, age, or any other characteristics that may be useful in anlysing the responses. Other ways to collect evidence include:

   Suggestion Box: This is a kind of open-ended survey that is focussed on user satisfaction and input.

   Interview: Structured (planned questions) and informal interviews (including spontaneous conversation) yield good evidence if the respondents are well-chosen to suit the purpose of the action research.

   Focus Group: A focus group is a small group of participants that either share important characteristics or have different characteristics that make the group representative of a larger group. These groups can contribute valuable evidence of whether a teaching method was effective or provide a window into how the group to which they belong thinks or feels about a particular library practice or event.

   Observation/Field Notes: Observation, guided by seminal questions are recorded in field notes to capture complex detail. This method works well for action research focused on instruction.

   Content Analysis: The analysis of text or images (videos, photographs, texts, emails) using the constant comparative method, i.e., looking for patterns and colour-coding themes that emerge.

   Literature Review: Reading articles and books about evidence-based practice, action research, and other current topics in school librarianship and education equips the action researcher to ask good questions and to analyse evidence by making connections and applying new ideas to the evidence.

   Information or Learning Theory: Theory suggests methods of evidence gathering. For example, the labels of Bloom's Taxonomy for levels of thinking, from knowing to creating, can be used to code and classify student work. Theory also promotes deep understanding of a complex phenomenon, such as learning, and helps the action researcher to make inferences about the evidence.

   Critical Incident: This is a set of procedures for collecting direct observations of human behaviour that have critical significance and meet methodically defined criteria. The observations become incidents that are used to solve practical problems. Usually respondents are asked to tell a story about an experience.

Action research allows the teacher-librarian to be spontaneous in her evidence gathering. Using these methods takes some practice but the rewards are rich. Action researchers are often surprised when they begin to see their practice through the eyes of their colleagues and students. Engagement with evidence from your practice will help you to see what was there all along, but went unnoticed. Taking charge of your practice and your professional development will empower you to change your practice from within. Action research is the best idea for education since school libraries!

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