The Elementary School Learning Commons
A Manual

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With Appreciation

Esther Rosenfeld edited this entire mauscript and made many valuable suggestions

Rebecca Brodegard layed out the entire mauscript and prepared it for publication.

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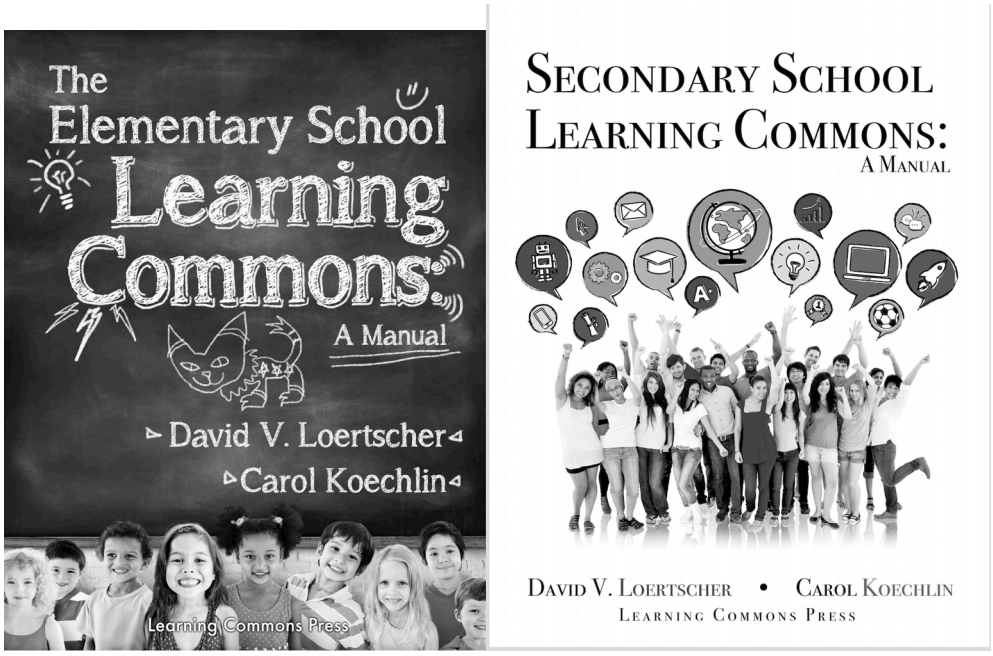
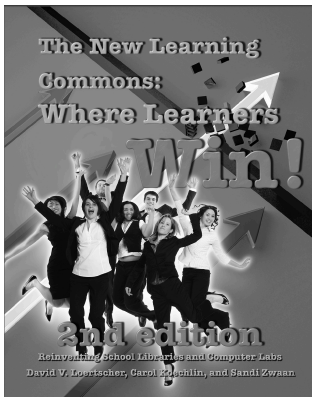
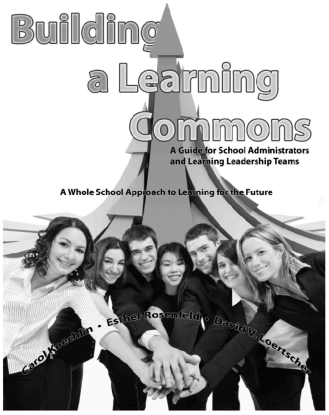
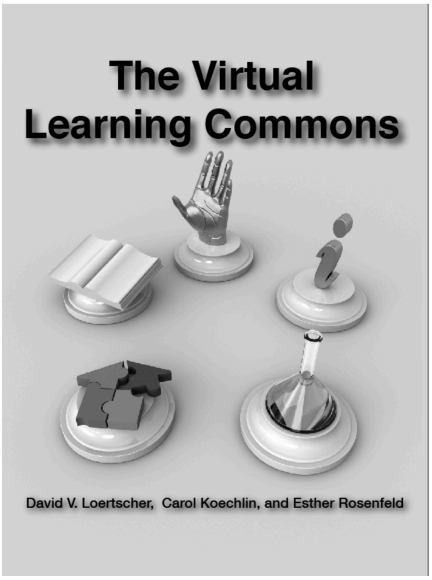
Preface

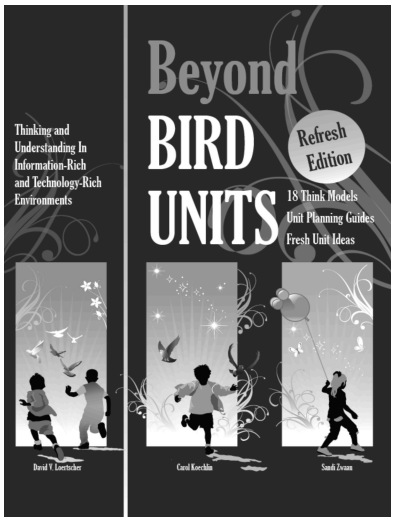
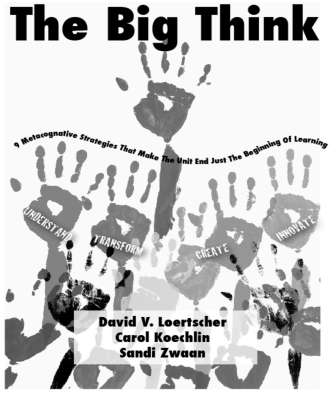
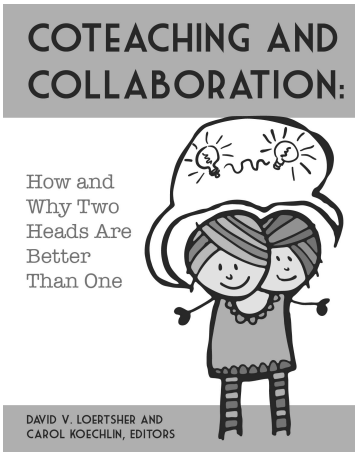
This book is part of a matched pair of manuals designed to assist teacher librarians and leadership teams in K-12 schools to create and implement a learning commons in their schools. The Elementary School Learning Commons manual supports K-6 schools in the U.S. and K-8 in Canada. The Secondary School Learning Commons manual supports grades 7-12 in the U.S. and Canada thus it is ideal for Middle and High School transitions.

Both books are almost mirror images of each other with adjustments to activities and resources for each level. Almost all activities are numbered the same in both manuals so that those doing workshops in K-12 schools can use the two versions simultaneously. And, pages with a single activity are arranged in such a way that they can be duplicated for a workshop.



These two volumes join a family of publications created by the authors beginning in 2008 with the publication of the original *The New Learning Commons Where Learners Win!* and are detailed below.

	*The New Learning Commons Where Learners Win!* in its 2nd edition appeared in 2011 and is the basic full-length description of the transformation of a school library into a learning commons. It is both theoretical and practical in the rethinking of everything connected to the idea of library but re-thought for the 21st century.
	*Building a Learning Commons: a Guide for School Administrators and Learning Leadership Teams* was published in 2010 and was designed to assist the larger school community in capturing the vision of what a learning commons is, how it contributes to school improvement, and how to begin and continue the implementation of the concept.
	*The Virtual Learning Commons: Building a Participatory School Learning Community* was published in 2012 in an attempt to help teacher librarians transform their library websites from traditional one-way streams of information into a participatory community where students, teachers, teacher librarians and others are building, creating, and learning together.

	*Beyond Bird Units: 18 Models for Teaching and Learning in Information-Rich and Technology-Rich Environments* published in 2011 provides instructional designs and examples across the disciplines of instructional experiences that can be cotaught by classroom teachers and teacher librarians as part of an effort to push up expectations for high-level units that promote critical thinking, deep learning, and use of technologies that boost learning.
	*The Big Think: 9 Metacognitive Strategies That Make the Unit End Just the Beginning of Learning* was published in 2009 and was designed to have adults and students think back on a learning experience they have just experienced and decide what and how they have learned and how they can do better the next time they do a major learning experience together.
	*Coteaching and Collaboration: How and Why Two Heads Are Better Than One* is a collection of articles published in 2015 that have been published over a five year period in *Teacher Librarian* that describe both the idea of and examples of cotaught learning experiences between classroom teachers and teacher librarians.

Together, the authors hope that there is a plethora of ideas, advice, activities, planning and implementation tools around the concept of the learning commons concept as it has begun to gain traction in the English-speaking countries of the world.

Introduction

Key Elements of the School Learning Commons

Key Elements of the School Learning Commons

The Underlying Theory

For a few years now, we as authors (along with many other interested individuals), have been travelling along on the journey whose purpose is transitioning the school library and computer lab to a school-wide learning commons. During this period, many exciting transformations have yielded both challenges and rewards. It is now time to take stock of where we have been, and to reflect on where we want to go!

We should assume that the learning commons is always in a beta state on the climb to excellence. Although this journey has no clear destination point or end, the process should have defining elements and characteristics which we can use to measure progress and to set goals for improvement.[1]

How will we identify these special distinctive features that reap the best results?

- We must examine the kinds of spaces that lend themselves to the kind of participatory learning we seek in the learning commons.
- We need to review the best learning experiences and backtrack to try to uncover the possible elements that lead to success.

[1] This chapter is an adapted excerpt from Loertscher, D. and C. Koechlin. 2014. "Climbing to Excellence: Defining Characteristics of Successful Learning Commons". *Knowledge Quest* 42(4).

- We must analyze the qualities and skills of the professionals leading this work.
- Finally, we must try to capture the dynamics that seem to drive best results, i.e., what are the characteristics that define a successful learning commons?

Why the name "learning commons"? Early on in our thinking process, it became clear to us that the focus of the transformed traditional library should be on learning in its many manifestations, whether formal or informal, and that the word "commons" could reflect a shift from a top-down organizational structure to a flat networked world where the clients, both teachers and students, consider themselves to be in command of knowledge-building. Then as we imagined the future, we contemplated whether there would still be a need for a physical space known as the learning commons in the school ? Or would it be only a virtual space? We have opted for both, which then will need the leadership of a different kind of school professional. Seeing the potential for this type of learning environment to also drive school improvement, we have suggested an approach as illustrated in the following visual. For optimum results, schools need to think about both an Open Commons (where learners meet to read, conduct research, test out ideas with others, and work and play to create new understandings), and an Experimental Commons (where administrators and faculty conduct their research and refine teaching approaches, and both adult and student learners try out new digital tools and technologies before they are introduced to the rest of the school).

We have proposed that the learning commons serve a unique purpose in the school as a bridge between educational philosophy and practice, and the real world. As such, the learning commons serves school curriculum but also is known as a place for experimenting, playing, making, doing, thinking, collaborating, and growing. For example, it may be the only place in the school where the networks are robust and always open to students as well as teachers. It may be the place where clients are experimenting with the latest 3D printer. It may be the virtual hub of school activities. Although the learning commons will look and feel different in every school, it must be the center of inquiry, digital citizenship, project-based learning, collaborative intelligence, and advanced literacy as well as the center of creating, performing, and sharing. The learning commons will sometimes take on a role as a "third space," neither home nor school. It is the place young people love—their space.

We as librarians have a history of helping kids and teens reach out, and we have done this despite policies that thwart intellectual freedom. Now, we can open the world. However, in order to do so, we must take a fresh look at both our current physical and virtual spaces. When learners enter the school library learning commons, what do they see first? Rows and rows of bookshelves? A single controlled teaching area? Signage listing "don'ts"? A couple of couches within easy sight of the massive checkout desk? A story rug with a rocking chair? Is the space all about control? Is the website just a one-way stream of information? Ideally, not. Thus, the elements of the learning commons:

Element 1

A collaborative physical and virtual environment that invites and ignites participatory learning

If the physical and virtual environments are not stimulating the expected responses, then we modify, rethink, redesign, and rework until they do. It has become obvious that because of rapid technological change, many of the world's organizations, and now governments must be in a constant state of perpetual beta development. This reality means that flexibility allows continuous change as the needs of the clients change.

The responsive nature of the learning commons approach to excellence in teaching and learning means that the journey will never end. It is continuously morphing to address the current and future needs of learners and schools. As our world continues to spin out new ways of working, playing, and learning together, one thing we can count on is the learning commons.

Element 2

A responsive dynamic that is invested in school-wide improvement through an evidence-based process of design, modify, rethink, redesign, and rework.

The number one factor in converting a library into a learning commons is the strength and vision of the professional leading the transition. This circumstance has been true no matter whether the person has come through the traditional library education credentialing path or via a different preparation. This is no new discovery because we have always known that a quality professional makes all the difference. Changing the name of the space does not miraculously make the difference.

One major problem in the profession has been the low number of professional staff in the library. Both in academic libraries and in the K–12 arena, we are beginning to see a reaching out to other specialized professionals in the organization. Thus, the professional staff of the learning commons might include not only a lead school librarian, but also a reading specialist, a technology integration specialist, a

curriculum specialist, a student success professional, and perhaps even a counselor. Why? Because most of the specialists in the school have a mission very similar to that of the school librarian. That is, these experts are trying to reach every teacher in the building to embed their specialty into each teacher's classroom. By joining the staff of the learning commons, these professionals can team in ways that break down the isolation of the classroom. As the mission of the learning commons expands, and the physical and virtual learning commons thrives because of a diverse set of professional expertise. The learning commons becomes a one-stop shop for help and collegial collaboration across a number of fronts. To administrators, here is a united cadre on board to make a difference in the entire school's push toward excellence.

So, it does not seem to be a one-size-fits-all leadership team that creates a learning commons transformation. However, we have noticed that few of those leaders take "no" for an answer, and when they are beaten down by organizational chaos or bureaucracy, they seem to get up and fight on to succeed in spite of the barriers.

Element 3

Professionals who can successfully lead out front, or lead from the middle, or push from behind are great candidates to head a learning commons.

In the learning commons everyone is an active participant in knowledge building and learning to learn. Both teachers and students are engaged in building their own personal expertise and contributing to the growth of others. The resulting synergy is conducive to driving whole-school improvement that sticks.
This active community of learners revolves around participatory work in four major areas to position the learning commons as the:

- **Center of Knowledge Building**
    - Inquiry experiences that build personal expertise, cooperative group work, and collaborative intelligence
    - Use of best resources, technologies, spaces, and instructional strategies
    - Participatory learning environments such as Knowledge Building Centers

- **Center of Literacies**
    - Cross-curricular experiences to support traditional reading, writing, listening, and speaking
    - Motivational strategies to foster reading dispositions and lifelong reading habits
    - Instruction designs that develop multimodal learning literacies and transliteracy

- **Center of School Culture**
    - Student-driven events, projects, clubs, and celebrations in both physical and virtual learning commons spaces
    - Showcase of school-wide learning
    - Global networking with other learners

- **Center of Experimentation**
    - Professional learning and teacher research
    - Testing of new strategies and technologies by students and teachers
    - Participatory play, creation, and building such as in a makerspace

Pedagogically, a number of creative ideas are evolving in education as techniques for stimulating high-quality teaching and learning: understanding by design, personalized learning, the flipped classroom, connected learning, guided inquiry, project-based learning, mastery, blended learning, with more to come. In an environment of multiple pedagogical methods or a push one way and then another, what can a vibrant learning commons contribute?

We recommend that every school librarian have a repertoire of intervention strategies in a variety of teaching models that are popular in the school. We may have little to contribute in some of the models where prescriptive and direct teaching lock out the world of information and use just one technology, but when we see an opening we can pounce on the opportunity.

While intervention opportunities help us scout out clients, we can kick it up a notch to a full coteaching experience where we coplan, coteach, and coassess the results. Such experiences allow for a much fuller opportunity to raise the bar on knowledge building.

Whatever our tactic, we are meshing what we know into an appropriate instructional design to which the classroom teacher is attracted. By doing so, we are saying that two heads are better than one, and that working in tandem to apply the best strategies can create the kind of learning experiences that engage and succeed beyond our normal expectations. The focus is no longer a push toward minimums. It is on freeing students to climb far beyond what they usually think possible. That potential for students' growth is why we can guarantee that, if a classroom teacher works with us, the outcomes will be far superior to whatever the teacher could have done alone in the classroom. That track record of success is what we seek, the track record we can demonstrate, and the track record with which we can advocate.

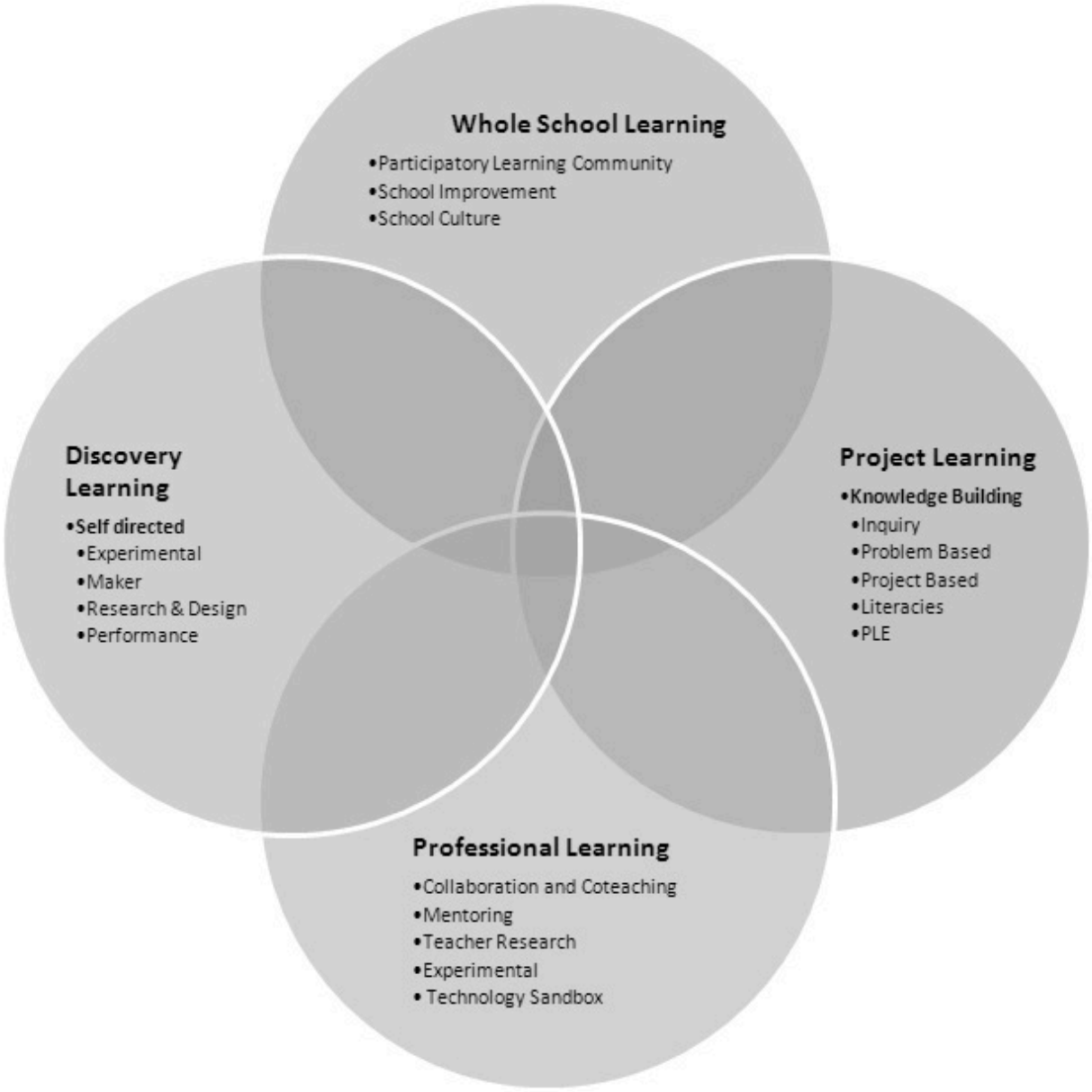
Element 4

The work of the learning commons is participatory learning through attention to excellent instructional design, using best resources and technologies, and building personal expertise and collaborative knowledge.

Many major leaders in education are exploring the changing realities for schools, and are recommending shifts in teaching to address new ways of learning in our networked world. We suggest that the school learning commons approach is a viable, holistic, and fully sustainable direction for schools.

The Elementary School Learning Commons

Let us transpose these elements into the realities of the elementary school learning commons. Lead the way by applying the four defining elements and providing opportunities and environments conducive to future oriented learning. Establish foundational attitudes, habits of mind and learning to learn dispositions in those early years. Work to create a whole school learning community participating in self-directed discovery and knowledge building projects grounded in professional learning. Build excitement, making learning for all fun and irresistible in four major ways:



As we see in the model above, the elementary school learning commons has the potential to drive whole school learning for the future. Keeping with our early vision of working, playing, and learning in the learning commons, the aspiration is that everyone is a learner and everyone is a teacher. You help me, I'll help you, and together we will get better and better. An added dimension to the elementary picture is providing autonomy to learners and empowering them to explore their talents through Discovery Learning. This dimension of the learning commons is exploding with fresh approaches as the maker movement hits schools. This shift to self-directed learning finds roots here in the learning commons. Running parallel to Discovery Learning ventures is the more traditional but powerful co-teaching of knowledge building and literacy experiences through Project Learning. Because the learning commons is also the center of experimentation with new learning

approaches, resources, and technologies, it is a natural center for professional learning and school wide improvement initiatives.

We are aware of the many challenges facing schools today as they work hard to address shifting pedagogical approaches and learning needs, while dealing with budget restraints and demands for performance. We suggest that the learning commons could be one answer to leading learning change in the elementary school. In this book we offer many practical approaches to assist schools in this transition

We start by breaking down the four key elements we have observed in learning commons transitions into a dozen (and growing) number of indicators of success. These indicators are the framework for the chapters in this book, and will help schools target areas where they want to grow. Each indicator is grounded in a brief explanation for readers to build on in their own transitions, followed by activity suggestions to assist personal knowledge building, and supported with resource links for further exploration. We hope the activity suggestions will spark many more ideas as readers explore, reflect, and begin or continue on their own learning commons journeys.

Indicators of Successful Learning Commons Growth:

1. Dedication to Learning in a Commons Environment
2. Access to Flexible Learning Environments 24/7
3. Merger of Library, Computer Lab, and Makerspace
4. Networked Materials, Information, and Technology that Boost Learning
5. Mentoring of Inquiry, Discovery, and Self-Directed Learning
6. Experiences Designed to Create as well as Consume Knowledge
7. Showcase of Literacy, Learning, and Excellence
8. Coteaching and Collaboration Are Center Stage
9. Led by Teaching Specialists and Support Personnel
10. Catalyst of Professional Learning and Experimentation
11. Center of School Culture and Personal Growth
12. "Owned" and "Grown" by the School Community

P.S. Always in perpetual beta

How to Use This Manual

First, a note on terminology. We have noticed that learning commons concepts evolve with a variety of titles. Learning Commons is generally used in our work. Other names we have observed are Library Learning Commons (used often by those who want to preserve the concept of library in the title, and is the term used in the national standards in Canada), iCommons (popular in Australia), STEM Lab, and Library (for those who feel that the term is robust enough to embrace radical change and the term officially used by AASL until new standards arrive in 2017). You will encounter the terms Learning Commons and Library Learning Commons in this manual and they are used interchangeably.

We have focused on the elementary school library transition for this publication. Again some clarification is needed. Although we will deal with schools having K-6 populations for this book, middle years schools will find lots of material to assist them as well. The forthcoming Middle and Secondary Learning Commons publication will mirror the framework of this elementary book but examples and activities will align with the needs of learners and teachers in grades 7-12.

This manual is designed to support the 12 indicators of Successful Learning Commons Growth. Thus it is a practical tool grounded in the characteristics we have observed to be consistent with success. We begin each indicator chapter with a brief introduction, followed by a number of recommended activities. We suggest that the reader select from the activities those that meet their needs in order to push the learning commons concept forward, and add other strategies that make sense in their local environment.

Readers will also discover that there is overlay between the chapters. The learning commons approach does not flourish from a step-by-step process. Instead the transitions and transformations will evolve differently for every school. The changes may be a radical shift for some schools, while they may be a matter of tweaking a few things for others. Wherever your school is on this journey to futures oriented learning, we encourage your participation.

For those using the print edition of the book, you will notice a wide variety of linked resources. To assist, we have transformed most of these into Tiny URLs that always begin with the same prefix, so that the last half dozen characters can be typed in fairly easily. However, to help even more, we have an accompanying website that you can use alongside the book which contains the linked items for each chapter and activity. You can find this at:

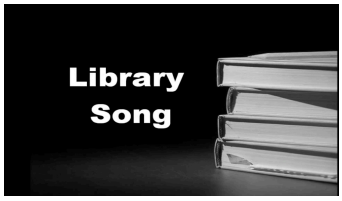
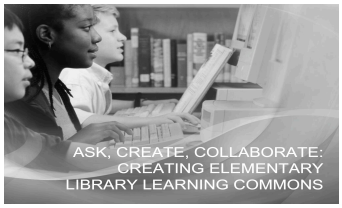
https://sites.google.com/site/elementarylearningcommons/
or:
http://tinyurl.com/q8ro6mg

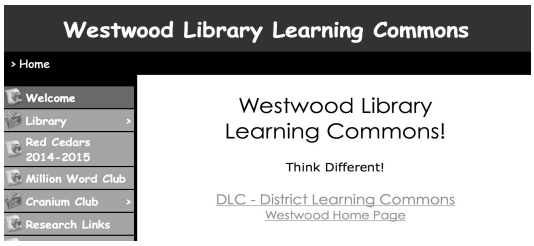
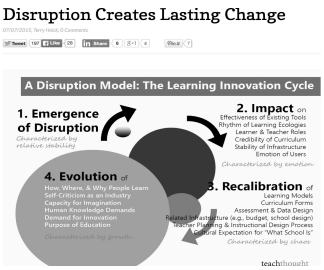
Additional resources and links can be found at this site as we discover them after the book's publication.

For those using the digital edition, the links are active.

We have included many links that you can not only learn from as a reader, but items you can use in conversations and professional development sessions. We encourage you to explore and use these to great advantage. Collect and curate your own resource list. Here are a few to get you started.

Resources

You could use this stereotypical short video to show a before and after scenario: from library to learning commons: http://tinyurl.com/oej4m92	
A vision of Learning Commons dynamics by Lisa Domeier de Suarez, teacher librarian in Surrey Schools in Surrey, BC, Canada. https://vimeo.com/89921739	
Here is a sample slide show that one school used to demonstrate the new direction they were taking toward a Learning Commons: http://tinyurl.com/pqca6uk	
The articulate Scott McLeod makes the case to create self-directed learners in every school in a short almost elevator video speech: http://tinyurl.com/opttrwr	
Here is a blog post begging for schools to go client oriented: http://tinyurl.com/npvqvvq	

Here is one example of a Virtual Learning Commons from Westwood School at: http://tinyurl.com/nsdy6o2 and check out their Cranium Club at: http://tinyurl.com/ndvy8mv	
A reflection on using 21st Century technology in 20th Century schools at: http://tinyurl.com/pyqpxb9	
Aaron Mueller and others describe their transition to a learning commons at: http://tinyurl.com/p2d85eb	
Disruptive Education and its power of change at: http://tinyurl.com/oo27tpz	
Teacher Librarians at the heart of student learning: http://tinyurl.com/od24czo	
Children's library furniture and interior design by BCI: http://tinyurl.com/o98gbch	

1

Chapter 1
Dedication to Learning in a Commons Environment

LC: Dedication to learning in a commons environment

The initial conception of the Learning Commons in 2008 called for a striking change in the environment of the traditional elementary school library.[1] This transformation had to take place to enable the new vision of learning in a commons environment. Since then, we have watched the development of the idea across Canada, the United States, and elsewhere in the English-speaking world.

Now, with a little modification of that original vision, we will revisit a tour of the concept.

As one enters the elementary Learning Commons, the first impression differs greatly from that of the traditional library or computer lab. Immediately, we notice a completely flexible learning space where neither computers nor books get in the way. If we were to come back in an hour, we might see a completely different configuration of individuals and groups of youths, adults, or both, busily working, consulting, and collaborating. The buzz in the air is both purposeful and casual, and it is a mix of learners (both adult and student) engaged in a wide variety of activities.

Equipped with wireless access, both students and adults are using personal digital devices as individuals and collaboratively in small groups. Students stream in and

[1] Loertscher, David V., Carol Koechlin, and Sandi Zwaan. 1st edition, 2008, and 2nd edition, 2012. *The New Learning Commons Where Learners Win*. Salt Lake City, UT: Learning Commons Press, (available from lmcsource.com).

out of the Open Commons during the day and are virtual visitors at night as they take advantage of the vast array of information sources, various service centers, production capabilities, and communication possibilities.

In one area, we notice an expert bar staffed by students and adults who are consulting with individuals or small groups needing assistance with software and hardware. In another area is the mentor bar where adults (faculty, staff, and volunteers) are providing individual group guidance on projects, assignments, or just personal advice and encouragement. At any given time we notice that beyond the work of support staff and volunteers, learning specialists are also coaching.

Upon further examination, we discover that two major functions are being accommodated simultaneously in the Commons. The first is Discovery Learning, and the second is Project Learning. Each is controlled by its own calendar of events but coexists in a busy real place while also extending into virtual space. The faculty, in consultation with the learners, creates a powerful learning environment through a combination of innovation, learning tools, and learning science. Thus, the Learning Commons is a micro R&D center of testing, experimentation, and exhibition connected to a larger network of educational research and practice.

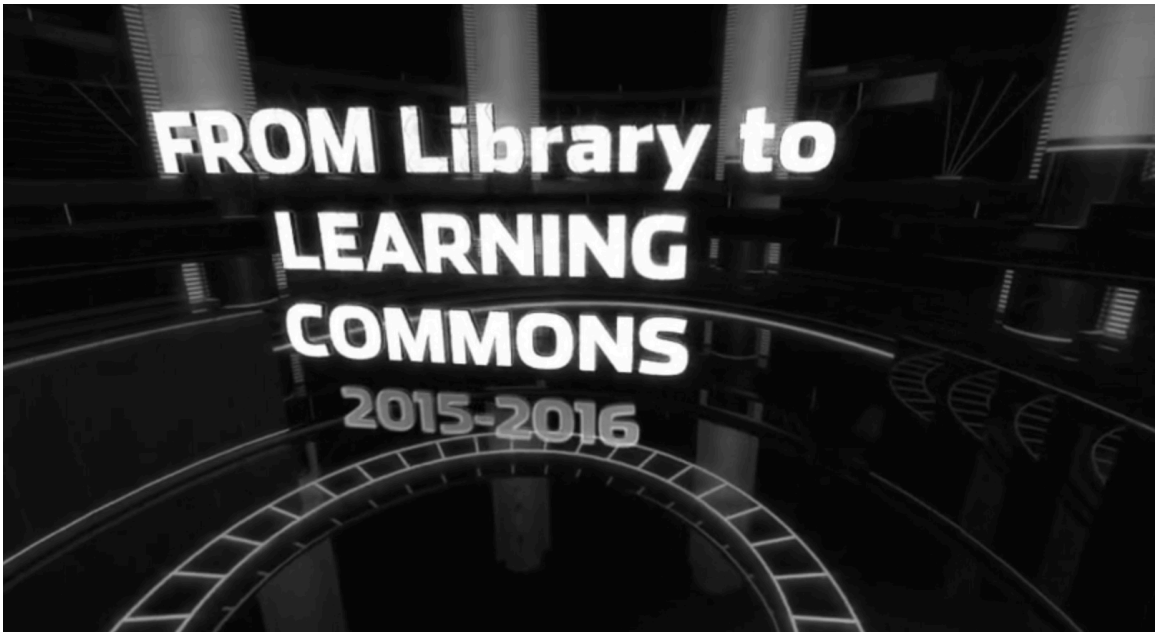
Discovery Learning is designed around client-based principles. Materials, tools, technologies, and manipulatives are available to engage self-directed learning by individuals, groups, and whole classes. This may include elements such as makerspace, video production, experimentation with technology tools, theater, design, and other creative pursuits.

Integrated into this purposeful mix is the concept of Project Learning where teachers bring their classes to work collaboratively with the staff of the learning commons in learning experiences designed to address curriculum goals and take advantage of a rich collection of resources and technology. Students eagerly pursue inquiry projects in this flexible environment where collaborative learning is comfortable, and where learning challenges are supported by adult mentors. The Learning Commons has become the extension of every classroom in the building: a place of inquiry and investigation, a place of creativity, a place of invention, and a place of collaborative knowledge building.

Hovering over this space is an empowering cloud known as the Virtual Learning Commons, which offers another dimension and experience for every learner and mentor. It not only provides a 24/7 organizational framework for their physical

setting, but also provides a gigantic extension to resources, tools, communication and collaboration stretching beyond the school to the rest of the world.

Take a look at this video from a group of folks who "Get It!"
http://tinyurl.com/ok2fllq



The following activities will aid in capturing the vision of what a vibrant learning environment can do for every learner and mentor in the school.

Activity 1.1

Examine new sets of standards for the creation of the learning commons and its function in the school.

The following two documents are from Canada and committees in the U.S. are working to develop new standards to be published in 2017.

- Explore *Leading Learning* http://tinyurl.com/oq563bm pages 19 - 20 and check out the 'See it in Action' illustrations for the standard—Designing Learning Environments to Support Participatory Learning.

- Collect ideas at **Together for Learning** http://tinyurl.com/o9rg9tf Implementation—Collaborative Learning Environments

- What ideas from these documents could be adopted in the planning of your own learning commons?

- Listen to a wide variety of voices not connected to the library field who have dreams of creating environments in schools where children can continue to develop curiosity and creativity. See the resource links at the end of this chapter to get you started.

Activity 1.2

Build a vision for the transformation of the physical space of the library into a learning commons environment.

Participate in a QuickMOOC course at http://tinyurl.com/pdd9sav on The Physical Learning Commons. Find the link to the course on the QuickMOOC site, click, and you are in.

Activity 1.3

Be active in the learning commons community.

Join and participate in a school library professional community. Read the accounts of transformations into a learning commons and contribute your journey. Many states/provinces have their own free or fee journals, others are national. Here are a few for you to consider:

- Teacher Librarian http://tinyurl.com/c835qo8
- Knowledge Quest (AASL) http://tinyurl.com/okgvequ
- Synergy (SLAV) School Library Association of Victoria http://tinyurl.com/pry48ck
- SLIC (School Libraries in Canada) http://tinyurl.com/3ga2y2c
- Teaching Librarian (OSLA) http://tinyurl.com/oth2mhz

- Curate articles, blogs, and videos using technology tools that allow you to add comments and network with others. Here is a list of the best from *Educational Technology and Mobile Learning*. http://tinyurl.com/ns3baz4

Challenge: Create a blog to document your journey, follow other bloggers, and join Twitter. Here is an example of a transformation to a learning commons using a series Tweets, documented on Storify http://tinyurl.com/pv5ple8

Activity 1.4

Visit a Learning Commons

There is no such thing as a complete and totally exemplary learning commons because a learning commons is always making progress in adapting to what both students and teachers need. Often, progress is made in small steps, while at other times it takes place in giant steps. It is a huge experiment that never ends. We suggest putting out a call over school library networks to find a Learning Commons near you.

Activity 1.5

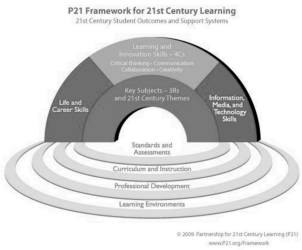
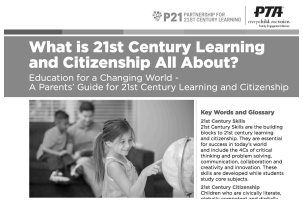
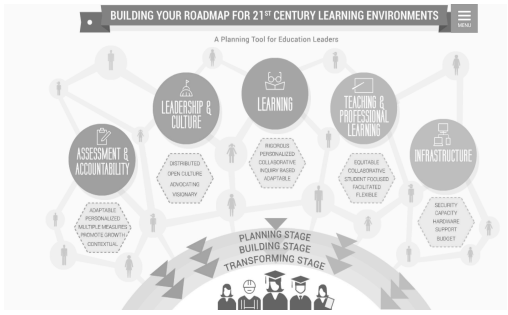
Establish a Design Team

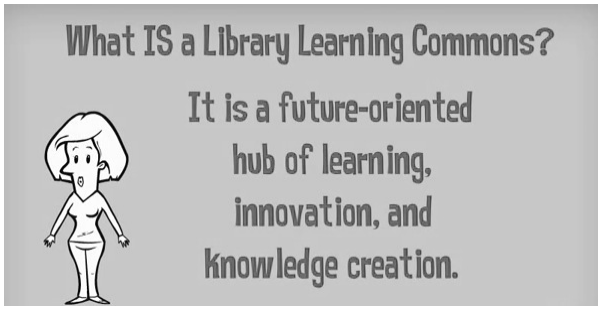
Once you have explored the literature and have visited local learning commons transition projects, you may want to establish a Design Team. This Design Team's purpose is to help you research the possibilities for your school and give you the background you will need for moving forward with a proposal and action plan. Who should be on the Design Team? How will you get started?

This chart is one approach to gathering information from various stakeholders in the school so you have some data to build on with regard to present concerns and the needs agendas of those concerned. The information could be gathered in a face to face meeting. However, it may be difficult to get this diverse group together at one time, so a Google form and spreadsheet might work best.

Learning Commons Design Team		
Members	**Observations of current spaces and resources**	**Priorities for new environment**
Teacher Librarian		
School Principal		
Technology Teacher		
Classroom Teacher(s)		
Students		
Parents/Community		
District Facilities Personnel		
Architect		

Resources:

Architects are beginning to understand the influence of the environment on learning in the library. Here is an example of making the entire school a library learning commons from an architect in Australia: http://tinyurl.com/oxpdapw	
P21 Frameworks for Learning: http://tinyurl.com/pod3z92	
A Parent's Guide to 21st Century Learning and Citizenship: http://tinyurl.com/p2veu6l	
ISTE Standards for various groups of educators and students: http://tinyurl.com/otje65w	
Roadmap for 21st Century Learning done by P21 at: http://www.roadmap21.org/	

P21 State Standards for Action on Global Education at: http://tinyurl.com/owoo3pt	
Imagine the Possibilities - A vision of the school library learning commons in the future by Dominique Sullivan and Jennifer Lunny http://tinyurl.com/lvksyva	
21st-Century Libraries: The Learning Commons http://tinyurl.com/q9cmata	
4 Tips to Transform Your Learning Space http://tinyurl.com/p4egv4o	

The Learning Commons at Langdon School: http://tinyurl.com/p88ngc5	
State of the Art report on blended learning: http://tinyurl.com/nugunpe	

2

Chapter 2
Access to Flexible Learning Environments 24/7

LC: Access to flexible learning environments 24/7

In this chapter, we will examine ways that the library learning commons can provide the resources, technologies, and learning environments to support each learner and member of the teaching staff of the school. We will also recommend maximum access by classroom teachers to the learning commons physical and virtual space and to its staff.

One of the major roadblocks to access in elementary school libraries is the conflicting argument over fixed or flex schedules. The arguments are many and the concerns real as administrators try to balance program, staff, and budget restrictions especially in smaller schools.

What doesn't work:

- The Internet is no substitution for a good school library collection (see Chapter 14)
- Isolated classroom library collections cannot address all learning needs.
- The weekly visit to the library for book exchange is an expensive use of time and does little to benefit learning. It may in fact have negative effects on a student's perceptions of reading if they are also limited to borrowing one or two books a week.
- Fixed schedules for research skills and/or computer instruction often negate curriculum connections and collaboration with the teacher librarian.
- Flexible schedules that address only the class in progress and deny access to individual students seeking books or research help.
- Physical access to resources and assistance only during school hours.

Results: Students and adults seek alternative sources and information systems on devices in the palm of their hand when the school library is perceived as 'closed' or not meeting their needs.

Learning pedagogy today demands access to flexible collaborative learning environments. Evolving technologies provide new and exciting possibilities for transforming traditional library spaces into vibrant learning commons.

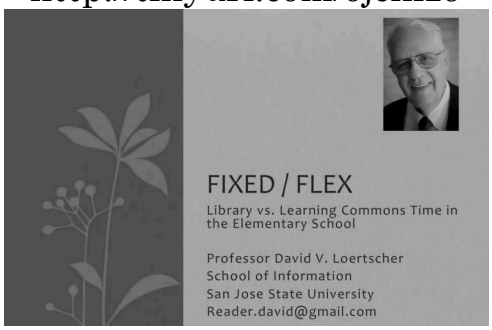
What works:

- Transformation of physical spaces
- Creation of a virtual learning commons (See Chapters 5 and 7)
- Self-directed learning and project based learning as a both/and solution to the problem of fixed/flex schedules. Both can operate simultaneously rather than one or the other.
- Teaching partnerships in the learning commons (See Chapters 5 and 7)

The following activities are designed to provide an overview of the learning commons concept in the elementary school.

Activity 2.1
Participate in an interactive seminar on YouTube: The Fixed/Flex Elementary School Learning Commons

http://tinyurl.com/ojcnlz9



The following links are needed for viewing during the video:

- A growing chorus of support for young people as creators, self-directed learners, builders and makers:
    - Sir Ken Robinson: http://tinyurl.com/my9hpt7
    - Yong Zhao: http://tinyurl.com/ot3gfdt
    - Sugarta Mitra: http://tinyurl.com/p6lsmxr

- Participatory Google Document: http://tinyurl.com/oro62rj

- Research article on co-teaching: http://tinyurl.com/p626evd
- Elementary School Virtual Learning Commons template: http://tinyurl.com/og9lx6l

Activity 2.2
Experiment to Develop your own Fixed/ Flex Harmony of Discovery Learning and Project Learning.

Experiment with Discovery Time

Using the Fixed/Flex Seminar, develop a solid plan for a Discovery Center and the activities that children will be able to experience in discovery learning during scheduled library learning commons time. You might experiment with one or two classes and with classroom teachers who are interested in self-discovery learning and makerspaces.

Give students a voice and involve them in the design of what they are interested in, ranging from literacy activities to multimedia experiences and making and creativity. After each session in discovery learning, ask the students to reflect on what they are doing and how everyone could get better at deciding and managing what they want to do and learn about during discovery time. What can students do to take command of this time with a minimum of adult supervision? Check out this blog post describing the work of Susan Wolf in Boise, Idaho and be sure to watch the video of the students: http://tinyurl.com/od9a2zz

Ask for help from other specialists in the school, administrators, district level specialists and consultants. Beware of turning discovery time into required tutorials or projects extending skill development connected to standards or testing.

Arrange the physical space so that discovery time students are busy while another class can be doing a project nearby with the teacher librarian and classroom teacher.

Experiment with Project Learning

As discovery learning activities start to take on a life of their own, be brave and calendar a co-taught unit with a teacher that overlaps scheduled classes. Both adults will keep an eye on the discovery activities but will concentrate their efforts on jointly planned activities related to a topical unit.

Ask the students to help invent ways for the two major activities to coexist without disruption of either group. Invite administrators or other specialists to participate as a new culture of multiple activities starts to coexist in the physical space and in the virtual space. How can a participatory virtual space contribute to what is going on in the physical space?

There are a number of other facets of access that need to be developed alongside experimentation with a Discovery Center and a Project Center. These include access to printed and digital books, to technology and Internet connection, to flexible physical space, to participatory virtual space, to apps and tech tools, and to robust quality information sources both at school and at home. Consider the following activities that further maximize access:

Activity 2.3
Maximize Access to Physical Resources: Books and Multimedia Items

Rethink the entire purpose of physical items and how they are acquired, organized, displayed, circulated, and restocked. Here is a list of starter ideas:

1. Individualize and maximize the number of items a child can check out for use at school and at home. Each child and their parents make the decision on how many items the child can handle responsibly.
2. In the earliest grades, book bags are sent home each night with two books: one that the child can read, and another that can be read to the child by a parent, sibling, or caregiver.
3. Every child can determine their reading needs and mix books of interest alongside books at an appropriate reading level.
4. The children help create rotating classroom collections so that there is always something interesting to read in the classrooms around the school.
5. Simple but effective circulation procedures are created for circulation of multimedia items and their required equipment for students as well as classroom teachers.
6. Materials are displayed in ways, such as genrefication and face out display, that make them appealing and "begging" to be used.
7. Children participate in the storage, retrieval, circulation, shelving, and maintenance of physical items.
8. Special collections are assembled for particular learning activities from a network of other school and public libraries and local museums or organizations.

Activity 2.4
Maximize Access to Space, Equipment, Materials, and Assistance.

If you imagine children streaming into the learning commons for discovery time, they will be scattering throughout the center as individuals and small groups to do many different activities of their own choice. For students and teachers who are working on projects, they will require space, equipment, and materials.

Think through all the varying needs for equipment, supplies, and space. How will it all happen? Where would everyone go and get started with a minimum of disruption. Do you have a paraprofessional who can handle much of this business associated with access? Are older students managing a genius bar as a help center? If I forgot my laptop, can I pick one up to work with? Where are supplies such as markers, poster board, Legos, or other materials to use in my project? How can tables and chairs be moved around quickly to create a workspace? How can the children be taught to be as self-sufficient as possible?

Some brainstorming at this point may be all that you need as you work through other chapters of this book. Ideas will come. Other specialists on the learning commons staff will help. The children will help as they take ownership of their own discovery and projects and develop a pride in the whole environment.

Activity 2.5
Differentiation in the School Learning Commons

Read this article *Everyone Wins: Differentiation in the School Library http://tinyurl.com/qaq59hk* In their book *Integrating Differentiated Instruction and Understanding by Design.*Tomlinson and McTighe suggest that teachers first need to establish standards for student achievement and then design many paths of instruction to enable all learners to be successful. To reach desired learning standards, Tomlinson and McTighe encourage teachers to differentiate for students through four design elements:

- content (what students learn and the materials that represent that)
- process (activities through which students make sense of key ideas using the essential skills)
- product (how students demonstrate and extend what they understand and can do as a result of a span of learning)
- learning environment (the classroom conditions that set the tone and expectations of learning)

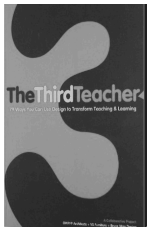
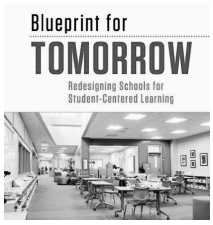
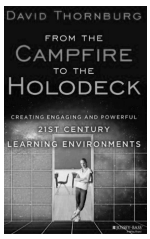
Challenge: Work with your learning commons team and brainstorm ways to support diffentiated learning in your school through the learning commons using these four elements to frame your ideas.

Supporting Differentiated Learning in the Learning Commons	
Content	
Process	
Product	
Learning Environment	

Examples

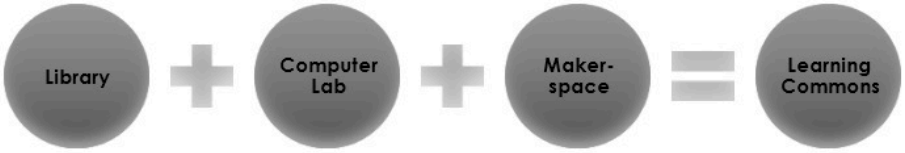
- Some learning commons have "zones" where activities take place but that are also flexible. These might include making areas, production space, small group rooms, and quiet areas with comfy seating where needed equipment and supplies are handy but can be taken to other areas if needed. For example in one elementary learning commons, we saw a story pit, a makerspace, several small conference rooms, a video production room with a green screen, and a help center where adult paraprofessionals were assisting in either using the space as intended or modifying it to fit a particular project or activity's needs. We observed children who seemed to take ownership in creating their own space as needed, and adults who were very flexible in making it all happen. If a makerspace project was going on over a few weeks, one of the conference rooms was occupied for that time to allow all the construction to go on and not be disturbed by other activities. We saw children checking their own books in and out and reshelving what they brought back. We saw an enclosed classroom sized space in the learning commons where teachers could bring their whole class. That enclosed space served as a project center but the children were doing much of the work in the open space wherever they could find a corner or put a few small tables together. We did not see chaos. We saw very busy purposeful activity happening all over the physical space. Kids brought their own laptops with them or could check one out from the help desk. And the kids knew that they would be pushing things back and putting things away before they left as part of the citizenship of the environment.

Resources

David Jakes on Learning Spaces: http://tinyurl.com/pwrnp4p	
Book: Doorley, Scott, and Scott Witthoft. 2012. *Make Space: How to Set the Stage for Creative Collaboration.* Hoboken, NJ: Wiley.	
Book: O'Donnell Wicklund Pigozzi and Peterson,and Bruce Mau. 2010. *The Third Teacher.* New York: Abrams.	
Book: Nair, Prakash. 2014. *Blueprint for Tomorrow: Redesigning Schools for Student-Centered Learning.* Boston, MA: Harvard Education Press.	
Book:Thornburg, David. 2013.*From the Campfire to the Holodeck: Creating Engaging and Powerful 21st Century Learning Environments.* San Francisco, CA: Jossey-Bass.	
School Library Journal article announces the winners for Build Something Bold Library Design Awards 2014. http://tinyurl.com/nnzce3k	

Chapter 3
Merger of Library, Computer Lab, and Makerspace

LC: Merger of library, computer lab, and maker-space



The school library is already an established space that is available to the whole school. The library facility may need transformation to allow the collaborative dynamics of a good learning commons program, or it may already be well on the way to providing needed flexible collaborative spaces. It may already house a fixed computer lab, or computer labs may instead be established in other spaces in the school. As the move to portable devices accelerates, the traditional fixed desktop computer is becoming cumbersome to learning. However, during transition we still have those traditional spaces and technologies to work with. The school library and several classrooms may already contain budding makerspaces established by keen educators on the cusp of reinventing their approaches to learning. We suggest that all three of these isolated approaches to learning, the library, computer lab and makerspace, combine forces to establish a dynamic learning commons. This merger of physical and virtual spaces, learning resources and technologies is needed to allow schools to concentrate on what matters, preparing learners for the future.

The movement to a Learning Commons does not mean that schools are necessarily giving up all the benefits of their existing library and computer labs. As well, individual classroom makerspaces can continue as they are, and contribute their expertise to establishing a learning commons makerspace.

What would we gain with such a merger of resources, spaces, and staff talents and energies?

- Learning takes precedence over warehousing and control
- Everyone powers up with BYOD responsible use programs

- Institutional dictates are replaced by client ownership
- Technologies are ubiquitous
- Barriers are broken down and replaced by learning partnerships of all specialists in the school
- Self directed learning finds solid roots in maker and other discovery learning opportunities
- Children take ownership of a space they deem built especially for them
- As children take ownership, they learn that freedom entails responsibility to help the learning commons function for everyone
- Classroom teachers feel ownership of this extension to their classroom
- Classroom teachers sense that they are no longer alone shouldering the needs of their students
- The learning commons becomes a dynamic engine of school improvement

Learning Commons as a Bridge Builder in the Elementary School

As each function of an organization is envisioned, a structure or kingdom is constructed around the function. For example, it is understood that every school should have a principal. That person will then need an office, technology, and support personnel to carry out their administrative tasks. Those administrative tasks then seem to grow and grow until any thoughts of really connecting with children and participating in educational experiences become less and less a part of the job.

Organizational structures have unintended consequences. In the elementary school, the need for a teacher planning period each day was originally solved by hiring a librarian, a music teacher, a physical education teacher, and an art teacher who could rotate classes while giving the teachers their personal work time. The unintended consequence of this occurred as each of these specialists built kingdoms of their own which then became isolated from the classroom. Each specialist developed their own curriculum, which may or may not have matched the needs of the central curriculum, assessment, or standards. The needs of individual children were rarely considered.

In the early years of the conception of the learning commons in colleges and universities, leaders determined that there were too many separate bureaucracies that served students in the organization. As a result, students hardly knew what to do, where and when to go, and how to navigate around all the various offices in the university just to get through a year of schooling. In order to deal with this complexity, the flipped idea of the learning commons emerged, where a variety of services would be centralized in one location regardless of the organizational need itself. The trend was toward a centralized one stop shop where all kinds of personal assistance needed by students was available. Students could get resources and help for all kinds of needs by going to the learning commons. As well, the learning

commons was designed in such a way that it would be a social center as well as a help center. Students could not only socialize but could join with other students in working on assignments, constructing presentations, connecting with information, and using the best of the best technologies available on campus.

Combining the energies, resources, budgets and services of isolated teachers, specialists and facilities makes sense to ensure efficiency and effectiveness. The learning commons is a whole school approach to learning, not a separate entity or project. The physical and virtual learning commons is the epicenter of the combined learning approaches in the school as well as an agent for responsive change to meet the needs of learners. The following activities will help you consider what needs to be done in your school to merge approaches and create best learning environments.

Activity 3.1
Analyze the Various Organizational "Kingdoms" in your School

Take a look at how your school is organized; at how the structure actually serves a diversity of learner needs, and the unintended consequences of any structure that is set in motion. Ask some basic questions from the learner's perspective and from the children's perspective:

- How do I get access to the technology I need, and when it's not working where do I go?
- When I need to access the Internet for what I want to learn and create, where do I go?
- If I need help doing my assignments, what do I do?
- If I need to learn a skill or to improve on one, where do I go?
- If I want to learn what I want to learn rather than what adults want me to learn, what do I do?
- If I need a good book or ebook to read, where do I go?
- If I need good information, where do I go?
- If I want to develop a talent such as music or writing or art or sports, what do I do?
- Suppose I really am confused and don't know what to do next? What should I do?
- Suppose I am totally bored with school. What's next?

Perhaps the best way to get ideas going from the learner's perspective is to hold some focus groups and invite robust discussion.

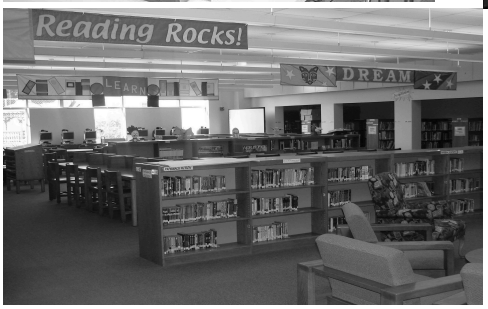
For teachers, we would suggest interviewing individuals and/or holding focus groups to discuss what services teachers already use, don't use, and the whys and

why nots on topics such as:

- Barriers to use of services outside the classroom
- Current state of collaboration with colleagues
- Access to books, multimedia, information
- Access to technology for themselves and for students
- Readiness and willingness to co-teach with other adults
- Organizational and scheduling barriers to collaboration
- Personal abilities in a collaborative environment
- Willingness to experiment with a variety of collaborative strategies

Activity 3.2
Rethink both Physical and Virtual Space in the Library Learning Commons to Maximize Collaboration among Classroom Teachers and all the Specialists in the School

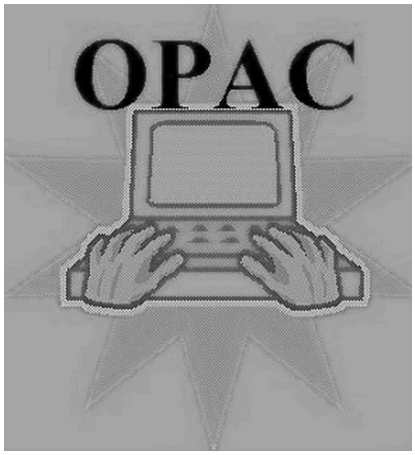
Take a tour of your own library and computer lab and note whether the physical layout is setup for organizational needs or for children. Are there banks of computers? Is the floor space mostly bookshelves? Is the space designed for traditional class teaching, or for discovery and projects? Is it designed for class visits, or are there numerous spaces for individuals, small groups, and large groups working side by side? Are there large heavy tables that stay in place, or is there flexible furniture that children can rearrange?



What kinds of spaces could be developed to serve the needs and interests of the children in the school?

To get more ideas, you might wish to take a participatory seminar or QuickMOOC about the Physical Learning Commons at: http://plc.quickmooc.com/

With regard to the virtual space, take a look at the library website. Is it mostly an OPAC, or is it a place where children can not only consume, but participate, create, and contribute as individuals and groups?



Try to imagine a participatory online space vs. a static one-way place to find something.

Take a look at the free elementary school virtual learning commons template at: http://tinyurl.com/ojpkhny

Activity 3.3
Take a Leadership Role as the School Goes 1:1 and/or BYOD on Campus. Think Through the Impact on the Learning Commons.

Making the transition to 1:1 requires a collaborative effort by the entire school community, from technology coordinators, from teachers, and from students. It certainly requires a creative response and implementation plan from the learning commons leadership to address the network needs, the equipment needs, and the operational and content needs of the virtual world in which much of the learning community will function.

We recommend reading articles, attending conferences, visiting schools, and checking blogs for every kind of idea that has worked and has not worked. Everyone must realize that there is no such thing as a perfectly secure network.

It will take an entire community of adults and learners to build a participatory network that works even when bumps in the road are encountered.

Keep score of the key elements that seem to work across the country. We will get you started:

- Tech directors who have an educational background in addition to a systems background seem to be much more attuned to user needs rather than just insisting on a locked down system.
- Consulting students regularly will go a long way in creating and adjusting systems that make the whole technology environment a learning space.
- Over to you:

Activity 3.4
Implement and Test Student Suggestions

In Chapter 10, we discuss the learning commons as the center of professional learning. Part of that environment is ongoing experimentation with new learning strategies, curricular initiatives, technology, with a wide array of other ideas being tested before going viral.

We recommend establishing student technology teams to test out software, networks, problems, and new ways of boosting learning with technology. These teams can include children of all ages who already have some tech skills. Some schools can offer the opportunity for middle or high school students to participate in an elementary school technology team as an internship or independent study project.

Ask the tech team to test out ideas that the adults have and to supply ideas of their own for improving access, using devices, and using the best software in their learning. They can do testing and can provide suggestions. They can try this or that out before it goes viral in the school. In addition, they can teach a new idea to their teachers and classmates.

How could such a system work in your school? How do we get a solid communication system working among adults and children? Start a list here. Check out chapter ten, make a plan, and do an experiment or two. What works, what doesn't? So what? What's next?

Activity 3.5

Many schools and public libraries are including makerspaces as part of the idea of encouraging children to create knowledge as well as consume it. First, a definition video: http://tinyurl.com/p5z2j6m

Next, Kristin Fontichiaro gives just a brief overview: http://tinyurl.com/nq2k7b8

For a more in-depth experience, explore a QuickMOOC on "Makerspaces in School and Public Libraries" at: http://tinyurl.com/omqkdcc

From the QuickMOOC, you can explore many ideas of how and what to include in a makerspace. We encourage the laboratory type of space rather than a crafts space that might support the STEM or STEAM concepts in your school. Coding, electronics, inventions, 3D printing, and general experimentation can often create a sense of ownership and desire to come to the full range of activities in the learning commons. These activities can also encourage links to parents with expertise and community organizations, which might collaborate in the creation of a full learning commons concept.

Activity 3.6
Build a Virtual Makerspace

Most makerspaces are physical entities where tools, electronics, and other physical items are constructed. We propose that another approach to making is a virtual space with lots of tools, apps, and exploration can happen. In fact it is probably easier to begin with a virtual makerspace while the physical space is being developed.

To get the idea and generate possibilities, consider the following table listing activities that compare consumption with creation. Thus, for activities listed on the left, you create a virtual space to do almost the opposite:

Consumption:	**Creation:**
Read a book	Write a book or ebook
Watch a video	Create a video

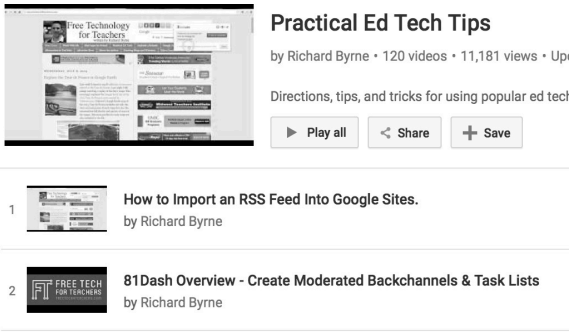
Listen to music	Compose music
Use an invention	Create an invention
Play a game	Create a game
Over to you:	Over to you:

As a part of the free templates available on the web for the virtual learnign commons, students at San Jose State University have created Design Halls as one of the virtual rooms. Inside the Design Hall, the students have created sample Symbaloo webmixes for various grade levels and interest levels. Find the template of your choice, find the Design Hall, and check out the possibilities> You can use anything you find there and get the idea for creating something for your own school.

- The Elementary Learning Commons Template: https://sites.google.com/site/templatevlcelementary/
- The Middle school Virtual Learning Commons Template: https://sites.google.com/site/templatevlcmiddle/
- The High school Virtual Learning Commons Tem,[plate: https://sites.google.com/site/templatevlchigh/

Challenge: Create a 24/7 virtual makerspace that draws in a crowd. Even better, have kids and teens help you create it and keep it fresh.

Resources

In his well-known blog, Richard Byrne provides many tips for free tools that can be used in teaching and learning. In this list, he provides a list of tech tools worth considering: http://tinyurl.com/nfzq2pk	
Follow teacher librarian Anna Crosland's learning commons blog http://tinyurl.com/neswajj and Twitter @crossland_a to discover early ventures of makers in the Learning Commons	
Tinkerspace: Library Learning Commons an interview with Shannon Hyman http://tinyurl.com/plj79ma Then discover more on her school learning commons website http://tinyurl.com/pkhobc4	

4

Chapter 4
Networked Materials, Information, & Technology That Boost Learning

LC: Networked materials, information, & technology that boost learning

Every child needs connection through technology to access and consume a wide variety of resources both from the Library Learning Commons and also the general resources found on the Internet. In addition, every child should realize that full access to technology expands their world not only as a consumer but also as a creator of knowledge. This access also gives them the means to pursue their own passion to make a difference as an individual and as part of a group in a global network. Teacher librarians and other specialists should work in tandem to provide robust access with the fewest restrictions. This access should also include a child's preferred device so that access is available 24/7 from any location. The whole school community works on both equity, access, and digital citizenship together. The following is a list of areas that need attention and work in your school or district.

Devices: A wide variety of devices should be supported by the school so that students can operate on devices they might have access to both in school and at home.

Networks: Robust wireless access to the Internet needs to be available in the Library Learning Commons and throughout the school. What can the school do to encourage robust access by every child at home? Preference might be given to tools that can work offline, and then can be synced when a connection is available.

Digital Resources: Access to ebooks, videos, tutorials, homework sites, and multimedia should be available on a preferred device at any time and in any location.

Tools: Each child and adult mentor should develop a repertoire of preferred tools that allow them to be productive, be creative, and do research both in and out of school.

Assistance: Every Library Learning Commons should sponsor a Tech Team of students who work as mentors throughout the school, and who promote the idea of a helpful technology community: "I help you; you help me; and, we all make it work together."

Creation of Knowledge. The environment created by devices, tools, and networks should open for every child the world of possibilities of creation, building, construction, doing, collaborating and becoming a self-directed learner.

Digital Citizenship: Digital citizenship is everyone's responsibility including students, adult mentors, technology specialists, and parents. Safety is only one priority for the digital citizen. Other concerns include productive collaboration, participating in a hacking free environment, helping others, ascertaining who is asking one to participate for what reasons, for what gain, and for what ends. Everyone tries to help keep systems going so that everyone can participate fully as learners and creators.

As you consider the preceding points and add more ideas from the activities in this chapter, prepare a report card for administrators, school boards, and parents. What progress have we made to date, and what remains to be done in the future. You might also prepare a list of prioritized initiatives to be considered.

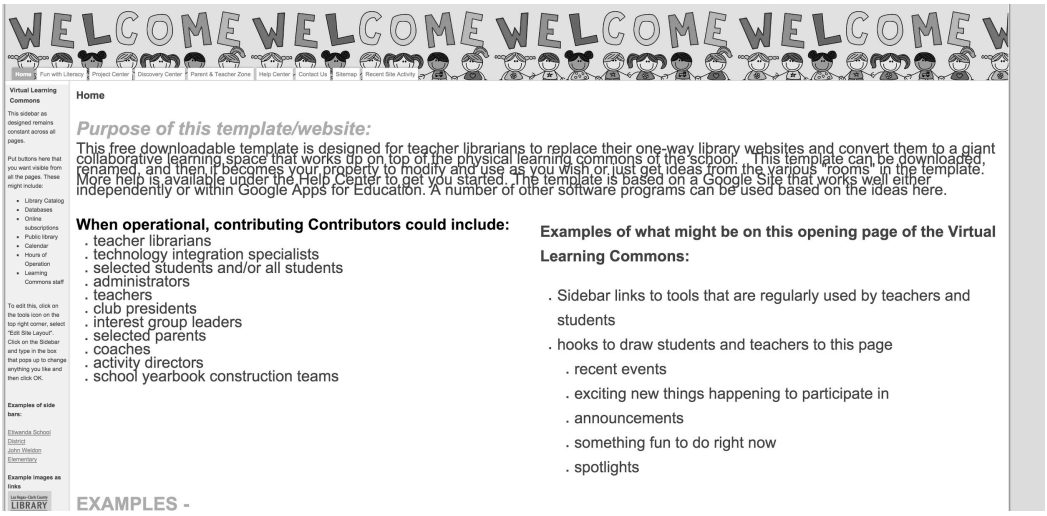
Activity 4.1
Structure the Rooms of the Virtual Learning Commons in a Way that Encourages Everyone to Contribute Resources.

During the construction of the Virtual Learning Commons, you will be curating the best resources and information (as covered in chapter 13). As well you can also use the various rooms of the VLC to link students widely to resources and information that they would rarely get if they just googled a topic.

The sidebar that appears on every room's page links learners to resources and tools that are needed the most, such as the OPAC, databases, and tools that everyone would probably use every day.

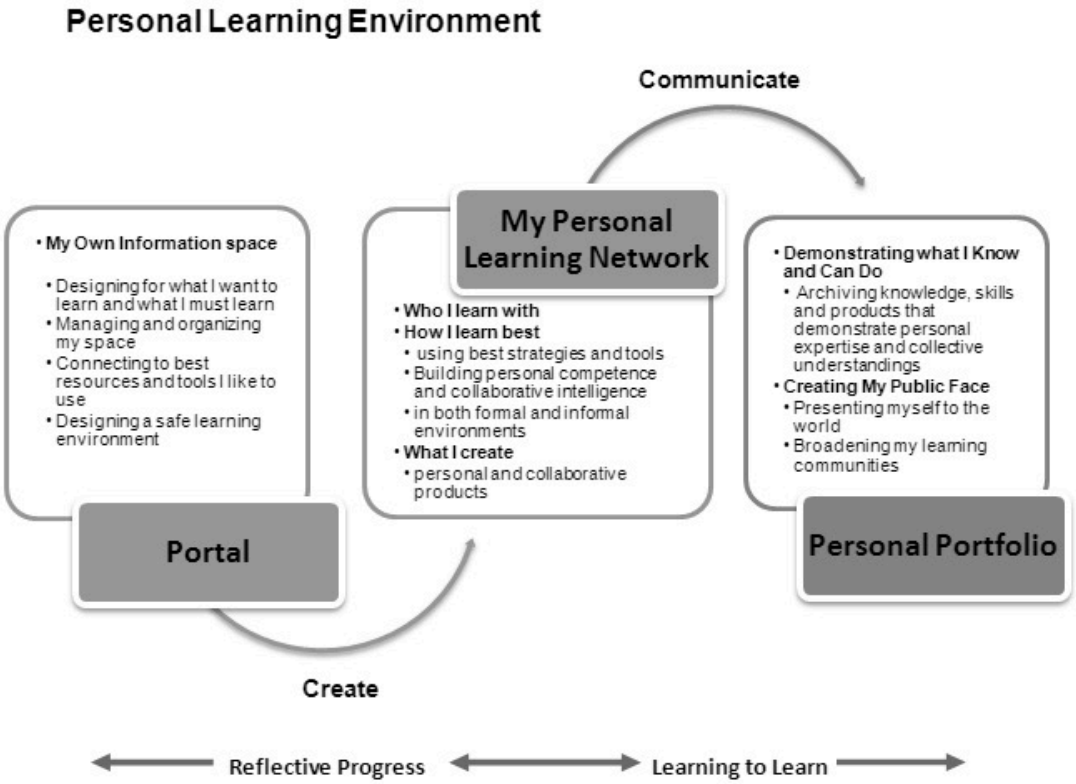
- The Contact Us page links students to help within the library learning commons, those places and people that help throughout the school, and provides other essential links to persons or organizations.
- Each of the other rooms provide both local and global links to sites, organizations, people, and opportunities both local and global .
- Opportunities for student and teacher participation and collaboration are everywhere in the VLC, just like in the physical commons.

The elementary school VLC template is at:
https://sites.google.com/site/templatevlcelementary/
The middle school VLC template is at:
https://sites.google.com/site/templatevlcmiddle/

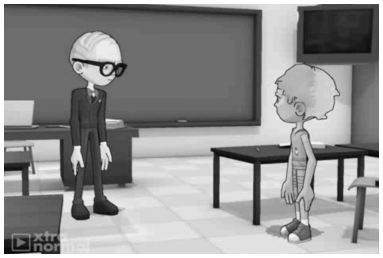


Activity 4.2
Help Every Learner Create their own Personal Learning Environment

Examine the following model carefully. Consider how technologies can assist learners manage their own information and learning spaces.



- Build your own portal for your computer, phone, and tablet
- Connect to people and ideas across the world through your Personal Learning Network
- Show your stuff through your portfolio



- Watch this video that illustrates a few of the ideas covered above: http://tinyurl.com/mb6jttw

Challenge: Start with yourself and create your own Personal Learning Environment, then try it out with a few students and teachers, and then more widely across the school.

Activity 4.3
Keep Pressing for a Robust Wireless Infrastructure

Locating students' and teachers' work in the Cloud rather than on local servers saves the district a great deal of money and saves staff time in managing networks. Almost all Cloud based applications are stored in multiple locations in various data farms so that if one location goes down, backups exist. In the learning commons, young people can walk in, pick up a computer or tablet and within moments link into their work in the Cloud. For example with Chromebook terminals, a school district can control all machines in the district setting them back to "zero" each night. A student can then walk into the school or into the learning commons, pick up any computer, and they are in business. In such an environment, the school district and individual school can concentrate their dollars on increasing bandwidth and on putting reliable devices in the hands of children and teachers.

Yes, the following is an advertisement, but here is an example of a school district that is going to the latest standard of wireless known as AC. Most schools still use the slow G standard; many schools have the newer and faster N standard, but this AC network will handle the exploding demand for bandwidth in the school: http://tinyurl.com/o6a7pcd

It is wise to try to keep up today on developments regarding the Cloud, bandwidth, networks, and access, in order to be a voice for the students if they are not being consulted. Many students have better networks at home and dread getting on to the school's system. Others are grateful for any access at all. It is a matter of equity of access, for which teacher librarians and other specialists campaign constantly.

Challenge: Know your stuff; talk it up. Advocate for the students and the teachers. Most importantly, don't give up.

Activity 4.4
Make Progress on Student and Teacher Devices

As we all know, the world of devices is constantly changing, and selecting those that will really work flawlessly with students is a challenge being confronted by every school. Will we have BYOD? Chromebooks? iPads? Smart Phones? The new gizmo on the block? It does seem that the major trend is to go 1:1, along with seeing that every student has access 24/7. It is also evident that devices must be changed and upgraded every few years in order to keep up with technology. Just in the last five years at conferences such as ISTE, the emphasis in connectivity has gone from strong control over every device, student, and network, to robust access at any time, to any app and software needed to make a difference.. This healthy evolution needs to be in place in every district and school and is usually led by a person with credentials in education as well as the technical skill to acquire and use networks. It is extremely valuable to attend such conferences to share, compare, ascertain, and get the pulse of what is happening across the world. The bank of hardwired computers in rows of the traditional computer lab and library is giving way to total flexibility with a device in every student's hand. Fortunately, the cost of devices is going down, but devices are a recurring expense rather than a one-time investment. Many districts are turning the ownership of devices over to parents rather than having them be the responsibility of the school. But equity of access is always a concern.

http://tinyurl.com/ndloadp

Activity 4.5
Press for Robust Software and Apps and Access Anywhere on any Device

Along with a robust wireless network in the learning commons and hopefully everywhere else in the school, a basic set of child friendly tools is essential. We recommend that every school have a subscription to the free and safe Google Apps for Education pictured below, including the tool Google Classroom:

Children can learn to use many of the tools in the Google suite including Google Documents and Google Draw, and can answer questions on forms and even work in sheets. Google Classroom is now more robust than ever, allowing teacher librarians and other specialists to jointly own units of instruction so that collaborative work is natural. By using Classroom for co-teaching, a learning experience can be a totally participatory experience for the children as well as the adult members. It can be available in a safe environment 24/7 on almost any device, both at home and at school. If homes don't have an Internet connection, a Google document can be started at school and downloaded on a device for work offline. When the child gets Internet access later, the document will sync with the online system. Another great advantage for everyone is that much can now be done in the Cloud and the possibility of going paperless is feasible.. Of course, students will need to work on many media including paper, but many students are already ready skilled at participating in an online community.

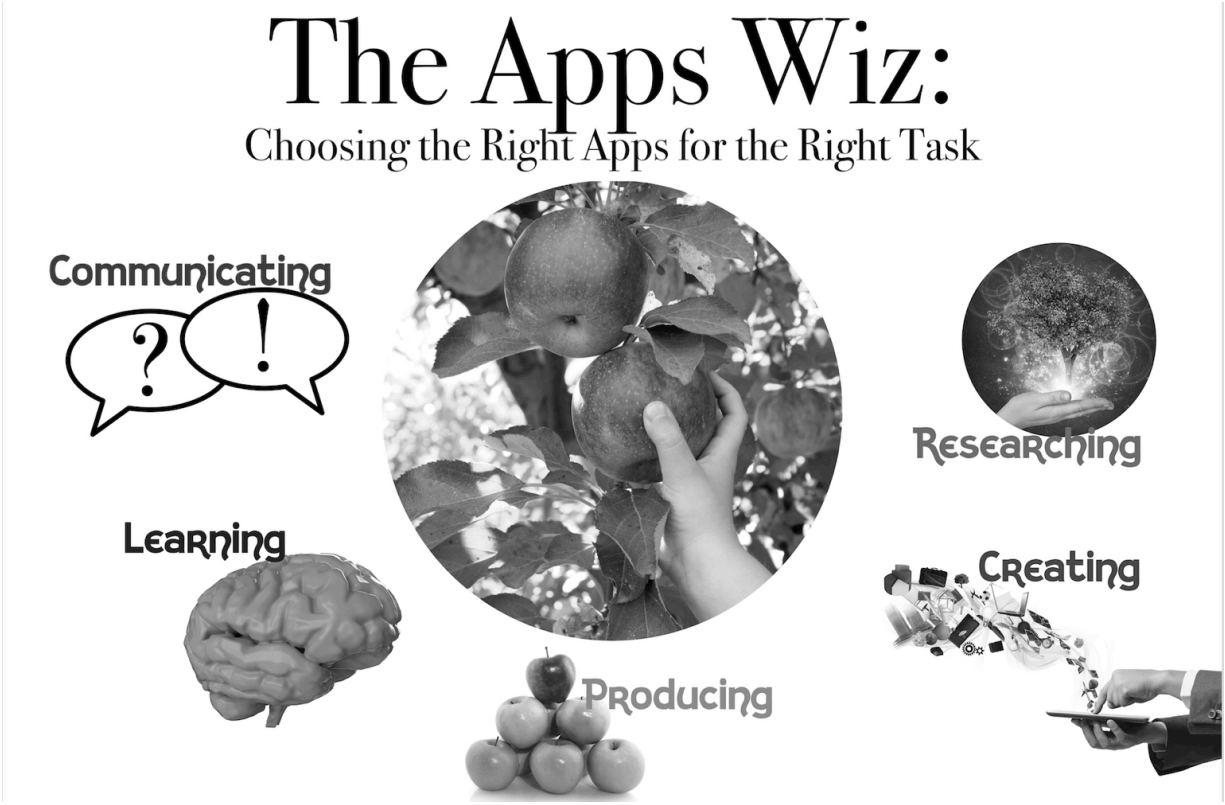
In addition to a suite of tools on Google, there are hundreds of apps appropriate for children both free and fee based. Find the best, share them with colleagues, and they will reciprocate.

In addition to apps, many school districts have various content management systems, most of which have a large price tag and promise all kinds of services, particularly in the area of data collection of assessments given in the school, and from various apps they support. We recommend that such systems be scrutinized for their ability to allow collaboration and coteaching by the adults and also for participatory collaboration by the children.

Challenge: Be an expert in as many systems and apps as you can, and promote access to those that really support collaboration and coteaching.

Activity 4.6
Help Every Child Become an Apps Wizard

One of the advantages of smartphones and tablets is that children who have access to them already understand what an app is and how it works, and they probably already have a number of them on the devices they own. The only problem is that they will not know the best of the best learning apps; rather, they are likely to be familiar with games and social media. App owners are a community of sharers, and the following poster illustrates that community:



Take advantage of what kids already know. Use your tech team. Create a wider community of both adults and children. Share and teach each other. This type of sharing is just a normal part of today's networked world. School administrators and district technology directors should know and encourage this, and the most knowledgeable of them already do. Once you start sharing the learning apps and the Google Apps with them, students will probably add these to their own devices and begin to see the advantage of the world of learning apps.

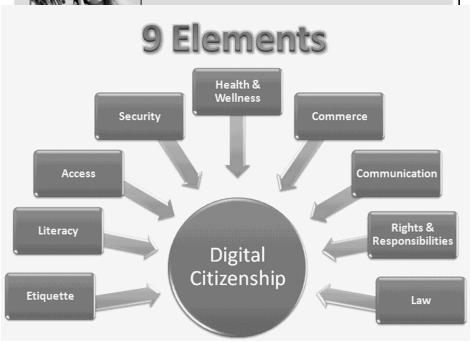
This poster can be downloaded at
http://sites.google.com/site/learningpostersgallery/

Activity 4.7
Involve Everyone in Digital Citizenship

Recently, one of the authors had a reason to go back to an old email address to do some work. Upon opening the account, there were 88,000 spam messages awaiting to sell this or that, cure every ill, and invest every cent. Hmm… Just one more reason to pay attention of various filtering mechanisms to stay safe, no matter one's age.

The fear that children will encounter inappropriate materials has often led to such tight controls that educators have not been able to help children get to resources they need. With the advent of Google Apps for Education, the idea has been to create a very robust yet safe environment in which young learners can blossom. But, there is much more for the idea of digital citizenship than just protecting against inappropriate content. There has also been a major movement to identify what it means to be a good citizen in the networked world, and how we can help every child develop a sense of responsible behavior just as we teach them to be responsible in the physical world.

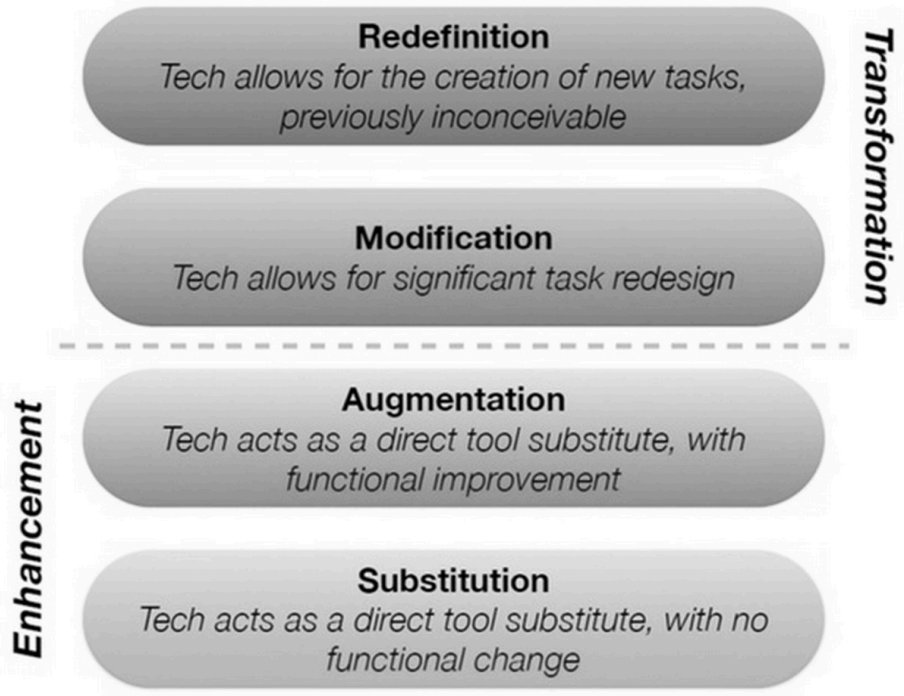
For example, Doug Ribble has developed " Nine Elements" of digital citizenship at: http://tinyurl.com/5eql9r



Challenge: There is no shortage of resources for teaching digital citizenship, and rather than create a course of study about it for children, we recommend that the concepts be embedded in the various co-taught learning activities that happen in the learning commons.

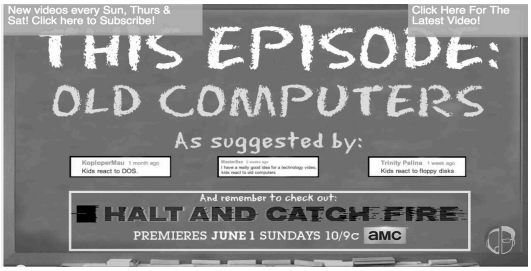
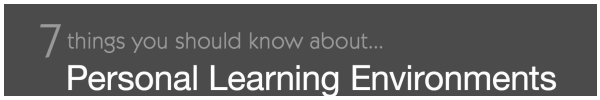
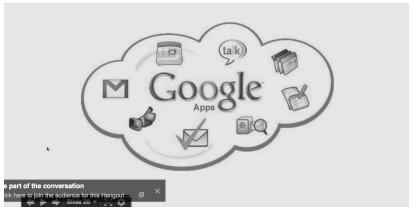
Activity 4.8
Use the Technology You Have to Boost High Level Learning and Self-Directed Learning

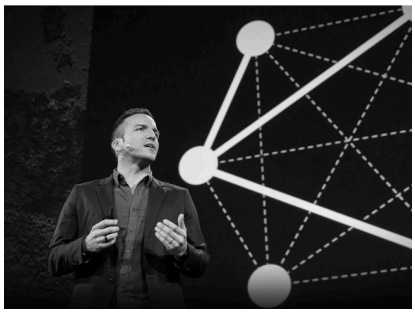
The entire reason for setting up robust networks and seeing that every learner has the devices to access the Internet is to provide the opportunity for the very best 21st Century education, and a chance to work effectively in the global network. Reuben Puentadura has set out an important model for the world of teaching and learning in this networked world. While a teacher might just move over to the Internet what they have always done, Reuben reminds us at the lowest level of his SAMR model that we cannot expect improved teaching or learning just by the substitution of a paper-based assignment to the same assignment done in a Google document. Rather, we must take advantage of the host of new tools and communication possibilities to do things that could not possibly be done in the world as we used to know it. This becomes a redefinition of everything we have done before. For example, because a Google document is a sheet of digital paper that allows many learners to be composing and editing in real time, it is a true revolution; a new frontier in collaborative thinking, writing, planning, and doing.



Challenge: Build a repertoire of teaching and learning opportunities for both adults and children that take advantage of the redefinition concept. There are a number of examples throughout this book that provide a glimpse of such strategies.

Resources

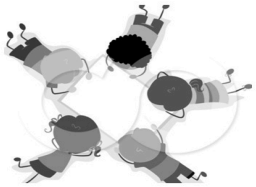
We can't resist sharing this one. Put an OLD technology in front of kids and what do you get? http://tinyurl.com/mtpw3ro	
Here is an interesting document created for college students about a personal learning environment that is useful as a concept that can be adapted to children: http://tinyurl.com/ndz362x	
Here is an example of a personal learning environment using Symbaloo as a tool. This one was done by a seventh grader: http://tinyurl.com/mobaslw	
This introduction to Symbaloo sounds like a child presenting… http://tinyurl.com/psx6jf4	
Kids on bullying in physical space and cyberspace: http://tinyurl.com/nzgpq5g	
Technology infrastructure webinar (30 min.) Note that this district does not have learning commons or teacher librarians, but they have teacher leaders of technology: http://tinyurl.com/nbgzn42	

Scott McCloud on technology: http://tinyurl.com/kxmvyx2	
Tackle this overview of networked information as a TEDtalk at: http://tinyurl.com/nz8xckx	
An inquiry approach to digital citizenship for students and teachers. http://tinyurl.com/qh4y6tm	

5

Chapter 5
Mentoring of Inquiry, Discovery, and Self-Directed Learning

LC: Mentoring of inquiry, discovery and self-directed learning



As envisioned in the first chapter, we suggest that two major activities are the focus of work in the elementary learning commons. Project Learning and Discovery Learning experiences can be running in parallel at the same time or can be blended depending on the nature of collaborations and fixed and flex time available.

This chapter is predominantly dedicated to the learning projects and initiatives designed in the Learning Commons as collaborative learning experiences between the Learning Commons staff and teachers, learners, and parents. The major idea is that two heads are better than one; meaning that collaborative planning, construction, execution, and assessment by classroom teachers and adult specialists (including outside experts) are superior to the efforts of a single and isolated teacher in the classroom or a teacher librarian isolated in the library Learning Commons.

The learning experiences featured here can be conducted in a variety of learning environments including knowledge building centers, Book2Cloud, Google Classroom projects, projects done in content management systems, technological learning spaces, or face to face projects with the organization orchestrated in digital space. The Virtual Learning Commons portal provides both the collaborative workspaces and organizational frameworks for learning commons projects.

The advantage of designing these learning experiences and archiving them on the VLC portal is that learning experiences are centered in an information rich and technology rich environment and can be accessed 24/7 on any preferred device. All the adults guiding the learning activity can be "joint owners" of this virtual space as it guides what is going on in the physical space. Collaboration among adults becomes a natural; communication increases, and expertise is shared and gained. See examples in the "Current KBCs" link below.

The potential of further self-directed experiences is offered by discovery learning opportunities. Ideas and approaches for discovery learning are embedded in Chapters 5 and 6, and in activities throughout this book

Activity 5.1
Get Acquainted with the Terminology

In this chapter we talk about a number of tools and techniques, so you might want to check your knowledge about the following terms:

- **Google Apps for Education**. A free and safe environment complete with an entire suite of Google tools that schools and districts can use. Every child has access 24/7 to Google Docs, Sheets, Slides, etc., and teachers have access to Google Classroom.
- **Virtual Learning Commons**. The VLC replaces the library website and transforms it from a one-way stream of information to a participatory culture of teachers and students across the school.
- **Knowledge Building Center.** A virtual space where children and adults are collaborating in real time to build deep understanding and simultaneously build skills.
- **Project Center.** A physical as well as virtual space in the learning commons environment where project based learning or full inquiry is taking place.
- **Discovery Center.** A physical as well as virtual space in the learning commons environment where discovery learning materials and stations are assembled to inspire self-directed learning.
- **Coteaching.** A term that refers to the combination of two or more adults who are combining their expertise to plan, teach, and assess learning experiences together.

Challenge: Add to this list terms that keep cropping up in the literature, and try to understand the various flavors that develop around terms such as Blended Learning.

The following activities happen simultaneously, and not necessarily in the order presented. Those who have transformed the library into a Project Center report a number of strategies based on local situations and conditions.

Activity 5.2
Prepare the Physical Facilities for Flexibility

During project learning, knowledge building experiences may often begin with whole class instruction which is then followed by breaking students into small or large groups that scatter to various places in the learning commons to carry on their work. Each class may require a completely different setup. As a result, it is critical that furniture and resource materials not get in the way so the learning space can be reorganized quickly to suit the learning need.

Consider the following questions to help create flexibility:

- If you don't use it, do you need it?
- If it doesn't move, does it belong?
- What can you convert/purchase that is easy to move?
- How can you make better use of wall space, and open up learning space?

Once you have opened up the space, it is time to consider what else you need in order to create a flexible learning environment. Explore what others have done, such as replacing desktop computers with mobile technologies. Check out library supply companies for mobile furnishings. Get thrifty and check out what's available second hand.

Using the chart below, involve staff, parents and students in brainstorming ideas with you.

Library to Learning Commons—What will it Cost$$$$$$			
Almost Free	**Minimal Cost**	**Moderate Cost**	**Complete Makeover**

Challenge: Create the chart in a Google spreadsheet so that everyone can contribute, and watch the ideas grow!

Activity 5.3
Prepare a Calendar for both Fixed and Flexible Usage and Planning Time

There is no doubt that you will encounter scheduling challenges when discovery learning, fixed classes, and project learning co-teaching classes come and go during the day. Keep everyone organized by using virtual calendars for teachers and students, along with other online scheduling tools to plan co-planning meetings.

- Explore virtual calendar and planning tools available in your school/district.
- Explore free virtual calendars and tutorials such as Google Calendar: http://tinyurl.com/njdsbhz
    - Other online calendars: http://tinyurl.com/p92admg
    - Tools for scheduling meetings: http://tinyurl.com/qzt84eu

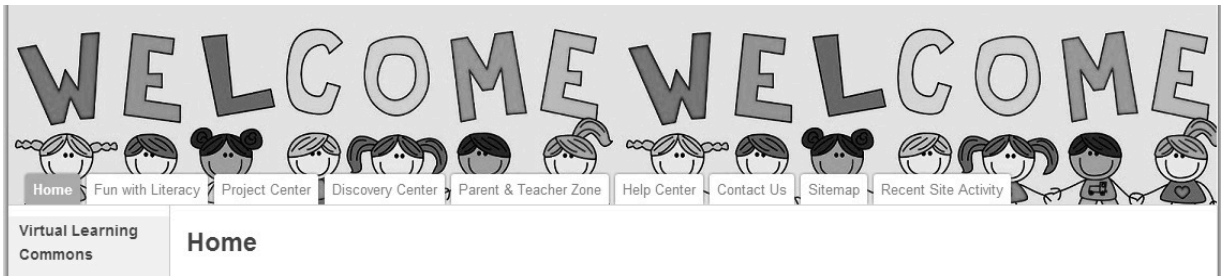
Challenge: Start by experimenting with virtual calendars for your personal use.

Activity 5.4
Prepare a Virtual Space for the Project Center

Your library web page also needs to transform to a Virtual Learning Commons space, where everyone is working, building, communicating, and collaborating just the same as in the physical space. Here you can design and archive all co-teaching project learning experiences so teachers and students have easy access anytime, anywhere, on any device.

Explore this template designed by David V. Loertscher and San Jose University students, and consider how you could use the virtual Project Center. http://tinyurl.com/ojpkhny

What do you like? What would you change?

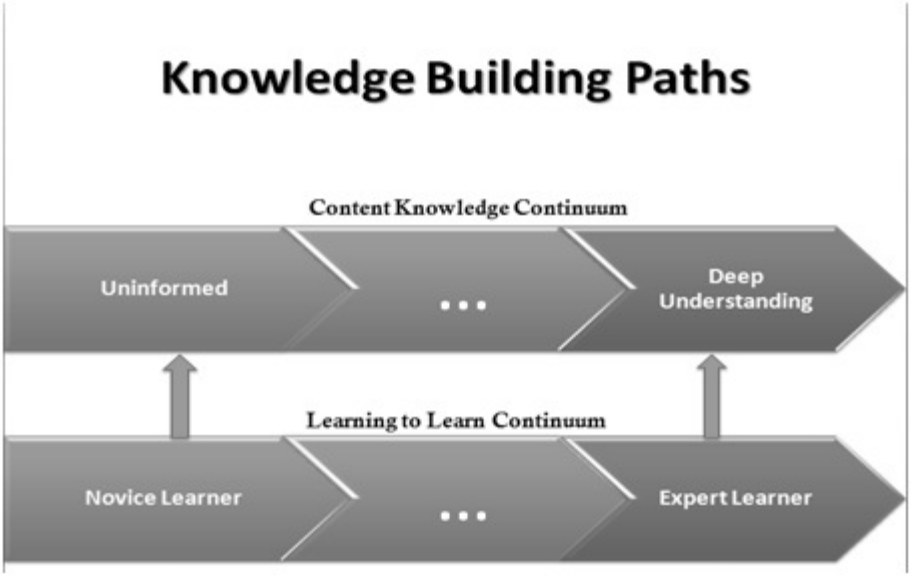


The template can be created in many technologies, not just in Google Sites. It can also serve as the content management part of Google Classroom, where the various assignments will be gathered together in order to manage student work, assess it, and assist in grade reports. Whatever system you use, be sure to include a wide variety of participatory learning experiences rather than just a top down list of assignments for students to fulfill, followed by tests to take. Just because it is on a computer does not make top down directive instruction any less boring than if done in real time.

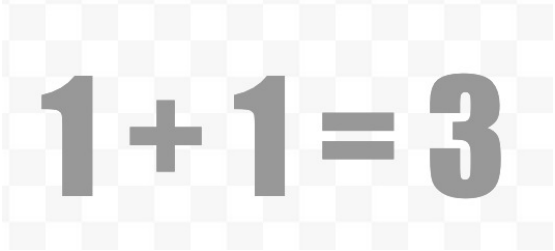
Challenge: Copy the template and play with the types of material you think would be useful in each virtual room. Collaborate with another teacher and build a team of interested colleagues to help build your school VLC. Ask the children to participate in the construction and to provide materials to upload to the site.

Activity 5.5
Use the Visual Below to Engage Discussion with your Co-teaching Partners:

While the pressure may primarily be on classroom teachers to have their students achieve a certain level on tests, we advocate co-teaching by classroom teachers and specialist staff. Combining teaching skills at just the right time during a content-based learning experience will add not only to deep understanding by students of the particular topic, but will result in a higher skill level that can be transferred to other learning experiences. This model would apply not just to a teacher librarian who wishes to teach inquiry skills, or digital citizenship, or use of a collaborative technology, but it would apply to other skills being promoted by other specialists such as the reading teacher or the second language learning teacher.



In a recent interview with a classroom teacher who had completed a year of coteaching alongside her teacher librarian in their new learning commons, the teacher was asked why co-teaching worked for her and not for some of her other colleagues. Her reply was: "The key to co-teaching is to just to put your ego aside, accept the expertise of your co-teacher, roll up your sleeves, and get to work!" Then we asked her if had she noticed the new math of co-teaching, that :



The response was a hearty "Yes", since the whole becomes greater than the sum of its parts. In fact, in her experience, by adding a third adult who was a specialist in ESL, additional benefits ensued.

Challenge: Conduct a discussion about the above model and its benefits with faculty members. Here are a few starter questions:

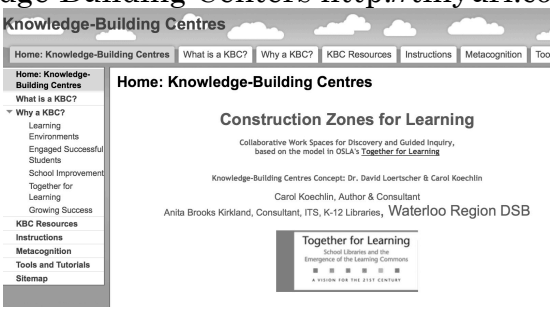
- What happens during Knowledge Building?
- When designing project experiences, how can you embed learning to learn skills to drive deep understanding of content?
- In your experience, does the 1+1 = 3 concept apply?
- Who would be willing to test this idea out and document the results?

Activity 5.6
Use High-level Instructional Designs as you Co-teach

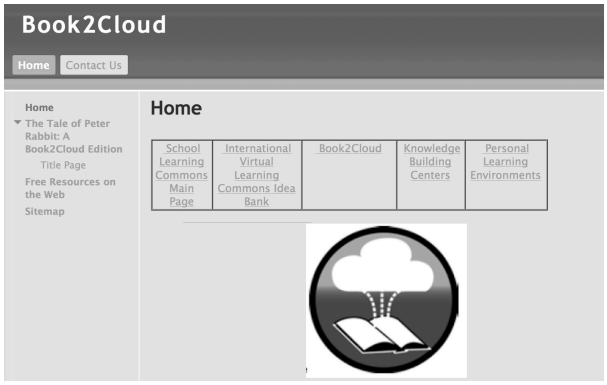
Consider the kinds of projects that need the rich information resources, technologies, and the flexible environment of the learning commons. Look for professional books, articles, blogs, and videos to build knowledge of best approaches to:.

- Inquiry
- Problem Based Learning
- Project Based Learning
- Literature Circles
- Inquiry Circles
- Think Models (Beyond Bird Units)

- Consider technology tools to engage learning in building collaborative knowledge.
- Explore Knowledge Building Centers http://tinyurl.com/qazy8gz



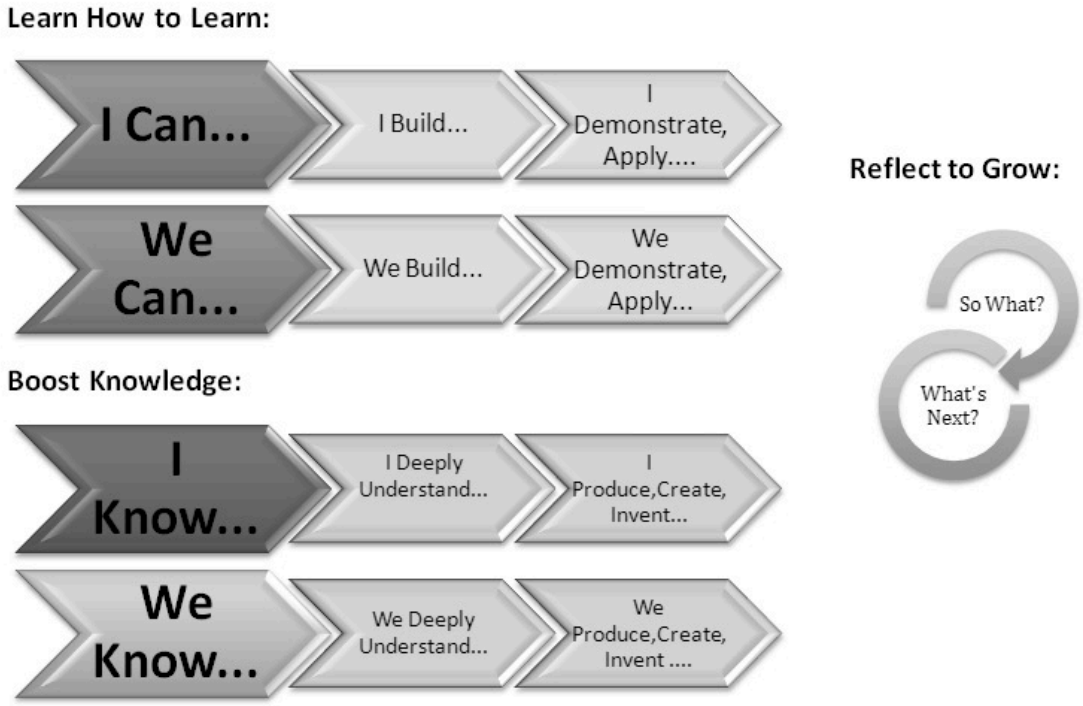
- Explore Book2Cloud http://tinyurl.com/ojerzrw



Challenge: There are 18 THINK Models complete with unit planning guides and curriculum applications in the refreshed edition of *Beyond Bird Units* (Loertscher, Koechlin and Zwaan 2010) to help you co-plan with your teaching partners.Try using the Think Models as design frames for creating KBCs.

Activity 5.7
Learning How to Learn

Learning is a sophisticated process and learners need opportunities to think deeply about what they have learned and how they have learned. The sophisticated learner is one who has developed a set of skills to know and deeply understand a topic of choice under direction from a teacher. And, while it is a personal skill set, the sophisticated learner collaborates with others to build collective knowledge and understandings. Metacognition is key to helping students be in command of their own learning. How could you use this poster with teachers and students in the design of assessments for learning?



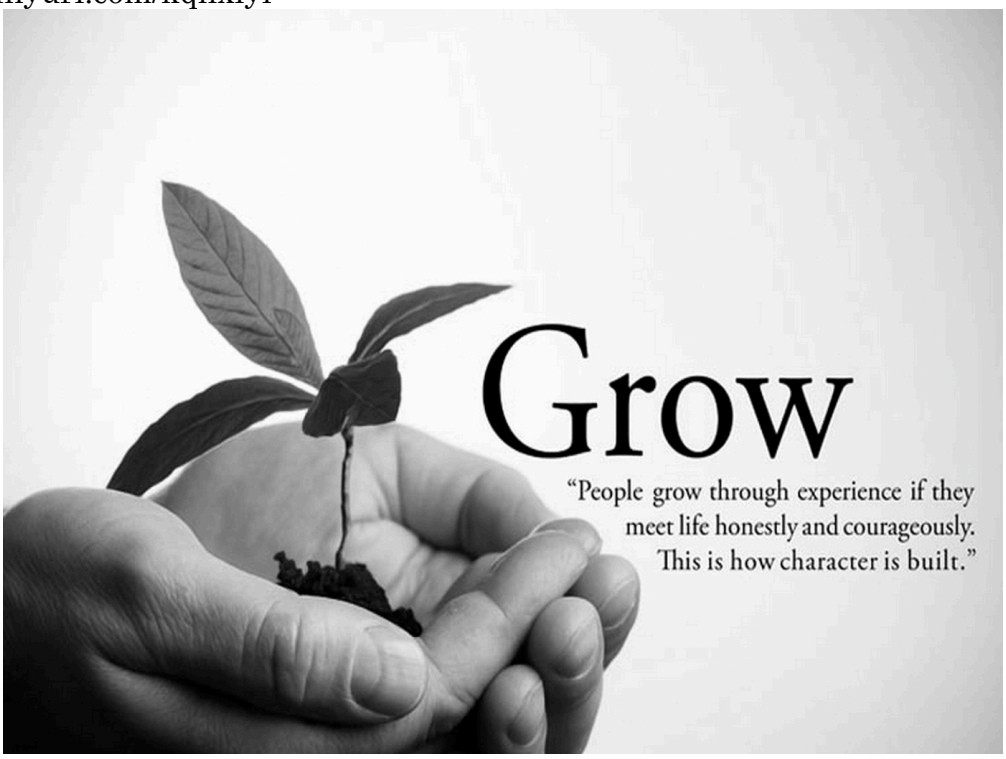
Challenge: Download this poster and use with students at the end of a unit to help them build understanding and language to express what and how they learn..

http://tinyurl.com/pe5sawf

Activity 5.8
Don't Forget Discovery Learning in this Mix

In the race to improve test scores, adults are often reluctant to let go of the control they have over every minute of the school day. Yet a rising chorus is recommending something like the Google 80/20 rule, where 80% of a worker's day is focused completely on the Google project and that team, but 20% of the day is reserved for individual thinking, discovery, invention, and creative work that has a connection to Google but really is designed with the individual's needs to excel in mind.

Grant Wiggins said it very well in this blog post and attractive poster on te@chthought: 10 Conditions For Self-Sustaining Learning In The Classroom http://tinyurl.com/kqhxlyl



It is a matter of trust, trust in children who can learn how to spend time learning what they want to learn rather than what the adults think they should be doing. As adults we must ask the question, "What if the child emerges only as a robot doing barely enough to satisfy what was required of them?"

Challenge: Have you encountered children who can direct their own learning with just the right mentorship from adults along the way? Search until you find some. Study them. Study the adults who mentor them. Launch your own experiments.

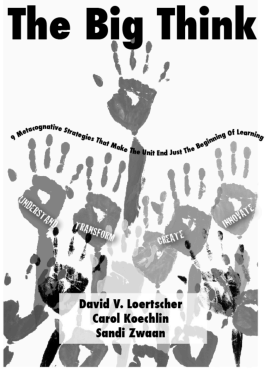
Activity 5.9
The BIG THINK

If students don't reflect, they don't get better. If teachers don't reflect, they don't get better either. To ensure that learning 'sticks', always design a BIG THINK activity at the end of a unit of instruction so that everyone gets better and better at learning. Design collaborative activities to help learners consolidate content and uncover their major learnings, and then invite new questions and ideas for 'what next'. Design collaborative activities to help learners gauge success in terms of the learning skills and processes they used during the experience, and use those insights to target areas in need of improvement for 'next time'.

Challenge: Review existing units and enrich them by adding a BIG THINK activity to ensure that the end of the unit is just the beginning of learning.

Here are some ideas to get you started:

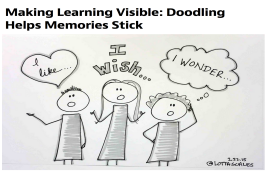
- Create a web of new understandings (what we know)
- Construct a visual map of the learning process (how we learned)
- Introduce a new problem or challenge for students to apply content
- Interact with an expert on the topic via videoconference
- Design a higher order thinking activity, such as predicting
- Provide students with art materials or found objects and ask them to create something that demonstrates their learning
- Moderate a discussion or hold a debate
- Have students build new questions



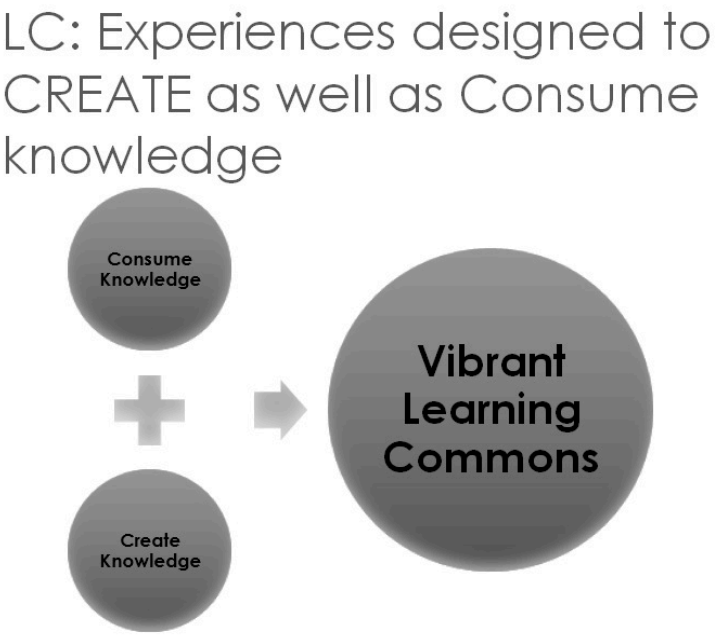
Find out more about Big Think - Loertscher, David, Carol Koechlin,and Sandi Zwaan. 2009. *The Big Think: 9 Metacognitive Strategies that Make the Unit End Just the Beginning of Learning.* Salt Lake City UT: Hi Willow Research and Publishing.

Koechlin, Carol, and Sandi Zwaan. 2010. "The Big Think: Reflecting, Reacting, and Realizing Improved Learning" *Teacher Librarian*: Volume 37 Number 3.

Resources

There is a science to active learning vs. passive learning. Check it out in this blog post: http://tinyurl.com/nvna6dn	
Doodling helps learners increase deep understanding: http://tinyurl.com/q49z26x	
P21 Guide to Project Based Learning and 21st Century Skills: http://tinyurl.com/q9624us	
Little Bits Inquiry Video A video of inquiry and project-based learning at Keeler School in grade 5 Science using the maker concept and Little Bits. http://tinyurl.com/oqseacn	
Why inquiry matters to both teachers and students at: http://tinyurl.com/qd7wqy8	
Knowledge Building Circles to consolidate learning through inquiry http://tinyurl.com/nbvm7xb	
Don't forget to include all types of learners and ability levels at: http://tinyurl.com/qa7kd32	

Chapter 6
Experiences Designed to Create As Well As Consume Knowledge



Since the passage of the No Child Left Behind Act in 2001, many schools in the United States have been turned into single purpose organizations that focus on a narrow curriculum of language arts and math so that students will pass national exams. In recent years schools in the U.S. have added science, technology, engineering, math, and in some cases arts to form STEM and STEAM emphases.

As a reaction, many voices have been calling for youth to develop their own informal educational interests alongside this more directive structure, so that they can prepare for future careers that may or may not exist at the present time.

Utilizing the discovery learning concept as a part of the transformation of the school library into a library learning commons, teacher librarians and other specialists in the school can promote the concept of creativity and self-directed learning alongside the formal curriculum of the school in order to encourage a broader range of development. The makerspace movement has added a great deal of excitement to the concept of creativity, invention, and entrepreneurial skills. It has breathed new life into a more multifunctional vision of real learning. Many elementary and high school libraries have set up makerspaces as a way to attract a more creative clientele and revive interest in creating alongside the library's traditional role in consuming literature, information, and technology.

Traditionally, children have been encouraged to develop hobbies. Perhaps, as a child, you collected stamps or matchbox cars, or knew more about dinosaurs than anyone in the school. Afterschool programs and summer camps have often added a much more informal stream to learning. In the era of the Internet and the growth of online communities, opportunities to play, learn, create, and make have exploded. As a result, there is a growing interest on the part of students in building a part of themselves that pursues and develops their own interests and expertise, whether these are encouraged by the school or not.

While the library learning commons will always be a great place to find, enjoy, and use the best of the best information and materials, the following activities have been designed for both individuals and groups to help them develop a deeper understanding of the whole arena of creativity and build upon it a program that will add discovery learning as a central element. For more information about creating a collection of the best resources for the commons, consult Chapter 14.

Activity 6.1
Develop a Deep Understanding of the Wide Ranging Arena of Creativity and Discovery Learning

Opportunities to spark creativity abound in the information and technology rich environments of the Learning Commons. Creativity is not so much a skill to be taught, but rather an approach to learning that blossoms with opportunity. Explore these questions with your administration and teaching partners:

- Why is creativity important?
- Who needs to be creative?
- What gets in the way of creativity?
- What does mindset have to do with creativity?
- Is creativity a new literacy?
- What does play have to do with creativity?
- How can we encourage creativity to blossom and grow in the Learning Commons?

Now Investigate Learning Approaches

During the creative process, young people are encouraged to take command of their own learning. What are the implications for designing learning in the learning commons so that creativity is fostered? Develop knowledge of terms and approaches with your team. Here are a few terms to explore; add others:

- Making and Makerspaces
- Design thinking
- Genius Hour
- Fixed Mindset and Growth Mindset
- Invention
- Entrepreneurship
- Higher level thinking
- Self-directed learning
- Independent Learning

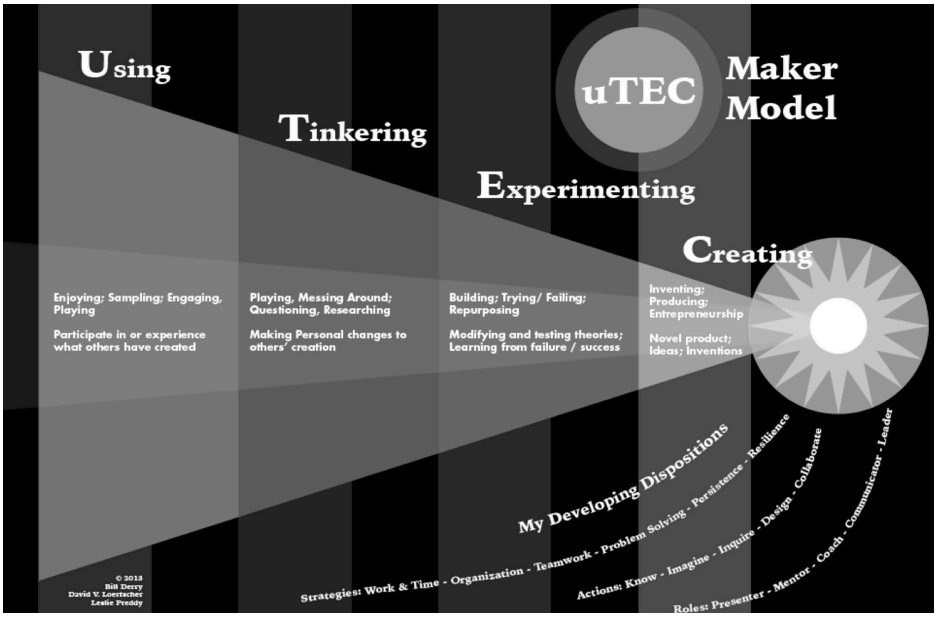
Activity 6.2
Explore Learning Models that are Designed to Build Creativity

The authors have created a set of printable learning posters available at: https://sites.google.com/site/learningpostersgallery/ .

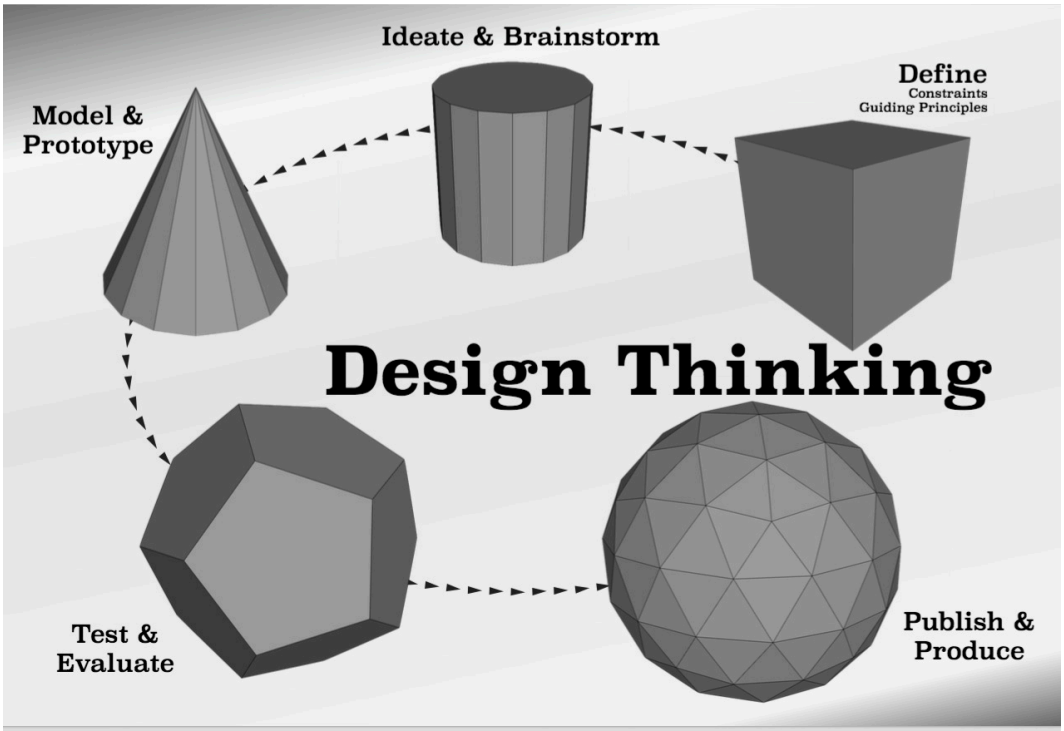
Study the progressive phases and the skills being developed as individuals progress from users to creators. You might print out the posters in a large format to study them with a group.

- **The uTEC Maker Model:** Read about the uTEC Maker Model at https://sites.google.com/site/utecmakermodel/ , and study the progressive phases and the skills being developed as individuals progress from users to creators.

    - Have you experienced movement across the path? What skills did you develop as you made progress?
    - Ask others to look at the poster and reflect on their own creative experiences. Does the model work across a number of creative endeavors?
    - Ask some children to look at the model. Do they have hobbies or interests that have moved them out of the user category, ie., from just playing games to creating games, from watching YouTube to creating videos, from playing the music of composers to making their own compositions?



- **Design Thinking:** Design thinking is broadly used in many organizations, laboratories, factories, and entrepreneurial firms to invent new systems and products by using collaborative groups of people with various expertise.
    - Notice the similarities between design thinking and inquiry. Inquiry might focus on summarizing what is known about a topic, while design thinking tries to move more toward the creation of knowledge or products. They are cousin models.
    - As students begin working on a co-taught project, would it help to show them this model and discuss it regularly during the various phases of the project?
    - Would simultaneously studying both design thinking and the uTEC Maker Model be a good idea?

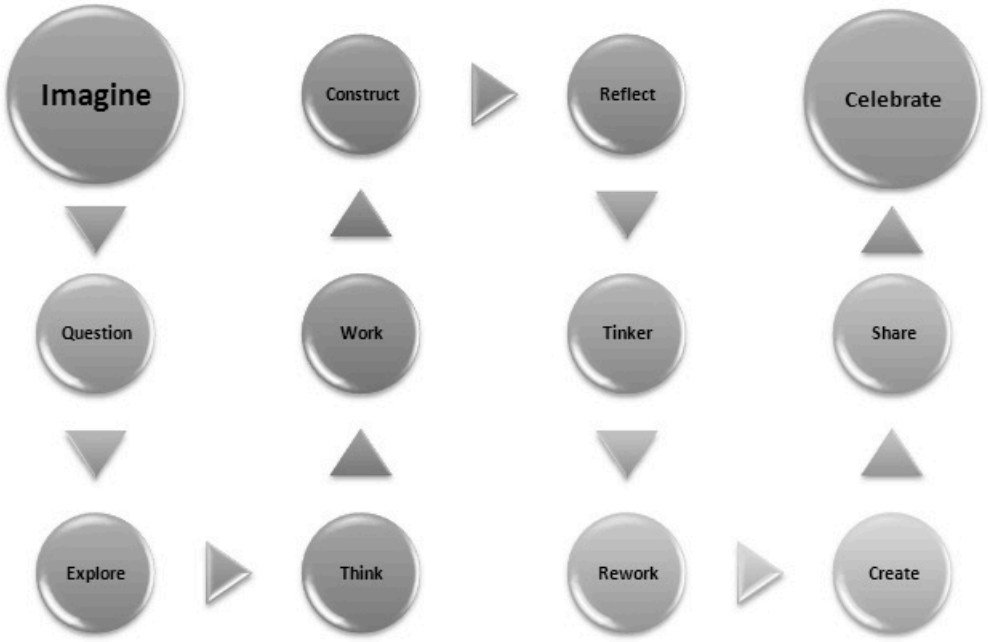


- **The Learn by Doing Model:** This poster is based on one of the 18 Think Models in the revised edition of *Beyond Bird Units*. Use the poster to help students consider the processes one often encounters when tackling a problem that is best solved by trial and error. What do your students think about the old adage that experience is the best teacher? You might put students in groups to discuss experiences they have had 'just doing it'- building a kite, making a smoothie, using a new app, fixing a toy, etc.

    - What problems did they have?
    - What mistakes did they make?

- What skills did they use?
- What new skills did they have to acquire?
- Did they ever feel like giving up? What kept them going?
- Did they ask for help? Did they have to do some research?

Then give each group the action words from the Learn by Doing Model on cards, then ask the groups to put the words together in a flow chart to map what happens during a learn by doing experience. Show them the poster and discuss similarities and differences to their visual map.

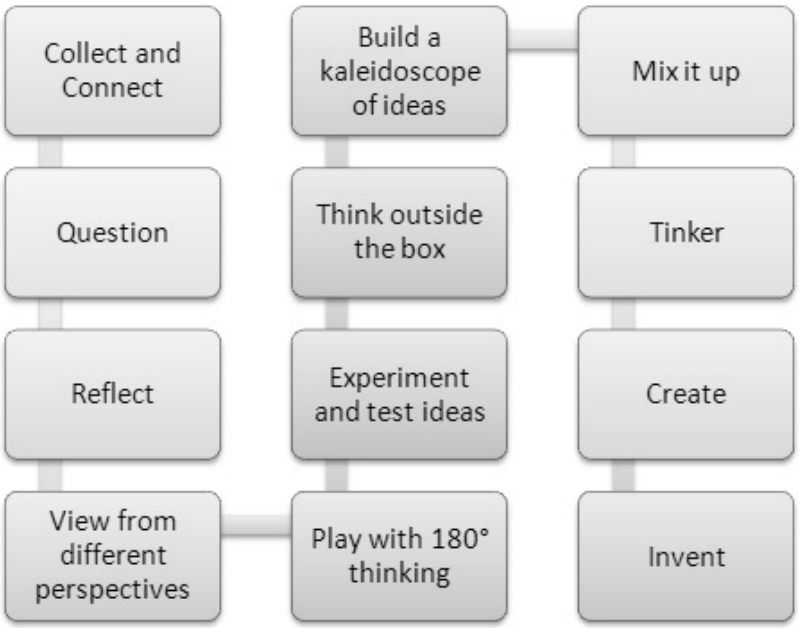


- **Sandbox Thinking:** This model is all about playing to learn. It is expanded upon in *The Big Think: 9 Metacognitive Strategies that Make the Unit End Just the Beginning of Learning*. Students might be using all or just a few of these play strategies during a sandbox experience where you give them manipulatives, art materials, building materials, a new app, words on cards, musical instruments, etc., and just stand back and let students play.

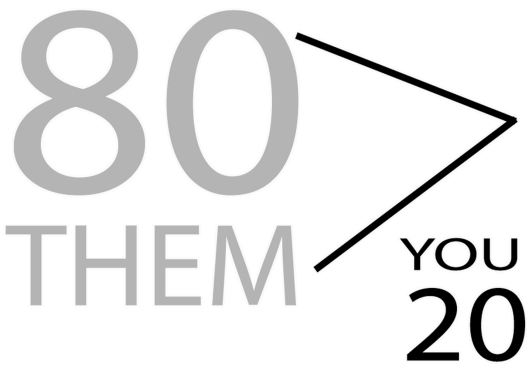
    - You might use the poster as a culminating activity after a play experience and discuss some of the sandbox strategies you observed during their play.
    - Students can add the connections they make, and together they build

the understanding that when they are playing they are learning.

- Try designing play experiences, such as playing with 180 degree thinking, that target some of the specific sandbox strategies.



The Google 80/20 Rule: Reportedly, Google has a rule for its most creative employee teams who are working on major projects. It is known as the 80/20 rule.



Why do you suppose a major corporation would make this rule? What benefits to the company do you think they value? This idea as applied to education would mean that 80 % of a student's day would consist of doing adult directed work, while 20% of the day would be devoted to self-directed learning, making, and creativity, focused on their own personal interests and passions. What would happen to young people who took such time seriously? Could adults really get out of their way and learn to trust their students' learning goals and just mentor them to help them keep on track a bit? How might this stance help prepare children for real life?

Activity 6.3
Conduct Focus Groups with Learners

Make an attempt to discover what the children in the school already do of a creative nature. You might hold focus groups before and after school, during recess or lunch, as well as with classes. Start the conversation about hobbies, interests, projects, and anything that involves tinkering, making, discovering, and where and when this happens in the home and in the community. Try to probe widely. You might find that students are interested in:

- Writing
- Art
- Crafts
- Coding
- Puzzles
- Making paper airplanes or other toys
- Building or creating games in Minecraft
- Creating videos
- Inventing

Such brainstorming is likely to produce a list of ideas of where to begin in the development of discovery learning activities.

Don't be too shocked if you discover that the children are not very interested in creativity, because they are the ultimate consumers of advertized activities. It may take some counter advertizing by the students who do have creative interests that could spread through groups of peers. As well, don't forget to consider ideas that reach out beyond the school or local community toward global opportunities. Liberating kids to think and create on their own may be a novel idea in the midst of a very directive culture.

A list of current interests might be a starting place, but some very exciting discovery ideas may not be in the experience of any of the children. Check out this article that demonstrates how one teacher creates self-directed learners: http://tinyurl.com/od9a2zz

Steps to Help Low-Income Students Direct Their Own Learning

Be careful not to have adults push tutorials or projects connected to the curricular or testing targets that are likely to kill enthusiasm and promote boredom and disinterest.

Activity 6.4
Gather Tools, Resources, and Make Space for Discovery Learning both in Physical and Virtual Space

The space and resources needed for discovery learning can cost little or a lot. We recommend starting small with existing equipment and then involving students, parents and community organizations as more sophisticated creativity, projects, and making are planned.

- Video and audio equipment
- Cameras from cell phones to tablets to more sophisticated types
- Google Apps for Education tool suite
- Disruptive technologies such as 3D printers
- Supplies for crafts, electrical construction, structure construction
- A student tech team as advisors
- Local volunteers who would come in as mentors

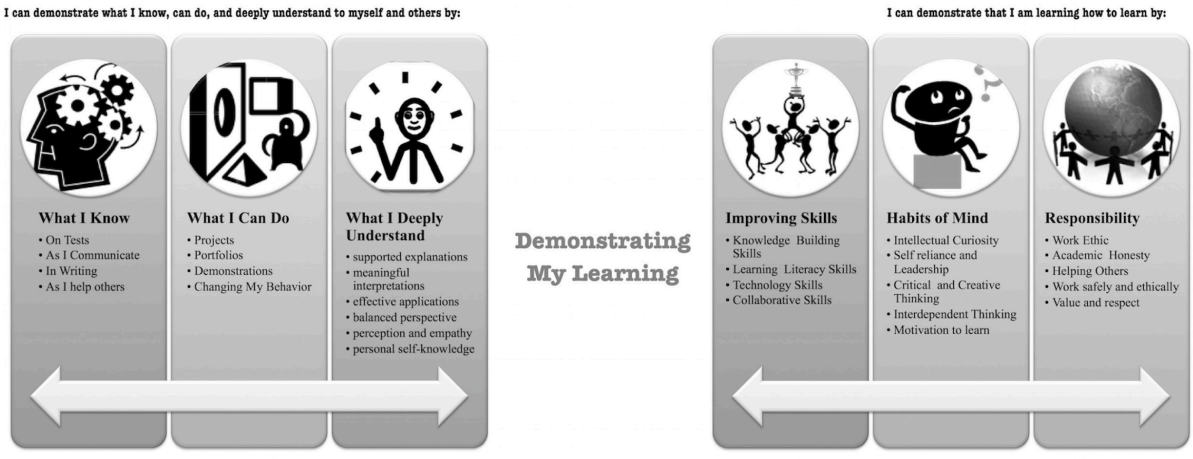
For online apps that encourage creativity, construction, and invention, we recommend that, Symbaloo webmixes be created for each grade level so that students can come into the library learning commons, sit down, tap on an app, and enter into a program or project. Students can help identify links to put on the Symbaloo pages, so that a page will look something like this, but with appropriate links for the various age levels.

Check out sample webmixes in the "Design Halls" of the virtual learning commons templates discussed in Activity 6 of this chapter.

Activity 6.5
Request that each child keep a discovery log either in a notebook, or online in a Google document or a blog, so that they learn to evaluate their own progress.

Serious inventors and creators keep logs of their experimental path so that they know what they have tried and what they need to work on. This becomes increasingly important to inventors as they actually prepare an invention for marketing and need to gain a patent.

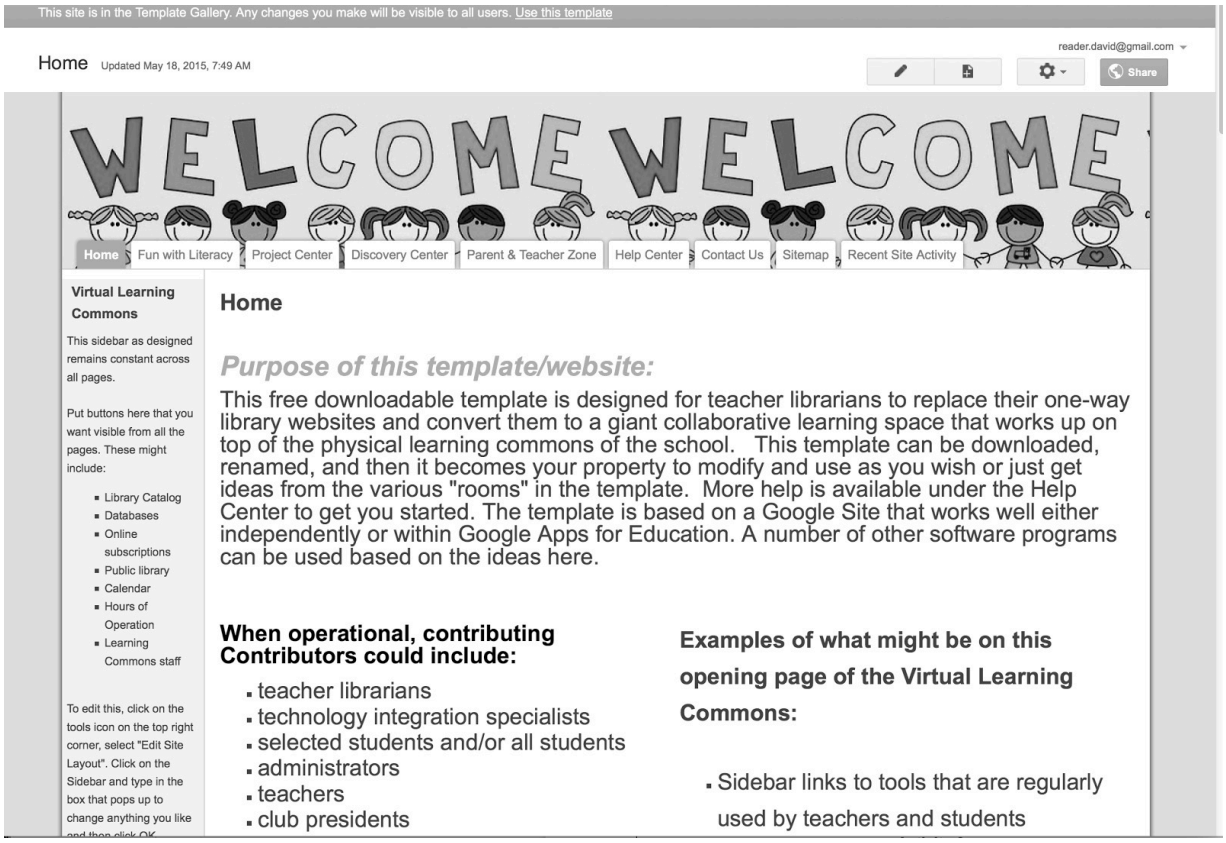
For the child, it is the beginning of their personal portfolio, and becomes evidence of their work in discovery at school, at home, or in the community. As they begin to log their activities, they can start the process of learning how to evaluate themselves along the path of learning. This is illustrated in the following poster at: https://sites.google.com/site/learningpostersgallery/



To each learner, achievement is a matter not just about data collected on tests, but the progress through the various soft skills, dispositions, and the doing and creating supported by what we know and can learn.

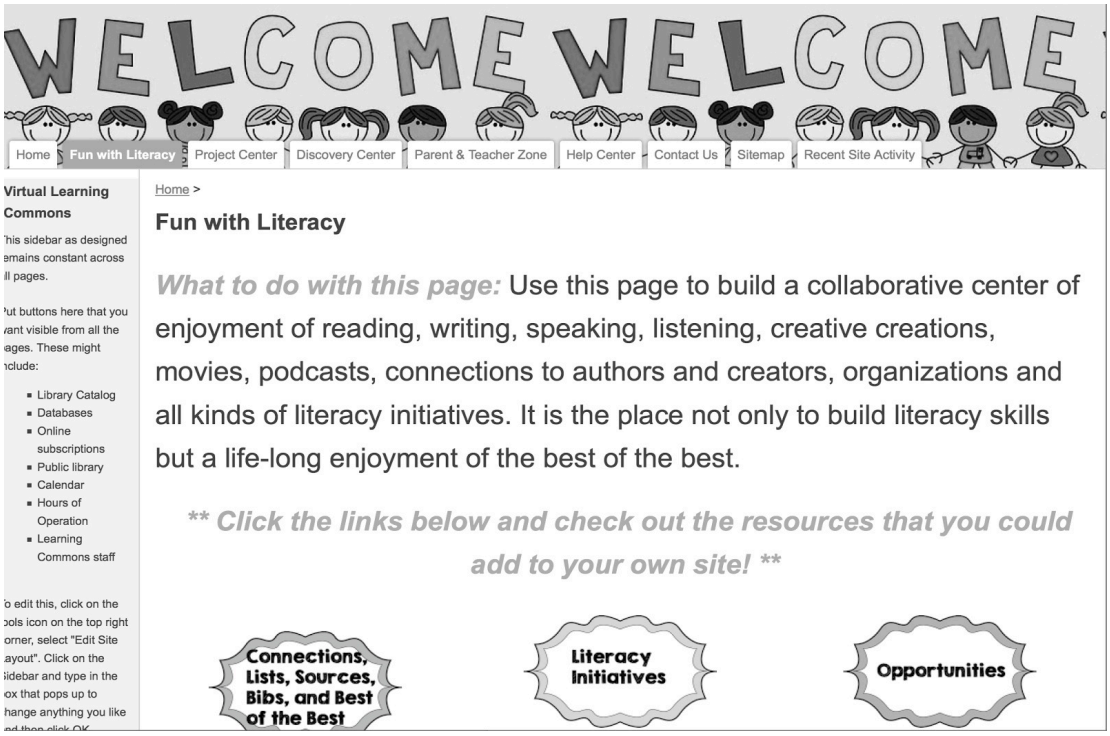
Activity 6.6
Build the Rooms of the Virtual Learning Commons Connected with the Creation and Distribution of Artifacts Created in Discovery Learning

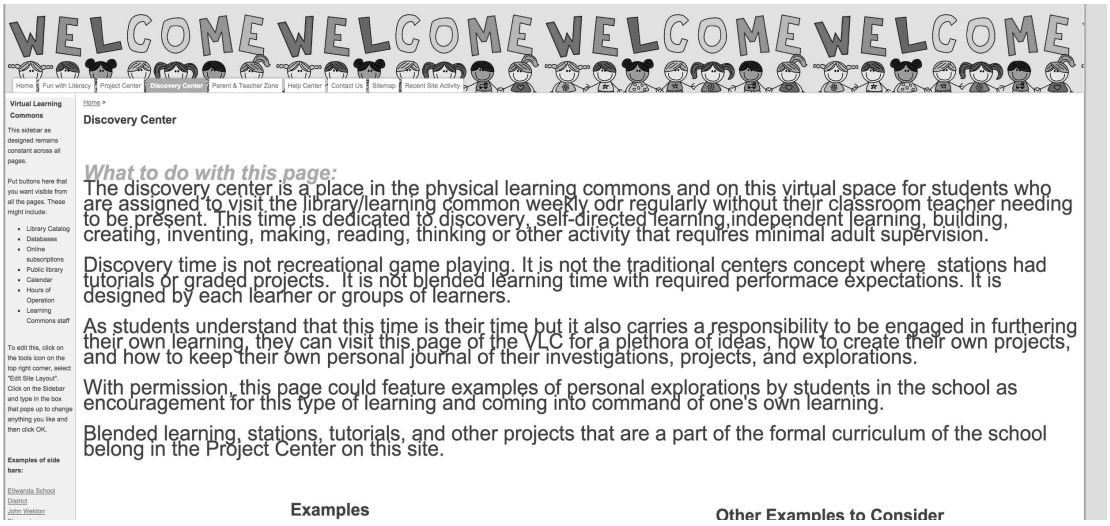
Professor David Loertscher and graduate students at San Jose State University have created a free downloadable template for a Virtual Learning Commons. You can download the template at: https://sites.google.com/site/templatevlcelementary/



When you download this template and rename it, it is your own site and you can change it, modify it, or just use for ideas for your own Virtual Learning Commons.

There are several virtual rooms where discovery learning fits and where learners can both create and display the results of what they are creating. Check out ideas in the "Fun with Literacy" room and the "Discovery Center" room as pictured below:





In both rooms of the VLC, one might find book trailers, communities built in Minecraft, posters, art work, original stories written by students, pictures of models or inventions created by students, videos created as project presentations, and a host of other content created by learners that they can post to the VLC themselves or that others can post for them. This turns the VLC into a giant gallery of student creations. It also provides students with the virtual space to work as individuals and in groups in that creation of knowledge. It becomes much more than just a summary of what others know. It can become a place where learners can build on the work of others, but can also reject such work and forge new paths, ideas, solutions, and actions.

Activity 6.7
Share Your Experience

As you start to see creativity and discovery blossom in the library learning commons, share your experience with parents, boards of education, and professional colleagues. What does it look like, feel like, and act like when learners are:

- Reading widely and becoming engaged writers.
- Playing the best of the commercial games and creating games for others to enjoy.
- Incorporating the best information into their work and contributing quality information that others can use as well.
- Performing music, dramatic works, and storytelling plus the creation of their own or their group's artistic performance works
- Using the solutions that others have created for problems encountered and also creating solutions that solve problems better than ever before.
- Uncovering new problems to explore.

Challenge: Establish your own professional learning network to share your experiences and help others just embarking on the learning commons journey.

Perhaps your children can start to publically express what they think, as in this video:
http://tinyurl.com/nng8rdj

Resources

The following resources are samples of the huge chorus of voices now speaking up for the needs of children and teens everywhere to be able to take more command of their own learning.

Creativity

- Book: Robinson, Ken. 2015. *Creative Schools:The Grassroots Revolution That's Transforming Education*. New York: Viking.
- Video: Sir Ken Robinson on Creativity: http://tinyurl.com/cmvy687
- Book: Zhao, Yong. 2012. *World Class Learners: Educating Creative and Entrepreneurial Students*. Thousand Oaks, CA: Corwin Press.
- Video: Yong Zhao presentation: http://tinyurl.com/ot3gfdt
- Article:Chammoro-Premuzik, Tomas. 2014. "Curiosity is as Important as Intelligence". *Harvard Business Review*. http://tinyurl.com/p4a36zv
- Raised listening to his dad's old records, Joey Alexander plays a brand of sharp, modern piano jazz that you likely wouldn't expect to hear from a pre-teenager. Listen as the 11-year-old delights the TED crowd with his very special performance of a Thelonious Monk classic at: http://tinyurl.com/qzc4m57
- Article: Heick, Terry. 2014. "6 Principles of Genius Hour in the Classroom". *te@chthought*. http://tinyurl.com/o7k9q7t
- Video: Genius Hour in a school library: http://tinyurl.com/p9fyf88
- Article: Michalko, Michael. 2015. "7 Tenets of Creative Thinking". *Edutopia*. http://tinyurl.com/q69hem3

Makerspaces

- Book: Martinez, Sylvia and Gary S. Stager. 2013. *Invent to Learn: Making, Tinkering, and Engineering in the Classroom*. Constructing Modern Knowledge Press.
- Video: Sylvia Martinez about her book: http://tinyurl.com/nunuohe
- Book: Fleming, Laura. 2015. *Worlds of Making: Best Practices for Establishing a Makespace for Your School*. Thousand Oaks, CA: Corwin Press.
- Website: Check out MakerFaire events and attend one: http://makerfaire.com/
- Article: Martinez, Sylvia. 2015. "Making for All: How to Build an Inclusive Makerspace". *edSurge*. http://tinyurl.com/py4htyk
- Article: Lolley, Suzy. 2015. "How Librarians are Rockin' the Makerspace Movement". http://tinyurl.com/osprqzd

Self-Directed Learning and Invention

- Article about self-directed learning: Price, David. 2015. "What the Future Economy Means for how Kids Learn Today". *MindShift.* http://tinyurl.com/nc3du4c
- Video: Kid inventors:http://tinyurl.com/oxj3775
- Video: Kid inventors: http://tinyurl.com/nvanr4g
- Video: Ten things invented by kids: http://tinyurl.com/oe8u8ol

Design Thinking

- Donors Choose organization: (start watching about 11 min. into the video) Pilloton, Emily. Design Thinking: http://tinyurl.com/pkgertu Article and film: Pilloton, Emily. Design Thinking: http://tinyurl.com/pkgertu Her film: If you Build It, and Project H http://tinyurl.com/249w4uf Interview with the filmmaker: http://tinyurl.com/onf93ov
- Her film: If you Build It, and Project H http://tinyurl.com/249w4uf Interview with the filmmaker: http://tinyurl.com/onf93ov
- Toolkit: Design thinking at work in North Carolina. Download Designer's toolkit: http://tinyurl.com/q4lpfbr
- Resource list: Bob Pearlman's list of the best innovation labs, Makerspaces, and Learning Commons: http://tinyurl.com/pcgh5ac

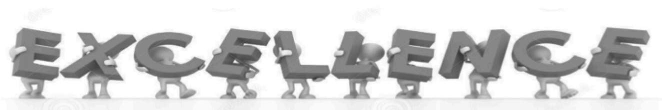
Tech Tools

- Article: Schwartz, Katrina. 2015. "Teacher Recommended: 50 Favorite Classroom Apps". *Mind/Shift.* http://tinyurl.com/o8fbrsg
- Article: Khoja, Nadya. 2015. "23 Tools for Students To Publish What They Learn". *te@chthought.* http://tinyurl.com/nq38hmu
- Check out slides used to help adults create a class in coding: http://tinyurl.com/phnpeaf

7

Chapter 7
Showcase of Literacy, Learning, and Excellence

LC: Showcase of literacy,
learning, and excellence



For the last half-century, school librarians have tried to instill the love of reading into the heart and mind of every child. More recently they have also concentrated on teaching inquiry and research skills that help children do a report or produce some other artifact.

Today, there are broader interpretations of literacy that deal with many of the issues unique to the world of information and technology. The demands of negotiating meaning in new learning environments are also driving pedagogical change. A few evolving teaching and learning concepts that expand literacy include:

- Reading widely and deeply
- Active participatory learning approaches
- Collaborative knowledge building
- Self-directed inquiry and problem solving
- Digital citizenship and networking
- Design thinking, innovation and creativity
- Attention to growth mindfulness

A number of states have developed an information skills curriculum for librarians to deliver as a standalone course during the elementary years and beyond. Such courses often further isolate the librarian from the classroom if they taught outside the context of the regular curriculum.

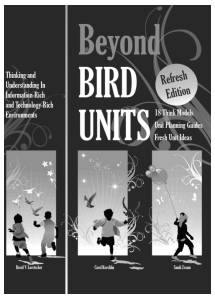
In the learning commons, we recommend that skills be taught as a part of project learning that is co-taught with the classroom teachers, and because the staff of the learning commons includes specialists with ideas of their own, the embedded "curriculum" applies more broadly than ever before.

The reason for our recommendation is that skills taught 'just in time' are far more likely to be learned and transferred than small one-shot lessons, which are taught very briefly during library time. If "fixed schedule" library time is turned into

discovery learning, then the teacher librarian will have much more time to do project learning with classroom teachers along with the other specialists in the building. Such a stance is easily tested out in any school. As an experiment with a few teachers, we recommend embedding a body of needed literacy skills into a learning unit and assessing the results over time. One could do a more extensive piece of action research by setting up comparison classes that received isolated "library skills" instruction.

Thousands of sample units are available at teachers' fingertips on the Internet or in commercial printed packages. However, examples of learning units that push kids into the world of information and that use technology to boost learning are not that common. We recommend that you look hard at pre-packaged units and ask a few questions:

- For a topical unit, are the children encouraged to branch out on the Internet or in online databases to find the information and resources they need; or, are all the content resources supplied to the children as we would do if the child had access only to a textbook chapter?
- Are there resources for every child? Simple? More advanced? Interesting? in other words, are the resources differentiated to meet the needs of the diverse learners in a group?
- Are the information and processing skills necessary to understanding the topic presented in context, or is the assumption made that the child will somehow already have the needed skills?
- Are the recommended technology tools for use actually going to help boost content learning? (Check out the SAMR model to make a judgment about this. See Chapter 4 Activity 6)
- Are the children encouraged to participate in the learning from the beginning through the end, or is the unit a list of assignments to be completed?
- Does the assessment of the unit cover more than just factual knowledge of the topic, or does it include a look at the information skills as they improved and the soft skills that increased during the learning experience?



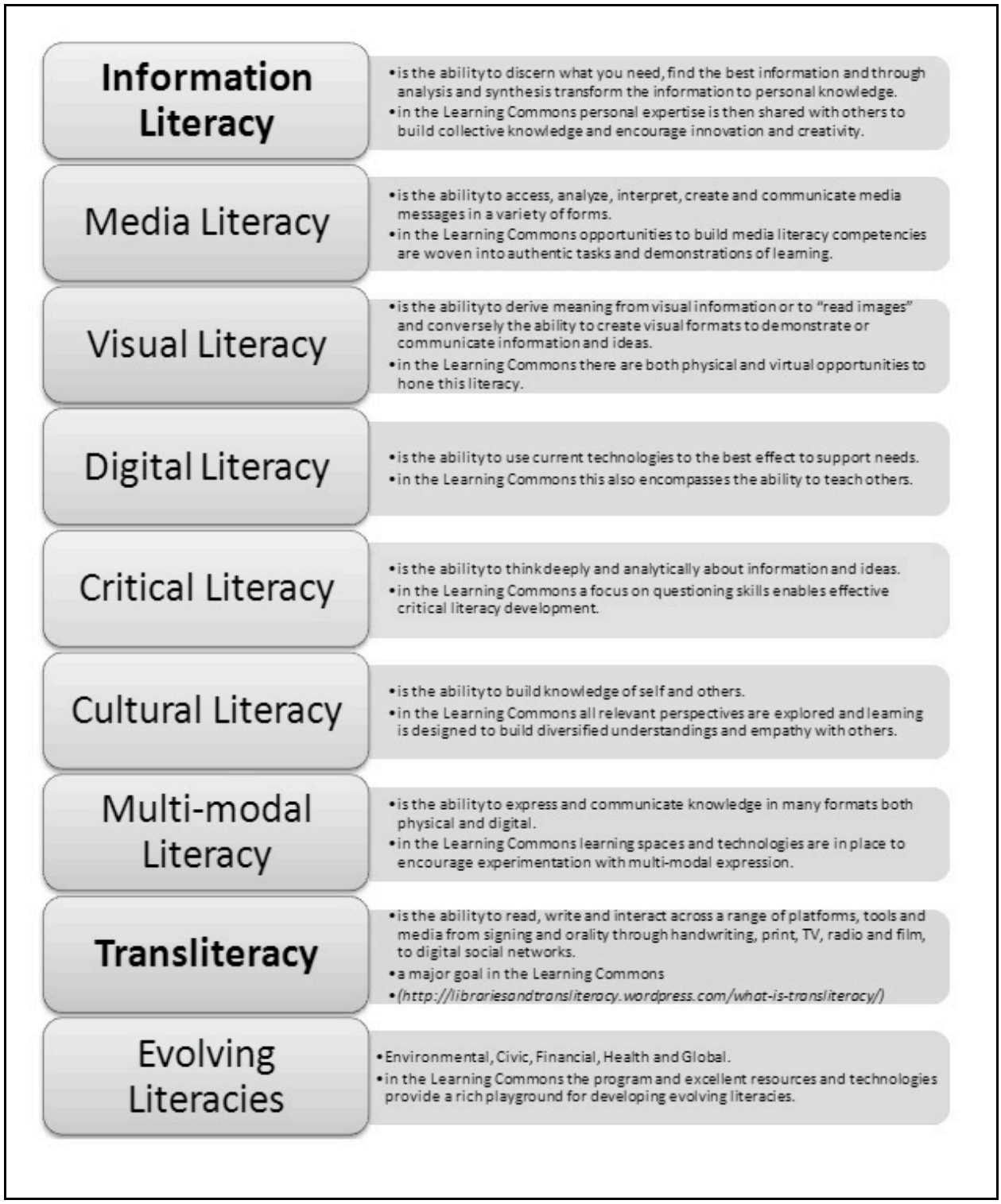
For some sample units that embed various learning literacy skills into topical units, check out the authors' volume, *Beyond Bird Units* available from lmcsource.com

The following activities challenge the staff of the learning commons to integrate their expertise into classroom units to make these units not only higher level, but also make them memorable for the children long after they are over. Perhaps you can remember back to your own elementary school experience for examples that really made a difference in your own learning.

Activity 7.1
What Counts as Literacy?

"Defining literacy is a process of continuous negotiation that is fueled by social, economic, and technological changes. To be literate is to have the skills and knowledge to make meaningful connections between what one knows and what one is trying to understand, apply, or communicate. Reading, writing, speaking, listening, and communicating are foundational but the term literacy, however, has matured. An elastic definition of literacy now encompasses textual, digital, visual, media, informational, cultural, and global literacy under this broad learning umbrella. It could be argued that the umbrella term literacy now means learning literacy with all of the above nestled together. New literacies will continue to evolve as technologies appear and disappear and as global and societal pressures shift the focus on specific information and learner needs. It isn't the label that is the critical issue, but the understanding of the need to bring Learning Commons into the 21st Century as evolving centers for literacy excellence." Loertscher, Koechlin and Zwaan 2011

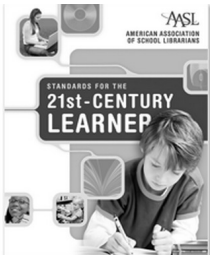
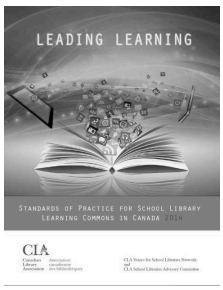
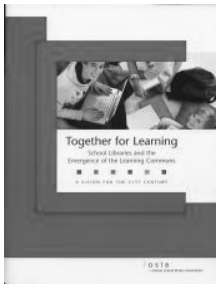
Challenge: Explore the chart below with your school learning commons team and make plans to integrate all learning literacies into project and discovery learning.

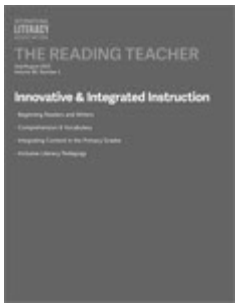
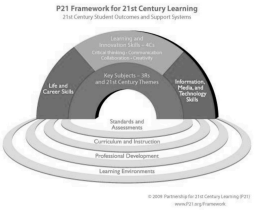

Information Literacy
•is the ability to discern what you need, find the best information and through analysis and synthesis transform the information to personal knowledge.
•in the Learning Commons personal expertise is then shared with others to build collective knowledge and encourage innovation and creativity.
Media Literacy
•is the ability to access, analyze, interpret, create and communicate media messages in a variety of forms.
•in the Learning Commons opportunities to build media literacy competencies are woven into authentic tasks and demonstrations of learning.
Visual Literacy
•is the ability to derive meaning from visual information or to "read images" and conversely the ability to create visual formats to demonstrate or communicate information and ideas.
•in the Learning Commons there are both physical and virtual opportunities to hone this literacy.
Digital Literacy
•is the ability to use current technologies to the best effect to support needs.
•in the Learning Commons this also encompasses the ability to teach others.
Critical Literacy
•is the ability to think deeply and analytically about information and ideas.
•in the Learning Commons a focus on questioning skills enables effective critical literacy development.
Cultural Literacy
•is the ability to build knowledge of self and others.
•in the Learning Commons all relevant perspectives are explored and learning is designed to build diversified understandings and empathy with others.
Multi-modal Literacy
•is the ability to express and communicate knowledge in many formats both physical and digital.
•in the Learning Commons learning spaces and technologies are in place to encourage experimentation with multi-modal expression.
Transliteracy
•is the ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks.
•a major goal in the Learning Commons
•(http://librariesandtransliteracy.wordpress.com/what-is-transliteracy/)
Evolving Literacies
•Environmental, Civic, Financial, Health and Global.
•in the Learning Commons the program and excellent resources and technologies provide a rich playground for developing evolving literacies.

Activity 7.2
Become very well acquainted with the major documents that the specialists in the school would like to use as a guide to their role and work.

The various specialists on the staff of the learning commons will probably have a list of major state or national documents they respect and want to embed into the curriculum of the school. We would recommend that every member of the specialist staff be very familiar with the entire group of documents so that they understand the common ground they are all trying to work with.

We list a few of these here but there are more listed in Chapter 1:

AASL. *Standards for the 21st Century Learner* http://www.ala.org/aasl/standards-guidelines/learning-standards	
Canadian Standards - *Leading Learning: Standards of Practice for School Library Learning Commons* http://clatoolbox.ca/casl/slic/llsop.html	
Ontario document and website - *Together for Learning: School Libraries and the Emergence of the Learning Commons* www.togetherforlearning.ca	

International Literacy Association http://www.reading.org/	
ISTE Standards for Students; Teachers; administrators; Coaches; Curriculum Planning Tool http://www.iste.org/resources	
P21 Framework: http://tinyurl.com/pod3z92	
Design Thinking for Educators: http://tinyurl.com/qhrsyfc	

Activity 7.3
Showcasing Literacies and Learning in the Learning Commons

Create some excitement and promote the many literacy initiatives and student work accomplished in the learning commons. Here are some ideas to get you started:

- Reading Promos
    - Facilitate book clubs, face to face and virtual
    - Get Caught Reading contests and posters
    - Selfie Shelfie match contests
    - Feature best reads on the VLC
    - Video booktalks by students
    - Publish student book reviews

- Writing Promos
    - Publish student books - print and digital
    - Host student poetry readings
    - Sponsor a student news column on the VLC
    - Facilitate student blogs

- Creating and Communicating
    - Invite other classes, teachers, and outside experts to tour student project kiosks at the end of a unit
    - Post student projects and their Big Think reflections on the VLC
    - Create a video of the entire inquiry process
    - Feature student book trailers on VLC
    - Tweet out photos of Discovery Learning creations
    - Share big ideas with another class via video conferencing
    - Over to you

Activity 7.4
Embed Wide Reading, Viewing and Listening into Content Learning Experiences

Using the Comprehensible Input hypothesis of Steven Krashen* for secondary language learners, surround learners with interesting materials to read, view and listen. Those who respond by consuming large quantities will benefit greatly in vocabulary, spelling, grammar, writing, and of course understanding. This might apply to anyone of any age trying to learn English, but applied to the language of science or social studies or math or fine art would build background faster than if someone were just to listen to lectures or just study vocabulary word by word.

Teacher librarians are famous for booktalking fiction. However, what about furnishing a variety of materials *of interest to young people* when approaching a topical study for which the learners have little background knowledge? Instead of just trying to read a chapter in a textbook that only a percentage of learners can read with understanding, provide a plethora of materials at a variety of difficulty levels and "booktalking" the lot as fascinating and easy ways to get acquainted with the topic at hand.

Better yet, have everyone help with the task of assembling and curating the best of books, videos, websites, resources in the community, and from the Internet. Ensure that students are making connections with text and building understanding. Try using the Read View and Listen Model from *Beyond Bird Units*.

Challenge: Try this strategy of background building as a learning experience begins and together with the classroom teacher assess the impact on interest, understanding, the construction of better questions, vocabulary growth, and just general knowledge before plunging into a difficult topical study.

*****In addition to Krashen's hypothesis, check out these other benefits of wide reading across the content areas rather than just always reading fiction at: http://tinyurl.com/potuhxk

Activity 7.5
Nurturing Growth Mindfulness

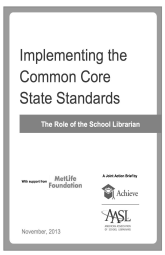
The learning commons provides challenging programs and natural environments for developing healthy learning dispositions. Here everyone is a learner and everyone is a teacher. Risk taking is encouraged and mistakes are welcomed as catalysts for new ideas in this learning lab. We encourage you to talk about the learning process with students and help them to become more mindful of how they learn best and how to get better at anything they want to achieve.

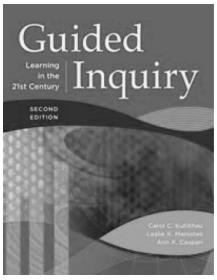
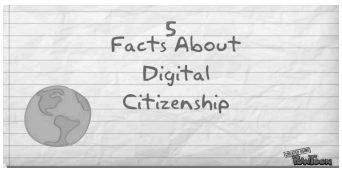
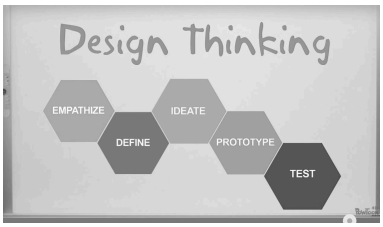
The growth mindset approach developed by Stanford University psychologist, Carol Dweck, is a good model for the learning commons. Read this article to find out why it is a good learning approach for both teachers and students. Explore ways to build this culture in the learning commons.
http://tinyurl.com/mbnh7jj

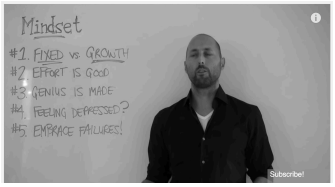
Discuss the impact of effort, resilience, determination, and self-efficacy when facing challenging tasks in order to build positive growth mindset vocabulary with students.
There are many wonderful picture books to support this theme. Build up your collection to share with students and staff. Read this blog post to get you started, A Picture Book that Pushes Growth Mindset. http://tinyurl.com/pwqwcke

Spires, Ashley. 2014.*The Most Magnificent Thing*. Toronto, ON: Kids Can Press
http://tinyurl.com/ox2h2tn

Resources for Embedding Literacies into Learning

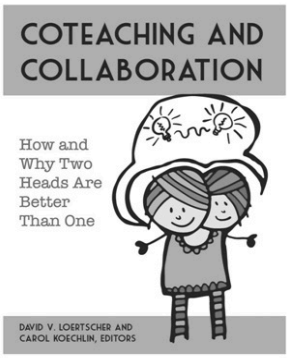
Reading	Kid Theater with Michael Keaton: http://tinyurl.com/12xzvjr	
	Story Lady Teaches Reading and Writing to Kids http://tinyurl.com/qxx6z2a	
	All about the book -Griffin Elementary Literacy Night: http://preview.tinyurl.com/ocnyu7w	
Inquiry	Definition of Inquiry for kids 6 min. http://tinyurl.com/nw34gwg	
	Writing a Summary: Five Easy Steps for Kids http://tinyurl.com/oezeqm8	
	AASL and Achieve, 2013. *Implementing the Common Core State Standards: The Role of the school Librarian.* http://tinyrul.com/mp63aek	

	Book: Kuhlthau, Carol, and Leslie Maniotes. 2015. *Guided Inquiry: Learning in the 21st Century*. 2nd ed. Westport, CT: Libraries Unlimited.	
Digital Citizenship	Five Facts About Digital Citizenship http://tinyurl.com/o7p2rva	
	An Introduction to Digital Citizenship. 9 min. http://tinyurl.com/mlqa8ml	
	Oversharing Digital Citizenship: http://tinyurl/pccv923	
Design Thinking	2 minute course in Design Thinking: http://tinyurl.com/pe356w9	
	2 minute Justin's Workshop on Design Thinking with Kids: http://tinyurl.com/pnndn8b	
	Design Thinking: http://tinyurl.com/qaa6hpx	

	Design Thinking: http://tinyurl.com/oa2ncrs	
	Pep Talk by the President Kid: 4 minutes http://tinyurl.com/oej4m92	
Mindfulness	Mindfulness http://tinyurl.com/o7bc6ke	
Active Mindset	Carol Dweck "Mindset - the new psychology of success" at Happiness & Its Causes 2013 (26 minutes.) http://tinyurl.com/ll9fzm8	
	Fixed Mindset vs. Growth Mindset Carol Dweck Method, 11 minutes.: http://tinyurl.com/pbt5aqn	

Chapter 8
Showcase of Literacy, Learning, and Excellence

LC: Coteaching and collaboration are center stage

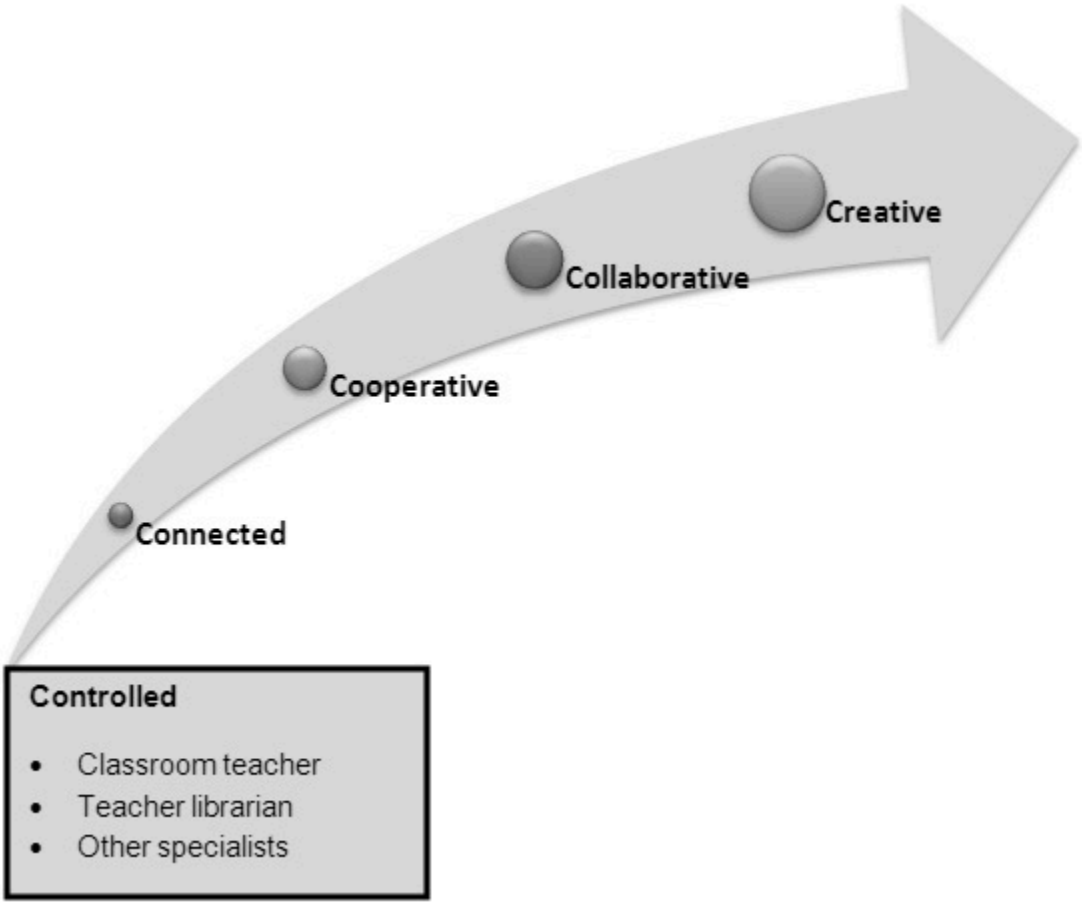


If one takes a look at the impact of the entire Learning Commons program in the elementary school, co-teaching stands out as *the* critical characteristic necessary to ensure a positive influence on teaching and learning.

There are a number of terms associated with a participatory teaching culture in the school, so a definition is in order here. By co-teaching, we mean that a classroom teacher and a specialist in the school (for example, the teacher librarian) plan, teach and jointly assess a learning unit or experience. Traditionally, collaboration has often meant that a specialist would coordinate or cooperate with what was going on in a classroom, but would not be involved in every activity of a learning experience.

We have found that parallel cooperative activities are not nearly as powerful for students as co-teaching when two adults join their expertise and work together at every stage of a learning unit. Such a stance requires time, planning, creativity, and trust between the partners in order to achieve the highest and most powerful results with children. Those who co-teach successfully recognize how and why co-teaching is so powerful. They often cite the combination of each other's expertise, the ability to differentiate for learners what is being taught and learned, the ability to offer more help for individual learners, and the ability to play off each other's strengths and creativity.

Pathway to Co-teaching Excellence in the Learning Commons



Controlled – isolated approach - everyone working on their own agendas, often without knowledge of each other's talents and expertise

Connected – outreach approach – teacher sends students to the library for resources and teacher librarian pulls together resources to send to the classroom

Cooperative - invitational approach - Teacher invites teacher-librarian to add value to teacher's assignment (e.g., teaching search skills) or teacher-librarian develops an invitational lesson (e.g., providing book talks)

Collaborative – deliberate approach – Both teachers partner to co-design, co-teach and co-assess a learning experience that infuses higher order thinking, information literacy, and technology.

Creative Co-teaching– responsive approach – all teachers and specialists work together in the learning commons to provide self-directed discovery and project learning experiences that are in tune with evolving technology opportunities, knowledge environments, and learner's interests and needs.

Regardless of where you and the teachers in your school are on the growth continuum visual, the important thing is to make a start toward building knowledge of each others talents and expertise and work toward strong teaching partnerships that yield high returns for all learners. It has never been a more exciting or rewarding time to be an educator, and leadership is needed from the learning commons experts to help design the best possible environments and programs to take schools into the future. Thus there is a pathway that the two partners often make as they learn how to work together:

In this chapter the activities have been designed to first, develop a sense of vision about what could happen on the journey toward establishing a co-teaching culture. In the school organization, specialists often have isolated programs from the classroom, but have a mission to combine their expertise with that of classroom teachers. They might do so by providing professional development, conducting observations of the classroom and providing guidance, or by providing a separate program that gives the classroom teacher individual planning time during the day.

In recent years, the pressure on teachers in isolated classrooms has grown exponentially as the pressures of high stakes testing have mounted. Such pressures have caused enough frustration with the system that the teacher dropout rate has increased substantially. Evidence we have collected suggests that co-teaching can not only provide sharing of burdens, but spark a fresh sense of creativity and satisfaction as the combined efforts of the two produce greater and more substantial impact on learning than either partner could have achieved alone.

We have found that the emphasis of impact and sustainability of the co-teaching model shifts from traditional large data set analysis to a one by one look at success with a group of children on a given topic, at a given time, with the addition of best information resources and technology. It is concentration at the point where the rubber meets the road. We can fail and there can be bumps in the road just as in the isolated classroom, but there is someone at our side to consult with, to figure things out with, and to give encouragement to keep trying.

Activity 8.1
Wrap your mind around the idea of collaboration

Watch the following 16 minute video:

Margaret Heffernan, Management Thinker
The former CEO of five businesses, Margaret Heffernan explores the all-too-human thought patterns, like conflict avoidance and selective blindness, that lead organizations and managers astray. She proposes ways that collaboration can work in any organization. http://tinyurl.com/p999er4

Question for discussion: How could these principles apply to classroom teachers and specialists who want to co-teach together?

Question for discussion: How could these principles apply to children working in groups?

Activity 8.2
Read a research article about coteaching

Find and read the following research article by David V. Loertscher

http://tinyurl.com/p626evd

The downloadable article is at the bottom of this short article and looks like this:

Question for discussion: How does your experience with coteaching and collaboration sync with the classroom teachers and teacher librarians in this study?

Question for discussion: What was the simple measure used in this study? How could this measure be used in your own school?

The remaining activities concentrate on the collaborative building of super learning experiences.

Activity 8.3
Use high level instructional designs in the planning and implementation of co-taught learning experiences.

When faced with a content learning unit that requires using information sources, a pattern often emerges such as:

- Choose a topic (Choose a bird to study)
- Do some research on your topic
- Create a product such as a report, or a slide show
- Make a presentation to the class

In such a task, a child may learn a few things about a particular bird, but know little about birds in general. And, because class presentations are usually a passive activity, the likelihood that the whole class will think deeply about birds is unlikely.

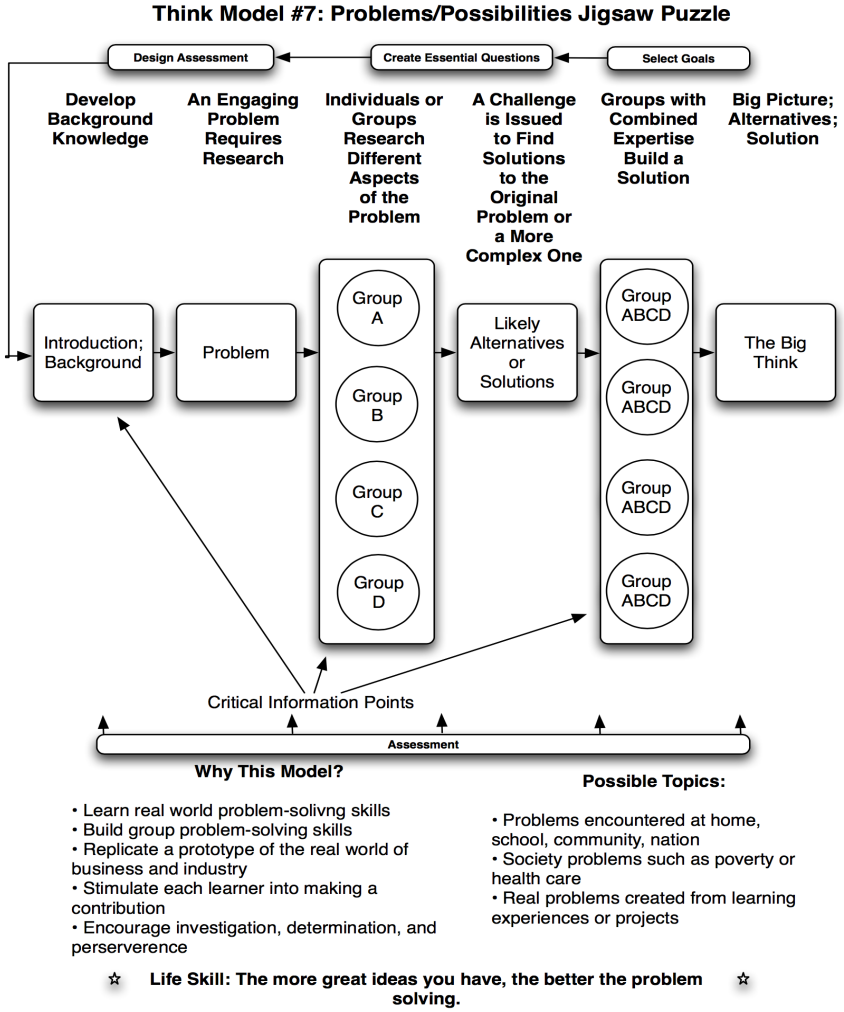
If the teacher librarian and/or the technology integration specialist were teaming with the teacher in the above unit, then the possibilities to build much deeper understanding along with the skills of inquiry and technology should produce a richer and engaging learning experience.

For example, the plan might go:

- Select goals and objectives from each partner. (Select curriculum goals and matching information and technology skills to teach.)
- Create an umbrella or big idea question. (Why do some kinds of birds have trouble surviving?)
- Develop assessments that both adults will use.
- Plan for a technology boost at critical points in the investigation.
- Build background knowledge of children. (The children read, view, and listen to resources that help them understand the umbrella question.)
- Help them form questions as individuals or groups. (Help them build their own questions about particular bird problems they wish to study.)
- Help the children find quality information at their level. (Both adults help in this regard.)
- Help them understand and apply what they are finding to solve their inquiry questions. (Both adults help individuals and groups)
- Help them produce a product that demonstrates their new knowledge in response to their questions.(Both adults help)
- Jigsaw the groups or individuals.
- Ask them a higher level question that requires them to combine what they know. (Have humans done anything to help birds survive? Are there other ways we could help?)

- Create a product that contributes to the answering of the original umbrella question. (Both adults help)
- Conduct a culminating event (Both adults help)
- Conduct both formative and summative assessments. (Both adults participate)
- Conduct a Big Think reflection about what they learned and how the learned it. (Ask an expert on birds to review what we know, and talk to us about our findings) (Decide together what percent of the children achieved our combined expectations or exceeded them)
- Decide what they can do better the next time they have such an investigation. (Both adults participate and later decide what to do the next time with these children) (Preserve our combined experience in our joint portfolios)

The following diagram illustrates this combined instructional design from the book *Beyond Bird Units* by Loertscher, Koechlin, and Zwaan.



Challenge: Try out this model as a team with a favorite topic of your choice. What was the result?

Activity 8.4
Build a repertoire of other high level instructional designs that work with the various grade levels in your elementary school.

Each school will have a different flavor of a collaborative environment, and so the specialists in the learning commons will use various strategies to embed themselves in learning experiences across the faculty. We find that collaborative work succeeds best when administrators create an organizational structure that is both friendly and encouraging to collaboration.. Many specialists we know consider coteaching experiences as one by one experiences rather than as wholesale mandates. They seem to start co-teaching with teachers open to experimentation, and, as success happens, other teachers join in.

If specialists use the project center "room" of the virtual learning commons to create the collaborative units, then, as co-teaching evolves, it is easy to see patterns and the extent to which specialists are succeeding and spreading their influence across the faculty. If you go to the Virtual Learning Commons template at: https://sites.google.com/site/templatevlcelementary/home you will see the "project Center" tab at the top, then click on the "Current KBCs, and you will find all the units that are being conducted and co-taught in the learning commons:

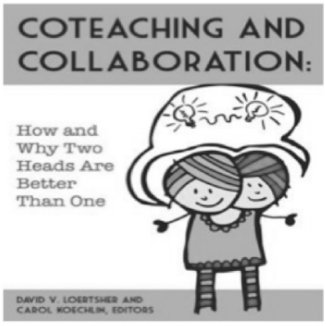
On this subpage, learning experiences in the planning and execution phase might be featured including technologies such as:

For the specialists themselves and for administrators, it becomes easy to watch collaborative efforts develop and strengthen over time. As each co-taught unit is completed, it is archived as recommended in Activity 9 below. If students or the adults forget the url for a unit, it is always easy to find on the project page.

Challenge: No matter what software you are using for the virtual home of co-taught learning units, list them in the project center room of the VLC. It will not take long to establish a pattern that everyone can use.

Activity 8.5
Read the experiences of many others as they describe their efforts and overcome the challenges.

Over the past few years, the editors of *Teacher Librarian* have encouraged and published quite a number of articles describing coteaching experiences across the U.S. and Canada. Recently, David Loertscher and Carol Koechlin have gathered most of these articles into a single volume so that readers can find examples across levels of schooling and across disciplines.



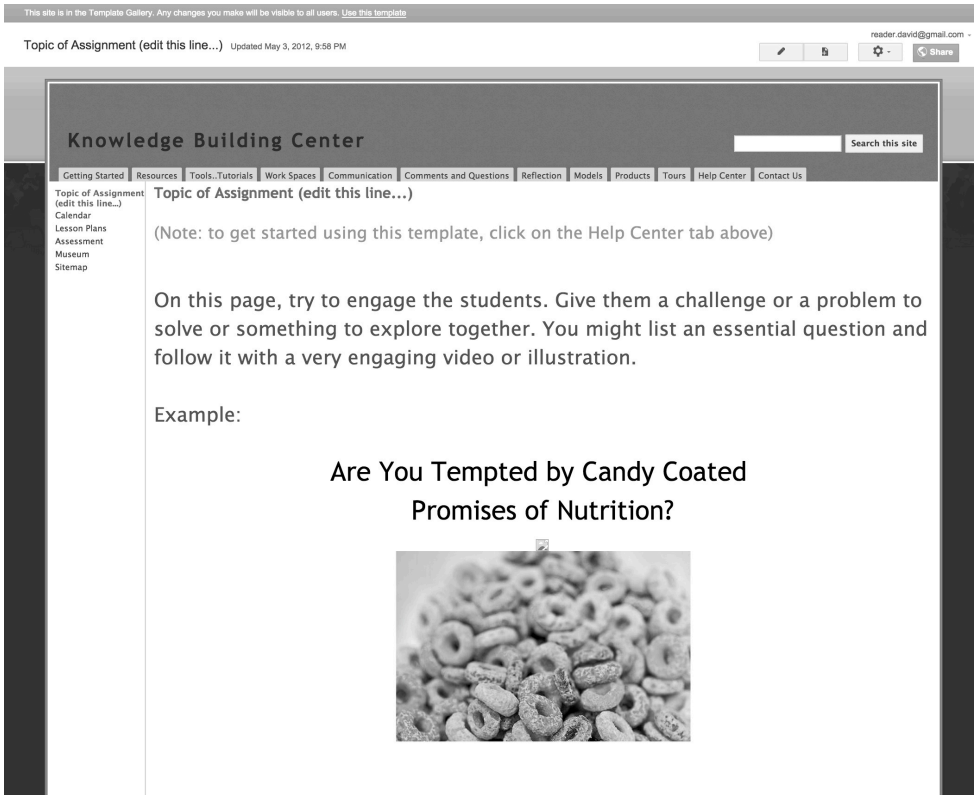
You are encouraged to find in this collections, examples that fit your situation and then use them as examples with your own teaching staff. The collection is available from http://LMCsource.com

Challenge: Read the success stories of others, but also share the results of coteaching experiences in your school to help others understand the human dynamics, the strategies used, the problems overcome, and the impact on teaching and learning.

Activity 8.6
Use the Knowledge Building Center Template in the Virtual Learning Commons to coordinate, build, and assess the Impact of a co-taught learning experience

We are regularly asked how candidates for co-teaching find the time to collaboratively construct, teach, and assess learning experiences. Our solution is to pull down the Knowledge Building Center free Google template and create a unit jointly "owned" by both teacher and specialist (s). That way, the partners have virtual access to the planning and execution of a learning experience any time of the day or night, together or separately. And, the template can be the virtual home for the children working in this virtual space together alongside the adults.

You can access the Google Template at: http://tinyurl.com/nljp54w



The template can be used for any topic at all grade levels, and can be downloaded, renamed, and can be easily adjusted to most any exploration.

If you prefer not to use a Google site for a knowledge-building center, examine the template carefully and reconstruct its ideas into a preferred technology. For

example, a Google Classroom can have learning experiences that are jointly owned by multiple adults and the students using it. If you are using a content management system, perhaps the easiest thing to do is use the Google KBC, and just lodge the url in the system used by your students. We have also known people who have used LibGuides or Weebly to construct their KBCs.

The most important criteria necessary for using any software to construct knowledge building centers are that:

- The site can be jointly owned and edited by participating adults.
- Students can actually use and participate on the site to explore, do their work, and submit their projects.
- The site should be available anyplace, at any time, and on any preferred device.
- Parents or experts can be included in the site as needed.
- Prefer technologies that allow the children to participate in a paperless environment as well as working in the physical world. Yes, messy finger paintings

Challenge: Create your own virtual knowledge building center (KBC), test it out, and modify it to suit your school and preferred technology platforms so that it can be accessed easily by any participant. Collaborate with teachers and combine expertise to create a knowledge building experience that engages learners in challenges they care about.

Activity 8.7
Embed inquiry, literacy, technology, and soft Skills into learning experiences

The teacher librarian and other specialists might say, "But, how do we teach our part of the curriculum if we don't conduct our own classes all school year?" Our recommendation is to plug in an appropriate skill or skills during a co-teaching unit in the project center of the learning commons that is "just in time." Here are some examples to consider during a Primary Science unit investigating the characteristics of animals:

- **Storytelling:** During the unit, both adults and students tell stories about animals.
- **Booktalking:** Both adults and students booktalk their favorite books about animals.
- **Reading Skills:** The whole group helps build new vocabulary about the animals that are being investigated on a 'word wall'..
- **Writing Skills:** The children write and read their own stories and poetry about animals to each other.
- **Inquiry:** From the building of questions, to the research, and beyond to the culminating activity, the adults mentor the process of inquiry and teach information skills as needed during student investigations.
- **Critical Thinking:** Challenge students to compare the characteristics of animals they are investigating, and look for similarities and differences.
- **Technology:** Both adults and students discover and use a new technology tool on their personal devices that helps in the animal investigations. Combine skills and teach students how to create and share digital stories.
- **Persistence:** Everyone helps everyone else keep working until they have completed what they set out to do in their exploration of animals.
- etc., etc., etc.

Log what skills you have embedded into various projects and, across the year, you can "cover" your "curriculum."

Tip: During the Big Think reflection time with the adults and children, be sure to think about "how we learned" alongside "what we learned". As well, in the "what can we do better discussion", the adults take notes, so that across the school year they build on previous skills and add more sophisticated ones to the challenges.

Challenge: As a part of the professional learning covered in chapter 10 of this book, create an experiment by including embedded skills taught by specialists into one teacher's learning commons projects. Document the impact and ask whether such a "just in time skill" produced better results. So what? What's next?

Activity 8.8
Build both individual and collaborative knowledge building into learning experiences

Prelude: Watch Margaret Heffernan's video for a second and perhaps a third time as you take notes: http://preview.tinyurl.com/p999er4

- **Question:** What recommendations does Margaret have for combining individual expertise into collaborative intelligence that moves a business or organization forward?

- **Question:** How does Margaret see "super chickens" acting and contributing to the success of a project, direction, or solution to a problem?

- **Question:** What role does Margaret recommend for the leadership in an organization where collaborative intelligence is expected and encouraged?

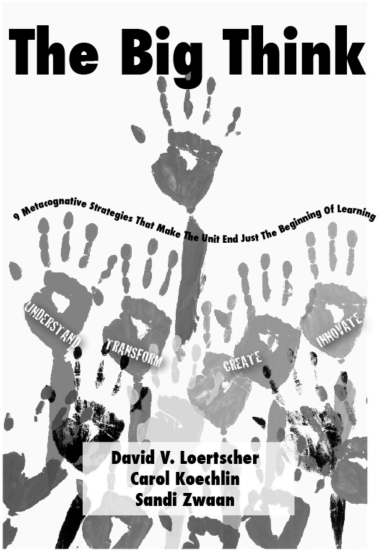
Main Course: There is much discussion in educational literature about cooperative classroom group work that voices worries about slackers, disorganization, and chaos as compared to direct instruction. Have a serious discussion with adults in the school about Margaret's ideas, and what has already been tried and succeeded in the school, and what has also failed. Is there any room for further experimentation with the idea of collaborative intelligence as a part of co-taught learning experiences in the learning commons?

Challenge and Experimentation: Could refinement and new strategies for collaborative learning and collaborative intelligence be tested using the techniques in chapter 10 of this book?

Activity 8.9

Don't forget the Big Think as a strategy for sophistication over time

Often, student presentations are thought of as the culminating event of a learning experience. Or a quiz or some kind of test is given, and when that is given (not yet scored), the unit is over and we move along to the next topic.



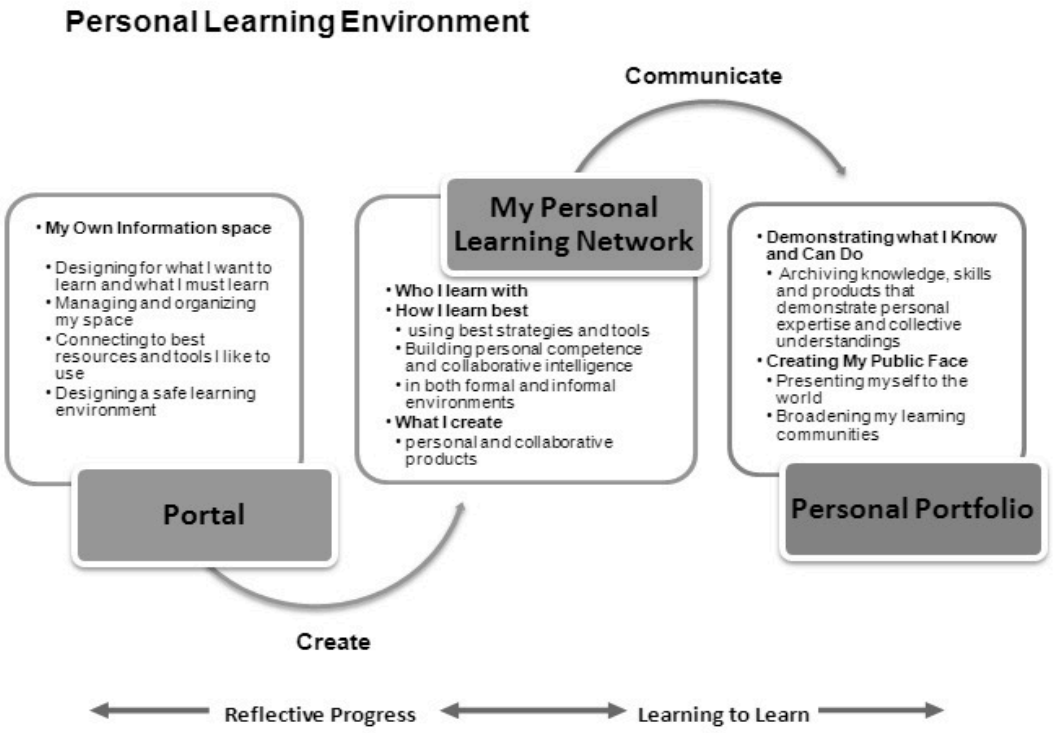
In *The Big Think* book, the authors encourage that the actual final end of a learning unit should be a metacognitive reflection by the adults and learners together. In eight proposed strategies, we outline ways to think together about what we know and what we have learned about our topic, both as individuals and as a group. Then we reflect together on how we learned what we did, both as individuals and as a whole group. Finally, we try to figure out together how we could do better the next time we do an investigation.

If such a reflective activity takes place, then the adults can keep some notes that they can use at the planning stage of the next inquiry experience. Hopefully they won't have to reteach everything and can increase the sophistication level every time they coteach together. They are both working on the concept of transfer and in learning theory that is the ultimate learning level they can achieve.

Challenge: Get a copy of *The Big Think*, and try out several of the nine strategies that are outlined there. The first time you do it, even the children may be shocked that they are being asked about such matters, but repetition is likely to boost the idea of self and group reflection in order to make progress.

Activity 8.10
Help children develop their own Personal Learning Environment

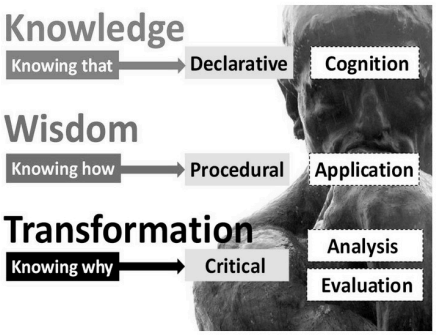
In Activity 3 of Chapter 5, we covered the idea of helping each child begin to develop their own Personal Learning Environment where they are taking command of their own learning. Consult that activity and you will encounter the following model:

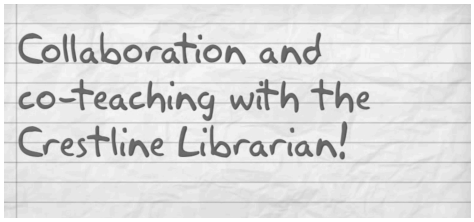


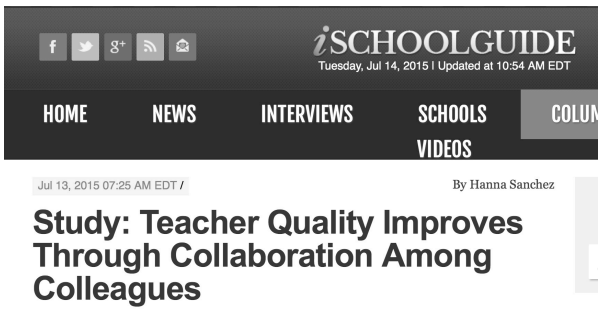
We bring this idea to your attention again as a reminder that, over time, the adult co-teaching partners get more and more sophisticated at creating and conducting high level learning experiences. Likewise, the children should be doing the same thing. They are starting to flourish in discovery learning and in project learning. They are getting better and better as individual learners and at learning in collaborative groups. Even at a young age, they are building a learning environment that they control alongside what adults expect them to know and be able to do. It is another example of changing an either/or into a both/and, so that they can operate as learners and doers in a wide range of situations both in and out of formal education.

Challenge: Along the way, help the children develop their own PLE and start to notice what happens as they develop their own confidence level in the command of their own learning.

Resources

Deeper Learning http://tinyurl.com/nazmlu5	
Shifting towards an Architecture of Participatory Learning http://tinyurl.com/qb3ejxo	

Why co-teach with the Teacher Librarian: http://tinyurl.com/qjn4jfn	
Tips for co-teaching - example by a classroom teacher and a special education teacher: http://tinyurl.com/pr4q2pk	

Co-teaching among several subject specialist teachers: http://tinyurl.com/o7hmofk	
Another study on the impact of collaboration among teachers: http://tinyurl.com/oyq9mzt	
Collaborative Partnerships and Constructivist Learning by Dr V. Harada https://violetharada.wordpress.com/collaborative-partnerhsips/	
How and why collaboration works among the adults at: http://tinyurl.com/owe6sre	

9

Chapter 9
Led By Teaching Specialists and Support Personnel

LC: Led by teaching specialists and support personnel

Learning Commons Leadership Team

Leadership in the Learning Commons is team based rather than shouldered by a single individual. The establishment of the Learning Commons team will be individual to each school, but should be representative of school demographics and learning culture. This team will create the vision, goals, and general action plans for driving the work of the Learning Commons.

At the lead is a credentialed teacher who also has school librarianship credentials. Those qualifications have prepared this educator with specialized knowledge in instructional design and skills in using technology for learning. We also propose that other credentialed professionals be a part of the Learning Commons staff. These could include technology integration specialists, reading specialists, curriculum coordinators, special education teachers, ESL teachers, counselors, and even fine arts teachers. Any specialist having a whole school responsibility might be part of the learning commons staff. All these specialists who work as adjuncts to classroom teachers would together make a larger difference than they could if each carried out an individual and separate program.

The central reason for creating a combined specialist staff is to coteach alongside classroom teachers using the varied skills the specialists bring to a particular learning experience. If specialists could devote half of their workday to coteaching and the other staff to other responsibilities, there would be a cadre of coteachers that could be embedded in learning experiences to take advantage of the idea that two heads are better than one.

Support Personnel

To continue with this collaborative approach to staffing in the learning commons; the need for support personnel cannot be overemphasized. The workings of the Learning Commons enterprise need staff with the responsibility of keeping the physical and virtual spaces and systems humming at their best. Coteaching possibilities will be greatly hampered without professional support by technicians and other support staff working in tandem with teaching staff. The support personnel may be working on site, travelling from school to school, or located centrally at the school district's headquarters. They contribute their skills and talents to the efficiency of access and use of resources and technologies, as well as to finding ways to make services better.

Principal-Librarian Partnership

Advocacy and leadership by the school principal are instrumental to success. In an article in the April 2015 issue of Teacher Librarian, principal Ryan Steele explains why his partnership with the school librarian is so important. *"So why should there be a strong principal-librarian partnership? Simply put, if the library is going to once again be the center of learning, the librarian needs to be leading the way. Librarians are no longer the people who tell kids to be quiet,then reshelve books - they are teachers, leaders, learners, risk takers, and knowledge seekers. As such it's time for our librarians to once again be our strongest guides to learning….and as principals, we need to help them get there. After all, we are in this together."*

Activity 9.1
Read, with a group of specialists, a research study about coteaching

If you have not already done so, read the following study by David Loertscher at: http://tinyurl.com/p626evd

The actual study is downloadable at the bottom of the page.

Challenge: Possible discussion questions to explore:

- Do you think that the power discovered in this study would apply to any specialist in the school who is combining their agenda and expertise to that of a classroom teacher in a joint learning experience?

- Could the simple measure used in this study be done on any cotaught learning experience to build a track record of impact in your learning commons?

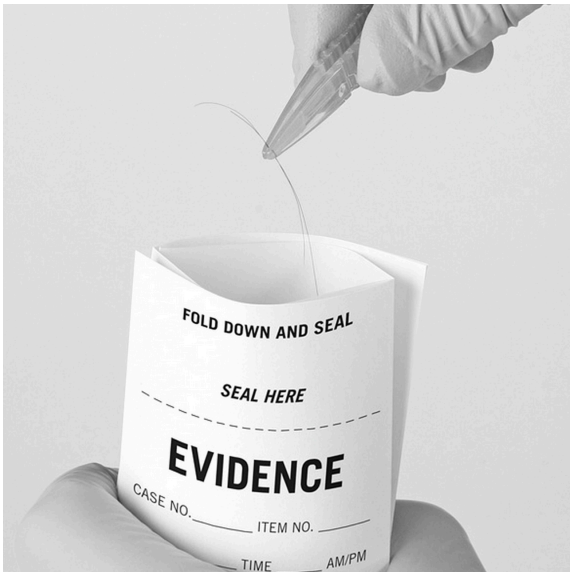
- Is that track record already in existence? How is it reported? To whom? With what results?

- How would co-teaching be compared to a specialist who does observations and then makes recommendations to the classroom teacher, who would then use improved practices in the isolated classroom?

See the article and download it at: http://tinyurl.com/p626evd

Activity 9.2
Can the existence of credentialed staff in the learning commons demonstrate the *raison-d'etre?*

In the library world, many studies by Keith Curry Lance have demonstrated that the size of the professional staff in the library makes a difference to student achievement. Combining the expertise of all the specialists, does this hold up in your school? What evidence do you have? If there is no consistent evidence, could some be collected as experimental cotaught learning experiences proliferate?



Challenge: Use the simple measure done in the Loertscher study above. When coteaching is used, what percent of the learners meet or exceed both adult's expectations? Does that fall in the 70-100 percent range? Why or why not?

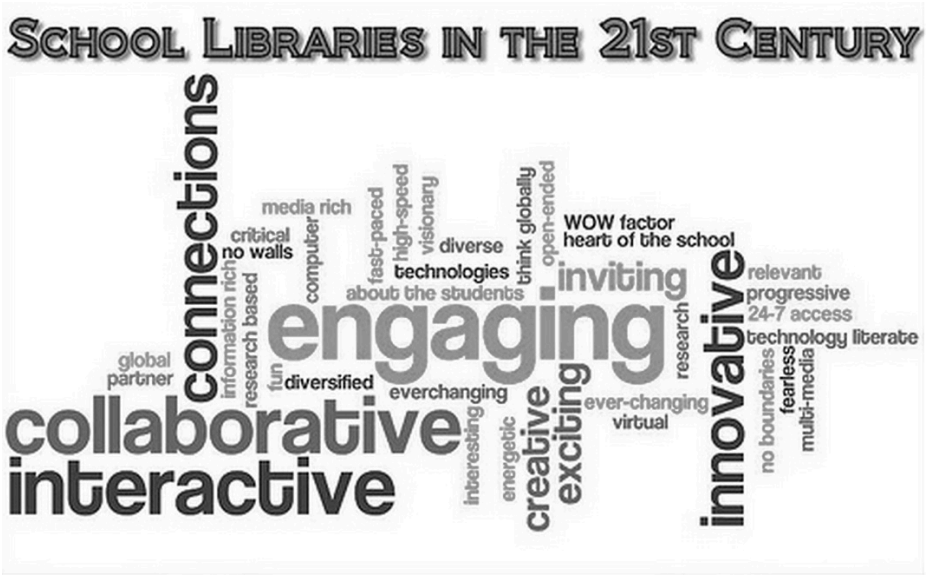
If the coteaching experience does not produce a marked difference in learning success, analyze the problems. In the original study, Loertscher found that sometimes school organizational factors might disrupt a planned experience. Sometimes, the adults expected too much. In a recent interview with a coteacher, it was evident that the adults did not seem to collaborate very well and the experience had become a tug of war rather than a collaborative effort. Whatever the challenge, try to design a different strategy that yields the expected high results.

Just like athletic coaches who watch the video of the last game whether it was won or lost, the emphasis of successful coteaching is always on what strategies worked and what didn't work. The emphasis is on what can we do better as coaches right now. It is not a blame game; it is a strategy of continual improvement. This reflective practice is all a part of The Big Think strategy covered in other parts of this book.

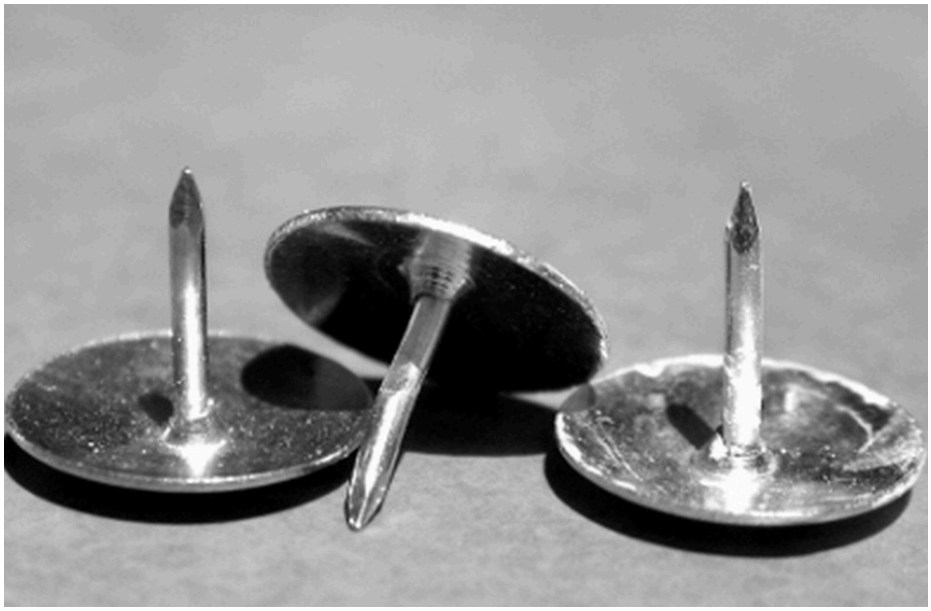
Activity 9.3
Provide professional development for both specialists and classroom teachers who would like to learn how to coteach

We have begun to notice that when a school district begins to hire back librarians who lost their jobs during lean financial times, they are modifying their job descriptions in order to hire someone who has a larger view of what can be done in the library learning commons.

Challenge: Compare the following Wordles. The first is of a more traditional person in the job; the second quite a different person. So what does this all mean?



Activity 9.4
Get down to brass tacks: Deal with some realities



Challenge: Think through some sticky issues together

- How would several specialists be officed in the physical learning commons, or, could they be "officed" in the Virtual Learning Commons?
- How could the physical space dedicated to the Project Center be used simultaneously by multiple groups?
- What kind of joint calendaring would facilitate the occurrence of multiple coteaching experiences?
- What administrative support would be needed to make coteaching not only encouraged, but actually happening?
- What kinds of experimentation would be needed before a major switch in roles and responsibilities could happen?

Activity 9.5
Building a Learning Commons Leadership Team

The Learning Commons must be fluid: it must grow and evolve with school needs, emerging technologies and global realities. It requires leadership to succeed, and that leadership can only come through the willing co-operation and collaboration of everyone participating in the school learning process.

At the school level, the principal is key in establishing and encouraging working partnerships among staff and students. The principal must provide the climate for cooperation, experimentation and growth. The Learning Commons has great potential but only when everyone participates.
Together for Learning: School Libraries and the Emergence of the Learning Commons, OSLA www.togetherforlearning.ca

Challenge: This quote from the Ontario School Library Association document is a good discussion starter.

- Who needs to be part of the Elementary School Learning Commons Team?
- How can the principal help?
- Should students and parents be involved?
- How often will you meet? Can you hold virtual meetings?
- What is the mandate of the team?

Resources

Scott McLeod on leadership to enable great learning to happen: http://tinyurl.com/p25es9e	
Pam Moran, Superintendent of Schools, on transforming libraries: http://tinyurl.com/oacdjxj	
Scott Barry Kaufman on Creativity and Imagination http://tinyurl.com/nt8byyo	
Collaborative Leadership in School Library Learning Commons: New Canadian Standards and New Possibilities http://tinyurl.com/ngkr685	
Teacher Librarians at the Heart of Student Learning http://tinyurl.com/o42f4f9	

Chapter 10
Catalyst of Professional Learning and Experimentation

LC: Catalyst of professional learning and experimentation

The learning Commons has the potential to drive the changes needed to bring schools into the future, improve student achievement, and thus sustain whole school improvement. (Loertscher, Koechlin and Zwaan 2011)

Everyone wins at learning in a learning commons culture. Teachers as well as students get better and better, and school improvement is a natural outcome as everyone raises the bar on learning. There are several reasons why this phenomenon occurs.

- Coteaching is a foundational element of program design. Teachers build on each other's strengths and learn new skills and approaches.
- Experimentation is an expectation in this rich learning environment. Here teachers can experiment with technology boosts, a variety of resources, and new teaching approaches. This happens both formally and informally to test new practices and teaching methods before they go viral in the school.
- Evidence based Practice or Teacher Research fits with the responsive nature of the learning commons. Everyone engages in reflective learning.
- All teaching specialists make the learning commons their home base. They work with teachers and students on project learning and contribute to their specialty in the Virtual Learning Commons (VLC). Their active participation delivers new perspectives on learning and ultimately success for all.
- Transparency is key to sharing problems encountered and building on successes. Project units are archived virtually, reviewed by coteachers, and redesigned as necessary to fix problems.
- The collaborative environment of the learning commons encourages professional learning teams to build collective knowledge.
- The learning commons showcases the best and celebrates sharing.

- Flexible space is ideal for both formal and informal professional learning activities.
- Sourcing current print and digital professional resources for teachers is inherent in the learning commons collection building process.
- Collaborative professional learning spaces are built into the VLC.
- Social networking tools of the learning commons connect teachers to others and expand their professional learning networks.
- Teacher Big Think - to ensure metacognition of what works and why, a collaborative session for teaching partners is designed as part of every project unit.

The following activities are designed to help you develop a team of professionals and support personnel that can carry out the above ideas.

Activity 10.1
Compare the list of ideas above with another professional voice

Watch and take notes from Linda Hill, an anthropologist who studies organizations:

http://tinyurl.com/ne2e2jn

Did you notice the similarities between this TED Talk and the one in Chapter 10 by a person with a different set of expertise?

Challenge: From both TED Talks, what lessons could be learned by the staff of the learning commons and the administrators in the elementary school?

Activity 10.2

Explore these professional learning opportunities to determine better ways for the staff of the learning commons to make a difference

Action Research	•projects to explore questions and test out possibilities
Teacher Journaling	•documenting critical moments in learning journeys
Professional Portfolios	•built over time to track teacher growth
Professional Learning Teams	•working on a common goal to improve teaching and learning
Professional Learning Networks	•digital feeds to journals, blogs and other online learning opportunities
Mentoring	•providing advice and support for less experienced teachers
Peer Teaching	•providing in-school embedded professional development or broadcasting to the larger professional community
Walk Through PD	•learning by observing others teach and students work
Showcase	•documenting best practice lessons, student exemplars, sharing and celebrating
Experimentation	•testing out ideas, strategies, technologies and learning by doing
Play	•being creative, innovative, testing ideas, taking risks and having fun with learning
Teacher Big Think	•to ensure metacognition of what works and why •the capping piece of every Evidence Based Practice initiative.

Challenge: Would any of these approaches work in your school learning commons? How could you introduce professional learning opportunities to administration?

Activity 10.3
Develop a framework of the differences the LC staff are making in the school

All of the specialists in the school take a reflective approach to their contributions to teaching and learning. When they are coteaching in the Learning Commons and the Experimental Learning Center they are constantly testing the notion that two heads are better than one, but they are also interested in the impact of integrating their own curriculum responsibilities and best practice specialties into learning units. Invite specialists to document the difference they make in the school using the following framework.

5 Key Things Specialists Do Every Day to Make a Difference

- Collaborate with teachers to build, coteach, and assess solid and engaging learning experiences.
- Analyze the data from learner assessments to keep improving collaborative efforts. Ask whether we are pushing every learner toward excellence.
- Teach integrated skills that match their specialty. For example, information literacy is taught by teacher librarians, and reading coaches target specific reading skills while learners are doing research.
- Motivate learners to read more (yes, this is every specialist's responsibility).
- Work with the leadership teams on continuous school improvement.

Challenge: Use this list as a discussion starter with the learning commons staff. Draw up a list of your own to put on a poster, and review when you have team meetings.

Activity 10.4
Try this technique: Evidence Based Practice Made Easy

Explore this site, developed by Ontario Teacher Librarians, to get you started.
http://tinyurl.com/nf5kxj

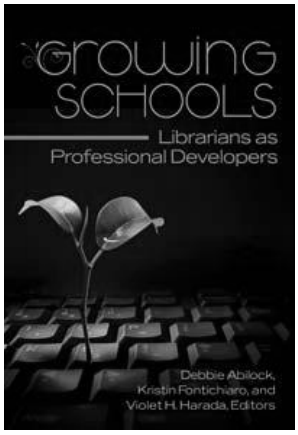
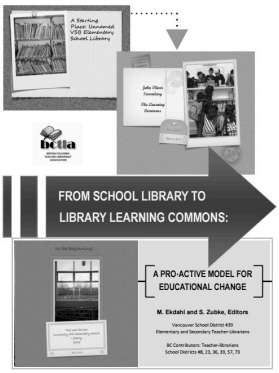
Activity 10.5
How can the VLC support and drive professional learning?

This is a link to a page from an elementary school VLC.
http://tinyurl.com/pdubqk4

Challenge: Work with your Learning Commons team to build opportunities for teachers to learn. Some ideas to consider:

- Create sub-pages for school initiatives, such as BYOD
- Collect links to articles, blog posts, and videos to support curriculum outcomes such as Building Student Questioning Skills.
- Post 'how to' tutorials you have found, or make original ones
- Create a space for learning teams to work on topics such as Global Learning
- Over to you!

Resources

Book: Abilock, Debbie, Kristin Fontichiaro, and Violet H. Harada, Editors. 2012. *Growing Schools: Librarians as Professional Developers.* Santa Barbara, CA: Libraries Unlimited.	
From School Library to Library Learning Commons: A Pro-Active Model for Educational Change.2014. This summarizes the work, over three years, of two groups of Vancouver, British Columbia teacher-librarians—one elementary and the other secondary—engaged in teacher inquiry. http://tinyurl.com/qdfnwgc	
Sharing learning commons experiences via social media provides inspiration for others. The **YYC Learning Commons** blog documents the work of a family of schools as they experiment with learning commons approaches. http://yyclc.blogspot.fr/	 

Chapter 11
Center of School Culture and Personal Growth

LC: Center of school culture and personal growth

The elementary library learning commons is the hub of learning and school improvement but it also is the heart of the school community. As such, the rich flavors of identity and ideas mix here as everyone participates in experiences and contributes their talents and knowledge. Learning approaches, challenges, and successes flow back and forth from here to build a culture of learning for the school and a snapshot of what the school stands for as a community. We encourage the learning commons leadership team to foster this potential in both the physical and virtual commons.

As well as its role in community building, we have found that individual personal growth is also a major consideration for a healthy spirited learning commons. The elementary school library program has traditionally supported individual reading tastes and attitudes, ensuring also that all learning styles, interests, and abilities are represented in resources and learning approaches. Teachers have always found support for differentiated learning in this rich environment. Now however in this complex world of networked learning we need to offer more. The activities we have designed for this chapter will address approaches to building both school culture and personal growth in these areas:

School Culture - Who are we?
- Participatory Learning Community
- Celebrating Learning
- Learning Events

Personal Growth - Who am I?
- Personal Knowledge Building Worlds
- Learning to Learn Skills and Behaviors
- Personal Learning Environment

Activity 11.1
Building a Participatory Learning Community

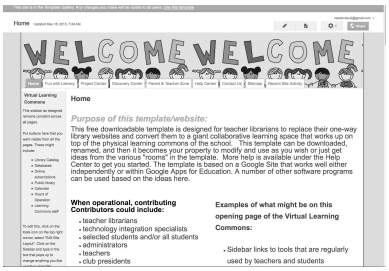
The visual below illustrates a number of shifts that can happen with an excellent school library learning commons. Everyone is working together to learn play and grow.

Challenge: How can technologies in your elementary learning commons be leveraged to encourage participatory learning?.

Activity 11.2
Create a Participatory Virtual Learning Commons

In activity 5 of chapter 5, we encouraged you to build the Virtual Learning Commons to display the products of discovery learning. The VLC can have a much larger scope as it becomes part of a whole school virtual and participatory community. In almost any "room" of the VLC, adults and children can participate, build, construct, post, announce, provide help and comments, and showcase anything else going on the in the school.

You can download the template and make it your own at:
http://tinyurl.com/ojpkhny



When you download this template and rename it, it is your own site that you can change, modify, or just use for ideas for your own Virtual Learning Commons.

What's happening? What's there to celebrate?

- Sports events
- The Arts -music, drama, visual art
- Award winners
- School and community projects
- Get Caught Reading Promotion
- Speakers, authors, poets, illustrators. and other guests
- Clubs and organizations
- Gaming events and MakerSpace
- Graduation

Challenge: What can you add to this list? How can you invite participation? How do you keep everything organized? Who can help build a virtual school culture zone for your VLC? Why is a participatory virtual environment superior to a one-way stream of helpful information from the librarian?

Activity 11.3
Build both an Adult, Community, and Student Volunteer Staff for the Learning Commons

The learning commons is the perfect center for volunteerism and participation in discovery learning, project learning, and professional learning. Historically there have been many connections between elementary schools and the community such as with public libraries, and fire and police stations. Some opportunities for encouraging volunteering and community participation include:

Community Organizations: Fire, police, service organizations, public libraries, makerspace groups, community experts, city governments, parent groups. Often the learning commons is the place where they can make connections and carry out their programs as part of discovery learning and project learning.

Student Tech Teams: The tech team of the school can span the grades and span various skill levels to be of help in the learning commons and to act as ambassadors for technology and resources throughout the various classrooms. Teach the tech team and they teach the rest of the school.

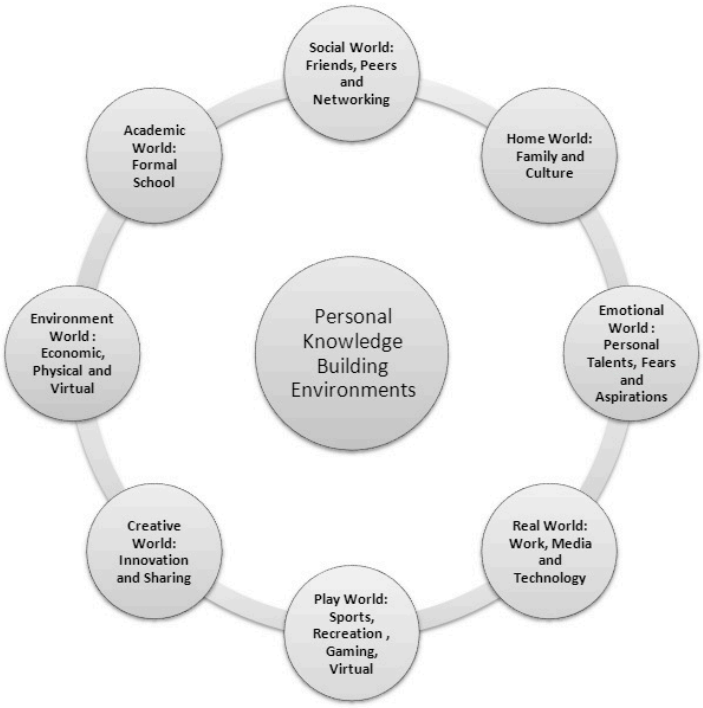
Teachers, Administrators, and After School Program Personnel: As busy as they may be, teachers and those who work with the children after school often love to share their own talents and interests in informal ways. They might belong to community groups that could bring in art, music, drama, science, or a host of other interesting things to enhance the culture of the school.

Experts: Authors, artists in residence, entertainers, speakers, and other commercial programs are often hired by the school. Have them make the learning commons a part of their home base when they come into the school.

Challenge: Grab every bit of culture and make it a part of the learning commons, both in the physical and the virtual space.

Activity 11.4
Connect to the Students' Knowledge Building Worlds

The Learning Commons program and environment should encourage students to expand their interests both in and outside of school. Consider the many knowledge building environments that are formative in student growth as a formal and informal learner.



Personal Knowledge Building Worlds

- Social World: Friends, Peers, and Networking
- Home World: Family and Culture
- Emotional World: Personal Talents, Fears, and Aspirations
- Real World: Work, Media, and Technology
- Play World: Sports, Recreation, Gaming, Virtual
- Creative World: Innovation and Sharing
- Environment World: Economic, Physical, and Virtual
- Academic World: Formal School

Challenge: How can the Learning Commons design opportunities for learners to tap into their many areas of interest, and connect and apply their personal interests to formal school life? How can the Learning Commons help learners expand their personal interests?

Activity 11.5
Developing the Individual in the Learning Commons

With your team, develop the attributes of healthy and happy students. Your list will look different from this starter list. Use terminology that is meaningful to your community of learners. The important thing is to think it through and ensure that the program and learning environments are helping to build strong individuals as well as strong teams.

Starter list:

- self confidence
- growth mindset
- empathy
- curiosity
- creativity
- cultural knowledge
- social contribution
- global awareness
- responsibility
- engagement

Challenge: Review signage in the commons environment, in the collections, and for learning approaches. Include students in conversations about behaviors and attitudes to learning in a commons environment.

Activity 11.6
The Successful Learner

The successful learner, or group of learners, develops the following characteristics:

- Personal Expertise: What I (we) know and am able to do; what I "bring to the table"
- Cooperative Group Work: My (Our) ability to build something to specifications that fits with other pieces to become a working whole.
- Collaborative Intelligence: My (Our) ability to combine what I know with others to produce something that no one of us could have created alone.

You can print out this poster for use with teachers and students at:
http://site.google.com/site/learningpostersgallery

Standardized tests only try to measure one aspect of the above: the individual. Nothing is ever said in the data from these tests about whether children are capable of working in groups or building collaborative intelligence, yet those are qualities that will carry them throughout their lives. However, as co-teaching happens, these skills can be noted and become a part of the culture of every learning experience done in the learning commons. Each child should realize that they must bring something to the table in the way of personal skills, but these personal skills will lead to very exciting work with others in groups.

Challenge: Copy this poster and work with teaching partners and students to develop expertise in building the successful learner

Activity 11.7
Helping Students Deal with a World of Rapid Change

John Seely Brown, coauthor of *A New Culture of Learning*, http://www.newcultureoflearning.com/ , has contributed much to building understanding of the future of learning around the globe.

Watch this video: Innovation Expert John Seely Brown on New Ways of Learning in a Rapidly-Changing World http://tinyurl.com/o94yh82

Challenge: How can we apply the ideas presented in this video to building school culture and personal growth?

Examples

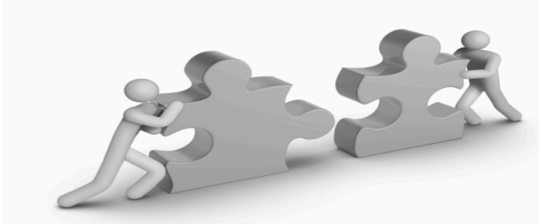
The Mouse Squad Tech Team: http://tinyurl.com/ng5r3k3	
An International Fair: http://tinyurl.com/p52vpzn	
A school with a distinctive culture: http://tinyurl.com/po2s396	
Could your kids create something like this? http://tinyurl.com/nhc5hov	
Technology fairs/ Maker Fairs: http://tinyurl.com/ov8j2gt	

Robotics competition: http://tinyurl.com/ov8j2gt	
The Lego Club: http://tinyurl.com/o3kwchl	
Tom Wilson, Storyteller, telling The Gingerbread Man: http://tinyurl.com/q8tfo3o	
A Storytelling culture in the library: http://tinyurl.com/py4ko2l	
Share the excitement of the culture in the new learning commons at: http://tinyurl.com/nng8rdj	

12

Chapter 12
"Owned" and "Grown" by the School Community

LC: "Owned" and "grown" by the school community



The learning commons movement has captured the imagination of schools which are on the path to designing for future oriented learning. In these schools, teacher librarians have shared their transformations and enthusiastically documented learning commons success stories. Today we notice a new excitement, not just from the teacher librarians who are enjoying success, but by students and teachers who have begun to take ownership of the library spaces and initiatives. That transfer of ownership seems to have been the tipping point as opposed to just a change in physical spaces and a new name over the door. When the shift happens, teacher librarians know they are working at the center of teaching and learning and not just on the fringes. It takes courage to risk releasing ownership, but with that step teacher librarians help schools to embrace the learning commons as a whole school approach and cement their role as leaders of future oriented learning.

Why does a Switch in Ownership Matter?

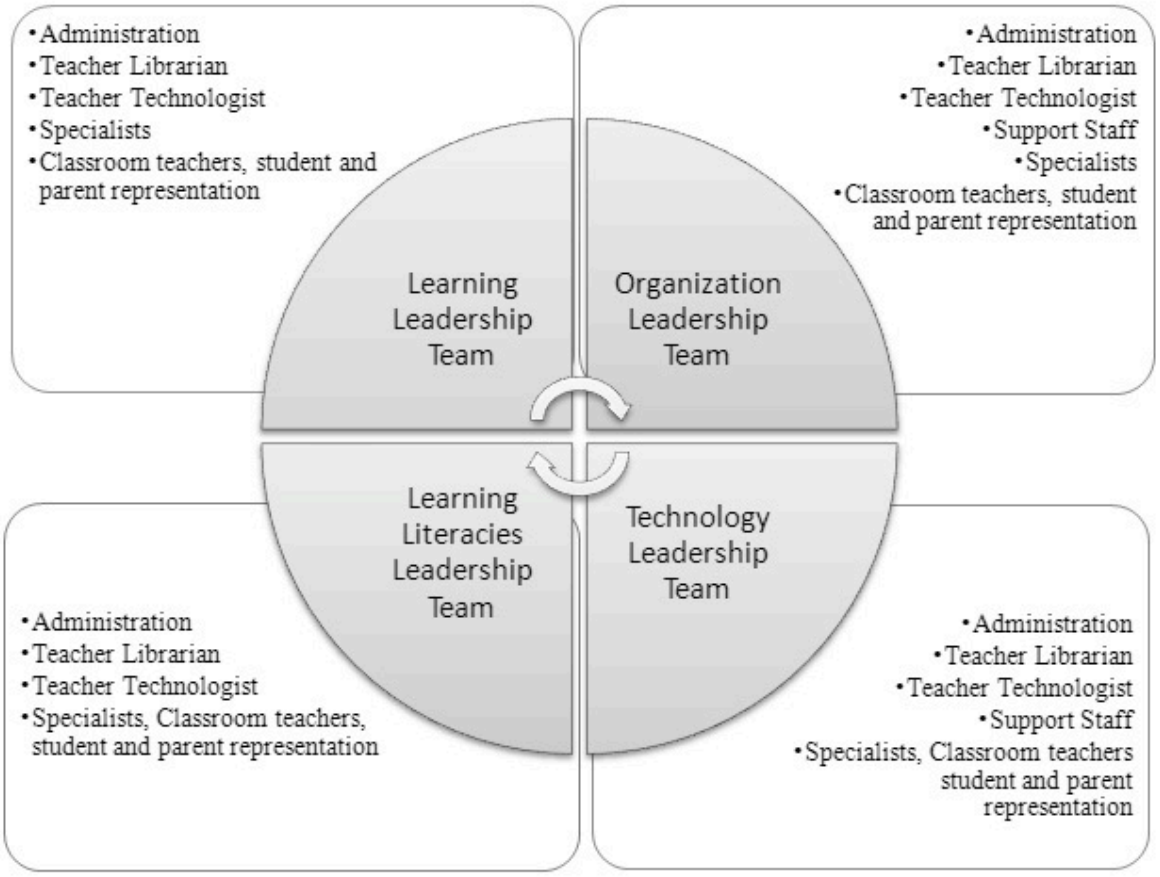
We know from many historical experiences that systems based solely on 'authority" and 'control' breed insecurity, helplessness, and even fear. This truism also has implications for building environments for teaching and learning today. When students and teachers are invited to contribute their individual and collective expertise in the learning commons, a sense of community emerges. All learners feel safe and inspired when they know that their ideas and efforts are valued, that mistakes are okay, and that they are part of the learning process. Teachers are seen as mentors and guides, and learners take on ownership of their own learning growth. This means they can not only self-direct their learning interests, but they are also accountable for their learning and the learning of others in their community of learners.

How does the learning commons build a community of learners?

- establish a learning commons committee
- work on coteaching
- invite participation
- create opportunities for collaboration
- welcome school events, clubs, projects

Activity 12.1
Establish a Learning Commons Team

Leadership in the learning commons rests with teams, not on the shoulders of the teacher librarian alone. Depending on the size of the school, you may have one team or several teams working on different aspects of leadership. Use the diagram below to consider what might work in your school. The goal is to distribute leadership, not to try to go it alone.



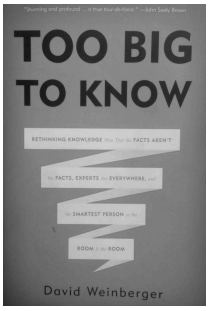
Activity 12.2
Flip old models

Old thinking, "If you build it, they will come", changes to the new concept "If they build it, they will use it."

So what can students and teachers contribute? How do you get them involved?

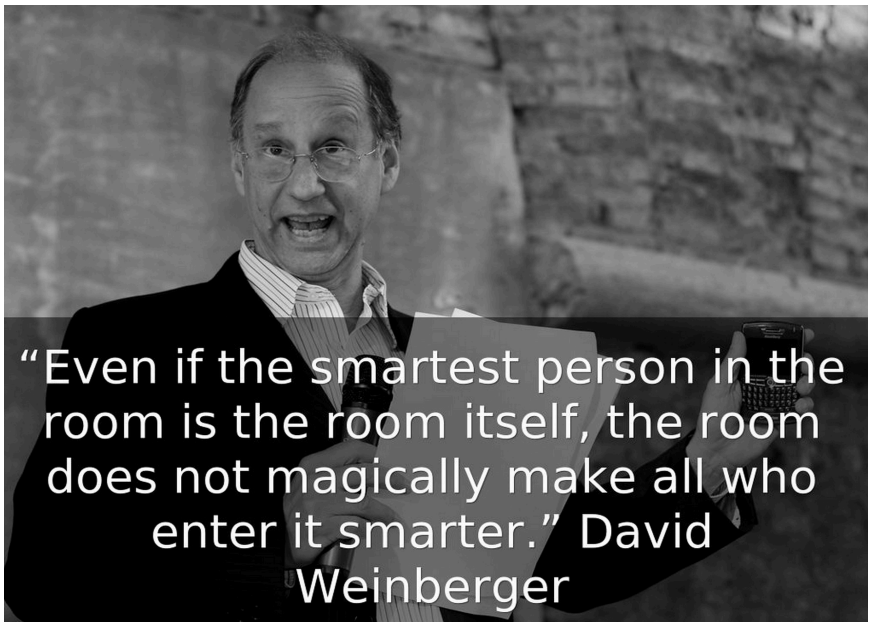
- Create a Google form on the VLC (Virtual Learning Commons) inviting requests for book titles and other needed resources
- Invite students and teachers to help find best resources to support learning units, and curate these resources in a Pathfinder
- Work with teachers to develop a research and design project focused on transforming the library into a learning commons
- Create a space on the VLC for all school specialists to add content such as learning supports, tutorials, videos, and articles.
- Establish a Geek Squad or I-Team to test new technology tools and Apps in order to recommend the best for purchase or distribution
- Discuss these ideas with the learning commons committee, and add more ideas for shifting ownership

Activity 12.3
Collaborative Knowledge Building

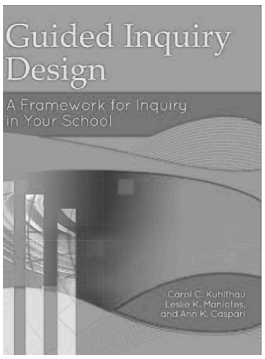


"As knowledge becomes networked, the smartest person in the room isn't the person in front lecturing us, and it isn't the collective wisdom of those in the room. The smartest person in the room is the room itself: the network that joins the people and the ideas in the room, and connects to those outside of it." Weinberger, David. 2014. *Too Big to Know*. New York: Basic Books, Page xiii.

How do Weinberger's ideas impact the design of projects in the learning commons?



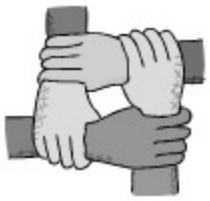
Activity 12.4
Building a Learning Community



In their book, *Guided Inquiry: Learning in the 21st Century, 2nd ed.*, Kuhlthau, Maniotes and Caspari outline key approaches to building a learning community.

Establishing a Community of Learners

- Model personal connections
- Create a safe atmosphere
- Encourage students to speak freely
- Accept varied points of view
- Listen to ideas
- Consider students' ideas carefully



Discuss these approaches with teachers in your school. How can you apply these approaches to all learning? What challenges might you encounter? How will you deal with challenges to building learning communities in the learning commons?

Activity 12.5
Planning and Leading Transitions

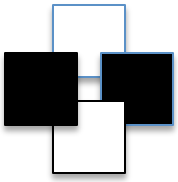
With your leadership team:

- Take stock of the school library, labs, and programs as they are now.
- Determine what is already in place that can be built on, what needs to go, and what is needed in both physical and virtual spaces.
- Involve students, teachers, and parents in creating a vision.
- Document your progress visually, take lots of photos and video before and during transitions.
- Create an action plan! The chart below will help your team get organized. Build the chart in a Google spreadsheet so everyone can contribute, and watch collaborative plans build momentum.

School Learning Commons Action Planning

Transitions What changes do we want to make?	**Timelines** What are the expected start and finish times?	**Strategies and Action** How will we achieve transitions?	**Responsibility** Who is responsible for what?	**Resources** What budget, time, and resources will be invested?	**Indicators of Success** How will we know we have been successful?

This chart appears in *Building a Learning Commons: A Guide for School Administrators and Learning Leadership Teams.* Consult this publication for many more planning ideas and tools.



13

Chapter 13
The Collection of the Elementary School Learning Commons

If one examines the stereotype of an elementary school library collection, it seems to be an entity in the school independent of the classroom where the best of children's literature is assembled with the purpose of developing a lifelong love of reading. The library collection has little or no relation to the reading skills program of the school unless it has been "leveled" to match requirements for books coded for student reading levels, or is a part of a reading initiative program such as Accelerated Reading. The library collection also has little relationship to classroom collections of books that are often owned by each individual teacher. The stereotypical teacher librarian is an expert in children's literature and concentrates on the promotion of the best fiction by the most notable authors.

Such a stance has served the needs of children who concentrate on reading fictional texts, but not on their needs in reading expository texts. Wide reading of fictional texts does show up as a strong predictor of academic achievement, but only when the test given rewards the reading of narrative fiction, extending into narrative nonfiction. We also understand that the amount children read is predictive of test scores. We also know that during the elementary years, the amount of reading reaches its peak sometime between grades three and five and declines during the teenage years.

If the library collection is designed to serve this singular function, then some common questions emerge across the blogosphere:

- A standard size: How many books per student should we own?
- A balanced collection: How many books should there be in each Dewey Decimal category?
- Selection policies: Are we choosing the best of the best that is published each year?
- Intellectual freedom: Can we defend the choice of books we own and circulate?
- Collection currency: What is the average age of our collection of books, and what should it be?
- The purpose of the collection: Is the main purpose of the collection to build fluent and avid readers of fiction?

- Collection maintenance: How do we keep the book collection maintained, circulated, repaired, and weeded?

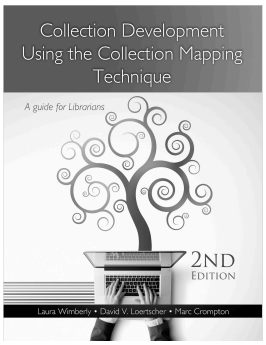
- Should the books be organized by Dewy or should we organize the collection by genre to attract more readers?

- Budgets: How can we possibly have a viable collection when money is so tight?

In the past decade, there has been a major negative response to the one-dimensional collection and many teacher librarian professionals have been dismissed, first because of cost, but second, because of the sense that support personnel can handle such a collection as well as any professional. In the United States, few charter schools have libraries onsite and instead rely on the public library down the street to supply recreational reading collection access. In a recent interview with a charter school principal, the principal indicated that access to fiction reading at the public library was their only perceived function of a library. In many school districts, there are no teacher librarians in individual schools. Instead, a teacher librarian has been hired to oversee the curation of collections across the district, and to supervise support personnel in the distribution and maintenance of such collections in the district's schools.

For informational and curricular resources, there are many commercial companies which sell readymade curriculum material which includes "everything" a child needs. According to these publishers of readymade curriculum, there is no need to go beyond what is supplied digitally for prescribed units of instruction. Commercial companies, such as Scholastic, have major divisions dedicated to the building of classroom resource collections which ignore what might already be available down the hall in the school library.

Enter the Learning Commons



When thinking about collections of books, information, and technologies to access these resources, plus the curation of the best student-produced and mentor-produced content creation, the collection of the learning commons pushes directly into the center of teaching and learning as opposed to being a collection of materials down the hall that can be visited weekly.

The activities below are a brief overview of the collection mapping technique and are covered in depth in the book, available from LMCSource.com.

Activity 13.1
Consider carefully a variety of trends in collection building that would move the collection into the center of teaching and learning, and actually compete with Google searches.

Consider and respond to the following trends:

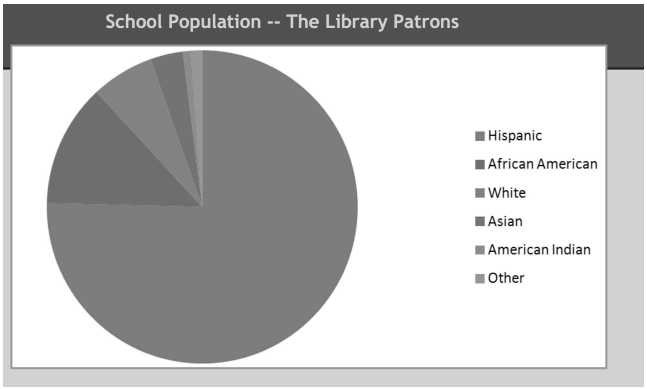
- From ownership of, to "access to"
- From balanced collections, to focused collections
- From what the critics prefer, to what users prefer and will use
- From librarian selected, to collaboratively selected
- From tight budgeting, to focused budgeting by curricular need
- From an isolated collection, to a networked collection
- From static holding, to elastic responsive collections
- From availability from a central place, to access 24/7/365
- From single format, to multiple formats on preferred devices
- From controlled cataloging, to curated crowd tagging
- From central storage, to distributed storage and retrieval
- From only commercially published, to student and teacher created
- From down the hall, to the hand-held device
- From classified collections, to tagged and mobile collections
- From general collections, to chunked collections supporting specific curricular targets
- From book budgets, to collection chunks supported from a variety of sources
- From bloated textbook budgets, to well-supported information blocks where the library is the common core
- From hoping to make a difference, to measures demonstrating impact on literacy and curricular understanding
- From separate textbook and classroom resources and library collections, to a merger of whole school resources.

Challenge: Start a discussion with other librarians about collection trends. Are any of the above trends happening? Why or why not?

Activity 13.2:
Do the Groundwork for Building a Collection

1. Assemble a Library Learning Commons Collection Advisory Committee. Be sure to include teachers, students, administrators, and other specialists concerned with resources for all curricular areas.

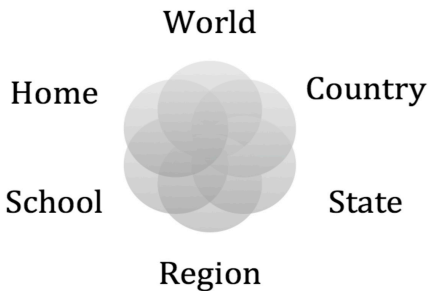
2. Analyze the Community. Does the committee know the makeup of the students who attend the school? Their culture? Affluence or poverty? Ethnic and language background?



3. Understand the curriculum of the school. Pay attention to curricular topics across the school that will require access to a wide variety of information resources.

4. Understand the technology infrastructure that supports the access to resources, and enables students to build content creations using a seamless integrated information system:

Seamless Integrated Information System

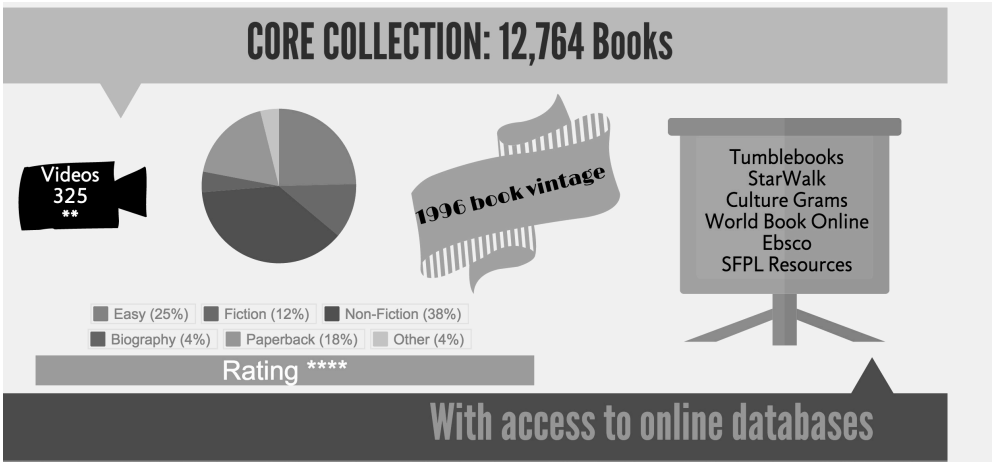


Activity 13.3
Build a Current Collection Map that visualizes for the entire school, parents, and administrators the strengths and weaknesses of the existing collection.

Create an infographic using a program such as Piktochart, to look at three views of the collection.

1. Show the size and quality of the core or general collection. Show various segments of the collection as a whole, and how these segments rate when lots of varied requests are made on it.
2. Picture the size and quality of topical collection segments that support whole curriculums or major school-wide projects that require rich information resources. These collections will span all types of information resources from books to multimedia, to databases, to free digital resources, and to resources outside the school that can be linked and used by students and teachers.
3. Picture the size and quality of topical collection segments that support specific curricular units or projects that require rich information resources. These collections will span all types of information resources from books to multimedia, to databases, to free digital resources, and to resources outside the school that can be linked and used by students and teachers.

Sample Overview of the collection:

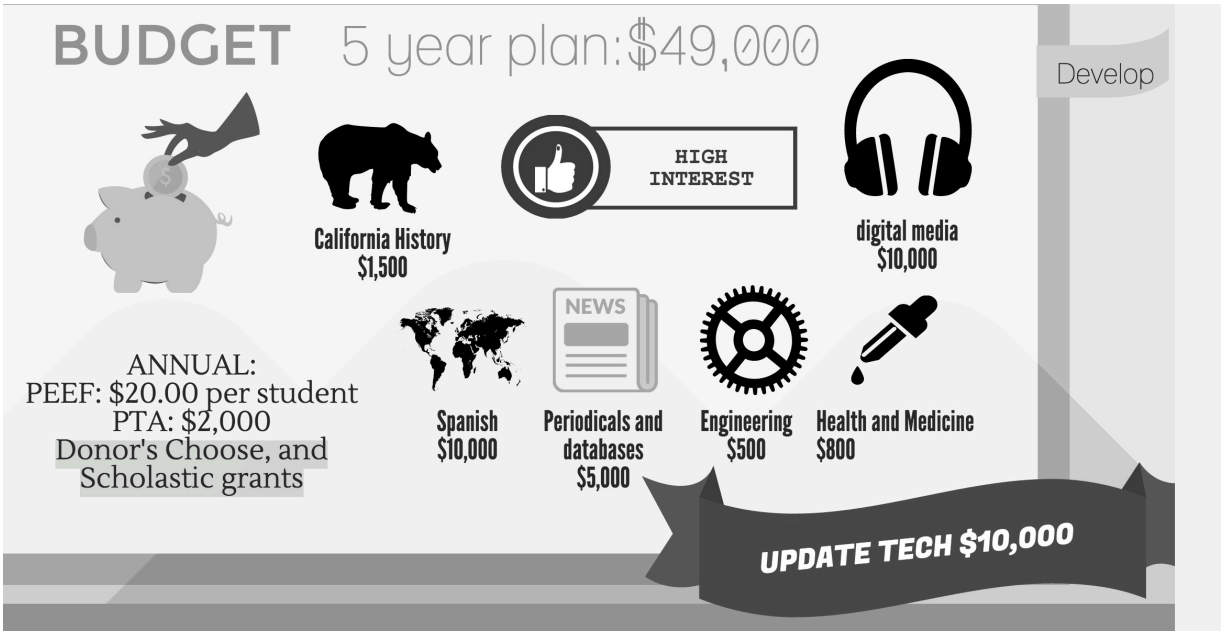


Activity 13.4
Create an infographic of the proposed collection map, or, the committee's vision of where the collection needs to go (including the money needed to get it there).

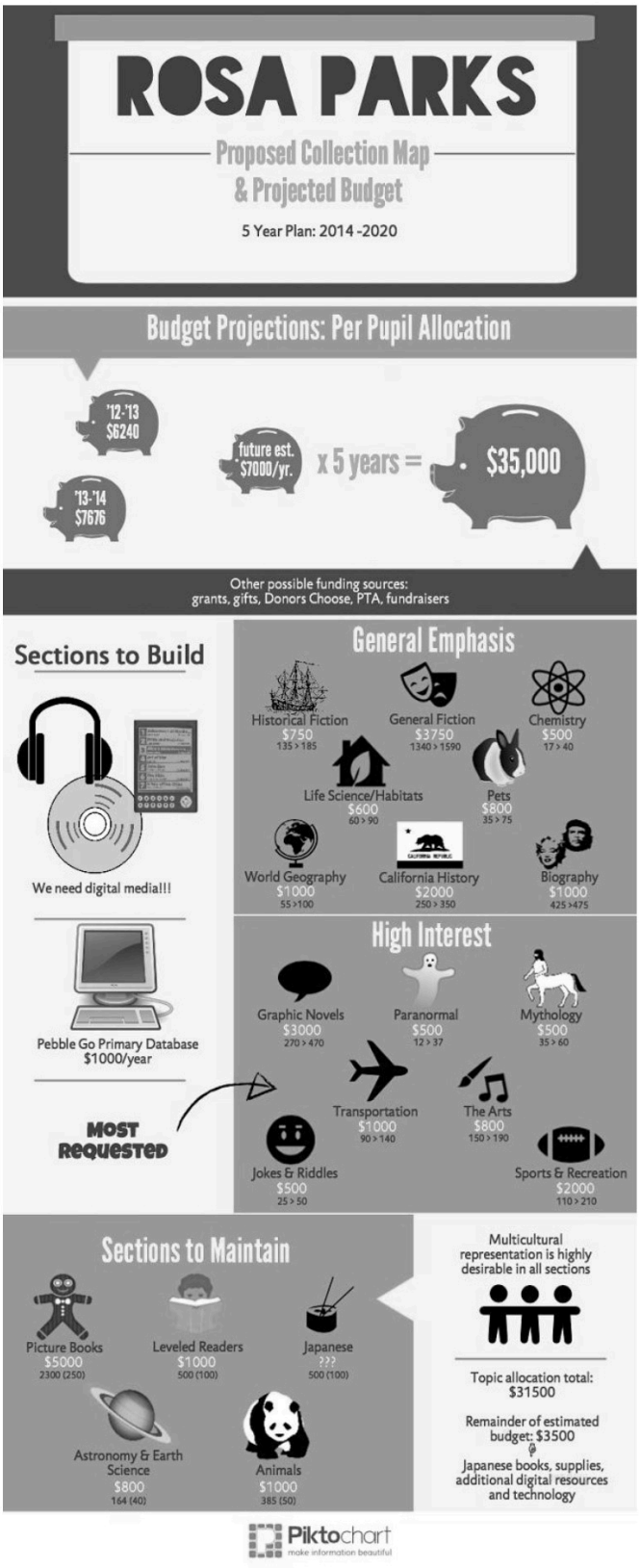
On a second infographic placed side by side with the current collection map produced in Activity 3, the same three sections will be pictured as the collection committee would like to happen over a period of time, along with an estimate of the fiscal resources needed to get to the collection targets.

1. What should happen to the general collection?
2. What should happen to collection segments that support large curricular needs?
3. What should happen to topical collections that support individual teaching units and projects in the school?

Sample proposed collection map:



Sample whole proposed collection map:


ROSA PARKS
Proposed Collection Map
& Projected Budget
5 Year Plan: 2014 -2020
Budget Projections: Per Pupil Allocation
'12-'13
$6240
'13-'14
$7676
future est.
$7000/yr.
x 5 years =
$35,000
Other possible funding sources:
grants, gifts, Donors Choose, PTA, fundraisers
Sections to Build
We need digital media!!!
Pebble Go Primary Database
$1000/year
MOST
REQUESTED
General Emphasis
Historical Fiction
$750
135 > 185
General Fiction
$3750
1340 > 1590
Chemistry
$500
17 > 40
Life Science/Habitats
$600
60 > 90
Pets
$800
35 > 75
World Geography
$1000
55 >100
California History
$2000
250 > 350
Biography
$1000
425 >475
High Interest
Graphic Novels
$3000
270 > 470
Paranormal
$500
12 > 37
Mythology
$500
35 > 60
Transportation
$1000
90 > 140
The Arts
$800
150 > 190
Jokes & Riddles
$500
25 > 50
Sports & Recreation
$2000
110 > 210
Sections to Maintain
Picture Books
$5000
2300 (250)
Leveled Readers
$1000
500 (100)
Japanese
???
500 (100)
Astronomy & Earth
Science
$800
164 (40)
Animals
$1000
385 (50)
Multicultural
representation is highly
desirable in all sections
Topic allocation total:
$31500
Remainder of estimated
budget: $3500
Japanese books, supplies,
additional digital resources
and technology
Piktochart
make information beautiful

Activity 13.5
Build an exemplary topical collection that supports a common topical exploration in your school

In order to re-orient traditional collection practices where money is spent to build the book collection, the multimedia collection, the database collection, or other collection segments by format, try building a focused collection for a specific topical investigation that crosses all types of information resources and technology.

Here are some tips that might help.

1. Select a topical unit where the teacher librarian, classroom teachers, students, and other specialists will need to explore beyond a narrow concept that could be supported by a textbook chapter, or by a small group of pre-assembled resources, or one that just concentrates on the building of a skill that won't likely benefit by abundant resources.
2. What types of investigations, questions, and projects will be supported by the proposed collection?
3. What kinds of diversity will need to be supported such as reading level, format for those with disabilities, span of ideas across a topic, primary and secondary resources, tech tools that can handle a wide variety of resources, tools that will be needed to construct deep understanding and to develop products of various types.

Points to consider for the topic under consideration:

1. What printed and ebooks would span reading and interest levels?
2. What databases will be useful for elementary school children investigating this topic?
3. What multimedia resources would help, and where could those be accessed? From the school or district? From consortiums? From commercial suppliers?
4. What kinds of games, either in physical or virtual format, would be useful in developing content understanding and skills related to the topic?
5. What kinds of free resources are available, or could be gathered by both adults and students as the topical unit progresses? Lists in Destiny (OPAC)? LibGuides? Google Docs bibliographies?
6. How can the OPAC be used to gather all types of resources together under a specific unit topic, rather than just be a source for owned books and ebooks?
7. How can we link into resources on the topic from the public library, regional resources, museums, and national repositories such as the Library of Congress or NASA?
8. What experts could be linked in or used as a resource for this topic?
9. What will it cost to build this collection from commercial sources, or just free resources, or with a combination of both.
10. How can building the collection for this topic become a shared responsibility of adults and students rather than having just one mind doing all the guesswork on what will be needed and used?
11. What resources could students create that would compliment the work of future students working on this topic?
12. If this topic is taught across schools, how could teachers and teacher librarians and students work together to create access to both fee based and free resources.

Activity 13.6
Link the Collection to the Project Center of the Library Learning Commons

The strongest parts of the collection are most likely to be used in joint projects between classroom teachers and the staff of the library learning commons.

As a first priority, seek out learning experiences in the school that take advantage of those collection strengths. Build learning experiences around this part of the collection, and demonstrate the advantages of investing money and time in providing access to robust information environments.

There are few messages more powerful than: "The most powerful learning experiences during the year were…. (provide a list) and a major part of their success were the plentiful resources available to both students and teachers."

Resources and Examples

Read this interesting article comparing the roles and functions of classroom and library collections: Access this article at: http://tinyurl.com/pr4aaqb

Sample Proposed Collection Map. The following map was done by a student at San Jose State University. She uses the following words to explain what is happening on her proposed collection map:

> *In terms of building a library, a good tool to use is the collection mapping technique. The collection mapping technique uses simple visuals to represent the current state and quality of a library's collection. Offering patrons a current collection map beside a proposed collection map gives them a simple to understand, side-by-side tool, to interpret and compare the state of their library. It shows them where we are and where we want to be. The proposed collection map on this slide is based on the needs analysis I conducted on the Golden Meadows School Library. This proposed map outlines how the library's projected budget will be used over the next 3 school years. It outlines what portions of the library will be maintained, which portions will be built, and which portions need weeding to stay current. The main focus over the 3 year time period will be in meeting the goal, or mission statement, that is outlined by the state. The map proposes a more equitable distribution of materials. It explains to stakeholders how the Spanish emphasis collection of the library will be enhanced to better meet the needs of the patrons. This proposed map also details how general high-interest areas of the core collection will be built and how other sections of the library will be maintained and/or weeded.*

A possible benefit of the side-by-side comparison of the 2 collection maps is the ability to gain the attention of library stakeholders. Having a side-by-side comparison displays the strengths and weaknesses of the library. It openly explains to the patrons what the library needs and how the library intends on fulfilling those needs.

14

Chapter 14
Measuring the Impact of the Learning Commons

As the transformation of the elementary library moves toward a learning commons, many will want to know not just what's happening but what difference the transformation is making. The more resources that are invested in the transition, the stronger will be the expectation to deliver on the new vision.

In this book, we have identified 4 key elements that need to be in place to grow a successful learning commons, and we have developed 12 measurable characteristics in the previous chapters.

Characteristics of a Great Learning Commons:

1. Dedication to Learning in a Commons Environment
2. Access to Flexible Learning Environments 24/7
3. Merger of Library, Computer Lab, and Makerspace
4. Networked Materials, Information, and Technology that Boost Learning
5. Mentoring of Inquiry, Discovery, and Self-Directed Learning
6. Experiences Designed to Create as well as Consume Knowledge
7. Showcase of Literacy, Learning, and Excellence
8. Coteaching and Collaboration are Center Stage
9. Led by Teaching Specialists and Support Personnel
10. Catalyst of Professional Learning and Experimentation
11. Center of School Culture and Personal Growth
12. "Owned" and "Grown" by the School Community

In this chapter, we recommend an assessment method for you to consider that stems from these 12 characteristics . It is multidimensional, but easy to apply one layer at a time. We call this approach, GROW (Goals and Objectives, Resources, Operations, and Worth / Added Value). It is designed so that you can choose a few characteristics to measure what would be the most beneficial in your situation and with your organizational structure, the types of learners you have, and the adult mentors working with you. While the characteristics we have developed could be examined alongside various large scale assessments being done in the school, we recommend that you think through and develop other critical measures that give a picture over and above any system already in place at the school. Plan to demonstrate the added value or unique contributions of the learning commons.

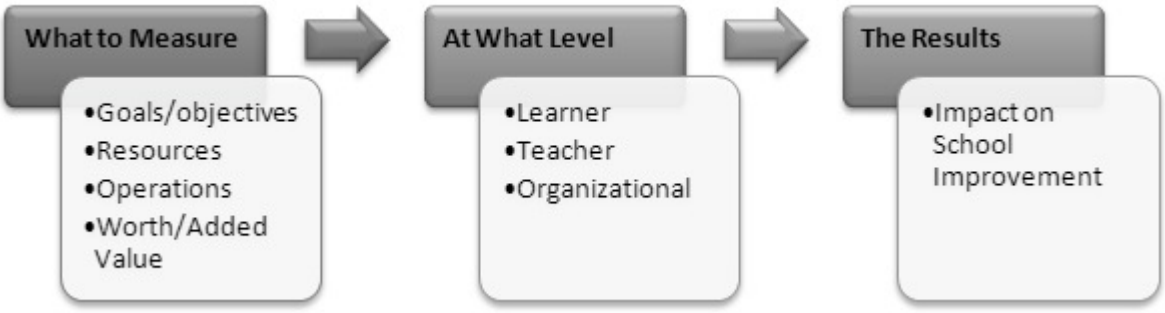
For example, it will be impossible to specifically identify what contribution the learning commons has had on student achievement when using a large scale test of reading comprehension or mathematics skills. The Keith Curry Lance and Ontario studies have found a strong correlation between library services and reading scores, but we cannot say with certainty that weekly book checkout from the library has added 10 points to a school's reading scores. Based on these important studies, we can say, that across a state or province, higher reading scores appear in schools where there are good libraries.

While a national study might be interesting and informative, teachers, administrators, and parents are much more likely to trust local results that touch the children in their school. For example, after looking back over their discovery learning logs, children should be able to articulate what they have been learning by themselves or with their group and how they might want to use this time in the future. Any adult could ask any child about this and hope to get a positive response. This simple measure is meaningful and immediate for the school community to digest. How do we use evidence like this to demonstrate that the work of the learning commons is making a difference and has a positive impact on school improvement?

The following model illustrates the **GROW** approach for measuring the impact of the Learning Commons.

- Target one of the 12 characteristics to focus on.
- Decide on the GROW measures you will examine—goals/objectives, resources, operations or worth/added value.
- Now zero in on the level to be examined—learner, teacher,organizational.
- Design your inquiry assessment measures and process.

Measuring the Learning Commons Impact



Notice in the diagram above, that the Grow group at the left defines WHAT to measure. The center group helps you decide the LEVEL, such as a measure looking at the organizational structure that has been designed to deliver a service. The measure could also concentrate at the teacher level where services, resources, and technology are being used to deliver learning experiences. We could also concentrate our measure at the learner level, choosing to try and measure what is happening to each individual as they use services, experience learning units, and what difference that makes.

Together, the WHAT and the LEVEL join to measure impact on the idea of school improvement. These indicators point to successes and failures,hopefully drawing attention to what we need to continue to do and what improvements are in order.

We will have to point our measures beyond just a single test score and realize that any test will measure a certain dimension of ability, but not necessarily something we really value. Yes, we will appreciate our work in encouraging wide reading that will have some impact on reaching achievement. But, we want to know such things as the impact of technology on deep understanding, the impact of coteaching on the percentage of students who meet or achieve a variety of expectations, as well as the importance of the development of soft skills such as cooperative group work and collaborative intelligence.

The major challenge is to dip our "thermometer" into a few characteristics that will be meaningful to teachers, administrators, boards, and parents; not to leave out the children themselves.

Keep it Simple

If you conduct only one assessment measure across the 12 characteristics multiplied by the four GROW areas to measure, and at the three activity levels, that would equal 144 assessments. Such a strategy would be foolish to attempt, so the best strategy is to select a few things to measure that you feel would demonstrate the largest impact.

The assessments you conduct can range from straightforward to sophisticated, and can cover a short amount of time or range across several school years. If you have not had an action research course, then keep your "study" simple and follow the inquiry steps you teach to children:

- Ask a Question. What is it that you want to discover or demonstrate?
- Figure out if there is some data already existing that you can use, or collect some of your own. If you are doing a survey, a Google form is easy and quite powerful.
- After assembling your data, interpret it. What does it mean? You can often use a Google spreadsheet sheet to help you interpret numbers and draw graphs if you are dealing with numbers.
- Draw your conclusions.
- Report your findings.
- Decide what you would like to do next.

Simple is often very powerful. For example, if you do some observations while the children are working, you can turn those observations into stories as you watch creativity or skills develop. Most often, you need not do sophisticated statistical tests. Percentages and bar charts or line charts are often sufficient and these can be done right in a Google spreadsheet. Often there will be someone in the school or district who can assist with more sophisticated data collection and interpretation, so all you have to do is ask. And, you can turn to the Internet, just like your children can, to learn what you need to learn when you need to learn it. Don't underestimate the power of just asking students during Big Think activities about what they learned and how they learned it. Every time you work with Ms. Smith's class, you can document the rise in sophistication across the year.

A few examples might help in understanding and interpreting the model:

- My goal is to get a book bag program operational in K-2 classrooms, and then measure the impact. I will first look at the organizational level to figure out if the system of book bags is working. I will then look at the teacher level to see who is participating successfully, why they are succeeding, and how those who are not participating could improve their strategy. Most importantly, I want to look at the worth and Impact of the program with individual learners. I know that parents who use the public library regularly probably already are successful in getting their children to read, but I am most concerned with children from disrupted homes or from poverty environments. I do interviews with the children and their parents to see if things are working well, and then I combine what I know based on the interviews with the reading scores of individuals to try to monitor their progress. In this example I have looked across all levels, since each level is critical in trying to effect the power of access to books.

- I want to check on the progress of coteaching across the faculty and the difference it is making. First, I look at the teacher level by looking at the Knowledge Building Center Museum of the Virtual Learning Commons to find out who I have worked with over the school year. I am looking for who, when, and at what grade levels. This will be valuable in working with administrators who are interested in spreading co-teaching across the school. Next, I look at the results of each cotaught experience across the year to determine how many experiences had a success rate of 70-100%. I want to know and report not only the number of successful experiences, but take a look at the less successful experiences in order to figure out what went wrong and how the success rate could be improved.

- I want to know what kind of impact I have had on each member of the technology team during the school year. So, at the learner level, I ask each team member to fill out a questionnaire via a Google form. Then I follow up with a focus group seeking the group's ideas on how to make the experience even more worthwhile for next year.

- I started with a goal of measuring how many individuals, small groups, and large groups were using the learning commons for discovery learning, project learning, and professional learning, but abandoned this because the business at so many times during the day was so apparent that it was not worth my time.

The following activities are designed to help in the formulation of a plan of what to measure and how to measure it.

Activity 14.1
Develop a list of a few measures of the impact of the learning commons that the adult staff could make.

The major question for the adult staff of the learning commons is to select a few measures that would be both significant and hopefully would demonstrate how central the learning commons programs are to teaching and learning in the entire school.

What do we mean by significant and less significant? A few examples:

- It is presumed that the LC is open and available before and after school in addition to being open and available during the entire school day. It is an *operational* measure of the *organization,* and so is less significant but could be significant if the hours of operation were a few days a week or very limited.
- A daily book bag program for Pre-K - grade 1 would be less significant if no measure of impact were made. If a survey during a parents' night and of the children involved discovered that a high percentage of children read a book from the book bag every night and heard the other book read to them every night, then that would be a significant measure not only of the *Operations* part of the LC program at the organization level but a *Results* measure at the *Learner* level. If some teachers did not participate in the book bag program, one might compare results on whatever reading assessments were given with results for teachers who did participate.
- When the professional adults staff cotaught with teachers in the LC and 70-100 per cent of the children met or exceeded both adults' expectations, that would be an extremely significant finding to publicize. (see chapter 9, activity 2)
- When examining student projects, if the teacher librarian discovered that the children did indeed use high quality information resources, that would be a significant *Result* and use of *Resources* at the *Learner* level to report.
- If, through observation and interview, multiple groups in the LC were successful at using Google Apps simultaneously with no slowdown, then that would be a significant finding when compared with what used to be the norm at the *Operations* and *Organizational,Teacher,* and *Learner* level. After a while, such a measure would lose significance since it would be a presumed level of service for the LC.

Challenge: Select and defend the few measures that you intend to make this month, this quarter, or across the school year as significant measures of your program.

Activity 14.2
Determine what kind of data already available that could be used to tell your story.

We seem to be moving toward a data driven society at an alarming rate with little regard given to personal privacy. This applies to many programs set up by corporate software companies that want to measure every learner at every minute throughout the school day. We prefer unobtrusive measures that look at patterns rather than at every single child's behavior and, when observed, we can use them to advantage. Examples might include:

- Data reporting tools in an OPAC system.
- Reports generated by use of databases.
- Activity data on the various "rooms" of the Virtual Learning Commons.
- Analysis of the LC calendars used by the various specialists, and as a group.

Examples:

- The LC supports rotating book collections to classrooms by creating a teacher/room patron in the OPAC separate from the personal teacher checkout record. The OPAC should be able to report numbers, rate of occurrence, loss, and even types of resources checked out that would be useful in assessing the impact of the goal of every classroom having a rotating classroom collection.
- Database companies should be providing regular reports not just of aggregate hits, but analysis of usage by topics and by dates so that some judgments could be made, for example, on the use of the databases during the animal units in third grade.
- Activity on the Virtual Learning Commons website might inform us of usage not only during the day but also overnight so we are able to analyze and investigate equity of access issues.
- An analysis of the LC calendars might reveal such things as the number of co-taught learning experiences, with whom, when, and can lead to an analysis of the Big Think activities completed at the end of each cotaught learning experience. If a push were being made to increase the number and power of cotaught experiences, such data and the trends related to this activity would be essential for administrators and the adult staff of the LC.

While data might be readily available, it might also be less significant. For example, circulation data from the OPAC is often less significant even though it might point to a rise in circulation. It does not indicate whether the books circulated were actually read. In automated reading programs where children

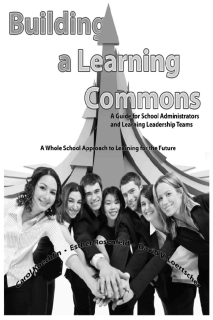
take tests on what they have read, the amount of points might be impressive, but when the top 25 titles for each grade level are examined, they might indicate that kids were reading fairly trivial titles of a single genre and thus contributing little to a goal of wide reading of both fiction and informational books.

Challenge: Look for data sources "right under your nose," but scrutinize them closely for their value. What are they really saying? Are the resulting conclusions significant? Who cares? So what? What's next?

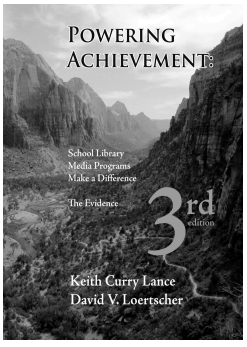
Activity 14.3
Look around for a variety of measures others have used in their programs, but beware of inconsequential measures.

There are no shortage of suggestions in the literature for measuring the school library program. Many of them concentrate on *Resources* or inputs such as size of collection, or size of staff, budget, number of computers, etc., rather on the actual impact on teaching and learning. Few measures we have seen try to assess short library lessons given during library time.

We have a few recommendations to help you find more substantial measures to consider:



Building a Learning Commons: This book contains many recommended measures for the entire learning commons program. It was created as a guide for administrators who want to transform the library into a learning commons and who want to measure progress and the impact of that transition. It was authored by Carol Koechlin, Esther Rosenfeld, and David Loertscher and is available from LMCsource.com



Powering Achievement: While the 3rd edition of this book was published a decade ago, there are a number of discussion starters that zero in on the impact of the school library on student achievement. There are one minute, five minute, and fifteen minute discussion starters that can be easily adapted to the concerns of the current learning commons program. This collection of ideas was created by Keith Curry Lance and David Loertscher and is available in digital form at LMCsource.com

Activity 14.4
Develop a method you will use to measure an aspect of your program.

We have a few suggestions for developing measures you might use to assess various parts of the LC program.

For Coteaching: Use normal formative and summative assessments from both adult partners as the learning experience progresses, and notice what percent of the children meet or exceed both your expectations. During the Big Think at the end of the unit, discuss and summarize what you learn from the students and from your own conversations as adults. These summaries will be valuable when planning and conducting another learning experience together.

Anytime Measures: A one or two question survey on a Google Form can be very useful for any types of activities or experiments going on in the LC. For younger children, a smiley face or a frowny face, or even a thumbs up or down, can be used to help the children understand that their opinion counts.

Gathering Storytelling or Material for Elevator Speeches: Things happen, from funny to poignant. Gather them and use them to amuse, encourage, motivate, instruct, and inspire to improve and change. Every principal needs stories to tell to boards, parents, voters, etc. Supply lots of them. Tell an uplifting 30 second story that compliments a faculty member during every faculty meeting.

Challenge. Develop a few significant measures that take very little time to create, administer, and interpret. Less may be more if the measures concentrate on impact rather than inputs.

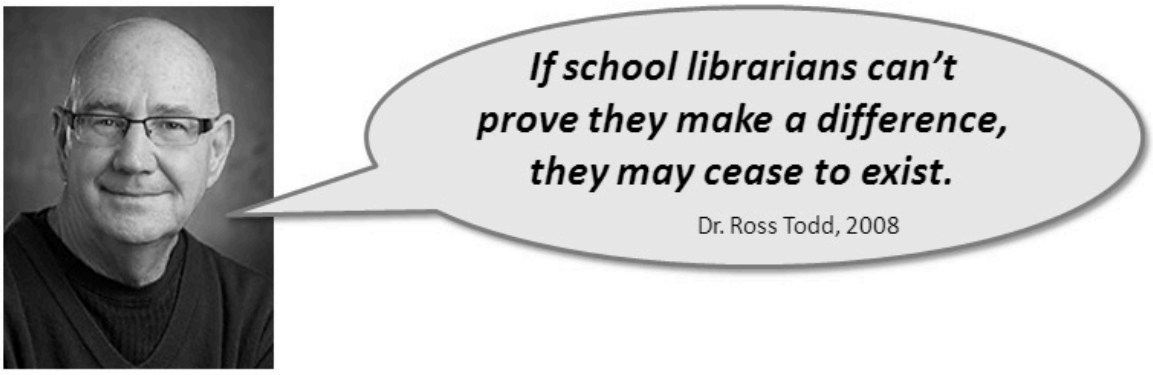
Activity 14.5
Report your successes and challenges and use the evidence to improve your practices.

Many teacher librarians have monthly newsletter and do annual reports that are fact based and announce or report on events in the learning commons. We recommend using a wide variety of reporting avenues. Here are a few suggestions.

- Use infographics to communicate, rather than a written summary.
- Try cartoons or comic strips created by adults or children as a communication method.
- Use each "room" of the Virtual Learning Commons to announce, spotlight, and report the results of your data gathering.
- Have the children create a rap video or a digital storytelling slide or two about happenings, events, to initiatives going on.
- Post regular slide shows on the VLC about the events in the Learning Commons.
- Ask the student Tech team to be the reporters for the VLC.
- Ask interns or student teachers to contribute a photo of something significant they have done with their classes in the LC.
- Use social media to spread the word.

Challenge: Use a variety of techniques to release the findings of the data you capture about the learning commons and its impact on teaching and learning.

Activity 14.6
The Realities of Evidence Based Practice

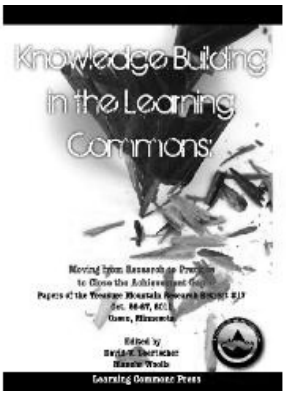


Read Dr Todd's article, "The Evidence-Based Manifesto for Teacher Librarians". School Library Journal, v54 n4 p38-43 Apr 2008. http://tinyurl.com/pqznm5q

"Evidence-based practice means a shift in focus from information inputs to knowledge and skills outputs, such as mastery of curriculum content, critical thinking and knowledge-building competencies, mastery of complex technical skills for accessing and evaluating information, and using information to construct deep knowledge. EBP also includes outcomes that are related to reading comprehension and enrichment, as well as to the attitudes and values associated with information use and learning."

Challenge: Discuss with the Learning Commons Team the measurements already suggested in this chapter. Build your own repertoire of strategies for measuring learning outputs from work in the learning commons that match school goals and district and national standards.

Resources

Leading Learning for the Future, the Book2Cloud edition of papers from Treasure Mountain Canada #3 at: http://tinyurl.com/o66ugf8	TMC Treasure Mountain Canada
Library Research Service http://tinyurl.com/ppelber	LRS Library Research Service Research and Statistics about Libraries
Knowledge Building in the Learning Commons: Moving from Research to Practice to Close the Achievement Gap http://tinyurl.com/pdzvdod	

Index to Activity Concepts

Chapters in this book have been written about 12 major characteristics of the learning commons concept and each has a number of activities associated with a piece of that concept. However, there are themes that run through several of the major ideas that may at first seem to be duplicative. This index has been constructed to follow various themes across the various activities. The index erm may lead you to 4.6 which would mean chapter 4, activity 6. If you were doing a workshop, say about the virtual learning commons, you could see in this index all the various locations of activities connected to this topic.