Building the Learning Commons

A Guide for School Administrators
and Learning Leadership Teams

A Whole School Approach
to Learning for the Future

Carol Koechlin
Esther Rosenfeld
David V. Loertscher

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Contents

Introduction

Think about the differences between:
- Recording studies and iTunes
- Broadcast television; cable television; Hulu
- Microsoft Encarta and Wikipedia
- Book Publishing and the Kindle/iPad concept
- The library card catalog and Google
- The telephone call and text messaging / Facebook

It is not difficult to come to the conclusion that information, media and technology have undergone a dramatic shift in the past several decades that is not likely to disappear. Consumers want what they want, when they want it, where they want it, and on whatever device they want it. And, they want it now!

The authors of this book have written widely for many years about school libraries and the development of technology in schools. When Google became the favorite search engine of children and teens, many began to question the need for the library and the computer lab. If almost every young person has access to communication devices, why walk down the hall to use an outmodled computer or a library that is available only during school hours? The authors asked themselves the same question.

Given the choice between a horse and buggy and a Ford Mustang, the giant leap forward is hard to resist. Some advances have eliminated their predecessors. Are libraries and computer labs destined to the trash heap of history? Artifacts of pre-21st Century thinking?

One might jump to those conclusions. However, as we began to think about the major calls for changes in education and the need for a different product from public and private education, we began to shift our thinking as all educators are being asked to do today.

If the focus of so much is turning toward the client rather than the organization itself, what sort of role should traditional libraries and computer labs play?

Loertscher, Koechlin, and Zwaan teamed up and produced their book, *The New Learning Commons,* in 2008 that presented a totally new approach to the school library and computer lab. With the early indications of success in North America, the authors realized a need for a book aimed at school leadership teams giving advice on the creation of a Learning Commons.

The Learning Commons concept is still in its infancy, but, watching it develop in a number of schools, we have begun to see not only its potential to transform education but also the steps needed to make that transformation possible.

In the following five chapters, we provide not only guidelines but many, many checklists and rubrics designed not only to make plans and the transformation itself but also guideposts along the way to measure both success and impact on the kind of teaching and learning being called for globally.

This book is accompanied by a major wiki (http://schoollearningcommons.pbworks.com) that has presentations, articles, news, and a place to register your own experimentation with the Learning Commons concept. We urge you to participate in the conversation there as your experimentation develops.

You can also correspond with the authors:

Carol Koechlin at: koechlin@sympatico.ca
Esther Rosenfeld at: esther.rosenfeld@sympatico.ca
David V. Loertscher at: reader.david@gmail.com

Chapter 1

Introducing the Learning Commons

Shaping the future of learning is a daunting responsibility today given the rapidity of technological change and the revolutionary impact of advances in information and communication technology. Technology permeates the way today's students communicate, socialize, play, and learn. Today's "plugged in" students:

- expect to have instant access to electronic information in print and multimedia formats and have never known a world without Google
- multitask with a variety of portable digital devices as a matter of course
- keep in contact with their friends electronically in a variety of online social networks
- adopt new technologies enthusiastically and consider that technology is an essential part of everyday life
- want to work together with each other using technology tools
- create content and publish it widely

They are different from previous generations of students, and their learning needs are different. In order to be successful in a world characterized by rapid change, today's students not only need to build deep understanding of various disciplinary knowledge, they also need to learn transferrable 21st Century skills that boost their critical thinking, problem solving, decision making, and communicating abilities.

The call for teaching 21st Century skills, advances in brain-based learning, studies of cognition and collaborative knowledge building in digital environments, and the desperate need to re-engage cynical learners have converged to demand urgent change in how we teach and what we value as evidence of learning. In the workplace, technology has fostered a more collaborative work culture, and online collaboration has increasingly becoming the norm as teams work together across time zones and political boundaries. These participatory working and learning environments made possible through advances in technology have also opened up a wealth of potential for educators and learners.

Teaching and learning can be exciting!

"It simply isn't the 20th Century any more is it? So why would we teach as though it was?"
Steven Heppell (2008)

"Participatory learning includes the many ways that learners (of any age) use new technologies to participate in virtual communities where they share ideas, comment on one another's projects, and plan, design, implement, advance, or simply discuss their practices, goals, and ideas together."
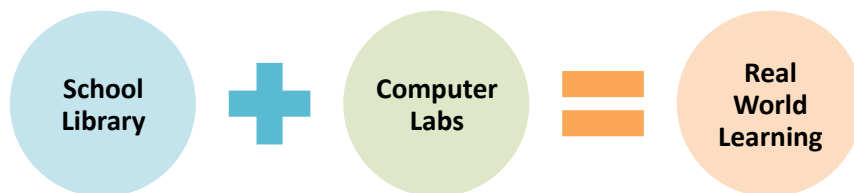Davidson and Goldberg (2009)

Pedagogical trends indicate that:

- Schools are moving **from** teacher directed learning **to** process and active learning
- Schools are moving **from** assignments that emphasize simple information location and reporting **to** assignments which emphasize individual and collective knowledge construction
- Schools are moving **from** classroom learning **to** networked and global learning
- Schools are moving **from** learning that is exclusively test driven **to** learning that explores big ideas and concepts
- Schools are moving **from** the traditional model of teachers working in isolation **to** the model of collaborative teaching partnerships among classroom teachers and specialist teachers

Schools must develop new relevant learning models in response to students who expect to learn in new ways using the technologies they use ubiquitously outside of school. The Learning Commons is a real world whole school approach to creating such a new collaborative learning model for students and teachers.

Spaces already available to the whole school, the library and computer labs, are natural environments for the establishment of the Learning Commons hub. Many challenges now face schools with isolated labs, libraries and classrooms running separate programs. Chart 1.1 illustrates many ways these challenges can be turned into positive learning with a Learning Commons approach. Join the collaborative dynamics of the school library program with technology-rich labs and expertise and provide a seamless portal of flexible physical and virtual learning resources and spaces needed to allow schools to keep pace with the future. Top that with relevant participatory learning experiences and students will be energized to make meaningful connections and develop strategies for successful learning.

Fig. 1.1

Learning Commons Players

The Learning Commons is an approach to whole school improvement that involves all school members as equal active players in the drive for excellence. Establishing a Learning Commons builds on current school improvement initiatives rather than competing for attention. This book is designed as a guide for school districts, superintendents, principals and school based professional learning communities as they work on redesigning schools and creating sustainable programs to keep pace with evolving needs.

Figure 1.2 illustrates how everyone moves to the centre of teaching and learning in the Learning Commons.

Fig 1.2

Classrooms: Students and Teachers — Teacher Librarians, Teacher Technologists, Principal & Vice Principals, Other School Specialists, Support Staff and Volunteers, Parents and Community, District Administration and Consultants, Experts and Learners Around the World
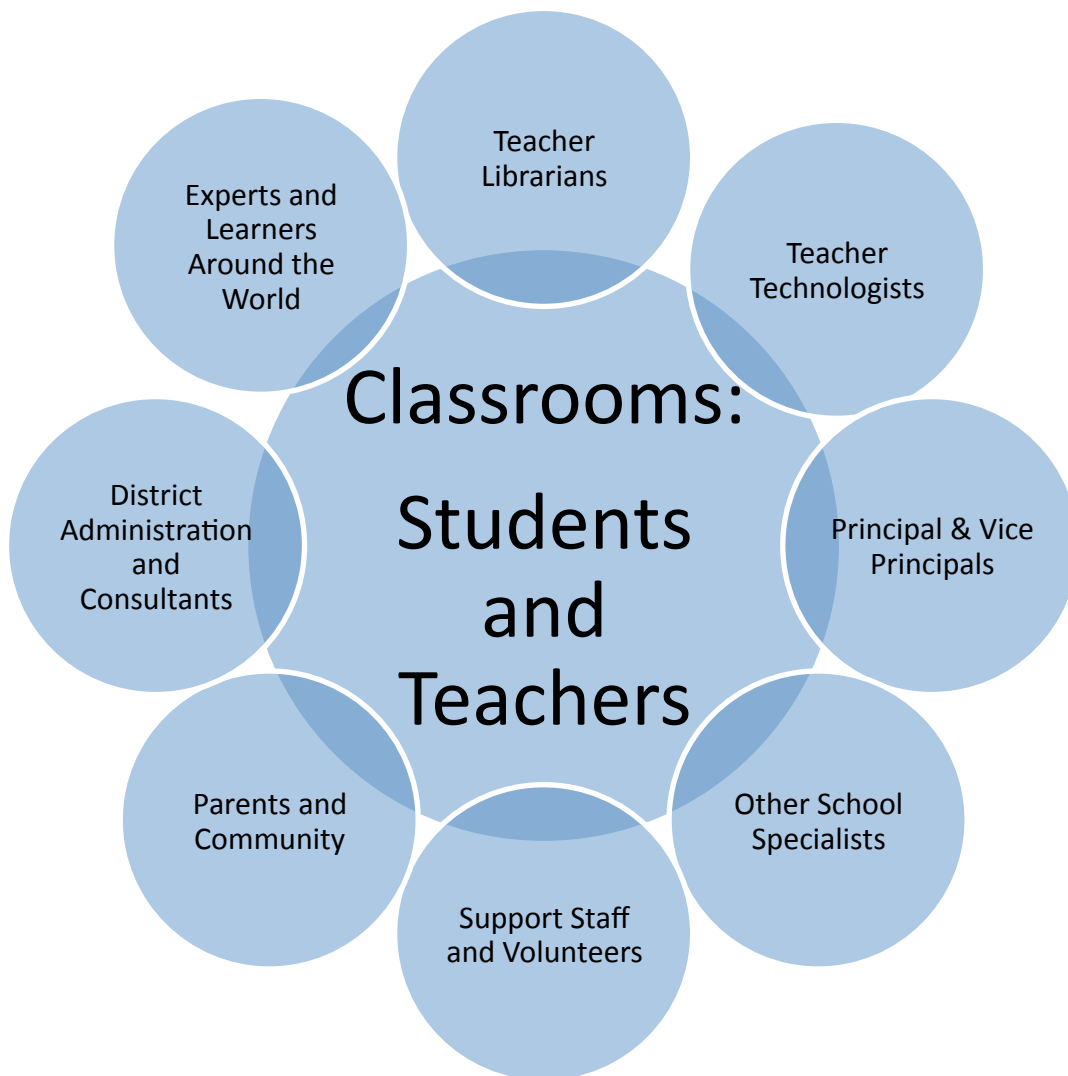
Who will lead the way?

Although everyone in the school will assume responsibilities for contributing to the success of the Learning Commons, like with any school change, leadership of principals, district administration and other consultants and specialists will be needed to enable schools to move forward. There are many reasons why schools and districts need to consider the approaches outlined in this guide with some immediacy and take the lead.

- We are already into the second decade of the 21st Century and no closer to seriously addressing the urgent needs of today's learners. Many students see a very real disconnect with their lives at school and at home. They struggle to find relevance in the tasks they are asked to perform in school versus what they see in the real world.
- Shifts in educational philosophy as detailed earlier are all congruent with a Learning Commons vision.
- Rapid changes in media formats and ways of creating and communicating information and ideas demand specialized support for staff and students. Within the school, the teacher librarian and teacher technologist are ideally prepared with specialist knowledge needed to ensure that learners are wise and safe users of information and that the engine of the Learning Commons is robust.
- With rising costs and declining budgets a reality, schools can't afford not to consider a Learning Commons approach. Whole school sharing of resources, technologies, staff and facilities, plus the potential efficiencies of learning partnerships and transparent accountability, make the Learning Commons irresistible.

Within this guide we have prepared:

- A brief rationale for the need for schools to transform school libraries and computer labs into a Learning Commons.
- Summaries of the physical and virtual spaces and systems required to build a Learning Commons
- Program elements that drive the learning journey for students and teachers
- Transitional materials and processes to help schools get started
- Assessment tools to help schools measure success and plan for sustainable progress

..."the world has changed so fundamentally in the last few decades that the roles of learning and education in day-to-day living have also changed forever."
Trilling and Fadel (2009, xxiii)

"To be a productive contributor to society in the 21st century, you need to be able to quickly learn the core content of a field of knowledge while also mastering a portfolio of essential learning innovation, technology, and career skills needed for work and life."
Trilling and Fadel (2009, 16)

"Although educational change is a journey filled with uncertainty and conflict, it is an immensely rewarding one for students and adult stakeholders. It is a journey worth leading."
Harada and Hughes-Hassell (2007, 13)

Chart 1.1: **Challenges for Schools: Opportunities through a Learning Commons**

Students think they don't need school libraries because they "can find everything on Goggle"	Use Google tools to engage teachers and students in participatory learning
School libraries have never entered the mainstream of educational theory and literature.	The rise of new instructional designs and 21st Century skills and the need for critical and creative thinking provide new opportunities to "move to the center" of teaching and learning.
Testing and accountability have caused many teachers to be resistant to any outside influences in favor of coverage and direct teaching.	All specialists in the school, including teacher librarians, could team up to break down those locked doors to demonstrate that two heads are better than one.
The stereotype of school libraries as tightly controlled, print-only, information centers has led to marginalization and replacement of many professionals with support personnel,	A new breed of high-tech and web 2.0 savvy professional provides a refreshing opportunity to turn school library programs directly into dynamic engines of school improvement.
Many library facilities became mostly storage of "stuff" with very few spaces for individuals, small groups, or even large groups to explore, test, develop, and collaborate independently of scheduled classes.	New trends in architecture plus innovative reorganizing provide lots of open space and flexible configurations to provide a sense of client ownership rather than institutional dictates of function.
Classes were withdrawn to isolated computer labs in the school for computer skills	Computer labs join the Learning Commons calendar and teacher technologists work collaboratively with teacher librarians, classroom teachers and other specialists to make technology a seamless tool for all.
Learners are asked to power down when they come to school and leave their handheld technology and communication tools at home.	Everyone powers up for purposeful learning in a responsible and engaging environment'
Teachers and students are denied access to social networking sites, and firewalls block access to needed resources.	The Learning Commons policy and collective practices ensure safety of students and adults in virtual spaces.
Time and energy is wasted by teachers fighting with compatibility issues and the downtime of local servers	The Learning Commons provides a 'cloud computing' space where learners can work, share and present their learning 24/7 and free from network issues. Teachers can monitor, coach and assess learning all in one space.

Chart source: Loertscher, 2009

Chart 1.2: **Top 10 reasons your school needs a Learning Commons**

ACTION

As you work your way through this guide keep track of ideas that support your priorities in this list.

Everyone is working on the same page	
Community involvements and support	
Time and money is saved	
Building strong Professional Learning Teams	
Student safety using virtual spaces	
Transparency of results	
21st Century Skills development and Knowledge Creation	
Passionate improved teaching	
Engaged high performing students	
Sustainable school improvement	

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Chapter 2

What is a Learning Commons?

A Learning Commons is a learning "space" that is both physical and virtual. As you might guess, a Learning Commons is about common physical and virtual places to experiment, practice, celebrate, learn, work, and play. But a Learning Commons is more than a room. Much more than that, it calls for the creation of new environments that improve learning. It is about changing school culture and about transforming the way learning and teaching occurs.

Fig. 2.1
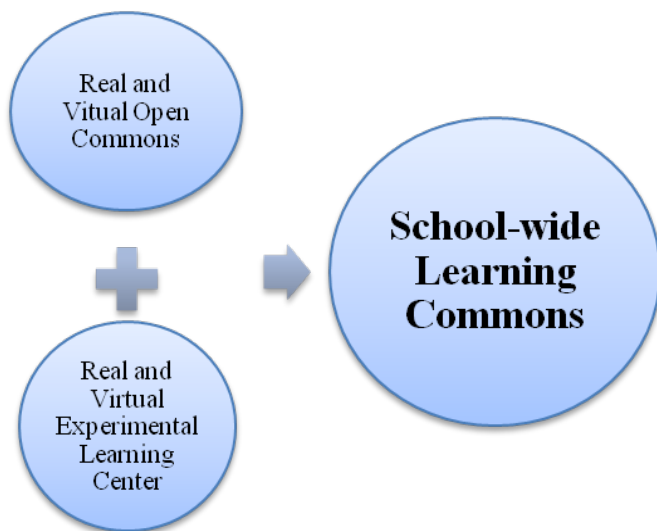
The **Open Commons** is the physical space and the virtual spaces where learners meet to read, conduct research, test out ideas with others, and work to creatively share their new understandings.

The **Experimental Learning Center** is the center of school improvement; the physical space and the virtual spaces where administrators and faculty conduct action research and refine new teaching approaches. As well, it is here, in the Experimental Learning Center, that learners try out new technologies and digital tools before they are introduced in the rest of the school

As the center of the Learning Commons, the school library becomes more than the hub of the school where students and teachers gravitate to work on projects and find materials they need. The school library joins forces with the school computer lab(s) and is transformed into a vital catalyst for school improvement for staff as well as students. This transformation calls for physical, virtual, and pedagogical changes as well as a shift in mindset for all players (Koechlin, Zwaan, and Loertscher 2008).

"The Learning Commons is the space where learners and technology merge… For learners the sentiment is that technology, as an extension of themselves, empowers them to know, do and understand.*"*

Loertscher, Koechlin and Zwaan (2008)

"A Learning Commons is a flexible and responsive approach to helping schools focus on learning collaboratively…..Within a Learning Commons, new relationships are formed between learners, new technologies are realized and utilized, and both students and educators prepare for the future as they learn new ways to learn."

Ontario Library Association (2010)

Fig. 2.2: **Desired Elements in the Learning Commons**
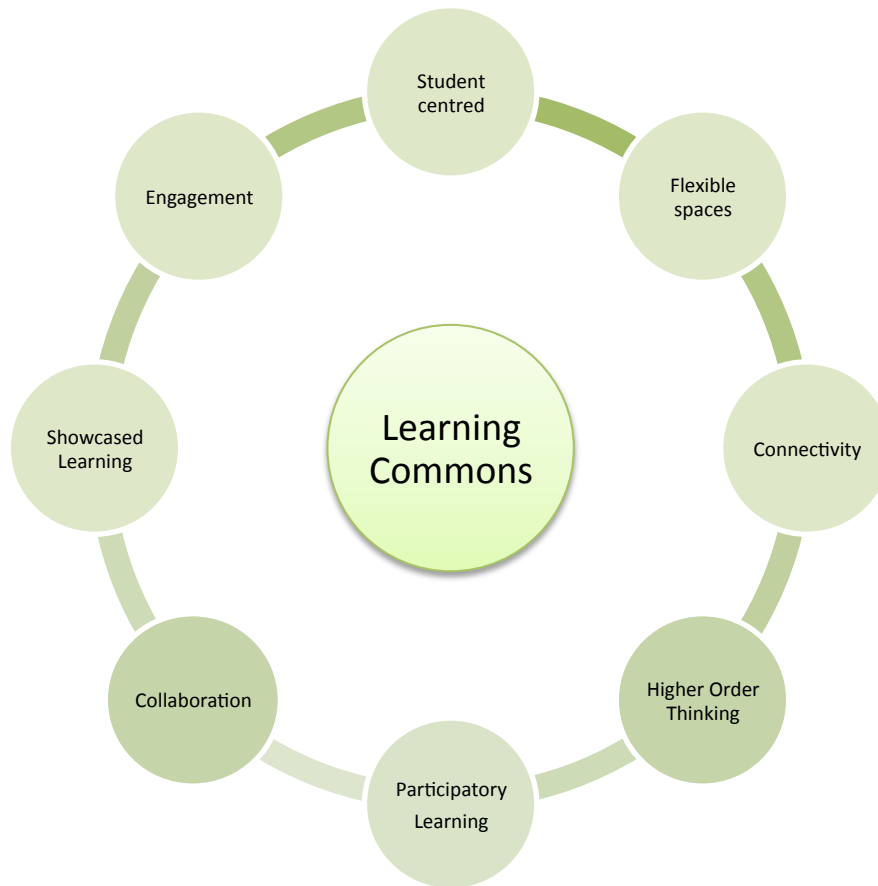
The Learning Commons is Student Centered – Students are empowered to contribute to the building, the maintaining and the functioning of the Learning Commons. For example, students create tutorials to help others working with new digital applications and tools or equipment in the Commons; students book Learning Commons spaces to showcase their accomplishments such as holding a poetry slam or inviting the community to see the winning projects of the science fair competition.

The Learning Commons has Flexible Spaces – To maximize a wide range of teaching and learning potential, both physical and virtual spaces are designed for flexibility. Shelving and furnishings are portable to allow for quick transitions for uses by different groupings. Desktop computers are replaced with portable notebooks and other portable devices linked into the wireless network.

The Learning Commons facilitates Connectivity – The Learning Commons facilitates natural easy communication throughout the school community. Technologies and systems are also utilized to connect to other learners, experts and ideas around the globe. For example, a collaborative common calendar for teachers and students is accessible 24/7 for booking the open and experimental learning spaces, equipment, and specialist support.

The Learning Commons promotes Higher Order Thinking – Activities are designed to teach, apply and demonstrate critical and creative thinking skills and processes. For instance, students are taught how to develop effective questions to not only help them to evaluate sources of information but also to guide analysis and deepen understanding. Students learn how to develop excellent presentations and how to evaluate their own learning.

The Learning Commons encourages Participatory Learning – Groups of learners work collaboratively, develop their own learning paths, build collective knowledge, and co-create the sharing of their new understandings. For example, students seek out others interested in their inquiry topic and work in Web 2.0 virtual spaces (Knowledge Building Centers, as explained in Chapter 3) to collect, question and synthesize information and ideas with others.

The Learning Commons enables Collaboration – Going beyond traditional forms of collaboration, teaching partnerships and networks model and promote student collaborations. For example, Knowledge Building Centers exist virtually where teacher directed assignments are turned into conversations among the teachers, students, teacher librarians, and other teaching specialists as they work together on a topical exploration. The teacher technologist helps learners to utilize video conferencing in their collaborations outside of the school. The school literacy coach tests out a new reading strategy targeted by the professional learning community before introducing it to the whole school.

The Learning Commons Showcases Learning – Activities and displays in the Learning Commons demonstrate excellence in teaching and learning. New technologies and learning approaches are tested in the Learning Commons and refined before they fan out into the rest of the school. The Learning Commons celebrates and displays individual, group and school-wide accomplishments in both physical and virtual spaces. Student projects and creations "go viral" throughout the school and out into the community.

The Learning Commons furthers Engagement – Authentic learning experiences are designed to emulate real world process and use of effective technologies. Lessons and units are ignited with problems, challenges, questions and scenarios that spark the desire to know. Social learning processes and tools are utilized and students are taught how to build and maintain personal learning networks. For example, students work in teams using Google Forms to design and conduct a survey on a topic, analyze results and investigate possible causes and effects of their findings.

"Participatory learning includes the many ways that learners (of any age) use new technologies to participate in virtual communities where they share ideas, comment on one another's projects, and plan, design, implement, advance, or simply discuss their practices, goals, and ideas together."

Davidson and Goldberg (2009)

"Effective teaching practice begins with the thoughtful and intentional design of learning that engages students intellectually and academically.

The work that students are asked to undertake is worthy of their time and attention, is personally relevant, and deeply connected to the world in which they live."

Friesen (2009)

Program Elements in the Learning Commons

Figure 2.3 provides an overview of desired program as developed in the book: *The New Learning Commons: Where Learners Win* by Loertscher, Koechlin and Zwaan. Each element is developed further in the pages to follow in this chapter and in Chapter 3 including ideas for implementation.

In Chapter 5, checklists and reflective prompts have been developed to help schools assess their progress with program elements in the Learning Commons.

Fig. 2.3: **Program Element: Learning Literacies (21st Century Skills)**
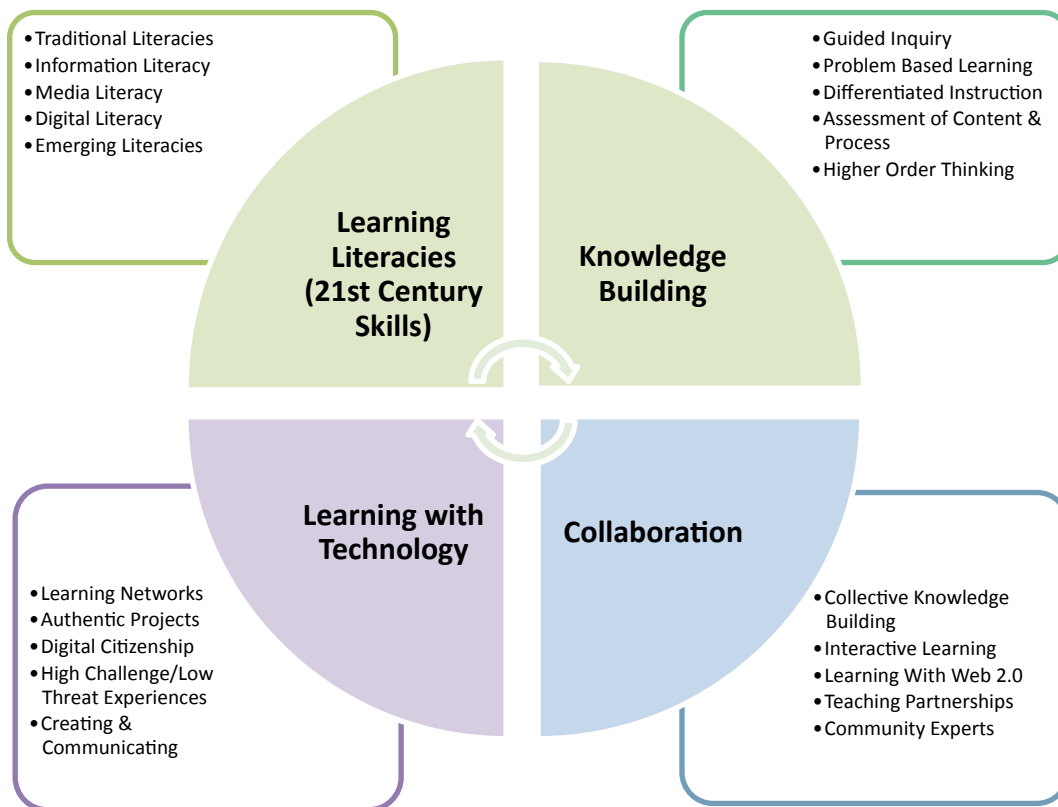
The teacher librarian and other specialists foster independent reading and writing on a school-wide basis. Teacher technologists and teacher librarians work with classroom teachers to infuse information literacy skills, media literacy and ICT literacy instruction as needed into the design of projects and inquiry learning experiences. In addition, the rich resources and technologies of the Learning Commons provide a physical and virtual venue for learners to build new digital and media literacy skills by working with information in various forms using many types of media. Learners learn to negotiate meaning as they change from one mode of information to another. Using collaborative digital tools, students learn in many new ways, work with their peers, and hone new skills as they participate in these social knowledge-building spaces. One of the goals of the Learning Commons is to provide students with opportunities to be adaptive, to learn how to learn, and to learn how to work effectively and efficiently in new environments.

Program Element: Knowledge-Building Centers

The information to knowledge journey is the main work of the Learning Commons. Teacher librarians work with classroom teachers and other learning specialists to design high level assignments and projects that move beyond mere reworking of data. These high level assignments and projects require learners to think critically and creatively as they build personal and collective knowledge. Guided Inquiry is the learning framework that leads learners step-by-step through the process of knowledge building. Assessment, feedback, and metacognition are pervasive and ongoing as teachers train students to take more and more responsibility for their own learning. Teachers follow the same process as they gather evidence of student success and reflect on the effectiveness of their teaching strategies and of the learning environment. Content, process and assessment are all highly valued in the Learning Commons as both students and teachers strive to build new knowledge and get better and better as learners.

Program Element: Learning with Technology

Every effort to make learning as real world as possible is investigated, tested and refined in the Learning Commons. The teacher technologist and teacher librarian work as a team to make technology the seamless environment that makes the Learning Commons hum. It is, however, not just a matter of integrating technology. Rather it is a process of thinking about the learning that needs to take place and then utilizing the right technology, if needed, to make the learning more effective. For instance, in order to extend the potential of the Learning Commons and make it available anytime anywhere for learners, the school library website is transformed into a virtual Knowledge Building Center collaboratively built and maintained by teachers and students utilizing evolving digital tools. This gets students working using technology rather than just using the website to access information. If they build it they will use it! They discover that their skills with technology are driving what they know, what they can do and what they deeply understand.

Program Element: Collaboration

Building a community of learners is crucial to the success of the Learning Commons, and collaboration is the key. If collaboration is not already an attribute in your school and district, this is your starting point because everything hinges on the ability of teachers and students to feel comfortable and empowered by networking with others and forging partnerships in the learning process. Collaboration is very much a leadership issue that must be addressed by school leaders before progress towards building a real learning community can be realized. Figure 2.4 demonstrates the tug of war between isolation and collaboration; between going it alone and pulling together; between high-stress loneliness and shared risk taking (Kuhlthau et al, 2007, 51-52).

Just as technology is at the core of virtually every aspect of our daily lives and work, we must leverage it to provide engaging and powerful learning experiences, content and resources and assessments that measure student achievement in more complete, authentic, and meaningful ways……… Technology will help us execute collaborative teaching strategies combined with professional learning that better prepare and enhance educators' competencies and expertise over the course of their careers.

National Education Technology Plan (2010)

Fig. 2.4: **Collaboration in Action**

Implementation Enablers

• Constructivist view of learning
• Team approach to teaching
• Competence in designing process assignments
• Commitment to developing information literacy

Implementation Inhibitors

• Lack of time
• Confusion about roles
• Poorly designed assignments
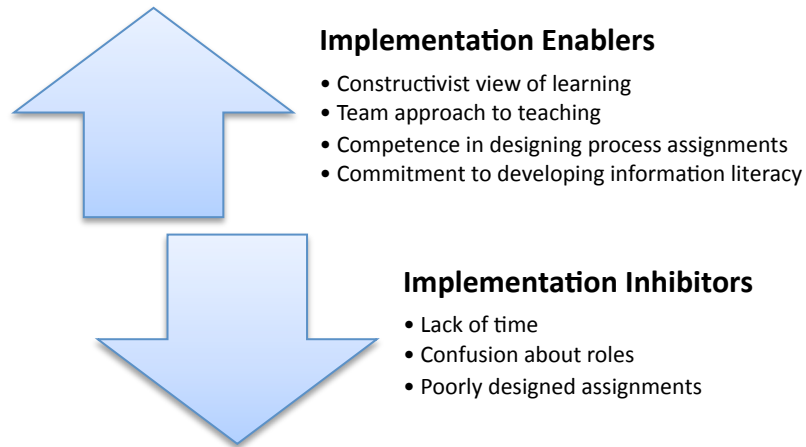
The Learning Commons: Where do classrooms fit?

In the physical world, the Learning Commons is the classroom extension just down the hall that provides opportunities, space, technology, information resources, and adult specialists not usually available in the contained classroom. In virtual space, the Learning Commons is part of the classroom and is accessible not only during the school day but at any time on any device where students and teachers are connected. It is the space where we all contribute, build, and do our work.

The Learning Commons: What are we gaining?

The movement to a Learning Commons does not mean that schools are giving up all the benefits of their existing library and computer labs. Instead, these two traditional places unite and transform into an interactive learning and meeting space for students and staff. The Learning Commons also takes on the uniting benefit of being a common classroom for teachers and a common office and think tank for all the specialists in the school. As the hub of action research it is the best spot in the school for administrators to measure real teaching and learning growth. The Learning Commons serves multiple functions and provides measureable benefits for schools as illustrated in chart 2.1.

Chart 2.1: **Traditional Functions and Benefits Retained in the Learning Commons**

Traditional Physical Library	*Traditional Physical Computer Lab(s)*
• Access for students throughout the school day • Teacher librarian instruction and support • Rich curriculum resources and technologies • Fostering of independent reading • Inquiry Learning • Support for differentiated learning • Comfortable areas for work and play • Independent, small group and class work areas • Displays of student achievement	• Available for full classes and/or small groups throughout the school day • Booked by classroom teachers as needed • Teacher technologist instruction and support • Computers and peripherals e.g. scanners, printers, data projectors, white boards • Computer skills instruction and integration

Added Functions and Benefits of the Learning Commons

- Library and computer lab programs are **united and integrated**
- Library and computer lab spaces and specialists are booked on a **common calendar**
- Teacher librarian and teacher technologist are **partner leaders** in the Learning Commons
- All other **school specialists** also have offices in the Learning Commons either physically or virtually
- The Learning Commons is **client based** - All teachers and students help build resource collections and programs
- It is a **classroom extension** for all teachers and students
- A Virtual Learning Commons is established to support **anywhere anytime learning**
  - Access 24/7/365
  - Digital curriculum support resources
  - Classroom and library project/assignment development
  - Collaborative work spaces for students and teachers
  - Learning tools and tutorials/advice
  - Creation and communication tools and spaces
  - Connections to community experts
  - Participation in local and global projects
  - Living showcase of excellence and the center of after school programs and initiates
- **Teaching and Learning Program**
  - Guided Inquiry and Problem Based Learning
  - Relevant real world learning assignments
  - Design for both content and process learning
  - Continuous assessment and metacognition
  - Development of multiple literacies
  - Seamless technology integration
  - Higher Order Thinking Skills
  - Collective knowledge building
  - Teaching & learning efficiency and efficacy
- **Sustained School Improvement**
  - Coordinated implementation and accountability of school-wide initiatives
  - Demonstration lessons
  - Embedded professional development
  - Center for Professional Learning Teams
  - Evidence Based Practice
  - Collaborative assignment design and implementation
  - Culture of Inquiry

In Transition: The Learning Commons in the Making

Program precedes complete transformation - Valerie Diggs, the teacher librarian at Chelmsford High School in Chelmsford, Massachusetts, approached the creation of a Learning Commons by transforming the collaboration with teachers in the creation of learning activities and turning the library space, albeit dismal and uninviting, into a place that was client-owned. Only then did the community invest in major renovations to transform a dreary physical space into a showcase of teaching and learning (Diggs, 2009).

If it's Web 2.0, we have probably experimented with it - One of the most famous teacher librarians in the United States, Joyce Valenza, the teacher librarian at Springfield Township High School in Erdenheim, Pennsylvania, is a master at involving students in great learning projects using every imaginable technology avenue as they develop into true 21st Century learners. Her transformation alongside school administrators in building information literacy and technology is a work in progress that is already exemplary but constantly evolving (Valenza, 2010).

Move into the clouds – Roger Nevin, a full time teacher librarian in a secondary school in Kawartha Pine Ridge District School Board, Ontario, Canada, has registered his school for Google Apps Education Edition which is based on cloud computing and has implemented its school-wide use through the Learning Commons. Students and teachers create documents (Word, Excel, PowerPoint), share calendars, email, chat, create web pages, video and more. Their work is secure as everything stays within the registered domain and cannot be accessed by people who do not have a school login. As a learning tool, the most powerful thing about Google Apps is its collaborative ability to share documents in real time. Teachers create online assignments and marvel at their new ability to watch student progress. The history of each edit is powerful assessment evidence, and the ability to provide feedback to students during a process is golden. Cloud computing has many other advantages over traditional computer systems where programs are located on a computer's hard drive:

- Software is available for free and it does not have to be installed. Also programs do not take up hard drive space on the computer.
- Software versions are automatically updated when new features are added.
- Documents are automatically saved. No more lost documents even if the computer crashes.
- Documents can be shared in real time with other users. Students can easily collaborate for group projects. Teachers can access their students' documents while they are working on them.
- Documents can be published as web pages.
- The need to print is reduced which helps the environment and saves schools money (Nevin, 2009).

Ask your clients - Quaker Road, a small elementary school in southern Ontario, has only a 1/3 time teacher librarian. Hollyce Nunnenmacher is new to the job but passionate about transforming the library into the center of learning for the school. The library is a gorgeous space that is physically in the center of the school. However, it wasn't being used to its full potential because the space lacked character and the students didn't 'claim it' as a space they wanted to be in. Hollyce presented the students from grades 4 to 8 with a 'Learning Commons Challenge.' A kick-off assembly was called at which Hollyce presented the concept of a Learning Commons to the staff and students. She encouraged the students to define the space as theirs, to think of all of the different ways in which the space could and should be used, and to design a plan for the space. This project was to be completed by each class and was to include a presentation, a budget, a model of the proposed space, and any other things that the students felt would sell their concept to the judges. About 6 weeks later, the presentations occurred and the students

described their ideal spaces, some incorporating themes (comets were popular as this is the school mascot) and using a variety of formats in which to present their ideas. There were video presentations, a Lego model, and displays complete with fabric and paint swatches. As an added bonus, many of the teachers used their class presentations as their Teaching-Learning Critical Pathway for the winter term. This critical thinking activity turned out to be extremely motivating because the students saw it as an authentic learning task! It incorporated so many different things - math through budgeting and the calculation of measurements, the collaboration of students to determine who would be presenting, who would be designing, who would be giving input in other areas, creative expression, persuasive writing, oral language, and so much more. And the payoff…administration were so impressed that changes were implemented immediately and plans are in place to incorporate many more fine ideas developed by the students who now have a considerable investment in their new Learning Commons (Personal communication from Hollyce Nunnenmacher at her school, April 2010).

Write grants - Robin Cicchetti, teacher librarian at Concord-Carlisle Regional High School in Massachusetts, wrote grants to help with alterations to the physical environment that were needed to support the Learning Commons program. "We wrote grant applications to local community groups and received funds for: soft reading chairs, student supply carts, more than a dozen large potted plants, as well as new English and foreign language dictionaries. Our grant writing has expanded to include additional technology capabilities, such as external hard drives for student work, higher quality digital video cameras, as well as light and sound kits for student productions. There are also plans for more new furniture as well as a moveable stage for student performances. A close partnership with our local cable television company has provided training and support for these new media tools, and the result is increased flow of student and school related media for broadcast." (Cicchetti, 2010).

Go Global - Vicki Davis, a teacher and IT director at Westwood Schools in Camilla, Georgia is the co-founder of the award-winning Flat Classroom™ projects. She reaches out around the world doing learning and service projects from rural Georgia (Davis, 2009).

Projects are elementary - Peggy Stedman is the teacher librarian and Greg Carroll is the principal of the Outram Elementary School on the Taleri Plains of New Zealand. In their endowed Allen Centre, children pursue interests, projects, interaction with volunteer experts, and many other exciting curriculum projects in an exciting reading and learning space filled with wonder and delight. Peggy is one of the few full-time teacher librarians in the country (Stedman and Carroll, 2010).

Throw it wide open (almost) - Henry Thiele, Director of Technology at High School District 207 in Park Ridge, Illinois, not only uses Google Apps Education throughout an entire school district, saving the district huge amounts of money, but has one of the most advanced and open technology policies in the U.S. He reports very few problems with teachers and students as they learn to be great citizens in the world of technology (Thiele, 2010).

Lay the Foundation – In Calgary, Alberta the school district has appointed central personal to begin the process of transforming the school library in each school to a Learning Commons. They have started by creating a space on their website to educate their system and community about the Learning Commons approach. This growing site is rich with information and further links and resources (Calgary Board of Education, 2010).

On the following two pages, we have prepared charts 2.2 and 2.3 as planning sheets for your learning literacy team to use as they make plans to transform into a Learning Commons. And as a suggestion for further assistance, Figure 2.5 announces a helpful wiki.

Fig. 2.5: **You are Invited**

Please check out our wiki for other stories as they develop, review presentations such as the webinar on the New Learning Commons and join in on the conversations.
http://schoollearningcommons.pbworks.com/

The New School Learning Commons

A journey worth leading!
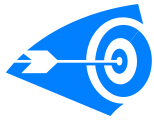
Chart 2.2: **Program Elements Planning Worksheet**

ACTION

Element	Where are we now?	Goals for the Learning Commons
Learning Literacies		
Knowledge Building		
Learning with Technology		
Collaboration		

First steps…..
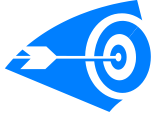
ACTION   Chart 2.3: **Planning to Address the Needs of Learners Worksheet**

Learners Today	What are the challenges?	Our Learning Commons Solutions
Multitask using multiple technologies	Disconnect between school and their lives	
Want freedom of choice and expression	Naive about copyright and ethical use of information	
Users of Social Networking	Need collaborative and teamwork skills	
Prefer informal learning by doing	How do they get to deeper understanding?	
Informed by media	Not always media aware	
Need for speed- expect instant gratification	Don't take time to evaluate information	
Want entertainment and play	How do we make learning to learn engaging and challenging?	
Like to customize and innovate	We must apply Higher Order Thinking	

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Librarian* 37 no.3 (February 2010) : p. 59-62. Also see their website at:
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http://docs.google.com/a/maine207.org/present/view?id=dg76jc2d_3023jdqprfw
His recorded video is at: http://www.youtube.com/watch?v=Ah2rg5tlEeE
His case study is at: https://docs.google.com/fileview?id=0B5AOHQcS-
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Chapter 3

Transitions and Transformations

The actual transition from school library and computer lab to a Learning Commons may be evolutionary or revolutionary depending on the amount and speed of change envisioned. The turning of pyramid organizations over to client-side structures often requires 180 degree thinking, something that may be difficult to spark. In this section, we look at planning and visioning elements that push toward a Learning Commons that has four distinct elements as pictured in figure 3.1.

Fig. 3.1

"Rather than being victimized by our program structures, we should be creating new types of learning environments for a new time and for various types of teaching and learning. Not to do so is a declaration not to learn."

Hayes Jacobs (2010, 79)
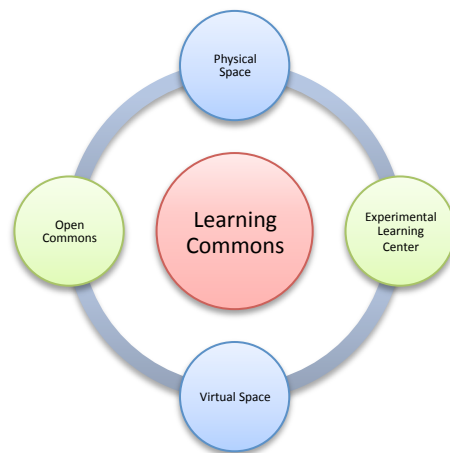
As pictured, for the physical space, there are two elements: the Open Commons and the Experimental Learning Center. For the virtual space, there are parallel parts: the Virtual Open Commons and the Virtual Experimental Learning Center.

How do you move from your existing school library and computer labs to a Learning Commons?

First – review staffing and build the team. See suggested interview questions in this chapter in charts 3.7–3.11.

Second – develop an action plan. We recommend the following planning process in the transformation that seems to have been helpful in other schools in Fig. 3.2:
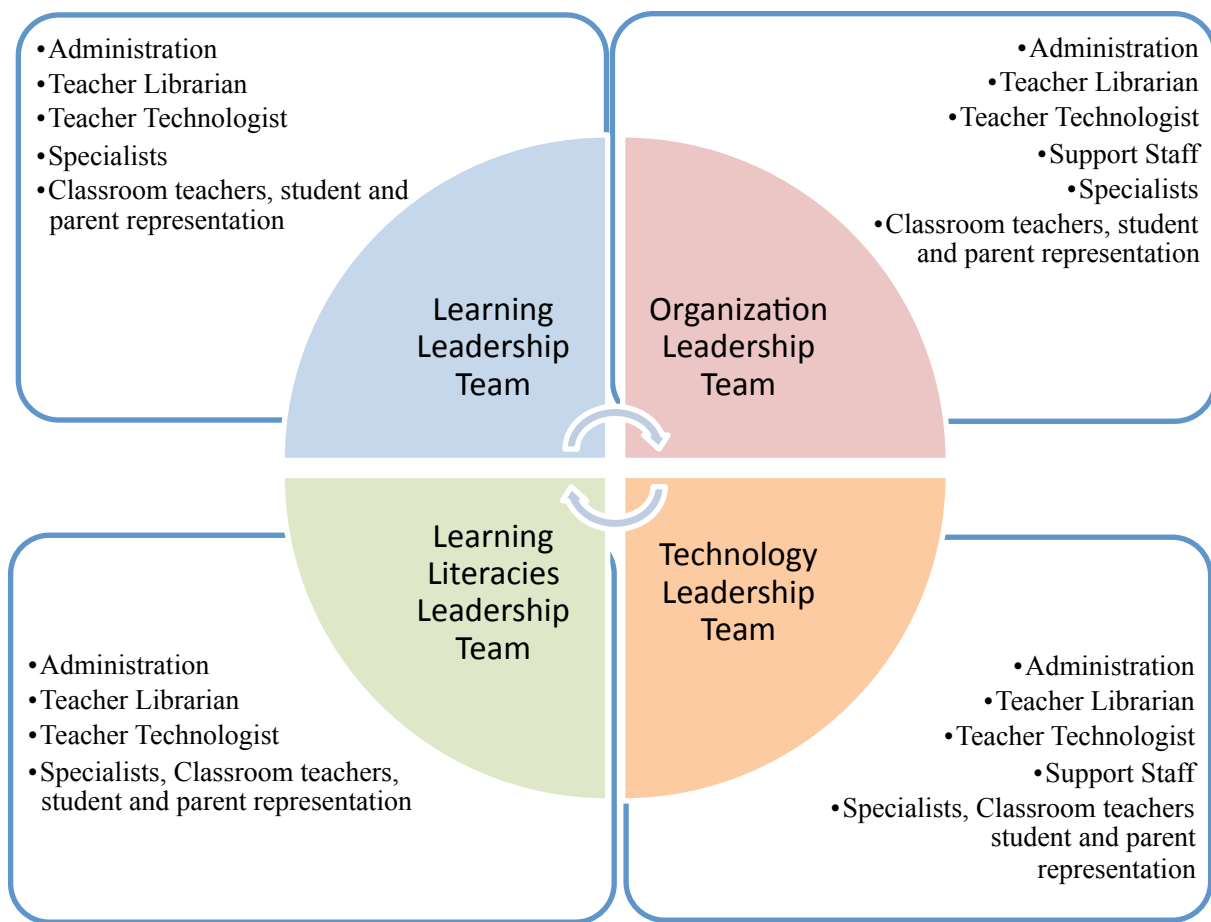
The Learning Commons
Partnership Teams

Leadership in the Learning Commons is team-based rather than centralized in a single individual. Each school begins with the functions desirable in the Learning Commons and then organizes the various leadership teams to carry out those program elements. Depending on the size of the school, we recommend from one to four partnership teams that have responsibility for the entire Learning Commons program.

Fig. 3.3: **The Learning Commons Partnership Teams**

- Administration
- Teacher Librarian
- Teacher Technologist
- Specialists
- Classroom teachers, student and parent representation

- Administration
- Teacher Librarian
- Teacher Technologist
- Support Staff
- Specialists
- Classroom teachers, student and parent representation

Learning Leadership Team

Organization Leadership Team

Learning Literacies Leadership Team

Technology Leadership Team

- Administration
- Teacher Librarian
- Teacher Technologist
- Specialists, Classroom teachers, student and parent representation

- Administration
- Teacher Librarian
- Teacher Technologist
- Support Staff
- Specialists, Classroom teachers student and parent representation

The major challenge for each of the leadership teams is for the various specialists in the school working together with classroom teachers to use the idea of a Learning Commons to advance the school improvement agenda. Hopefully the teams can envision moving beyond meeting minimum standards toward achieving excellence. For example, it is one matter for each student to be at grade level in reading, but quite another matter to build a life-long reader; pushing from aliteracy toward the enjoyment of reading as a life path. It is not just about performing on tests. It is about combining 21st century skills that push deep understanding so graduates can compete in a global market.

Action

Chart 3.1: **Give the Leadership Team a Challenge**

Consider providing each leadership team a major problem to solve in relation to the entire school improvement plan. The chart below provides some examples.

Leadership Team	Team Challenge (needs to fit your school improvement targets)
Learning Leadership Team	How could all the specialists in the building combine forces to merge with classroom teachers in a collaborative effort for school improvement?
Organization Leadership Team	How could the current organizational structure of the library and computer lab merge into a client-side Learning Commons?
Learning Literacies Leadership Team	How can all the specialists, the resources of the current library, and technology collaborate with classroom teachers to boost reading and other 21st century skills in all grades throughout the building?
Technology Leadership Team	How can the technology program be held accountable to increase achievement by boosting 21st century skills and pushing content knowledge and deep understanding?

At the end of this chapter, (charts 3.12–3.21) we provide various rubric checklists to help envision, monitor and assess how well the charges to the leadership teams actually play out in a full scale Learning Commons as we propose it. For example, the current library and computer lab might be tied up with scheduled classes that provide teacher planning time. How could the leadership teams envision a system that would meet or exceed the following rubric:

Chart 3.2

Our Current Rating	Item	Student Need?	Teacher Need?	Admin Need?	What's Next?
5 4 3 2 1	Totally flexible physical space that changes during the day to accommodate individuals small groups and large groups				

Our Current Rating	Item	Student Need?	Teacher Need?	Admin Need?	What's Next?
5 4 3 2 1	Knowledge building centers are alive and well both for exemplary face-to-face and online learning activities.				

Envision the Possibilities

A basic premise of all school improvement leadership is possibility thinking. The power of vision translated into action is the foundation of school improvement. For the creation of a Learning Commons, we imagine what a true client-side organization looks like, with everyone building, contributing, experimenting, and demonstrating. How can a collaborative culture provide the torch to focus everyone on where we are going? Figure 3.4 demonstrates how abandoning the isolation of the classroom teacher model and moving toward the collaborative model can help administrators achieve marked improvement over that achieved purely by directives or substantial pressure.

Fig 3.4

Other Specialists

Teacher Librarian &Teacher Technologist

Classroom Teacher

Collaborative Teaming for School Improvement
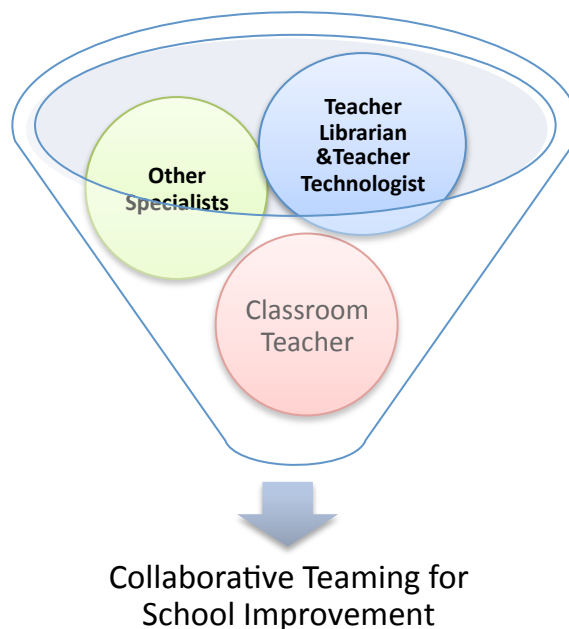
Instead of competing programs, the faculty begins to understand that they are not alone in a high stress environment. They need not feel a sense of insecurity if they are attempting change or challenge. They discover that two heads are better than one; that one person plus one person often equals three as the whole becomes greater than the sum of its parts. For example: Both skill and understanding can be successfully built in less time when the reading coach and the classroom teachers integrate the difficult text required for social studies. Internet safety is best co-taught when students are searching the Web about controversial issues. Teacher librarians are more effective when they co-teach together with the classroom teacher on a curriculum topic as opposed to teaching information use in an isolated lesson.

Action

Contact teacher librarians and administrators who have successfully created a Learning Commons. This can be easily done by using Skype.

Visit a Learning Commons facility to watch how it operates. While there, interview teachers and students about their Learning Commons. Do they express a sense of ownership? Why do teachers feel comfortable in co-teaching with specialists? What is the impact of this collaboration on achievement, and on school improvement initiatives?

Start with your Program

The urge to remodel or reconstruct in order to suddenly alter the entire behavior of the school should not become the first priority of transforming libraries and computer labs. The program drives the need for the facility rather than the facility driving change. Four program elements as described earlier are pictured in figure 3.5, and they have great potential for linking to achievement and excellence.

Fig 3.5
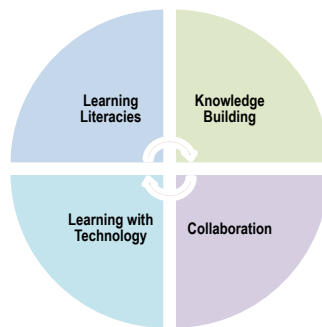
Building Understanding and Capacity for Change

Invite leadership teams to review and document the present program existing in your school for each program element: Learning Literacies, Knowledge Building, Learning with Technology, and Collaboration. Ask teams to create a visual map or flow chart that represents the present state of each element. Provide teams with support materials to help them understand how to enrich each element in a Learning Commons School. Set realistic goals, responsibilities and timelines for transitions.

ACTION

What happens when…?

- access to e-books, e-textbooks, high quality information systems, rotating classroom collections from the library collection, wireless access on preferred ubiquitous student devices, reading coaches, teacher librarians, and classroom teachers combine to push both reading skills and life-long reading habits?

- scarcity of technology access turns to plentiful access 24/7/365 in any location?

- teacher librarians and teacher technologists plan, teach, and assess learning experiences collaboratively with a classroom teacher? Students join in the design?

- the best information and technology pushes both 21st century skills and deep understanding of the topic at hand?

- exemplary teaching experiences become the norm?

- specialists integrate their knowhow in experimental learning designs and exhibit these to the rest of the faculty? How does this assist in the progress made by professional learning communities? How does collaborative risk taking pave the way toward change?

Resources to Support Leadership Teams as They Develop Program:

Knowledge Building

Questions to work on:

- How does inquiry develop both personal and collective intelligence vs. regurgitation of facts on high stakes tests?
- Do students who drive content learning with their 21st century skills perform as well on content knowledge tests as those who practice memory and mastery?
- What is an appropriate mix between inquiry and other teaching strategies?

  Resources:

- Loertscher, Koechlin, and Zwaan. 2008. *The New Learning Commons: Where Learners Win.* Salt Lake City, UT: Hi Willow Research and Publishing, pages 16-27.
- Visit our wiki at http://schoollearningcommons.pbworks.com/Knowledge-Building
- Visit our wiki at http://schoollearningcommons.pbworks.com/Knowledge--Building--Centers
- Carol Koechlin and Sandi Zwaan, "The Big Think: Reflecting, Reacting, and Realizing Improved Learning," *Teacher Librarian* 37-3 (February 2010) p. 22-6.

Learning Literacies

Questions to work on:

- How do teachers develop literacy skills with new media constructs? How has participatory learning changed our notion of literacy? How do we adjust?
- How can by including other literacies, technologies, and inquiry strategies enhance the basics of reading and writing?

  Resources:

- *The New Learning Commons: Where Learners Win*, pages 28-39.
- Visit our wiki at http://schoollearningcommons.pbworks.com/Learning-Literacies
- Marcoux, Elizabeth, "Betty" and David V. Loertscher: "The Role of the school Library in a School's Reading Program," *Teacher Librarian* 36:1 (October, 2009) p. 8-14)

Learning with Technology

Questions to work on:

- How can we utilize the power of technologies to apply what we know from learning science?
- How can we better use technology to provide 'always-on' resources and learning experiences?
- Are our learning technologies really accessible at school, home, and anywhere 24/7/365 on any teacher's or student's preferred device? How could access be improved?
- How can students assist teachers in the incorporation of technologies in teaching and learning?

Resources:

- *The New Learning Commons: Where Learners Win*, pages 40-53.
- Visit our wiki at http://schoollearningcommons.pbworks.com/Technology
- Marcoux, Elizabeth "Betty" and David V. Loertscher, "Achieving Teaching and Learning Excellence with Technology, *Teacher Librarian* 37:2 (December, 2009) p. 14-22.

Collaboration

Questions to work on:

- What are the current roadblocks to collaboration and how can we overcome them?
- How can Web 2.0 networking tools help students and teachers build collaborative skills?

Resources

- *The New Learning Commons: Where Learners Win*, pages 54-63.
- Visit our wiki at http://schoollearningcommons.pbworks.com/Collaboration
- Loertscher, David, "Curriculum, the library/Learning Commons and Teacher Librarians: Myths and Realities in the Second Decade," *Teacher Librarian* 37:3 (February, 2010) p. 8-13.

Other Resources to Assist with Building Program

Ontario Library Association. 2010. *Together For Learning: School Libraries and the Emergence of the Learning Commons.* http://www.accessola.com/data/6/rec_docs/677_OLATogetherforLearning.pdf

American Association of School Librarians. 2008. *Standards for the 21st Century Learner in Action*. Chicago, ILL: American Library Association.

American Association of School Librarians. 2009. *Empowering Learners: Guidelines for School Library Media Programs.*. Chicago, ILL: American Library Association.

Add your own resources:

ACTION

Chart 3.3: **Try out a NEW Collaborative Planning Worksheet (teachers, students, specialists)**

What do we want to know/learn/be able to do?

What do we know already?

How will we achieve our learning goals? (process)

How will we be evaluated?

What are our roles and responsibilities?

What materials/resources/experts and technologies will we need?

How will we communicate our new learning? What will we create to share our ideas?

How will we get better as learners?

What will we do with our new collective knowledge and abilities?

Build a Virtual Learning Commons

Most school libraries have some type of website that is a one-way communication system from them to students and teachers. Teacher technologists also have various systems in place that often mandate very restricted behavior. Both types of systems are often bypassed by students and teachers on their way to Google and other Web 2.0 or social network sites.

There is a marked difference between administrative computing and instructional computing. The first is locked down tight because it contains grades, salaries, attendance, and other private organizational information. It should be locked down as tightly as possible. Instructional computing, on the other hand, is open and friendly to the needs of students and teachers. Teacher technologists who set up instructional learning systems should be teachers in their own right and understand how Web 2.0 tools can facilitate learning while at the same time complying with CIPA rules (U.S. filtering policies) for safety. Everyone learns Internet safety together as both adults and students learn to govern themselves in a world they either command or drown in.

In some school districts, expensive locked down instructional computer systems are being replaced with safe and free solutions such as Google Apps Education Edition. Others operate freely in the world of Web 2.0 very successfully. In such open systems, student hackers combine their talents with staff to help everyone remain safe, using their talents to build rather than tear down. The best instructional systems promote high challenge with low threat.

The Virtual Learning Commons, as it replaces the traditional library and computer lab websites, is a place where everyone is building, experimenting, doing, exhibiting – something akin to a school Wikipedia. From the front page the doors open to the best online resources, databases, tools and tutorials assembled collaboratively by the teacher librarian, other teachers and students to support all learners in all disciplines. But the real value of the VLC lies in the development and implementation of real world projects and high think assignments that make use of collaborative knowledge building centers to deepen understanding and develop new literacies.

The parade of learning experiences passing through the Learning Commons is documented in the Virtual Learning Commons. Thus, the VLC becomes documentary evidence of progress toward school improvement. At any time, administrators can point to such evidence, experiments, action research, projects, and global connections as the focus on excellence becomes transparent to the community at large.

Resources that will help:

Study: *The New Learning Commons: Where Learners Win*, pages 9-11.

Visit our wiki: http://schoollearningcommons.pbworks.com/The-Virtual--Learning--Commons

See: Markham Middle School, Watts, CA, Kamilah Jackson (Open Commons and Experimental Learning Center complete with tours): http://sites.google.com/site/markhamlibrary/   Take her tour.

For judging the number of learning experiences that qualify to be counted, see: David Loertscher, Carol Koechlin, and Sandi Zwaan. 2009. *The Big Think*. Salt Lake City, UT: Hi Willow Research and Publishing.

Chart 3.4: **Elements of the Virtual Learning Commons to Develop**

ACTION

Over time the Learning Commons specialists in partnership with staff and students will develop the spaces and tools they need to teach and learn. The Virtual Learning Commons will always be in a state of growth as it evolves with school needs. Here are some components and design elements to consider:

- ✓ Turn **assignments** from classroom teacher dictates into conversations that include the teacher, students, specialists in the school, and parents. Now assignments will be available from the Virtual Learning Commons 24/7 from any device students are using. Consider adding RSS feeds so assignments can appear instantaneously on individual student home pages.

- ✓ Build a **reading** community through virtual book/movie/other media discussion clubs that include writing and utilizing social networking such as Facebook and Twitter, wikis, blogs, and nings.

- ✓ Organize useful **technology tools** for easy application. Tools could be organized many ways such as by function, e.g. great tools for brainstorming. Use various types of **tools** to create a Learning Commons nested in the cloud. For example: signing up for Google APPS as a school.

- ✓ Create **Knowledge Building Centers** (as shown on the next page) that are major collaborative spaces for working in units that are often repeated in the school over and over. These knowledge centers will have links created by everyone to tools, resources, experts, tutorials, and special collections at various libraries/museums/government agencies as well as spaces to work and create and share and evaluate progress.

- ✓ Develop a **Big Think** center as a part of all major inquiry projects for metacognitive reflection by both individuals and groups

- ✓ Encourage the **production** of learner-created content whether for assignments or for fun, and store that content in a virtual school yearbook and museum. The Virtual Learning Center becomes the center of creativity.

- ✓ Create a Virtual Experimental Learning Center where trials, experiments, action research, and professional learning communities are centered, all working toward **school improvement**.

- ✓ Consider **design** as a method of capturing attention and collaboration; for example, perhaps there are multiple "main" web pages as direct entry points for learners, classroom teachers, teacher librarians, etc. rather than trying to direct traffic all through one central web page.

Knowledge Building Centers

The foundational elements of the Virtual Learning Commons are Knowledge Building Centers. These are spaces accessible 24/7 that turn teachers' directive assignments into conversations and where specialists are coaching alongside the classroom teacher. This space develops collaborative inquiry where both personal and collective expertise is developed.   It is all about what I am able to learn on my own; what I can help others learn; and what we can all learn together.

Fig 3.6
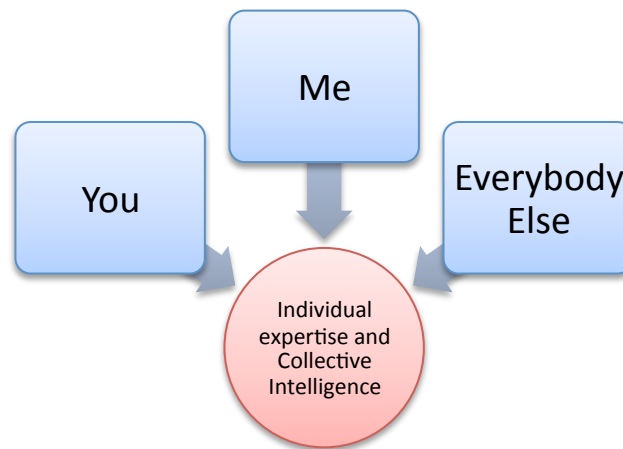
What it is not!

- A library website (one-way stream of useful information)

- A Pathfinder (helpful list of useful resources on a particular topic)

- Sophisticated and expensive learning or content management system (Angel, Blackboard)

- A simple teacher blog, wiki, or website of news and directions to students

- A tutorial

What it is

- A collaborative construction zone between adults and students

- A place to learn, solve, work, create, think, achieve, shine, demonstrate…

- Participatory learning

- Higher level thinking and metacognition

- Ventures into the real world of information

- Free or almost free

- Simple to create on a variety of technologies

Get samples and templates for creating Knowledge Building Centers at: http://schoollearningcommons.pbworks.com under the Knowledge Building Centers link.

Create the Physical Learning Commons Space

Depending on the current library and computer lab facilities, creating a physical space in the school can cost very little or may involve doing major renovation or building new facilities. Small libraries with computer labs in another part of the school present the most difficult challenges. However, we have brainstormed simple solutions in almost all of the current facilities we have toured.

One common configuration is the school library with an adjoining computer lab. With the addition of a wireless network in both rooms, one can become the Open Commons and the other the Experimental Learning Center. We often approach a facilities brainstorm by asking three questions:

- If it doesn't move, does it belong?
- If we aren't using it, do we need it?
- Does it look like a storage space or a multi-functional learning space?

Starting with these questions we look for ways to reduce the amount of stationary book shelving and computer tables taking up space that could be flexible. Circulating half the book collection the first day of school justifies the elimination of half the shelving, and mobile computing devices provide opportunities for individuals and small groups to work anywhere. How can we create space for creative production in all types of media and formats? Can bookshelves be put on wheels for easy movement? What about various shaped tables on wheels that create individual, small group and large group configurations as needed? How can we clear a large space for student performances from poetry readings, to drama or music? How can we make sure the space meets accessibility standards? Oh, and don't forget quiet study space and small conference areas.

Many colleges are creating such flexible spaces as part of their renovated libraries. Furniture manufacturers are providing much more flexible designs. As well, architects are getting better and better at designing multi-functional and adaptable spaces. Look around, ask, and take your leadership team on a visit to begin the brainstorming process. See the chart on the next page for ideas.

- What would cost very little money?
- What would require some additional funding?
- What dreams would require renovation or new construction?

Resources that will help:

The New Learning Commons: Where Learners Win, pages 6-8.

Visit our wiki at http://schoollearningcommons.pbworks.com/The-Physical--Learning--Commons

Chart 3.5: **$$$$ What will it cost?**

Complete Makeover
- wireless networking throughout the school using 802.11n systems
- structural changes to the facilities
- increase professional and support staff

Moderate Cost
- Invest in bandwidth and cloud computing
- purchase inexpensive netbooks, iPod Touches or iPads
- Encourage parents to equip every student with an acceptable device that accesses school networks
- set up a production center with printers, cameras etc.
- create inviting comfortable areas to read and relax

Minimal Cost
- moving shelving to the wall and the rest on casters so it can be moved
- invest time in building a virtual LC
- purchase books students want to read
- Connect into other schools who are creating LCs to share ideas, expertise and support

Almost Free
- discarding unused resources and furnishings to open up space
- integrate Web 2.0 collaborative tools
- work with Cloud Computing
- Conduct professional development including students in the creation of ideas and policies
- Organize the specialists in the school to begin major collaborative efforts with classroom teachers

Chart 3.6: **Elements of the Physical Learning Commons to Develop**

ACTION

Construct a client-side organization built around the idea that:
if they build it, they will use it

- ✓ **Develop** collaborative **virtual calendars** so that teachers and students can schedule learning and sharing events in both the physical and virtual Learning Commons from anywhere at any time. The Open Commons and the Experimental Learning Center each need their own calendars to avoid conflicts of space and teacher specialist time. Utilize virtual calendars already existing in your school or district or explore the many Web 2.0 calendar apps available.

- ✓ **Build** individual and group **expertise** by giving learners opportunities to teach others. Establish an Expert Bar in the LC staffed by varying experts who can help with such tasks as developing presentations, searching effectively in databases, creating science fair projects, etc. Form a Geek Squad of students who are proficient technology users but who also have good social, personal, and problem solving skills. With rotating on call times, they can assist teachers and students with technology problems. Better yet, have members of the Geek Squad trained and ready in every classroom.

- ✓ **Free up** as much **space** as you can by getting more resources into circulation. Invite classes to borrow more books for their classroom collections and rotate them often so the students always have lots of new books to choose from right at their fingertips. Assess how much of your print reference section is still relevant and useful, since many reference sources are now online. Be rigorous about weeding. Think about the 24/7 access you can provide to learners by investing in excellent online databases and interactive reference resources and the space this will free up in your facility for other functions. Such online resources are not free but they provide the high quality information needed to support authentic inquiry.

- ✓ **Create flexibility**. If at all possible relocate shelving so that it is on the walls. Put everything you can on rollers and keep furnishings lightweight so they can be moved into many different configurations. Replace rigid banks of desktop computers with laptops or other mobile devices either owned by the school or by students and teachers.

- ✓ **Support differentiated instruction** by building resources, tools, technologies and learning spaces that address the needs of different learning styles, needs and abilities

- ✓ **Develop** the Virtual Learning Commons into a **showcase** of exemplary teaching and learning.

- ✓ **Listen to** the **needs and wants** of students and teachers. Design the VLC for the client.

Building the Learning Commons Team

Administrative leadership is the key to building a winning team. Administrators are charged with the responsibilities of planning and implementation of not only the Learning Common's facilities and programs but most importantly they shape the culture and dynamics of this approach to learning by building the team player by player. The roles and responsibilities of various professionals and support staff are developed in some detail in *The New Learning Commons: Where Learners Win,* pages 64-77. See also the suggested questions for interviewing candidates for the Learning Commons team in charts 3.7-3.11.

Fig 3.7
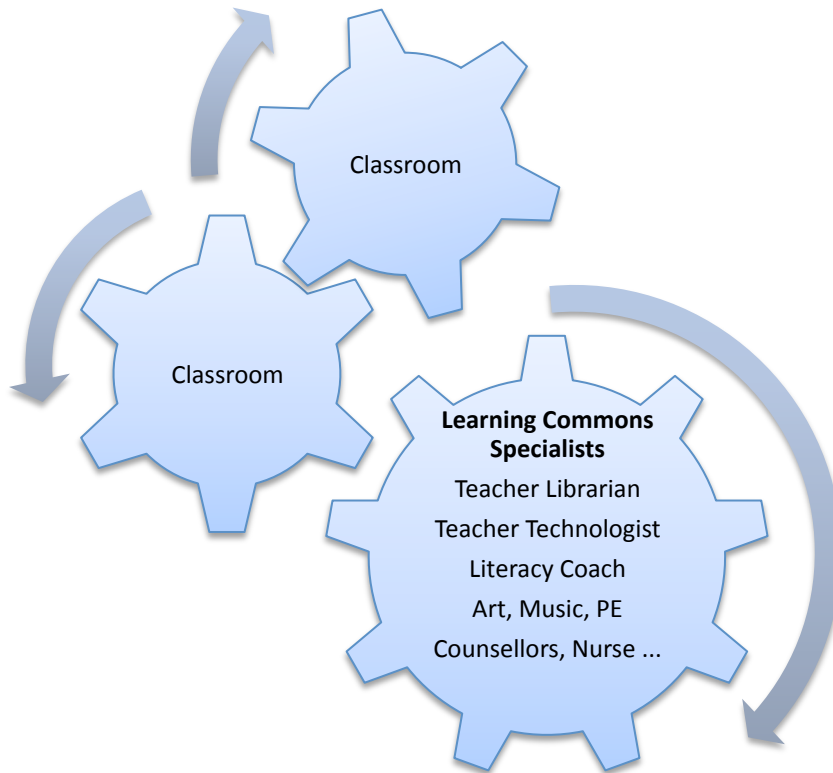
Chart 3.7: **Interview Questions for Teacher Librarians**

Describe several Web 2.0 applications you and a teacher have used together, which both of you were quite certain facilitated better learning and deeper understanding.

As you look at the physical facilities of the current library, what would you do to turn the entire space into a flexible and true Learning Commons?

How would you turn the current library web site into a giant conversation among the teacher librarian, other specialists, classroom teacher, students, administrators, and parents?

Describe another situation in your career when you took a risk and attempted to try something new?

How would your Virtual Learning Commons transform this school into a total reading community?

What do you see as the future of printed books and printed textbooks?

Describe how you would create teacher assignment blogs so that they stimulate conversations between the teacher, student, and specialists in the school vs. a one-way command.

How could all specialists in the school band together to co-teach integrated programs and collaborate with classroom teachers rather than remain isolated?

What are the main points in the current Horizon Report that this school and district should be considering?

What other organizations, experts and resources should we consult to give us information about transforming a traditional library into a Learning Commons?

What do you do see as the benefits of a Learning Commons for students? For teachers? For administration?

What do you think might be the tallest hurdles along the way? How would you deal with these?

How would you begin the transformation process?

Think about your Personal Learning Network and sketch it visually.

Add your own:

Chart 3.8: **Interview Questions for Teacher Technologist**

What do see as the difference between administrative computing and instructional computing?

What is your view of Google Apps Education Edition?

What kind of balance should there be between filtering and open access in a school? What types of sites would you block to come into compliance with CIPA? (countries other than the U.S. should insert their regulations here if applicable)

How would you integrate digital citizenship into the program of this school?

What is your view of how 21st century skills including ICT literacy, and how these should be operationalized in a school?

What kinds of wireless systems and connectivity to students' devices would you think appropriate in the Learning Commons?

Describe several Web 2.0 applications you and a teacher have used together which you both feel facilitated better learning and deeper understanding.

As you assess the physical facilities of the current library and computer labs what would you do to turn the space into a flexible and true Learning Commons?

How would your Virtual Learning Commons transform this school into a total reading community? What do you see as the future of printed books and printed textbooks?

Describe how you would create teacher assignment blogs so that they stimulate conversations between the teacher, student, and specialists in the school vs. a one-way command. Describe another situation in your career when you took a risk and attempted to try something new?

How could all specialists in the school band together to co-teach integrated program and collaborate with classroom teachers rather than remain isolated?

What are the main points in the current Horizon Report that this school and district should be considering? What other organizations, experts and resources should we consult to give us information about transforming a traditional library and computer labs into a Learning Commons?

What do you do see as the benefits of a Learning Commons for students? For teachers? For administration?

How would you begin the transformation process? What do you think might be the biggest hurdles along the way? How would you deal with these?

Think about your Personal Learning Network and sketch it visually.

Add your own:

Chart 3.9: **Interview Questions for Various Specialists in the School**

How could the Learning Commons support your specialty area?

What are the advantages of all specialists communicating through the Learning Commons calendar and other virtual spaces?

Describe a successful collaboration you have initiated or taken part in during your career.

What are the benefits of working collaboratively?

Share examples of action research projects that you have developed to test the success of an initiative in your specialty area?

What contributions can you make to teaching and learning in the Learning Commons?

Think about your Personal Learning Network and sketch it visually.

What are the attributes of a successful learner?

Where can you discover how learning in the future will change?

How can your specialty contribute to preparing learners for their futures?

Describe your facility with Web 2.0 technologies and give examples of how you have used these to foster your work in schools.

What are the common characteristics of the role of any of the specialists in the school? What are the major differences?

Describe situations, examples, and programs you have been involved in that put your schools at the heart of teaching and learning.

Add your own:

Chart 3.10: **Interview Questions for Classroom Teachers**

How could the Learning Commons support you and your students?

What can you contribute to the Learning Commons?

What are the benefits of working collaboratively?

How do you design instruction and projects for critical and creative thinking?

How do you utilize technologies to enhance learning?

Share examples of action research projects that you have developed to test the success of an initiative in your classroom?

How could these projects be augmented through the Learning Commons?

Think about your Personal Learning Network and sketch it visually.

What are the attributes of a successful learner?

Where can you discover how learning in the future will change?

Describe learning experiences you have had co-teaching with another adult. Did you come away from those experiences with any successes or ideas for improvement?

Describe your facility with Web 2.0 technology. Have you used such tools in ways that you felt really had an impact on teaching and learning?

What is your response to students who may have more facility with technology than you do?

Describe experiences you have had with projects based in either the school library or the computer lab. How could these experiences have been improved?

Add your own:

Chart 3.11: **Interview Questions for Support Staff**

What skills do you bring to the Learning Commons?

What are the benefits of working collaboratively?

Share an example of a successful collaboration.

Share an example of a time when you helped students learn how to learn.

On a scale of 1 -10 how do you rate your ability with technologies. Explain.

How would you envision your participation in the Learning Commons?

Think about your Personal Learning Network and sketch it visually.

Add your own:

Planning and Leading Transitions

With your leadership team:

- ✓ Take stock of your school library, labs, and programs as they are now. Determine which components of the physical and virtual Learning Commons are in place already and can be built on. Use the rubrics and planning worksheets in charts 3.12–3.21.
- ✓ Determine other aspects of infrastructure already in place and decide how to proceed logically and fiscally. Use the Before and After Planning Chart for Learning Commons Infrastructure on chart 3.21.
- ✓ You may want to document your progress visually so take lots of before and after photos and video.
- ✓ Ask students and teachers for help in the review, planning and implementation.

- ✓ **Now create an action plan!** The headings on chart 3.12 may be useful.

Chart 3.12

School Learning Commons Action Plan					
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?	**Responsibilities** Who is responsible for what?	**Resources** What budget and time and people are needed?	**Indicators of Success** How will we know the transition is complete? How will we know it is working?

Fig 3.8: **Action Planning for Sustainable Change**

Consult → Plan → Implement → Monitor → Evaluate

Chart 3.13: **Physical Open Commons Space Planning Rubric**

Rubric descriptions using five star hotel ratings:★ ★ ★ ★ ★

Our Current Rating	Item	Student Need?	Teacher Need?	Admin Need?	What's Next?
5 4 3 2 1	Totally flexible physical space that changes during the day to accommodate individuals small groups and large groups				
5 4 3 2 1	Multiple groups working simultaneously in the learning commons				
5 4 3 2 1	Space for adults to teach independently and co-teach together				
5 4 3 2 1	Space for individuals, small groups, and large groups to research and create in all forms of media and technology				
5 4 3 2 1	Quiet comfortable spaces for individuals or small groups				
5 4 3 2 1	The entire Learning Commons is wireless so that a maximum number can be on networks without a slowdown and on their own preferred device				
5 4 3 2 1	Web 2.0 utilizing cloud computing encourages collaborative knowledge building, critical thinking, and creativity				
5 4 3 2 1	All adults and students participate in both access and safety issues connected with the Internet				
5 4 3 2 1	Parade of high quality leaning experiences co-taught by teachers and specialists happen regularly in the Learning Commons				
5 4 3 2 1	The Open Commons looks like a learning space instead of a storage space				
5 4 3 2 1	A production area provides everything learners need in one location to prepare products and presentations				
5 4 3 2 1	The Learning Commons is the cultural center of the school with live performances and a virtual living school yearbook				
5 4 3 2 1	Student Geek Squads help in the Learning Commons and spread throughout the school assisting with technology.				
5 4 3 2 1	Special needs learners have needed facilities and technology assists				
5 4 3 2 1	Teachers and students feel a sense of ownership in the functioning of the LC				
5 4 3 2 1	Space and resources for differentiated learning opportunities				

Chart 3.14: **Action Worksheet**

Summary of strengths, weaknesses and identified student, teacher and administration needs in the **Open Commons** physical space:

What is a reasonable, immediate goal that the teacher librarian and the teacher technologist and other specialists could do together to improve the **Open Commons** functionality?

Goals for other team members:

Administrative support needed:

Chart 3.15: **Physical Space for the Experimental Learning Center Planning Rubric**

Rubric descriptions using five star hotel ratings: ✮ ✮ ✮ ✮ ✮

Our Current Rating	Item	Student Need?	Teacher Need?	Admin Need?	What's Next?
5 4 3 2 1	Space for the Experimental Learning Center is part of the Learning Commons				
5 4 3 2 1	Separate calendar from the Open Commons calendar				
5 4 3 2 1	Facilities include the technology for all kinds of professional development				
5 4 3 2 1	Facilities include the technology for experimental classes and experimental projects				
5 4 3 2 1	Faculty understand the nature of experimentation, observation, success, failure, trying, refining				
5 4 3 2 1	Experimental sessions with students can be videotaped for analysis and synthesis				
5 4 3 2 1	Center of action research and all school improvement initiatives				
5 4 3 2 1	Student Geek Squads are trained here and help in the Experimental Learning Center				
5 4 3 2 1	All specialists design, test and implement new approaches here				
5 4 3 2 1	A professional resource collection is maintained to support all curriculum areas				
5 4 3 2 1	Space needs to also have a high degree of flexibility to accommodate different types of learning experiences and demonstrations				
5 4 3 2 1	Professional Learning Teams make this their home base				
5 4 3 2 1	One stop for the principal to observe and monitor progress of Professional Learning Teams				

Chart 3.16: **Action Worksheet**

Summary of strengths, weaknesses and identified student, teacher and administration needs in the **Experimental Learning Center** physical space:

What is a reasonable immediate goal that the teacher librarian and the teacher technologist could do together to improve the **Experimental Learning Center** functionality?

Goals for other team members:

Administrative support needed:

Chart 3.17: **Virtual Open Commons Space Planning Rubric**

Rubric descriptions using five star hotel ratings: ✫ ✫ ✫ ✫ ✫

| Our Current Rating	Item	Student Need?	Teacher Need?	Admin Need?	What's Next?
5 4 3 2 1	The Virtual Learning Commons replaces the previous school library website				
5 4 3 2 1	The VLC invites and everyone contributes to the Virtual Open Commons: It has been Wikipediaized				
5 4 3 2 1	The teacher librarian and the teacher technologist are jointly creating and managing the Virtual Open Learning Commons				
5 4 3 2 1	Every student and teacher understand the value of and create their own personal learning network				
5 4 3 2 1	The VLC connects to students' and teachers' personal learning networks				
5 4 3 2 1	Knowledge Building Centers are alive and well both for both face-to-face and online outstanding learning activities.				
5 4 3 2 1	The VLC is the home to the living school yearbook				
5 4 3 2 1	The Student Geek Squad takes major responsibility in the VLC				
5 4 3 2 1	The VLC is the center of Web 2.0 tools and other instructional software				
5 4 3 2 1	The OPAC (online library catalogue) is interactive rather than a one-way stream of information				
5 4 3 2 1	The VLC is the central resource for databases and connections to other libraries				
5 4 3 2 1	The VLC is available 24/7/365 on any preferred device anywhere				
5 4 3 2 1	The VLC serves out interest and fun alongside academics				
5 4 3 2 1	The VLC is the virtual center of all school initiatives				
5 4 3 2 1	The VLC is the tracking center for the parade of learning experiences and Knowledge Building Centers across the year				
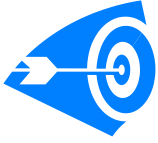
Chart 3.18: **Action Worksheet**

Summary of strengths, weaknesses and identified student, teacher and administration needs in the **Open Commons** virtual space:

What is a reasonable immediate goal that the teacher librarian and the teacher technologist could do together to improve the **Virtual Open Commons** functionality?

Goals for other team members:

Administrative support needed:

Chart 3.19: **Virtual Experimental Learning Center Space Planning Rubric**

Rubric descriptions using five star hotel ratings: ★ ★ ★ ★ ★

Our Current Rating	Item	Student Need?	Teacher Need?	Admin Need?	What's Next?
5 4 3 1	Joint calendaring for the Experimental Learning Center is developed by administrators, teacher librarians and teacher technologists				
5 4 3 1	The Virtual Experimental Learning Center is the home of school improvement for the school				
5 4 3 1	The Virtual Experimental Learning Center Is the home of many Knowledge Building Centers that are jointly constructed by specialists and teachers				
5 4 3 1	Results of Big Think activities for learning activities are done in knowledge building centers and are tested and evaluated here before going school wide				
5 4 3 1	Opportunities for professional development beyond the school are promoted here				
5 4 3 1	Results of professional development opportunities over time are documented here for a total picture of the impact of school improvement initiatives				
5 4 3 1	Here documents, schedules, information about school improvement are linked to state and local standards				
5 4 3 1	The Virtual Experimental Learning Center is the center for evidence-based practice and data-driven decision making				
5 4 3 1	The Virtual Experimental Learning Center is the virtual center of professional learning communities				
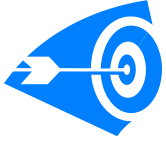
Chart 3.20: **Action Worksheet**

Summary of strengths, weaknesses and identified student, teacher and administration needs in the **Virtual Experimental Learning Center** space:

What is a reasonable immediate goal that the teacher librarian and the teacher technologist could do together to improve the **Virtual Experimental Learning Center** functionality?

Goals for other team members:

Administrative support needed:

Chart 3.21: **Before and After Planning Chart for Learning Commons Infrastructure**

Where are we now	What we want to achieve
Staffing	
	Qualified teacher librarian eager to lead the LC transformations and program Qualified teacher technologist on staff to assist with creative integration of technologies Trained library support staff (e.g. technician, secretary, clerk, volunteers) Other specialists included as part of the LC staff
Access	
	24/7 access to the Learning Commons via technology Physical Learning Commons available and staffed the entire school day Before and after school arrangements are encouraged Flexible scheduling based on staff and student needs
Budget	
	Ample funding for information, print and multimedia resources, and technology from school and district sources Supplemented by grants and special projects and corporate sponsorship
Technology	
	Electrical system designed to accommodate current and future needs throughout the Learning Commons High bandwidth wireless networking capabilities Wireless access throughout Automated circulation of physical items and equipment Dedicated computers for administrative functions A variety of preferred personal devices for accessing networks such as netbooks and smart phones Multimedia production for adults and students Ceiling mounted projectors and screens as

	needed for presentations Broadcast technology systems Sound system for music and presentations Whiteboard(s) Software as needed
Environment	
	Natural and artificial lighting are controlled so areas can be darkened. Climate and dust controlled air systems Acoustics and noise control materials Washroom access, water fountain and sink Considerable spaces for display of art, posters and student work Flexible spaces, good sight lines Inspiring signage Safety a priority Accessibility standards met or exceeded
Layout	
	Large double door entry/exit Office/ workroom Seminar rooms and production center Storage for extra chairs and equipment when not in use Flexible for small and large groups Flexible quiet spaces and busy spaces
Furniture	
	Everything lightweight and portable and durable for reconfigurations Shelving on walls and/or low and on wheels Moveable wall systems to divide up space as needed Portable stage Various sizes of tables, all portable, so many configurations are possible Lightweight chairs, enough for large groups if needed Work spaces and stations with storage Comfortable seating for various groupings Station for self check out

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Chapter 4

School Improvement: Monitoring Progress

The emphasis on school improvement has spawned many approaches to gathering and utilizing data on both teaching and learning. Many monitoring systems are available to study classroom instruction and analyze the various testing results of a school or district.

We recommend that each administrator go through their current monitoring practices to find applicable strategies to examine the impact of a Learning Commons. Here, we suggest some simple but powerful strategies.

- Take the pulse of the Learning Commons with a quick walk though
- Talk to students and teachers. Ask questions and listen
- Check the schedule calendars periodically
- Ask the Learning Commons staff for long range plans, term reports and annual reviews
- Review on-going collaborations
- Analyze access of physical and virtual resources and learning spaces
- Examine sample projects
- Review Big Think activities and results
- Build a strong leadership team and work in partnership with them
- Monitor Evidence Based Practice projects

Critical Indicators of Progress:

These strategies can provide a constant data stream about the health and wellbeing of the Learning Commons as it transitions out of the era of the school library and computer lab. What are the critical indicators?

- The sense of **ownership of the Learning Commons** extends to administrators, to classroom teachers, to students, to the various specialists in the school, and outward toward the parents. "It is our space; we want to be a part of it; we contribute to its success; it is a vital part of teaching and learning; it is a symbol of the health of the school environment."
- The adults in the school recognize that the Experimental Learning Center is the **focal point for school improvement**. Everyone understands its role in experimentation, professional development, and its central role in the push for excellence.

The We We Solution

When teachers within a school collaborate, they begin to think not just about "my classroom" but also about "our school."

Michael Fullan (2008)

- The Learning Commons is the **cultural center of the school** with constant learning, demonstrations, performances, awards, and projects as it becomes the physical and virtual school yearbook.
- The stream of **exemplary learning experiences** happens so often that multiple examples can be observed both in the physical and the virtual space at any time of day or night.
- We can observe the **power of technology transforming learning experiences**, student creativity, student engagement, individual and collective intelligence building in both the physical and virtual spaces.
- We are never surprised to see **various configurations** of adults working with full classes, small groups or individuals and succeeding side by side in the same physical or virtual space.
- The Learning Commons **showcases the best** of what we represent as a school community.
- The **leadership team** of the Learning Commons **is making substantial progress**
- **The program of the Learning Commons is held accountable**
  - Results achieved on individual learning experiences
  - Repertoire of learning experiences across the year
  - Repertoire of learning experiences by teacher and curricular area
  - Action research results
  - Student and teacher Big Thinks
  - Relevant individual items from larger data sets
  - Standardized national and international tests

"Every Student, every teacher, and every school has a right to be assessed in ways that might best show off their abilities, as well as in ways that obtain information for feedback on how they might improve. That requirement calls for more than one kind of assessment instrument. ."

David C. Berliner (2009, 141)

The Learning Commons launches schools on a continuum towards sustainable excellence.

Fig. 4.1

Disjointed Assessments → Coordinated Evidence → Sustainable Excellence

Evidence Based Practice in the Learning Commons: Everyone Wins

Students, teachers, administrators, parents – the entire school community gets better and better in a Learning Commons culture. School improvement is a natural outcome when everyone realizes their learning potential.

Continuous inquiry, learning collaboratively, reflective practice and learning by doing are foundational approaches in the drive for excellence in the Learning Commons. Both students and teachers are on this journey. However, for this section of your guide, we will concentrate on the professionals.

The above approaches to learning are all attributes of a professional improvement process called Evidence Based Practice. This is a practical process of gathering and documenting tangible proof of the effect of the presence or absence of a teaching strategy or other intervention, followed by an analysis of this evidence, and an informed adjustment of strategies to aim for even better results.

The Experimental Learning Commons is the center for more formal Evidence Based Practice initiatives. However, as successes mount, this approach becomes a habit of mind for learning growth everywhere in the school. Evidence Based Practice can take on many forms, thus it is advantageous in that it recognizes and maximizes the many teaching and learning styles of creative professionals.

The non-negotiable components of Evidence Based Practice in the Learning Commons include:

- Designing quality learning experiences based on what we want students to know, do and understand.

- Ongoing assessment and evaluation of student progress using diagnostic, formative, and summative tools as well as standardized test results.

- Systematic tracking and documentation of evidence of learning

- Collaborative analysis of evidence through Big Think metacognitive sessions at the end of learning experience

- Action taken to improve results

A Professional Learning Community (PLC) is educators committed to working collaboratively in ongoing processes of collective inquiry and action research to achieve better results for the students they serve, PLC'S operate under the assumption that the key to improved learning for students is continuous job-embedded learning for all educators.

All Things PLC -Adapted from *Learning by Doing*

Evidence Based Practice Approaches in the Learning Commons

A rich variety of approaches are encouraged in the Learning Commons with inquiry, collaboration, reflection and action forming the backbone of each method. The physical and virtual Experimental Learning Commons supports and coaches all of these methods and provides spaces, resources, technologies and records of achievements. Because of the transparency and centrality of the Learning Commons; the principal can easily observe progress, identify needs, and often provide capacity building supports on the spot.

Fig, 4.2

Inquiry → Collaboration → Reflection → Action

Approaches can include:

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, a collaborative session for teaching partners is designed as part of every unit in the Learning Commons. It is also the capping piece of every Evidence Based Practice initiative.

Building a Professional Learning Community

Professional Learning Teams (better known in educational literature as Professional Learning Communities) are the real heart of school improvement and the energy of the Learning Commons.

Professional Learning Communities are teams of educators systematically working together to improve teaching practice and student learning. We traditionally think of a PLC meeting around a table armed with an agenda, chart paper, markers, and of course refreshments. Meeting face to face has definite advantages but there are many drawbacks too, specifically finding the exact time when everyone can meet in one place. Web 2.0 environments have changed all that, as we now can form groups for professional learning anywhere, anytime on many digital devices. Collaboration and interdependence are eased and strengthened when schools utilize these transformative technologies to build effective Professional Learning Communities

Just as teachers meet with other learning communities around the globe to explore and learn on blogs and wikis, so too can they meet virtually within a school or a school district. Think of the time and effort saved trying to coordinate a PLC meeting. Everyone can join in now at their preferred time and place.

The Learning Commons is the ideal center for organizing, archiving and supporting both face to face and virtual Professional Learning Communities. Think of it as a beehive – the Learning Commons is the whole school learning organization made up of hundreds of honeycombs or specific learning teams, professional and student, that are built, harvested and replaced by new honeycombs in a continuous drive for excellence.

According to Richard Du Four, a Professional Learning Community must work with the following critical questions to build instructional capacity and lasting school improvement.

Fig 4.3

59
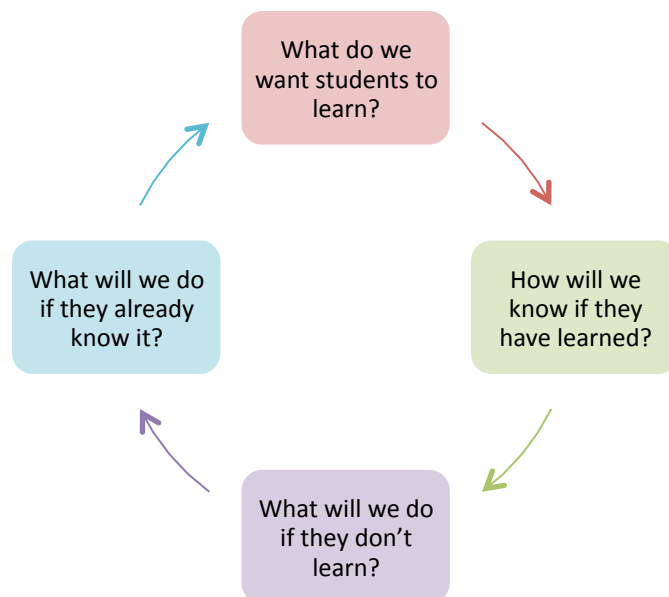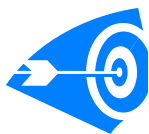
Chart 4.1: **Use this worksheet to brainstorm for ways technology can make Professional Learning Communities work in your school**

ACTION

Technology Tool	PLC Opportunities
Blog	
Wiki	
Ning	
Twitter	
Skype	
Podcast	
Webinar	
Google Apps Education	
Office Live Workspace	
Video conferencing	
Other	
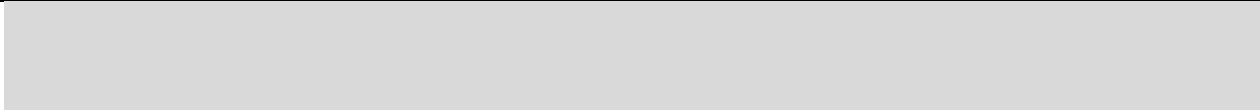
Chart 4.2: **Action Research Planning**

- ✓ Begin with a research question.

- ✓ Decide on a methodology/strategy to test the question.

- ✓ Conduct the research/collect the data.

- ✓ Analyze the data.

- ✓ Draw conclusions. (Remember that in Action Research, generalizability is a problem. Just because a strategy works in one class, does not automatically mean that it will work school wide).

- ✓ Ask: So what?

- ✓ Report the results

- ✓ What's next?

Chart 4.3: **Specialist Evidence Gathering**

5 Key Things Specialists Do Every Day to Make a Difference:

✓ **Collaborate** with teachers to build, co-teach, and assess solid and engaging learning experiences.

✓ Analyze the data from **learner assessments** to keep improving collaborative efforts. Ask, "Are we pushing every learner toward excellence?"

✓ Teach **integrated skills** that match their specialty, e.g. information literacy (teacher librarians),

✓ Target specific **reading skills** as learners are doing research (reading coaches).

✓ **Motivate** learners to read more (yes, this is every specialist's responsibility).

✓ Work with the **leadership** teams on continuous school improvement.

Chart 4.4: **Teacher Big Think**

Teaching partners reflect on the learning experience:

So What?

What did students learn? (process and content)

How did they learn it? (skills, strategies, problems, solutions)

Why is this important?

What Next?

What new questions do we have?

How can we use what we know to do better next time?

Who can help us?

What action can we take to improve results?

How can we share what we have discovered? Who needs to know?

A Final Check

In the past decade, much decision making has been based on evidence from a single source: standardized testing. The error of this strategy has become more and more apparent as time has passed. All through this chapter, a wide variety of evidence has been recommended to take a more global perspective of what is working by moving to a Learning Commons model and what might need more attention.

One last perspective might assist in collecting a mix of evidence that is much stronger. We refer to the practice of **triangulation of evidence**. Administrators need to take into consideration various streams of evidence from the following three levels in order to make sound decisions.
Fig. 4.4
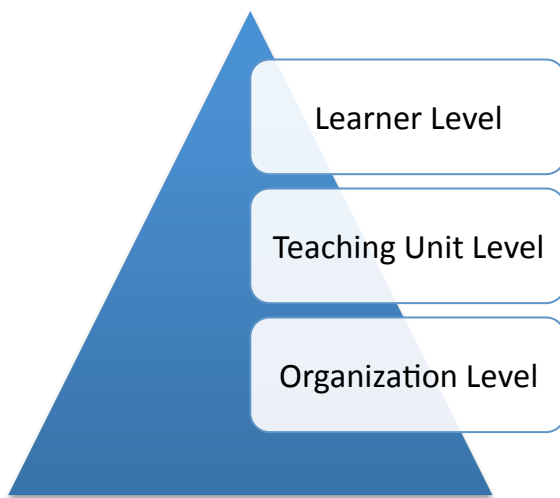
Organization Level evidence includes looking at the facilities, technology, staffing, success of initiatives, results of professional learning communities, the spread of acceptance of the Learning Commons concept, and other whole-building ideas and perspectives.

Teaching Unit Level evidence includes the improvements in instructional designs, co-teaching of classroom teachers and specialists, integration of content and 21st century skills, asking whether two heads are really better than one, and the impact specialists are having because they are now partnering in instruction rather than delivering their own curriculums separately. Certainly the number of successful collaborative learning experiences by grade level and their diffusion through the faculty is an indicator to watch. A critical measure would be the percentage of learners in a class who meet or exceed unit objectives because of the use of knowledge building centers, wise use of technology, collaboration among adults, etc.

Learner Level evidence looks at individuals and how responsive they are to what is going on in the Learning Commons and in their engagement in school in addition to scores on standardized tests. For example, try to determine what kind of student is thriving in the new environment: the gifted? the mainstream child? the struggling student? Who is not doing well? Why? Are there patterns across struggling students? How could the Learning Commons program adapt to those needs?

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DuFour, Richard, et al. 2006. *Learning by Doing: A Handbook for Professional Learning Communities at Work.* Bloomington, IND: Solution Tree Press.

Fullan, Michael. 2008. *The Six Secrets of Change.* San Francisco, CA: Jossey-Bass.

Other Resources to Assist with Change and Capacity Building in the Learning Commons

Loertscher, David, Carol Koechlin, and Sandi Zwaan. 2008. *The Big Think: 9 Metacognative Strategies that Make the Unit End Just the Beginning of Learning.* Salt Lake City, UT*:* Hi Willow Research & Publishing.

The New Learning Commons wiki http://schoollearningcommons.pbworks.com/

Add Your Own Resources

Chapter 5

The Learning Commons: Measuring Success

Because the Learning Commons is an approach to whole school learning that is designed to flow with school needs and world realities, it will always be in a state of constant negotiation and adjustment. Thus the expectations of teaching and learning will also continue to evolve as needs change. This section of your guide will help you to sample progress and measure success of some key program elements in your school Learning Commons. Checklists and surveys in this section will give you a quick picture of how well the Commons is addressing current needs of students and teachers and how well the program elements are being implemented. As you do a walk through the physical and virtual places of learning, use these tools to assess success and plan for improvement. Over time you and your leadership team will need to adjust the tools in this section as needs and the dynamics of learning change.

- Ask students and teachers how the Learning Commons addresses their needs and expectations. Use the templates on charts 5.1 – 5.2 or create an online version to mount in the Virtual Learning Commons. Ask learners to help you create more surveys to target specific functions. Analysis of these survey results should help inform the Learning Commons staff of the functionality of all physical and virtual spaces (scheduling, resources, technologies, and environment).

- The checklists on charts 5.3 – 5.6 will give you 'look fors' when you and the Learning Leadership Team assess the progress in each of the four program components: Learning Literacies, Knowledge Building, Learning with Technology and Collaboration. Analysis of these worksheets will form the basis of school based staff development.

- The student reflection chart 5.7 will inform both students and teachers of learning progress and should be one of many different kinds of evidence collected over time to demonstrate individual and collective growth.

- Combine and study this data as well as other kinds of learning evidence such as photos, interviews, exemplars and formal assessments to measure success and plan for further improvement.

"When people learn from each other, everyone can gain without taking away from others. This is one case where the whole is truly greater than the sum of its parts."

Michael Fullan (2008, 128)

"The Learning Commons as a center of school improvement, offers a lifeline from the frustration often expressed in the teacher's lounge. Administrators will focus the entire faculty on excellence as they lead the initiative of continuous experimentation and improvement. "You are not alone. Here is a lifeline. We are all on the journey together."

Loertscher, Koechlin and Zwaan (2008, 65)

Chart 5.1: **Take a Taste Test – Ask Students**

ACTION

Share how the Learning Commons helps you in your school life. Also add suggestions you have for improvement in the following areas.

Environment -

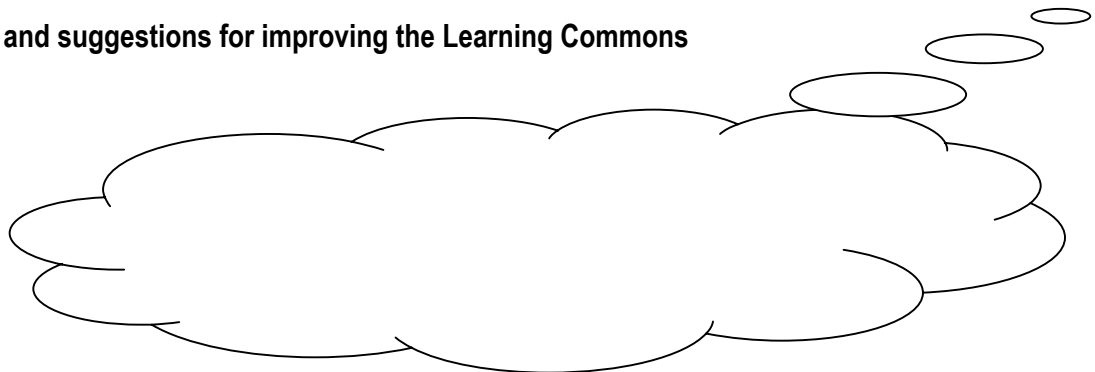Access to Information and Assistance -

Communication/Collaboration-

Personal Growth –

Experimentation/Creativity -

Technology -

Activities and Exhibitions -

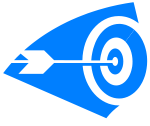**Your wishes and suggestions for improving the Learning Commons**

Chart 5:2: **Take a Taste Test – Ask Teachers**

ACTION

Share how the Learning Commons helps your teaching and student learning. Also add suggestions you have for improvement in the following areas.

Environment -

Access to Information and Assistance –

Communication/Collaboration-

Personal Growth -

Experimentation/creativity -

Technology -

Activities and Exhibitions -

Your wishes and suggestions for improving the Learning Commons
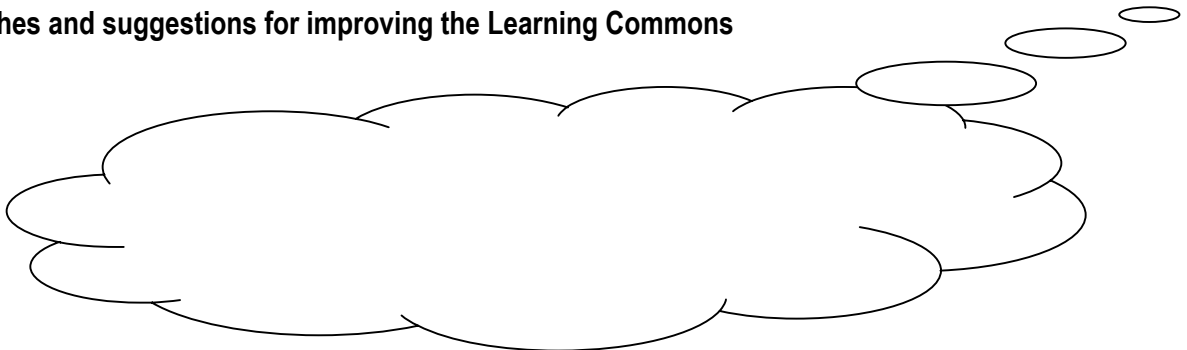
ACTION

Chart 5.3: **How has the Learning Commons advanced 21st Century Skills and Learning to Learn?**

Learning Literacies Checklist

- ❑ The Learning Commons is the center for reading and other literacy initiatives.
- ❑ The Learning Commons collection circulates to every classroom and to every learner in unlimited amounts.
- ❑ All kinds of text and media count as reading.
- ❑ Excellent physical and virtual collections of print, digital and multimedia resources are available 24/7.
- ❑ Learners feel ownership because they have helped build the collection.
- ❑ Teacher librarian and teacher technologist keep staff and students up-to-date with new resources and strategies, evolving technologies and skills development.
- ❑ The Experimental Learning Commons facilitates action research, with new technologies and literacy initiatives, to design best practice.
- ❑ Teachers work with the Learning Commons staff to design integration of multiple literacy opportunities.
- ❑ Teachers utilize the multimedia resources and tools of the Learning Commons to design for both differentiated and individualized instruction.
- ❑ Learners build skills in printed text, audio, video, and mixed media.
- ❑ Learners build skills in creating presentations and in sharing learning with all types of media.
- ❑ Self-reflection, and ongoing assessment and feedback build learning to learn attitudes and metacognition of learning processes and skills.

More Evidence of Success

Suggestions for Improvement

Chart 5.4: **How has the Learning Commons deepened understanding of content and process?**

ACTION

Knowledge Building Checklist

- ❑ Commitment to guiding and supporting Inquiry Learning is pervasive.
- ❑ Critical and creative thinking is taught and valued in assessments.
- ❑ Professionals work to build cross curricular literacy skills and evolving literacies within context of appropriate content.
- ❑ Authentic learning experiences are engaging and effective.
- ❑ Student demonstrations of learning show deep understanding.
- ❑ Teaching partners use effective frameworks for designing successful assignments.
- ❑ A Big Think is designed for each learning experience to foster metacognition of both content and process.
- ❑ Differentiated instruction meets a wide variety of student needs.
- ❑ Teachers and students utilize technologies to enhance the learning process and to build collective content and to share products and presentations.
- ❑ 21st century skill development is matched with content to drive long lasting learning.
- ❑ Everyone works toward excellence by analyzing results of both content learning and skill development, and by setting goals for improvement.
- ❑ New knowledge is widely shared with real audiences.

Further Evidence of Success

Suggestions for Improvement

ACTION

Chart 5.5: **How have the Learning Commons' technologies empowered teaching and learning?**

Integrating Technology Checklist

- ❑ Learners are engaged in high challenge low threat experiences with technologies.
- ❑ Learners experiment with best technologies to advance their work.
- ❑ Connectivity in the Physical and Virtual Commons is fluid.
- ❑ The Virtual Learning Commons provides access to excellent resources, tools and learning spaces 24/7.
- ❑ Technology has made learning activities more effective and efficient and engaging
- ❑ Learners demonstrate digital citizenship and responsibility in using technology.
- ❑ Professionals use technology to maximize professional development opportunities.
- ❑ Technology is utilized to manage time, resources, and student progress.
- ❑ Paperless communications inform everyone in the school community.
- ❑ Technology assists are available to support all abilities.
- ❑ Systems and networks are well maintained.
- ❑ Everyone is a technology mentor.
- ❑ Play and experimentation are valued.

Further Evidence of Success

Suggestions for Improvement

Chart 5.6: **How does the Learning Commons advance the networking and learning partnerships of students and teachers?**

ACTION

Collaboration Checklist

- ❑ Collaboration of teachers is supported with time and resources.
- ❑ Creative solutions to planning collaboratively are accomplished with technology applications.
- ❑ Teacher librarian and teacher technologist work as partners to support learning.
- ❑ Increased skill in designing assignments.
- ❑ Based on needs, other specialist teachers are integrated into teaching teams.
- ❑ Reduced workload and stress.
- ❑ Learners work together to build collective understanding and knowledge.
- ❑ Both face to face and virtual collaborations are facilitated.
- ❑ Cooperative learning and participatory skills and attitudes are taught and valued in assessments.
- ❑ Alignment of all school teaching and learning initiatives.
- ❑ Local, national, and global collaborations are facilitated by the Learning Commons.

Further Evidence of Success

Suggestions for Improvement

ACTION

Chart 5.7: **Collect evidence of student understandings on any topic.**

What I know	
What I can do	
What I deeply understand	
What I would like to know now	
How I am getting better as a learner	
My plan for improvement	

References

Fullan, Michael. 2008. *The Six Secrets of Change: What the Best Leaders Do to Help Their Organizations Survive and Thrive*. San Francisco, CA: Jossey-Bass.

Loertscher David. V, Carol Koechlin, and Sandi Zwaan. 2008. *The New Learning Commons*. Salt Lake City, UT: Hi Willow Research and Publishing.

Appendix A

School Libraries and Student Achievement: The Research

There is a growing body of evidence from recent empirical research studies in over 20 U.S. states and in Canada that shows that quality school library programs have a significant impact on student achievement. The research done under the older concept of the school library is presented here not because we are urging the retention of the older model, but because the best practices of the past tend to carry over as the transformation to a Learning Commons happens. Consider what we know from the older model:

The Research Indicates that:
• A school library program which is adequately staffed (with a qualified teacher librarian), funded, and resourced leads to higher student achievement regardless of the socio-economic or educational levels of the school community.
• When teacher librarians work as information specialists in instructional partnership with classroom teachers to provide learning opportunities supported by appropriate resources, students learn more, get better grades, and score higher on standardized tests than students in schools without such instructional partnerships.
• Flexible scheduling exerts a positive effect on student test scores regardless of other factors such as per student spending, student/teacher ratio, or student race/ethnicity.
• The positive effects of library programs increase when the teacher librarian's traditional role is expanded to include involvement well beyond the library into school leadership roles such as providing professional development for classroom teachers and other specialists, serving on key school committees, and collaborating in the design and delivery of curriculum.
• In schools with best practice library programs, the teacher librarian is an integral member of the faculty, with classroom teachers and specialists valuing the teacher librarian's multi-grade cross-curricular knowledge and expertise.
• In schools with best practice library programs, the teacher librarian is a technology integration leader and is an agent of innovation and transformation.
• In schools where administrators value quality library programs and provide support by allocating adequate staffing, allocating adequate funding, establishing flexible scheduling to facilitate collaboration, and meeting regularly with the teacher librarian, students have higher test scores.

A summary of these research studies can be found in *School Libraries Work!* at:
http://www2.scholastic.com/content/collateral_resources/pdf/s/slw3_2008.pdf

As well, check out the other resources found in the "For Further Study" section.

Appendix B

Great Learning Experience for the Learning Commons:
18 Think Models

In this book and others written by Loertscher, Koechlin, and Zwaan, we suggest that classroom learning experiences that venture forth into the world of information and technology be designed differently than traditional short research reports.

Traditional units begin with goals and objectives, building background knowledge, teaching concepts; the assignment often requiring some type of research, a product, some type of sharing, and a grade. In the following sample model, the traditional pattern is the first half of the model. The last half of each model requires learners to confront a higher-level question or activity to combine individual expertise to

produce group expertise.

It becomes a matter of what I know, what we know, what I can do, what we can do, how I learn, how we learn followed by a collaborative BIG THINK that asks everyone: "So What?" and "What Next?"

The following books contain numerous fleshed out learning experiences across the grade levels and across disciplines:

- **Ban Those Bird Units! 15 Models For Teaching and Learning in Information-rich and Technology-Rich Environments.** David V. Loertscher, Carol Koechlin, and Sandi Zwaan; Hi Willow Research and Publishing; 2004; ISBN 978-1-933170-11-4
- **Beyond Bird Units! Thinking and Understanding in Information-Rich and Technology-Rich Environments**. David V. Loertscher, Carol Koechlin, and Sandi Zwaan; Hi Willow Research and Publishing; 2007; ISBN 978-1-933170-37-4;
- **The Big Think: 9 Metacognative Stratagies That Make the End Just the Beginning of Learning**. David V. Loertscher, Carol Koechlin, and Sandi Zwaan;

  Hi Willow Research and Publishing; 2009; ISBN 978-1-933170-45-9
- **Issues: Think Models for Collaborative Knowledge Building.** Carol Koechlin, Sandi Zwaan, and David V. Loertscher; Hi Willow Research and Publishing; 2009; ISBN: ISBN: 978-1-933170-48-0
- **People: Think Models for Collaborative Model Building.** Carol Koechlin, Sandi Zwaan, and David V. Loertscher; Hi Willow Research and Publishing; 2009; ISBN: 978-1-933170-46-6
- **Places: Think Models for Collaborative Model Building.** Carol Koechlin, Sandi Zwaan, and David V. Loertscher; Hi Willow Research and Publishing; 2009; ISBN: 978-1-933170-47-3

All are available from http://lmcsource.com; http://amazon.com; and in Canada from the Ontario Library Association bookstore at:
http://204.200.206.210/site/showPage.cgi?page=headlinesarchive/headlines0101.html
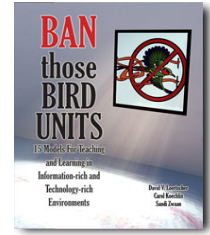
Sample Think Model Layout

Planning for the Concept Jigsaw Puzzle Model

Topic or Issue:

Learning Goals

Essential Questions

Engaging Question:

Concept-Forming Question:

Consider the Possibilities

Action Plan

Critical Thinking and Information Skills
- [ ] select relevant data
- [ ] determine significance
- [ ] collaborate
- [ ] synthesize

Introduce Task and Build Background

Reading for Meaning
- [ ] read widely for perspective and depth
- [ ] interpret data
- [ ] make connections and relationships
- [ ] build expertise about a topic

Engaging Question

Technologies that Feature:
- [ ] effective access to information and ideas
- [ ] the ability to arrange, cluster and organize ideas
- [ ] collaborative extraction and document building
- [ ] presentation tools

Groups Research Aspects of Question

Differentiation
- [ ] use simple to complex information sources
- [ ] use a rich variety of media
- [ ] provide graphic organizers of varying degrees of sophistication
- [ ] give attention to appropriate grouping

Present Higher-Level Question

Assessment Criteria
- [ ] collected adequate, relevant and accurate data
- [ ] summarized effectively
- [ ] shared expertise efficiently
- [ ] constructed new ideas creatively and collaboratively

Combine Expertise to Build New Understanding

THE BIG THINK

So What?
Content
- [ ] Use sharing group expertise to create a whole group concept map.
- [ ] What do we know about the larger topic characteristics?

Process
- [ ] Ask: How does collaboration contribute to efficient and effective learning?
- [ ] Create a list to guide the collaborative process.

What Next?
- [ ] What should happen as a result of this new knowledge?
- [ ] Who needs to know? What action could we take?

Think Model #6: Concept Jigsaw Puzzle

Design Assessment — Create Essential Questions — Select Goals

| Background Knowledge is Developed | A Question That Requires Research | Individuals or Groups Research Different Aspects of the Question | Present a Second Question Requiring Combined Expertise to Solve | Groups with Combined Expertise Build an Answer | Big Picture; Deep Understanding |

Introduction; Background → Engaging Question → Group A, Group B, Group C, Group D → Higher-Level Question → Group ABCD, Group ABCD, Group ABCD, Group ABCD → The Big Think

Critical Information Points

Assessment

Why This Model?

- Develop deep understanding rather than surface knowledge
- Develop group skills including interdependence and accountability
- Two heads are better than one
- Replicate a prototype of the real world of business and industry
- Stimulate each learner into making a contribution
- Use to introduce lots of material quickly
- Encourage divergent thinking

Possible Topics:

- Persons
- Places
- Things
- Events
- Ideas
- Movements

☆ Life Skill: Questions are the key to understanding. ☆

Think Model

Handy Planning Page

THINK Models in Brief

- **Background to Question Model**—where learners build enough background knowledge on a topic to formulate intelligent and engaging questions for themselves

- **Sensemaking Model**—where the learner takes a group of facts, ideas, or opinions and makes sense through visualization, classification, or synthesis

- **Read, View, and Listen Model**—where learners read, view, and listen widely on a topic and combine what they learn with what others know

- **Advice to Action Model**—where learners consult a wide variety of advice and discern what are the wisest courses of action

- **Compare and Contrast Model**—where people, places, ideas, time periods, issues or solutions to problems are analyzed and compared to gain understanding of varying perspectives

- **Concept Jigsaw Puzzle Model**—where groups build expertise on subtopics and then combine their expertise to build a big picture across what everyone has discovered

- **Problems/Possibilities Jigsaw Puzzle Model**—where learners build expertise in various parts of a problem and then combine their expertise to solve the larger problem.

- **Decision Matrix Model**—where learners assemble facts, ideas, or opinions in a spreadsheet-type of matrix that enables them to do a comparative analysis in order to make an informed rather than a subjective decision

- **Patterns & Trends Matrix Model**—where learners assemble facts, ideas, or opinions in a spreadsheet-type of matrix that enables them to look for patterns or trends across the data collected

- **The Timeline Model**—where learners arrange ideas, events, or data in chronological order to enable comparisons, sequences, contrasts, or developments in order to see a larger picture of what is or was happening.

- **History & Mystery Model**—where learners try to determine what happened, really happened, or find explanations to mysterious happenings

- **Take a Position Model**—where learners take positions based upon careful study rather than upon whim

- **Re-Create Model**—where learners create authentic reproductions whether literary, real, artistically, or creatively

- **Reinvent Model**—where learners try to invent new ways of doing things, processes, environmental systems as close to the real world as possible

- **Learn By Doing**—where learners create apprenticeships, experiments, mockups, or performing tasks in the real or simulated world

- **Teacher-Directed Quest Model**—where learners do research projects under the teacher and learning specialist's direction such as:
  - Online Quest Projects
  - The Report
  - The Research Paper
  - The WebQuest as a Research Model

- **Learner-Directed Quest Model**—where learners take the initiative with adult shadowing of research projects:
  - Hero's Journey
  - Become an Expert
  - I Search

- **Mix It Up! Model**—where learners mix and match any of the models above

Appendix C

The Big Think

The excitement of the game has ended. Win or lose, the coaches have had a video made of the game. Now, in a meeting of coaches and players, egos are parked at the door. Everyone watches the rerun doing analysis and synthesis: What patterns emerge? So what? What's next? If individual payers, or the team, or the coaches do not participate and act on what has been viewed, then no one gets better.

Likewise, after a major learning experience; after the grades are in; adults and students need to engage in metacognitive reflection about that learning experience. What do I know? What do we know? How did I learn? How did we learn? So what? What's next? If students don't reflect, they don't get better. If the adults involved don't reflect, they don't get better either.
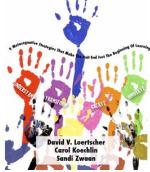
In the book: ***The Big Think: 9 Metacognative Stratagies That Make the End Just the Beginning of Learning*** by David V. Loertscher, Carol Koechlin, and Sandi Zwaan (Hi Willow Research and Publishing; 2009; ISBN 978-1-933170-45-9), nine strategies have been developed for collaborative reflection by classroom teachers, students, teacher librarians, teacher technologists, other adult specialists, experts, and/or parents to reflect.

The big think consists of three activities:
- Reflection on what we know about the content/topic of the learning activity
- Reflection on the learning how to learn or 21st century skills we developed during the experience
- The adult's reflection as coaches on what was learned and how it was learned with follow-up plans for improvement.

On the following two pages, the flow chart of a big think has been provided followed by a planning sheet as a capsule summary of the possibilities.

The Nine Strategies

1. Active Discussion
2. Create New Questions
3. Higher Order Thinking
4. Interact with an Expert
5. New Problem or Challenge
6. Thoughtful Writing
7. Construct Visuals
8. Re-Create
9. Sandbox

Big Think

Collective Synthesis Activities

Possible Activity Strategies

- Active discussion
- Construct Visuals
- Thoughtful Writing
- Higher Order Thinking
- Create New questions
- Interact with an Expert
- Re-Create
- New Problem or Challenge
- Sandbox

So What?
Student Activity

Deep Understanding of Topic

What I know
What we know

Why is this important?

So What?
Student Activity

Progress of Learning Skills

How I learned what I know
How we learned what we know

Why is this important?

So What?
Teaching Partners

Reflection on Co-Teaching

What they learned
How they learned it

Why is this important?

What Next?

How else can we use this learning?
How can we do better next time?

✳✳The Big Think Planner✳✳

Topic:………………………………………………………………..Grade:………………………

Essential
Question(s)……………………………………………………………………………………………

Unit
Overview:……………………………………………………………………………………………

………

………

Describe the *Content* **Big Think Activity:**

So What?

What Next?

Describe the *Process* **Big Think Activity:**

So What?

What Next?

▪

The Nine Big Think Strategies

Nine Metacognative Strategies that Make the Unit End Just the Beginning of Learning

Strategy Teachers and learners think about content and process	What? The information to knowledge journey	Why? Knowledge building and real growth	How? Make connections as a group between what I know and what we discovered. Develop what we now know.
Active Discussion	Small and large group face to face and/or virtual discussion ignited by a question or scenario	To develop, clarify, interpret, empathize, defend, understand	Informal discussion, formal panel, debate, press conference, blog, wiki, interactive video conferencing etc.
Create New Questions	Collaborative reflection, analysis, discovery, exploration of opinions and points of view directed by student-developed questions	To create a culture of inquiry, to ensure personal relevance, perspective, purpose and direction for thinking, springboards for further actions, research, critical analysis	Use question building assists; question storming, Bloom's Taxonomy, De Bono's Thinking Hats, question matrix, etc.
Higher Order Thinking	Collaborative critical and creative thinking	To raise level of understanding, solve, infer, predict, evaluate, argue, innovate	Stretching, comparing, speculating, predicting, discovering effect and impact, analyzing, synthesizing, evaluating
Interact with an Expert	Confirm, amend, or enhance understandings, explore ideas and interpretations	To exchange ideas, glean new knowledge, gain perspective, add relevance, make real world connections	Interview, consultation, face to face and/or by videoconference, blog, Twitter, Skype, email. Real or virtual field trip, tour

New Problem or Challenge	Stimulate creative collaboration by presenting a new problem or challenge that draws on collective knowledge and expertise	Transfer and apply knowledge, solve problems, develop fluency and flexibility, simulate real life situations, make learning relevant	Introduce an element shift or what if scenario, problems possibilities jigsaw, concept jigsaw, teach or coach,
Thoughtful Writing	Construct and articulate deep understanding through a process of collaborative writing	Consider alternate ideas and perspectives, construct meaning, write collaboratively, stimulate curiosity and interdependent thinking	Concept writing, quick write, chart, letter, wish list, zine, wikis and other Web 2.0 tools
Construct Visuals	Active building of knowledge through visual representations	To clarify concepts, build knowledge, convey meaning on sight, accommodate visual learners, enable those with language or learning deficiencies	Charts, graphs, flow charts, timelines, webs, illustrations, cartoons, comic strips, concept mapping software and other technology applications
ReCreate	Transform information and ideas to a new medium	To present information and ideas via a new medium, build understanding of concepts and events, tap into emotional intelligence, develop empathy	Create a skit, dramatic representation, collage, web, video, game, podcast and other creative technology applications
Sandbox	Play with ideas and information to create or invent something new	Brain based learning, utilizing all senses, stimulates curiosity, wonder and discovery, ownership and freedom of choice, ignites renewed passion for learning	Creative technology applications, music, drama, visual arts, video, tangible manipulatives

Loertscher, David, Koechlin, Carol and Zwaan, Sandi. *The Big Think: 9 Metacognative Strategies That Make the Unit End Just the Beginning of Learning.* Salt Lake City UT: Hi Willow Research and Publishing, 2009.

Chart published with permission from Teacher Librarian

Appendix D

Knowledge Building Centers

Knowledge Building Centers are places where classroom teachers, students, teacher librarians, teacher technologists, other specialists, experts, and/or parents are all collaboratively working together on a learning experience, a school initiative, a professional development experience, or a global project.

The KBC utilizes an online template that helps coordinate the work of all the partners and can be accessed by everyone 24/7. The template can be used for face-to-face instruction or online instruction since it becomes the organizing element of the project.

As an organizing template, the KBC can be constructed in a variety of technologies. We have built our example here in Google Sites, but it could be done in Moodle, a blog, a wiki, or other website construction software. A screen shot of the KBC is on the following pages. The template itself can be accessed at:

> https://sites.google.com/site/knowledgebuildingcenter/

List of work areas in the template:

- Project Description (center)
- Tools/Tutorials
- Work Spaces
- Assessment
- Calendar
- Communication
- Tours
- Comments, questions, tips
- Resources
- Products
- Models
- Museum
- Lesson Plans
- Reflection

Characteristics of a Knowledge Building Center

- Objective: to create personal and collaborative inquiry environment, whether the learning experience is a face to face or totally online experience.
- To provide a structure that naturally invites teacher librarians, teacher technologists, and other school specialists to be at the center of teaching and learning alongside of teachers and students.
- Can be built and used with a number of existing technologies/software/Web 2.0 tools
- The structure of the KBC invites conversation and collaborative work on a problem, project, research idea, inquiry assignment, Webquest, iSearch project, etc.
- The conversation created in a Knowledge Building Center occurs among classroom teachers, students, teacher librarians, teacher technologists, other adult specialists in the school, experts, and parents.
- Everyone contributes as if the place were some type of Wikipedia.
- It is all about what I am able to learn on my own; what I can help others learn; and what we can all learn together.
- The project promotes mastery of 21st Century Skills that in turn drive deep understanding:
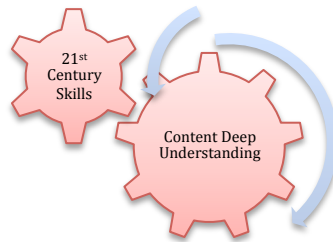
- Individual expertise is combined with others' expertise to build collective intelligence:
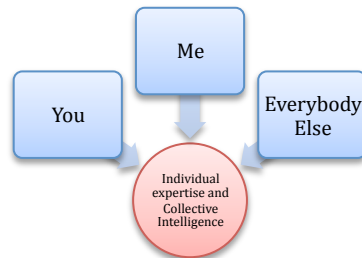
- The technology used is designed to boost both 21st century skills and promote deep understanding.
- The Instructional design includes the very best principles of engagement and high-level learning experiences such as Understanding by Design, Think models (Loertscher, Koechlin, Zwaan), Inquiry, Differentiation.
    - –Note: Direct teaching of prescribed basic content does not usually work in a KBC
- The Knowledge Building Center connects into the student's personal learning network (PLN) such as:
    - –iGoogle page
    - –Personally constructed personal space
- The KBC is available to students and adults anywhere, at any time, and on any preferred device.
- The creation of a KBC is simple, almost instantaneous, and easy to use.
- The KBC interface requires very little if any instruction on how to use and participate.
- The learning experience in a KBC utilizes formative assessment strategies to provide guidance to teachers and students along the way.
- The learning experience ends with a Big Think (Loertscher, Koechlin, Zwaan).
- Data from the formative and Big Think provides evidence of both deep understanding of the content and progress on the learning of 21st century skills. This evidence folds into other measures of academic achievement used in the school or district.
- Impact of success is broadcast widely.

Appendix E

Glossary

Definitions in this glossary refer to the context of use in this document.

21st Century Skills – There is no agreed list of 21st Century Skills in the literature, but generally they refer to any skills necessary in learning how to learn as opposed to content knowledge of science, social studies, fine arts, etc. A simple list from the Partnership for 21st Century Learning includes the 3 Rs and the 3 Cs (reading, 'riting, 'rithmetic, critical thinking, communication, collaboration, and creativity). Other lists include information literacy, media literacy, ICT literacy, problem solving, and habits of mind among others.

AASL – The American Association of School Librarians

action research – assessing and testing the impact of strategies, ideas, practices, or initiatives with actual classes of learners as they work through a new initiative. Findings apply to those particular classes, but patterns do emerge for broader use

administrative computing – the computer system in the school and district that handles budgets, attendance, grades, or any other official data; well protected against hackers

analytical thinking – considering information and situations from a variety of perspectives, breaking down, sorting, reorganizing, testing, making connections to empower synthesis

big think - an elevated group activity occurring after the creation of a product (the report, product, poster, or individual presentation) when the unit would traditionally end; all the students combine what they have learned as a group rather than end with the expertise gained by an individual investigation., to answer "So What" and "How is this new knowledge relevant ? e.g., What do we know about the significance of the African American experience; not, what do I know about the African American I studied.

calendars of the Learning Commons – two calendars used to schedule operations of the Open Commons and the Experimental Learning Center, both open to clients on an as-need basis as opposed to former practice of scheduling classes once a week for teacher prep periods

client-side organization – the needs and interests of users are paramount in planning, teaching and learning, organization, and resources, rather than putting the needs of the organization first

collaboration – planning, teaching and assessing learning experiences as a pair or group of teachers and specialists vs. teaching alone in an isolated classroom

collaborative knowledge building – working together to construct understanding to build a body of knowledge

collaboration logs – notes kept by classroom teachers and specialists as they co-teach a learning experience; valuable as a documentation of success and challenges, particularly useful as professional learning communities engage in serious discussion of teaching and learning

collective intelligence – the combined knowledge of a group where everyone has contributed

computer lab – a previous model of the expanded technology services now integrated into the Learning Commons

co-teaching – team teaching, two or more professionals who work together to plan, teach, coach, and assess progress of a group of learners together

constructivist – a strategy of teaching that requires learners to take a great deal of the responsibility to learn the task and topic at hand

content instruction – teaching of topical knowledge such as mathematics, science, social studies

critical thinking – applying high level thinking and reasoning skills such as analysis, evaluation, and synthesis to develop understanding and facilitate transfer and creation

cross curricular – involving more than one subject or discipline, subject integration, e.g., combining standards from social studies, music, and art in a learning experience

deep understanding- making sense of the big and important ideas; relating to and able to communicate new learning

differentiated instruction – learning experiences designed to ensure success for all students; modifying content, process, environment , and product to empower all learners to achieve

digital resources – information and multimedia available via computer to teachers and learners at all hours of the day and night and in any location, whether at school, home, or on vacation. e.g., periodical databases, streaming video, Internet access, computer software and tools, learner-created media, e-books, digitized textbooks, etc.

elastic collections – access to, resources, rather than ownership of ; the "collection" of materials available to teachers and learners ebbs and flows as demands are placed upon it

empowered learning – learning dispositions enhanced by conditions and support, conducive to and necessary for optimum learning potential

evidence-based practice - improving teaching and learning based on 'what works' and 'what the experts say'; gathering demonstrations of success, analyzing the evidence and then using it to change or tweak practice

excellence – teaching and learning beyond minimal expectations or the specific standards

Experimental Learning Center – the place both physical and virtual where professional development, action research, and experimental programs are being tests, exhibited, and analyzed before going out for widespread adoption in the rest of the school.

extended learning – learning in depth, for deep understanding rather than surface learning of a body of factual knowledge

filters – blocks to undesirable or inappropriate Internet web sites

flexible scheduling – an open calendar for the Learning Commons that invites clients (teachers or groups of learners) to reserve time to use specific physical facilities and specialists of the Learning Commons

Google model – a client-side organization where users are provided many tool choices; services they require and help create, with the philosophy that if they build it, they will use it.

group reflection – looking back and assessing the impact of a learning experience done together as teachers and/or learners

ICT literacy – Instructional Communications Technology; the various tools of technology used to enhance the teaching and learning process

information coach – one of the roles of a teacher librarian; guiding teachers and learners in how to seek, use, analyze, judge, present, and think about the vast quantities of information available

information literacy – the ability to question, find quality information, consume that information with understanding, analyze and synthesize, draw conclusions, present, communication, and finally reflect on the process and the product

information space – a digital space under control of the user; a personal space such as an iGoogle page or a personal website constructed by the user

inquiry learning – an instructional method where students construct personal meaning by working with diverse information and ideas to solve a problem or inquiry questions; a circular process, (in which teachers are facilitators,) designed to engage students in higher levels of thinking, investigating, testing of ideas and the creation and communication of new knowledge

instructional computing – the computer system in the school and district where the tools, networks, and information to support teaching and learning reside; contrary to the administrative computing, this space is open and available to all teachers and learners

job-embedded professional development – is learning that occurs as educators engage in their daily work rather than transmission of knowledge and skills to teachers by experts alone; can be formal or informal, e.g., discussion, peer coaching, mentoring, study groups and action research

just in time – the practice of teaching a skill at the time when that skill will be needed to pursue an assignment or project

knowledge building – a constructivist activity, individual or collaborative, where inquiries and research are conducted to build deep personal understanding; understanding is advanced with planned teacher interventions such as question prompts, graphic organizers and conferencing

learner-constructed information systems- client side technology systems created with input from users and designed to meet the users' need and wishes

Learning Commons – the place, either physical or virtual that is the hub of the school, where exemplary teaching and learning are showcased, where all professional development, teaching and learning experimentation and action research happen; and where the various specialists of the school office, (whether virtually or physically).

learning dispositions – learners' attitude and behaviors toward the learning process

learning experience – any activities, taught and coached by teachers or specialists, which engage learners in the pursuit of knowledge and understanding

learning leadership team – the group of adults and learner representatives working with teachers and learners to improve the quality of teaching and learning in the school

learning literacies leadership team – the group of adults and learner representatives working together to create conditions to improve the skill levels of all learners and across all literacies

learning organization – a school whose teachers and learners are focused on high quality teaching and learning

learning science- an interdisciplinary field that studies teaching and learning to create more effective learning experiences; sciences of learning include cognitive science, educational psychology, computer science, sociology, neuroscience and other fields.

learning specialist – any of the specialists in the school other than the classroom teacher, such as the teacher librarian, teacher technologist, literacy coach, etc.

learning to learn– applying the many skills and behaviors associated with the process of learning itself; utilizing tools and techniques that assist in the learning process; learning how to learn as opposed to just learning content

library – a predecessor of the Learning Commons

Library Media Center – a predecessor of the Learning Commons

library web sites- school specific sites created and maintained by staff and students to facilitate the teaching and learning needs of the school

literacies – skills necessary to function successfully in school and the world at large as a "literate" citizen, lifelong learning skills including reading, writing, listening, communicating, media Literacy, visual literacy, information literacy, ICT literacy, and emerging literacies

long term sustainability model- ongoing PD, action research, rethinking and redesigning to address school needs

media literacy – critical interpretation and understanding of all types of media, and creation of new media messages, e.g., seeing through the spin, being a healthy skeptic of media, advertising, messages such as political propaganda; creating a podcast to inform

metacognition – literally, thinking about one's thinking; the process of examining the strategies one uses to learn and make plans for improvement

Microsoft model – a command and control organization; top down; pyramid organizational structure, with the philosophy that if we build it, they will come

NETS – National Educational Technology Standards for students; a project of the International Society for Technology in Education (ISTE) that defines standards for teachers and students in the area of technology and learning

on demand – just in time, instruction or coaching available when needed

on demand networks – computer networks accessible across the school campus and in the homes of teachers and learners

on demand support – available advice and troubleshooting either in person or from a distance for systems, networks, technology and services, e.g. homework help

Open Commons – The place, both physical and virtual where classes, individuals, small groups, events are scheduled to benefit from the support and expertise of specialists, the resources, and the comfortable learning environment. The Open Commons is not regularly scheduled by any group but is available using its own calendaring system. It is the place where one can observe the highest quality of teaching and learning throughout the school

open source – the altruistic movement by programmers and groups of programmers to make available computer software to the masses either free or inexpensively; e.g., Open Office

organizational Leadership Team - The group of professionals and learner representatives that govern the operation of the entire Learning Commons

perpetual beta – technology, software, teaching and learning strategies, and skills continually evolving rather than being static

problem solving – employing critical thinking and information literacy skills to reach a solution or understanding, e.g., finding and analyzing various perspectives on an issue to uncover causes and suggest solutions

professional development – an initiative to help both teachers and specialists sharpen their skills and be more effective at their jobs

professional learning communities **PLC**– groups of teachers engaged in specific discussion, experimentation, development, grant writing, and any other projects to improve teaching and learning throughout the school

rich learning environments – materials, resources, and technology beyond the traditional teacher, textbook, and lecture

safe instructional computing systems - *networks in which learners can flourish without interruption by unwanted guests, advertising and other bothersome messages*

social networking - the interaction between or linking of a group of people who share a common interest by way of discussion, sharing, and collaborating

specialists – all adult professionals who consult in the Learning Commons and work with classroom teachers and learners to integrate their specialty into the curriculum of the school through both in class and pull-out programs.

e.g., teacher librarians, teacher technologists, literacy coaches, nurses, counselors, art, music, history, physical education teachers; including administrators

support staff – the support staff of the Learning Commons consists of computer technicians, clericals, and assistants who handle much of the operation of the Open Commons such as circulation, processing of materials and scheduling of the Open Commons

sustainable excellence – adoption of strategies across the school that are likely to continue to make a difference over time as opposed to a short-term initiative

teacher librarian – the professional who is the full time information specialist in the Learning Commons and leads in the collaborative construction of learning experiences, designing collections, information literacy programs, development of the Virtual Learning Commons, development of the Virtual Exemplary Learning Center, leader in action research and professional development, Use of Web 2.0 to enhance learning,and supports for all staff and students; replacing terms librarian, library media specialist, media specialist, etc.

teacher technologist - the professional who leads the instructional computing program of the school and whose time is devoted to the integration of technology to advance teaching and learning. Often known as technology directors, teacher technologists, technology integrationists.

technology leadership team – the group of adults and learner representatives who orchestrate implementation of hardware, software, and the integration of technology into teaching and learning; school leaders for instructional computing

technology director – See teacher technologist

technology specialist – See the term: teacher technologist

tipping point – an event that triggers a major change

transfer – the ability to apply or use knowledge and understanding in new and different situations, with different topics or for different purposes

triangulation of evidence – evidence collected from the organization level, the teaching unit level, and the learner level, used to compare and contrast in order to identify successes and challenges in the educational program of the school

user centric – designed based on the needs, wishes, learning styles, intelligences, and *real life* habits of the users

Virtual Learning Commons – consists of both an Open Commons and Experimental Learning Center, but accessible on line and available 24/7/365

visual literacy – ability to read and interpret pictures, charts, illustrations; e.g., understanding how visuals can be manipulated with technology to affect the impression given

Web 2.0 – Tools and software available on the World Wide Web that are usually collaborative in nature and often free to anyone. E.g. wikis, blogs, nings, and a host of other creative and collaborative tools

wireless – access to the Internet from anywhere in the Learning Commons on any preferred computing device without the restriction of a hard connection

Appendix F
For Further Study

Books and Articles

Exemplary school libraries in Ontario: a study by Queen's University and People for Education.
2009. Toronto, ON: The Ontario Library Association.

Johnson, Doug. 2009. **"Computing in the Clouds**," *Learning & Leading with Technology*, December –
January, 2009/2010. http://www.learningandleading-digital.com/learning_leading/200912#pg18

Koechlin, Carol and Sandi Zwaan. 2003. *Build Your Own Information Literate School*. Salt Lake City
UT: Hi Willow Research and Publishing.

Koechlin, Carol and Sandi Zwaan. 2008. *Building Info Smarts: How to Work With all Kinds of
Information and Make it Your Own*. Toronto, ON: Pembroke Publishers.

Koechlin, Carol and Sandi Zwaan. 2006. **Q** *Tasks: How to Empower Students to Ask Questions and
Care About Answers*. Toronto: Pembroke Publishers.

Loertscher, David. 2008. "**Flip this Library: School Libraries Need a Revolution**," *School Library
Journal*, November, 2008. http://www.schoollibraryjournal.com/article/CA6610496.html?q=flip+this+library

Loertscher, David, Carol Koechlin, and Sandi Zwaan. 2007. *Beyond Bird Units*. Salt Lake City UT: Hi
Willow Research and Publishing.

Loertscher, David, Carol Koechlin, and Sandi Zwaan. 2004. *Ban Those Bird Units*. Salt Lake City UT: Hi
Willow Research and Publishing.

Oblinger, Diana G. and James L. Oblinger, eds. 2005*. Educating the Net Generatio*n.
http://net.educause.edu/ir/library/pdf/pub7101.pdf

Rosenfeld,Esther and David Loertscher, eds. 2007.*Towards a 21st Century School Library Media
Program*. Scarecrow Press & Hi Willow Research and Publishing.

Tapscott, D. and A. Williams. 2007. *Wikinomics: How Mass Collaboration Changes Everything*.
Toronto, ON: Penguin Books.

Wallis, C. and S. Steptoe. 2006. **"How to Bring our Schools out of the 20th Century".** *Time,* December
10, 2006. http://www.time.com/time/magazine/article/0,9171,1568480,00.html

Whelan, Debra Lau. 2004. **"13,000 Kids Can't Be Wrong,"** *School Library Journal,* February, 2004.
http://www.schoollibraryjournal.com/article/CA377858.html

Zmuda, Alison & Violet Harada. 2008. *Librarians as Learning Specialists.* Westport, CT: .Libraries Unlimited.

School Library Websites in the midst of transformation:

The Allen Center in New Zealand (Elementary) http://allencentre.wikispaces.com/home+page

Ann Arbor Skyline High School http://skyline2.aaps.k12.mi.us/mediacenter/Skyline_Library/Home.html

Chelmsford H.S. Learning Commons http://www.chelmsford.k12.ma.us/chs/library/index.htm

Kathleen Porter, Foxborough High School, Foxborough Massachusetts
http://teacherweb.com/MA/Foxborough/FHS_LMC/

Kamilah Jackson's Virtual Learning Commons under construction:
http://sites.google.com/site/markhamlibrary/

Joyce Valenza - Springfield Township High School Virtual Library http://www.sdst.org/shs/library/

Knowledge Building Environments

Roger Nevin's Netbook Project: http://www.adamscott.ca-a.googlepages.com/netbookpilotproject
Roger Nevin's Google Apps Project: http://www.adamscott.ca-a.googlepages.com/googleappsproject

Ernie Cox Google Apps Article: *The Collaborative Mind: Tools for 21st-Century Learning*
http://www.mmischools.com/Articles/Editorial/Features/The-Collaborative-Mind-Tools-for-21st-Century-Learning-%5BAvailable-Full-Text-Free%5D-59957.aspx

Watch for developments of **David Loertscher's Knowledge Building Centre**:
http://schoollearningcommons.pbworks.com/Knowledge--Building--Centers

Doug Johnson is going district-wide with Google Apps Education:
http://doug-johnson.squarespace.com/blue-skunk-blog/month/january-2010

Explore Google Apps Education: http://www.google.com/a/help/intl/en/edu/index.html

Grade 7 student's Personal Learning Network: http://www.youtube.com/watch?v=YEls3tq5wIY

Inspiration and Tools

The New School Learning Commons Wiki http://schoollearningcommons.pbworks.com/

You Know you're a 21st Century School Librarian When….
http://informationfluency.wikispaces.com/Categorized+version+of+You+know+you%27re+a+21st+century+school+librarian

The Best of YouTube for Teaching and Learning:
http://www.classroom20.com/profiles/blog/show?id=649749%3ABlogPost%3A177332&page=2

AASL's Best Websites for Teaching and Learning:
http://www.ala.org/ala/mgrps/divs/aasl/aboutaasl/bestlist/bestwebsites.cfm

The Partnership for 21st Century Skills. http://www.p21.org/index.php

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About the Authors

Carol Koechlin is an experienced educator who after formal retirement continues to contribute to the field of information literacy and school librarianship writing books, articles for professional journals, facilitating on-line courses, and presenting workshops in Canada and the United States. Her current work is to help schools address the needs of learners by teaching questioning skills and designing 'high think' assignments and projects that ignite student interest and utilize collaborative learning environments. Working with Dr. David Loertscher, and Sandi Zwaan, the trio has developed foundations for the transformation of school libraries and computer labs into a Learning Commons. Schools are invited to view and participate in this work in progress at http://schoollearningcommons.pbworks.com/

Esther Rosenfeld is the former editor of *Teacher Librarian: the Journal for School Library Professionals* and is the former Coordinator of Library and Learning Resources for the Toronto District School Board, one of the largest school districts in North America. She has been the lead writer for publications of the Toronto District School Board, the Ontario Ministry of Education, and was co-editor of *Toward a 21st-Century School Library Media Program*, published by Scarecrow Press and Hi Willow Research and Publishing. A past president of the Ontario Library Association and the Ontario School Library Association, Esther is now an educational and school library consultant.

David V. Loertscher is a "virtual" professor of library and information science at San Jose State University in San Jose California but lives in Salt Lake City, Utah. He is a prolific author and speaker internationally, a past president of the American Association of School Librarians, and the current co-editor of the periodical: *Teacher Librarian*. He can be contacted at: reader.david@gmail.com and his website is: http://davidvl.org